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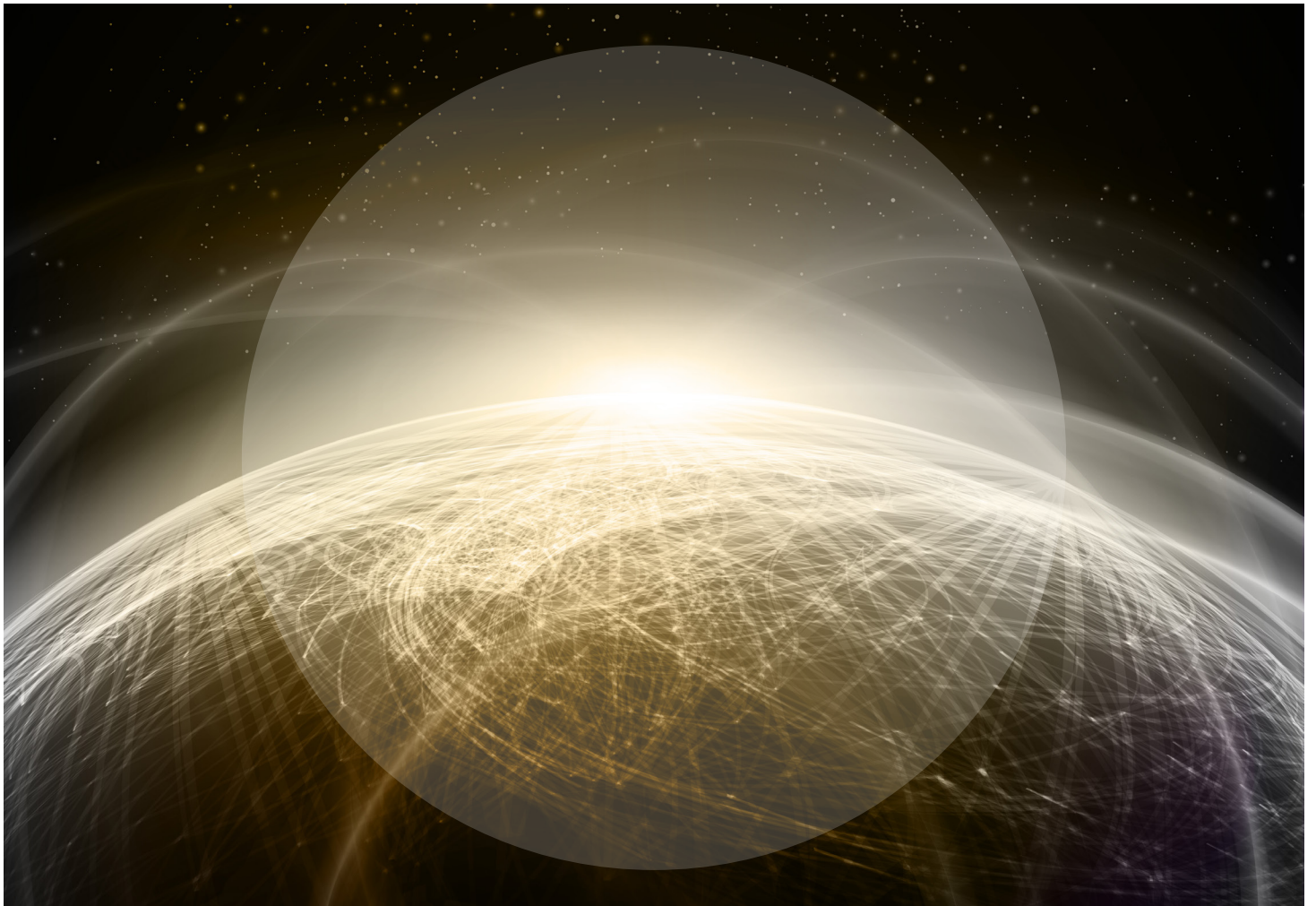
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Insight Report

# The Global Information Technology Report 2016

## Innovating in the Digital Economy

Silja Baller, Soumitra Dutta, and Bruno Lanvin, editors





Insight Report

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# The Global Information Technology Report 2016

Innovating in the Digital Economy

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**Silja Baller**, World Economic Forum

**Soumitra Dutta**, Cornell University

**Bruno Lanvin**, INSEAD

Editors

*The Global Information Technology Report 2016* is a special project within the framework of the World Economic Forum's Global Competitiveness and Risks Team and the Industry Partnership Programme for Information and Communication Technologies. It is the result of collaboration between the World Economic Forum and INSEAD.

Visit *The Global Information Technology Report* page at [www.weforum.org/gitr](http://www.weforum.org/gitr).

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# Preface

**RICHARD SAMANS**, Member of the Managing Board, World Economic Forum

**MARGARETA DRZENIEK HANOZ**, World Economic Forum

As the 2016 edition of *The Global Information Technology Report* is released, the world is entering the Fourth Industrial Revolution. Processing and storage capacities are rising exponentially, and knowledge is becoming accessible to more people than ever before in human history. The future holds an even higher potential for human development as the full effects of new technologies such as the Internet of Things, artificial intelligence, 3-D Printing, energy storage, and quantum computing unfold.

The exponential speed of developments; disruption across all major industries; and the impact on entire systems of production, management, and governance are what differentiates these developments from previous “industrial revolutions.” However, while all these developments will bring many benefits, they also carry risks. If managed well, they have the potential to give rise to innovation that will drive growth and social impact. If not handled appropriately, challenges such as the rising threat of cyberattacks that expand into the physical world, privacy issues, and the polarizing effects of technologies on labor markets could derail these benefits. Countries and businesses that embrace these developments, anticipate challenges, and deal with them in a strategic way are more likely to prosper, while those that do not will more likely fall behind.

Information and communication technologies (ICTs) are the backbone of this revolution. The future of countries, businesses, and individuals will depend more than ever on whether they embrace digital technologies. And many of those who stand to gain the most are not yet connected.

Since 2001, *The Global Information Technology Report* series published by the World Economic Forum in partnership with INSEAD and Cornell University has measured the drivers of the ICT revolution globally, using the Networked Readiness Index (NRI). The Index has evolved over time and currently assesses the state of networked readiness using 53 individual indicators. For each of the 139 economies covered, it allows the identification of areas of priority to more fully leverage ICTs for socioeconomic development.

Four important messages emerge from the *Report* this year. First, innovation is increasingly based on digital

technologies and business models, which can drive economic and social gains from ICTs if channelled in a smart way. Second, the way businesses adopt ICTs is key for leveraging them for development, so encouraging businesses to fully embrace the powers of digital technologies should be a priority of governments. Third, both the private sector and governments need to step up efforts to invest in innovative digital solutions to drive social impact. Last but not least, a sustainable digital economy will depend on quickly evolving governance frameworks that allow societies to anticipate and shape the impact of emerging technologies and react quickly to changing circumstances.

Against this background, the *Report* is meant to be a call for action. Policymakers must work with other stakeholders to swiftly adopt holistic long-term strategies for ICT development and lead in adapting governance and leadership behaviors to ensure that ICTs deliver maximum benefits. Under the theme “Innovating in the Digital Economy,” *The Global Information Technology Report 2016* highlights striking innovation patterns in the NRI data that can help point the way for policy and investment priorities.

As the digital economy is developing exponentially, its measurement must evolve as well. Chapter 1.1 therefore includes an outlook for potential next steps for the NRI that can serve as a starting point for discussing the evolving concepts and measurements of networked readiness. In the course of the coming year, we plan to identify key questions concerning the drivers and implications of the emerging Fourth Industrial Revolution and develop relevant concepts and measures with experts, policymakers, and businesses to be included in the updated next edition of the NRI.

The *Report* is part of the World Economic Forum’s wider efforts to address digital technology questions through its System Initiative on the Digital Economy and Society. The aim of this initiative is to help shape the Internet as a true and open platform and as a driver of economic development and social progress. We hope that through this *Report* and its system initiatives the World Economic Forum can contribute to making the ICT revolution truly global, growth-supportive, and inclusive.





# Acknowledgments

ALAN MARCUS

World Economic Forum

Over the past 16 years, the World Economic Forum, INSEAD, and, more recently, Cornell University have partnered on publishing *The Global Information Technology Report* (GITR), which examines the increasing proliferation of technology and its effects on advancing global prosperity. Today we have come to a critical tipping point, where the ICT-fueled digital economy is taking off in an exponential way. We have also come to recognize the beginning of a Fourth Industrial Revolution, which will fundamentally change the way we live, work, and relate to one another. This transformation is not defined by any particular set of technologies, but rather by a transition to new ecosystems built on the infrastructure of the digital revolution. The World Economic Forum is seeking to shape and design these new systems by emphasizing and scaling cross-sector and cross-geographic collaborations. The key findings of this *Report* over the years led to and informed a broad range of discussions around the Forum's *Future of Digital Economy and Society* system, such as digital inclusion and access, cybercrime and cybersecurity, data privacy and usage, digital transformation of business, digital governance, and trade across borders.

Under the theme "Innovating in the Digital Economy," this year's *Report* looks into how digital technologies are changing the nature of innovation in various ways. The *Report* examines the exponential shift brought about by digital technologies, the way we measure the impact of innovation, the continuous pressure for both tech and non-tech sectors to boost innovation through digital means, and the need for agile governance and regulation systems to adapt to the speed and scale of changes while mitigating ethical, legal, and regulatory risks.

Each year, the ICT Industries and the Global Competitiveness and Risks Teams at the World Economic Forum collaborate on the annual production of the GITR; the *Report* has evolved to become one of the most respected publications of its kind. As we shift toward a systems approach to solve the most challenging issues stemming from the Fourth Industrial Revolution, this *Report* will continue its evolution to capture milestones in unleashing the full potential of the digital economy led by ICTs, and to inform decision-making processes for policymakers and organizations across sectors and regions.

We would like to acknowledge the editors of the *Report*, Silja Baller at the World Economic Forum; Professor Soumitra Dutta, Dean of the College of Business at Cornell University; and Bruno Lanvin at INSEAD. The World Economic Forum and INSEAD and, more recently, Cornell University have been publishing the GITR since 2001; through this longstanding partnership, the three institutions have developed and evolved the Networked Readiness Index (NRI) to reflect the growing importance of technology and innovation across the world.

A special thanks also goes out to our *Report* partner, Cisco, for its continuous support and engagement in this year's edition. We also wish to convey our gratitude to Robert Pepper, John Garrity, and Connie LaSalle at Cisco Systems for their unique contributions, built upon the insights generated by the NRI; their enhancement of its thematic elements; and their contributions to the overall distinctiveness of the *Report*.

We would like to extend our sincere thanks to Professor Klaus Schwab, Chairman of the World Economic Forum for his leadership. Appreciation goes to the core project team: Silja Baller, Oliver Cann, Attilio Di Battista, Danil Kerimi, and Roger Yong Zhang. We also wish to acknowledge the leadership of Richard Samans, Member of the Managing Board, as well as Jennifer Blanke, Chief Economist, and the contributions of members of the Global Competitiveness and Risks Team: Ciara Browne, Roberto Crotti, Gaëlle Marti, Margareta Drzeniek Hanouz, Caroline Galvan, Daniel Gomez Gaviria, Thierry Geiger, and Stéphanie Verin. Appreciation also goes to the members of the Information and Communication Technology Industries Team, under the leadership of Cheryl Martin, Head of Centre for Global Industries, and Murat Sönmez, Chief Business Officer: David Connolly, Aurelie Corre, Daniel Dobrygowski, Mara Kelly, Peter Lyons, Isabelle Mauro, Derek O'Halloran, and Adam Sherman.

Last but not least, we would like to express our gratitude to our 160 Partner Institutes around the world and to all the business executives who completed our Executive Opinion Survey.



# Foreword

**CHUCK ROBBINS**

Chief Executive Officer, Cisco Systems

In my 18 years at Cisco, I have seen first-hand how technology can transform industries and lives. As the role of hardware, software, and services becomes even more important for governments, businesses, and individuals, the high-speed broadband Internet Protocol (IP) networks that enable them have become integral to daily life. In fact, by 2020, there will be over 26 billion Internet-connected devices and over 4 billion global Internet users. Broadband Internet has been categorized as one of the world's most important general-purpose technologies, with the capability to dramatically impact social structures and entire economies.

Underpinning this development is data's role as the new currency. Every day, exabytes of new data are created and transported over IP networks. In 2016 the world has entered the "zettabyte era": global IP traffic will reach 1.1 zettabytes, or over 1 trillion gigabytes. By 2020 global IP traffic will reach 2.3 zettabytes. This data growth is fueling economies, sparking innovation, and unleashing waves of creativity. This year's *Global Information Technology Report* highlights the role of technology, and broadband in particular, in driving global innovation.

But no innovation can occur without the network. IP networks have the capacity to connect every person, every country, and every IP-enabled device. Global

networks allow data to flow unimpeded, driving growth and enabling collaborative innovation in many areas, from production to processes. Those countries that are adept at fostering digital activity will continue to see new industries emerge, as well as experience the accelerated development of traditional sectors.

The global Internet must therefore be allowed to further develop without obstacles—this is essential in order for everyone to benefit. Increasingly, barriers to digital flows threaten to diminish the Internet's potential to drive positive social and economic impact. The open exchange of information is a hallmark of the growing knowledge economy. All stakeholders—including governments, businesses, the technical community, citizens, and consumers—play a role in building trust and confidence in global networks. Privacy and security should be integrated into technological design from the outset; strategies to protect and maintain the integrity of data must account for an array of diverse and emerging risks; and policy should enable innovation and global data flows while safeguarding against those who seek to cause damage.

Getting the balance right requires active, collaborative participation from everyone. At Cisco, we are committed to helping drive the next wave of global growth, productivity, and innovation.



# Executive Summary

SILJA BALLER, World Economic Forum

SOUMITRA DUTTA, Cornell University

BRUNO LANVIN, INSEAD

Part 1 of the 2016 edition of *The Global Information Technology Report* assesses the state of networked readiness of 139 economies using the Networked Readiness Index (NRI) (Chapter 1.1) and, under the theme “Innovating in the Digital Economy,” examines the role of information and communication technologies (ICTs) in driving innovation (Chapters 1.1 and 1.2). Part 2 consists of an extensive data compendium with the detailed performance of each economy in the NRI (Section 2.1) and rankings for each of the 53 individual indicators included in the NRI (Section 2.2).

## PART 1: INNOVATING IN THE DIGITAL ECONOMY

We are at the dawn of the Fourth Industrial Revolution, which represents a transition to a new set of systems, bringing together digital, biological, and physical technologies in new and powerful combinations. These new systems are being built on the infrastructure of the digital revolution. *The Global Information Technology Report 2016* features the latest iteration of the NRI, which assesses countries’ preparedness to reap the benefits of emerging technologies and to capitalize on the opportunities presented by the digital revolution and beyond.

### The Networked Readiness Index 2016

Chapter 1.1 presents the results of the NRI 2016, which measures the capacity of countries to leverage ICTs for increased competitiveness and well-being. It also considers innovation trends of recent years through the lens of the NRI.

### The networked readiness framework

The networked readiness framework rests on six principles: (1) a high-quality regulatory and business environment is critical in order to fully leverage ICTs and generate impact; (2) ICT readiness—as measured by ICT affordability, skills, and infrastructure—is a pre-condition to generating impact; (3) fully leveraging ICTs requires a society-wide effort: the government, the business sector, and the population at large each have a critical role to play; (4) ICT use should not be an end in itself. The impact that ICTs actually have on the economy and society is what ultimately matters; (5) the set of drivers—the environment, readiness, and usage—interact, co-evolve, and reinforce each other to form a virtuous cycle;

and (6) the networked readiness framework should provide clear policy guidance.

The framework translates into the NRI, a composite indicator made up of four main categories (subindexes), 10 subcategories (pillars), and 53 individual indicators distributed across the different pillars:

#### A. Environment subindex

1. Political and regulatory environment (9 indicators)
2. Business and innovation environment (9 indicators)

#### B. Readiness subindex

3. Infrastructure (4 indicators)
4. Affordability (3 indicators)
5. Skills (4 indicators)

#### C. Usage subindex

6. Individual usage (7 indicators)
7. Business usage (6 indicators)
8. Government usage (3 indicators)

#### D. Impact subindex

9. Economic impacts (4 indicators)
10. Social impacts (4 indicators)

The computation of the overall NRI score is based on successive aggregations of scores: individual indicators are aggregated to obtain pillar scores, which are then combined to obtain subindex scores. Subindex scores are in turn combined to produce a country’s overall NRI score. The appendix of Chapter 1.1 presents the detailed methodology and composition of the NRI.

About half of the individual indicators used in the NRI are sourced from international organizations. The main providers are the International Telecommunication Union, UNESCO and other UN agencies, and the World Bank. The other half of the NRI indicators are derived from the World Economic Forum’s Executive Opinion Survey (the Survey). The Survey is used to measure concepts that are qualitative in nature or for which internationally comparable statistics are not available for enough countries. The 2015 edition of the Survey was completed by over 14,000 business executives in more than 140 countries.

## Key Findings

Under the theme “Innovating in the Digital Economy,” *The Global Information Technology Report 2016* highlights the ways in which the digital revolution is changing both the nature of innovation and the rising pressure for firms to innovate continuously. The analysis yields four key findings:

**Key Finding 1: The digital revolution changes the nature of innovation.** One of the key characteristics of the digital revolution is that it is nurtured by a different type of innovation, increasingly based on digital technologies and on the new business models it allows. In addition to making traditional research tools more powerful, it allows for new and near-costless types of innovation that require little or no R&D effort. Examples include the digitization of existing products and processes, distributed manufacturing, blockchains, and advertising-based “free services” as well as the prospect of more “uberized” activities in multiple sectors, including transport, banking, entertainment, and education.

The NRI data show that the minds of business executives around the world are increasingly focused on innovation, as reflected by the steady upward trend in firms’ perceived capacity to innovate. Traditional measures for innovation, such as the number of patents registered, are picking up only part of the story. Instead, new types of innovation, such as business-model innovation, look set to become an important part of the innovation story: executives in almost 100 countries report increases in the perceived impact of ICTs on business-model innovation compared with last year.

**Key Finding 2: Firms will face increasing pressure to innovate continuously.** Seven countries stand out in terms of economic and digital innovation impact: Finland, Switzerland, Sweden, Israel, Singapore, the Netherlands, and the United States. Considering the different elements of networked readiness for these seven countries, it is noticeable that all seven are characterized by very high levels of business ICT adoption. This technology-enabled innovation in turn unleashes new competitive pressures that call for yet more innovation by tech and non-tech firms alike.

Because digital technologies are driving winner-take-all dynamics for an increasing number of industries, getting there first matters. However, although firms feel that overall capacity to innovate has increased, a stagnating rate of ICT adoption and usage by existing firms across all regions suggests that a large number of firms are not getting into the game fast enough.

**Key Finding 3: Businesses and governments are missing out on a rapidly growing digital population.** In recent years, digital innovation has been primarily driven by consumer demand. Yet this increasing demand for digital products and services by a global

consumer base is largely being met by a relatively small number of companies. Businesses need to act now and adopt digital technologies to capture their part of this growing market. A widening and worrying gap is also emerging between growth in individual ICT usage and public-sector engagement in the digital economy, as government usage is increasingly falling short of expectations. Governments can do more to invest in innovative digital solutions to drive social impact.

## Key Finding 4: A new economy is shaping, requiring urgent innovations in governance and regulation.

As the new digital economy is taking shape, offering it the right framework conditions will be crucial to ensuring its sustainability. Digital technologies are unleashing new economic and social dynamics that will need to be managed if the digital transformation of industries and societies are to deliver long-term and broad-based gains. A resilient digital economy also calls for new types of leadership, governance, and behaviors. A critical ingredient for the success and sustainability of the emerging system will be agile governance frameworks that allow societies to anticipate and shape the impact of emerging technologies and react quickly to changing circumstances.

## Networked Readiness Index 2016: Results overview

Chapter 1.1 then reports the rankings of the overall NRI 2016, its four subindexes, and their respective pillars.

The composition of the group of top 10 performers is unchanged from last year. The group consists of a mix of high-income Southeast Asian (Singapore and Japan) and European countries (Finland, Sweden, Norway, the Netherlands, Switzerland, the United Kingdom, and Luxembourg) as well as the United States. Networked readiness therefore remains highly correlated with per capita income.

**Europe** remains at the technology frontier with seven out of the top 10 NRI countries being European. Yet the performance range is wide, with Greece dropping four places to 70th position and Bosnia and Herzegovina closing the group at 97. Several Eastern European countries—notably the Slovak Republic, Poland, and the Czech Republic—are making big strides, landing spots in the top 50 of the NRI; better affordability and large improvements in economic and social impacts are contributing to this success in these three countries in a major way. Italy is another notable mover this year, improving 10 places to reach 45th position as economic and social impacts of ICTs are starting to be realized (up 18 in the global impact rankings).

The **Eurasia region** continues its upward trajectory, with the average NRI score for the region increasing significantly since 2012. In particular, it is notable that the improvement is observed across all four elements that make up the Index: Environment, Readiness, Usage, and Impact. The region is led by Kazakhstan, which

continues on its positive trajectory of recent years to land in 39th position this year.

Leading the **Emerging and Developing Asian** economies in 2016 is Malaysia, which continues to perform strongly and moves up one spot to 31st position overall; this performance is supported by a government that is fully committed to the digital agenda. The top five in the region in terms of overall ICT readiness remain China, Malaysia, Mongolia, Sri Lanka, and Thailand, as in 2015. The group of Emerging and Developing Asian countries has been both moving up and converging since 2012. Individual usage in the region is still one of the lowest in the world, but has been growing strongly in recent years.

The performance range of countries in the **Latin America and Caribbean region** remains widely dispersed with almost 100 places between Chile (38th) and Haiti (137th). There was no clear trend from 2015 to 2016 in terms of relative performance, with Chile and Haiti staying put; of the remaining group, half of the countries improve their ranking and the other half drop. Considering the absolute NRI score, however, the region has been moving up and converging since 2012. In order to foster the innovation forces that are key for thriving in the digitized world and the emerging Fourth Industrial Revolution, many governments in the region will urgently need to reinforce efforts to improve the regulatory and innovation environment in their countries.

The UAE (26th) and Qatar (27th) continue to lead the Arab world when it comes to networked readiness. The **MENAP region** (Middle East, North Africa, and Pakistan) is home to two of the biggest movers in this year's rankings: Kuwait (61st, up 11) and Lebanon (88th, also up 11). In both cases, individuals are leading the charge with the business sector catching up and strongly contributing to the successful performance. Although governments are lagging behind in terms of digital adoption (81st in Kuwait, 124th in Lebanon), the business community in both countries is registering an increased weight on ICTs in government vision and efforts to improve the regulatory environment.

This year's NRI also sees several **sub-Saharan African** countries among the top upward movers, including South Africa (65th, up 10), Ethiopia (120th, up 10), and Côte d'Ivoire (106th, up 9). Leadership in terms of digital adoption is coming from different groups of stakeholders. Although efforts are very much government-driven in Ethiopia and Côte d'Ivoire, the business sector is providing the most momentum in South Africa. Going forward, the largest barriers to tackle for Côte d'Ivoire will be infrastructure and affordability; reversing the trend of a deteriorating business and innovation environment for South Africa; and individual usage and skills for Ethiopia.

Chapter 1.1 provides an overview of the performance of the 10 best-performing countries in the NRI 2016, a selection of economies that were among

the top movers as well as other selected economies, including members of the G20 outside the top 10.

The Index maps a quickly evolving space and has been adapted since its inception in 2001. Since the digital economy is developing exponentially, its measurement must be adapted to reflect the new realities on the ground. A multi-stakeholder process will be put in place to identify key questions concerning the drivers and implications of the emerging Fourth Industrial Revolution and to develop relevant concepts and measures with a view to incorporating these findings into the next edition of the NRI.

### Cross-border data flows, digital innovation, and economic growth

In Chapter 1.2, Robert Pepper, John Garrity, and Connie LaSalle explore the impact of the free flow of data across national borders on innovation and growth. The authors highlight the development of cross-border data traffic over Internet protocol, starting with the first email messages in the early days of the Internet to today, where over 3.2 billion people across the world have access to and use the Internet.

The flow of digital communication between countries, companies, and citizens has been recognized for years as a critical driver of economic growth and productivity. Countries adept at fostering digital activity have witnessed the emergence of new industries as well as the accelerated development of traditional sectors. However, despite the intensive and extensive growth of the global Internet, concerns over growing barriers to digital flows are mounting.

The authors first review the literature on the impact of cross-border data flows on countries, companies, and individuals. The chapter then presents an original analysis of the growth of new services built on the free flow of trade through global digitization, and concludes by discussing policy guidelines that mitigate concerns over national data transmission while simultaneously maximizing the benefits of cross-border data flows.

### PART 2: DATA PRESENTATION

Part 2 of the *Report* contains individual scorecards detailing the performance in the Networked Readiness Index of each of the 139 economies (Section 2.1) and tables reporting the global rankings for each of the 53 individual indicators composing the NRI (Section 2.2).





# Part 1

## Innovating in the Digital Economy



# The Networked Readiness Index 2016

SILJA BALLER, World Economic Forum

ATTILIO DI BATTISTA, World Economic Forum

SOUMITRA DUTTA, Cornell University

BRUNO LANVIN, INSEAD

We are at the dawn of the Fourth Industrial Revolution. The Fourth Industrial Revolution represents a transition to a new set of systems that bring together digital, biological, and physical technologies in new and powerful combinations (Box 1). Just as the digital revolution was built on the heart of the second industrial revolution—electricity, mass communication systems, and modern manufacturing—the new systems that mark the Fourth Industrial Revolution are being built on the infrastructure of the third, digital revolution—the availability of global, digital communications; low-cost processing and high-density data storage; and an increasingly connected population of active users of digital technologies.

*The Global Information Technology Report 2016* features the latest iteration of the Networked Readiness Index (NRI), which represents a key tool in assessing countries' preparedness to reap the benefits of emerging technologies and capitalize on the opportunities presented by the digital transformation and beyond. More particularly, the *Report* assesses the factors, policies, and institutions that enable a country to fully leverage information and communication technologies (ICTs) for increased prosperity and crystallizes them into a global ranking of networked readiness at the country level in the form of the NRI.

Countries are assessed over four categories of indicators: (1) the overall environment for technology use and creation (political, regulatory, business, and innovation); (2) networked readiness in terms of ICT infrastructure, affordability, and skills; (3) technology adoption/usage by the three groups of stakeholders (government, the private sector, and private individuals); and (4) the economic and social impact of the new technologies. Whenever relevant, the Index looks at what the different actors in society, both private and public, can do to contribute to the country's networked readiness.

An important channel by which digital technologies can contribute to increased prosperity is via their impact on innovation. As the digital transformation is gathering speed and looks ready to substantially change the global industrial landscape, staying ahead of the curve is becoming more and more important for business survival. Under the theme "Innovating in the Digital Economy" this chapter shines a spotlight on recent innovation trends. It develops a taxonomy of mechanisms for the innovation impact of digital

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### Box 1: The Fourth Industrial Revolution

We are at the beginning of a global transformation that is characterized by the convergence of digital, physical, and biological technologies in ways that are changing both the world around us and our very idea of what it means to be human. The changes are historic in terms of their size, speed, and scope. This transformation—the Fourth Industrial Revolution—is not defined by any particular set of emerging technologies themselves, but rather by the transition to new systems that are being built on the infrastructure of the digital revolution. As these individual technologies become ubiquitous, they will fundamentally alter the way we produce, consume, communicate, move, generate energy, and interact with one another. And given the new powers in genetic engineering and neuro-technologies, they may directly impact who we are and how we think and behave. The fundamental and global nature of this revolution also poses new threats related to the disruptions it may cause—affecting labor markets and the future of work, income inequality, and geopolitical security as well as social value systems and ethical frameworks.

Adapted from Klaus Schwab, *The Fourth Industrial Revolution*, 2016.

technologies and draws on NRI data to characterize current innovation dynamics.

One of the key characteristics of the digital era is that it is nurtured by a new type of innovation. In addition to making traditional research tools more powerful, digital technology allows for near-costless types of digital innovation by recombination that requires little or no research and development (R&D) effort.<sup>1</sup> Examples of this type of innovation include the digitization of existing products and processes; new business models, including platform businesses, distributed manufacturing, blockchains, and advertising-based “free services”; and innovation processes such as crowd-sourcing. A key challenge associated with analyzing this new characteristic of innovation is the insufficiency of traditional measures for innovation outcomes, such as patenting activity. Indeed, the NRI data show diverging trends between patenting activity and firms’ perceived capacity to innovate, with the latter rising rapidly across all regions.

A second observation regarding innovation in the digital era is that technology unleashes new competitive pressures—for example, by integrating markets—that call for yet more innovation by tech and non-tech firms alike. In addition, because new technologies are driving winner-take-all dynamics for an increasing number of industries, getting there first matters. Firms thus face growing pressure to innovate continuously and scale fast so as not to be displaced. Out of the 10 pillars that constitute the NRI, a high rate of ICT adoption among

firms is the most common characteristic of countries that obtain the greatest economic and innovation impact from ICTs. The NRI data suggest that these conditions are in place for only a handful of countries: a perceived stagnating rate of ICT usage by existing firms across all regions indicates that a large number of firms are not getting in the game fast enough.

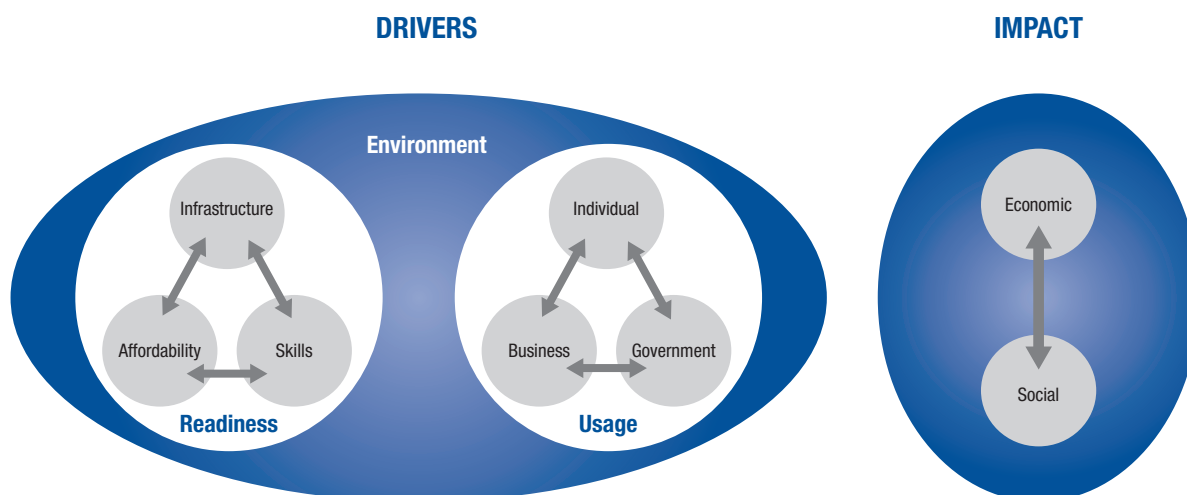
The forces and systems of the emerging Fourth Industrial Revolution will need to be channeled and designed in order to achieve broad-based gains. Finding the right framework conditions in the form of competition and employment policies will be vital. Because the importance of network dynamics has grown significantly with the platform economy, the emergence of lock-in effects needs to be addressed in order to ensure a level playing field. When it comes to the job market, digital technologies are already disrupting existing career paths, ousting entire sets of skills, and creating the need for new ones. At the same time, platform technologies are increasingly used to match workers with jobs, leading to more and more freelance activity. Policy will need to ensure that these developments are not accompanied by a loss of social protection for workers. Education and life-long learning will have key roles to play in the years to come as even more fundamental changes are to be expected in the Fourth Industrial Revolution.

The innovation spotlight concludes by pointing out that the digital economy raises new challenges in multiple arenas, not only in terms of economic imperatives. It also calls for new types of leadership and behaviors, as well as more flexible approaches to governance. New innovation governance approaches, such as the framework for Responsible Research and Innovation (RRI),<sup>2</sup> are highly relevant in this context and are used to anticipate the long-term impacts of emerging technologies.

The second section of this chapter turns to overall global trends in networked readiness as well as regional assessments. The chapter then presents this year’s rankings and country-level highlights, including profiles of the top 10 performers and the top countries moving up in the Index.

The Index maps a quickly evolving space and has been adapted since its inception in 2001. Since the digital economy is developing exponentially, its measurement must be modified to reflect the new realities on the ground. This chapter therefore also includes an outlook for potential next steps for the NRI as a starting point for discussing the evolving concepts and measurements of networked readiness. A multi-stakeholder process will be put in place over the course of next year to identify key questions concerning the drivers and implications of the emerging Fourth Industrial Revolution and to develop relevant concepts and measures with a view to incorporating these findings into the next edition of the NRI (see Box 2).

Figure 1: Networked readiness framework



## INNOVATION IN THE DIGITAL ECONOMY THROUGH THE LENS OF THE NRI

This section begins with an overview of the networked readiness framework and then considers two key mechanisms by which digital technologies are affecting innovation: the first mechanism is changing the nature of innovation, whereas the second is driving a new urgency to innovate. Next, four key findings that emerge from the analysis of historical and this year's NRI data are presented.

### The networked readiness framework

Launched by the World Economic Forum in 2001 and significantly extended in 2012, the NRI can help to assess countries' ability to capitalize on the digital revolution and their preparedness to benefit from the emerging Fourth Industrial Revolution. This chapter uses the NRI to point out some striking patterns in countries' innovation performance. The Index aggregates data from 53 indicators, organized on the basis of the networked readiness framework (Figure 1). Networked readiness rests on whether a country possesses the drivers necessary for digital technologies to unleash their potential, and on whether these technologies are actually impacting the economy and society.

The *drivers* are grouped within four subindexes as follows:

#### A. Environment subindex

1. Political and regulatory environment (9 indicators)
2. Business and innovation environment (9 indicators)

#### B. Readiness subindex

3. Infrastructure (4 indicators)
4. Affordability (3 indicators)
5. Skills (4 indicators)

#### C. Usage subindex

6. Individual usage (7 indicators)
7. Business usage (6 indicators)
8. Government usage (3 indicators)

*Impact* is measured as a separate subindex:

#### D. Impact subindex

9. Economic impacts (4 indicators)
10. Social impacts (4 indicators)

About half of the 53 individual indicators used in the NRI are sourced from international organizations. The main providers are the International Telecommunication Union (ITU); the World Bank; the United Nations Educational, Scientific and Cultural Organization (UNESCO); and other UN agencies. Carefully chosen alternative data sources, including national sources, are used to fill data gaps in certain cases. The other half of the NRI indicators are derived from the World Economic Forum's annual Executive Opinion Survey (the Survey). The Survey is used to measure concepts that are qualitative in nature or for which internationally comparable statistics are not available for enough countries.<sup>3</sup>

The 2016 iteration of the Index covers 139 economies, accounting for 98.1 percent of world GDP. Angola, Barbados, Burkina Faso, Libya, Suriname, Timor-Leste, and Yemen—all covered in the 2015 edition—have been excluded, in line with the country coverage of *The Global Competitiveness Report 2015–2016*. Sierra Leone was also excluded, even though Survey data do exist for that country, because too many data points were missing for other indicators. Benin, Bosnia and Herzegovina, Ecuador, and Liberia have been reinstated this year. The appendix provides a detailed description of the networked readiness framework and its rationale, together with a complete methodological note on the computation of the NRI.

## Box 2: Possible next steps for the Networked Readiness Index

### The NRI, a critical tool for tracking access and impact

Since its inception in 2001, the NRI has proven critical as a tool to identify gaps, to catalyze action, to structure policy dialogue, and to track progress in ICT readiness over time. The indicators that make up the NRI shine a light on two major questions: (1) What level of ICT access and use is reached within a country? (2) What is the impact of digital technologies once there is access?

In order to ensure that the NRI remains relevant in the fast-changing field of ICTs, adjustments to the Index in the next edition are envisaged. To this end, the Forum will convene relevant experts and put in place a rigorous multi-stakeholder consultation to ensure that the Index continues to build on the latest developments in terms of both data and methodology.

### Key questions going forward

In a next step, two sets of questions will require attention if the digital revolution is to be shaped in a way that can bring broad-based improvements in living standards, making our societies more prosperous and inclusive.

First, there is a need to measure the impact of technologies beyond productivity and innovation, ensuring that the digital revolution is also socially beneficial and sustainable. In assessing the impact of the unfolding digital revolution, parts of the picture are currently missing. Ideally more mechanisms would be captured by which new technologies enable and empower people and to more systematically keep track of distributional impact. What is measured matters for the way trust in new technologies is built and the way the emerging Fourth Industrial Revolution can be shaped.

Second, new indicators could usefully be introduced to better map various micro-factors of ICT readiness. For example, although the supply side regarding the access question can be measured (see infrastructure and coverage data in the NRI), there are gaps in understanding of the demand side. In particular, a good understanding of the offline population in environments where digital infrastructure is available is absent. Lack of relevant content, missing platforms, and affordability or privacy concerns are potential explanations for why individuals and businesses do not join the online world even though the infrastructure is in place. When it comes to measuring the availability of local content,

the World Economic Forum's Global Agenda Council on Media, Entertainment and Information (June 2016) has recently provided suggestions for new indicators in this respect. In a next step, systematic data sources for these indicators will need to be identified. It may be possible to capture some of these demand-side factors using either survey data or possibly commercially collected data. In order to get a more accurate picture of the offline population, household surveys will be a critical complement.

Ideally, and conditional on the availability of systematic data, new indicators would also be introduced to anticipate key aspects of the Fourth Industrial Revolution infrastructure and systems.

Country-level measures of ICT readiness will need to be complemented with contextualizing data at the local level. The World Economic Forum is catalyzing data collection at this level in regional partnerships under the umbrella of the Internet for All initiative. Public-private partnerships are vital in this context because data that are critical for public policy are currently collected by private entities.

### Unlocking new data sources

Digital technologies have opened the way to new types of data. Given the high frequency, larger coverage, and greater accuracy of such data, it will be important to integrate these into the NRI to the largest extent possible. In order to do so, progress will be essential on several fronts with regard to data access and sharing: much of the new, critical data are being collected by private entities and the location of these data is not necessarily known. Once located, several questions will still need to be solved with regard to data management and sharing. Although data gathering is becoming ever cheaper, data management and storage are not. Considerable legal uncertainties still exist, in particular with regard to privacy considerations and data ownership. Furthermore, the business rationale for data sharing is not necessarily clear in all cases. Finally, big data by itself is missing the local context; thus localized data-gathering efforts continue to remain important. It is worth noting that well-designed surveys are currently still considered best practice for data gathering. Yet as these bottlenecks are being resolved, it will be important to include new data sources that are updated at higher than annual frequency into the NRI data effort.

## How digital technology affects the nature and urgency of innovation: Two mechanisms

This section shines a spotlight on the innovation mechanisms brought into play by digital technologies and subsequently shows consistent emerging patterns in the NRI data.

The joint EU/OECD *Oslo Manual* defines innovation as follows: <sup>4</sup>

An innovation is the implementation of a new or significantly improved product (good or service), a new process, a new marketing method, or a new organizational method in business practices, workplace organization, or external relations.

Digital technologies are changing innovation itself in a qualitative way as well as amplifying the urgency to innovate. Identified below are a direct mechanism, which is changing the nature of innovation, and an indirect effect, which drives a new urgency to innovate; the latter applies to tech and non-tech firms alike.

The direct way in which digital technology affects innovation is via an augmentation of existing tools, products, processes, and business models by embedding new technologies. This mechanism applies along the entire value chain from design to marketing. In addition to allowing firms to achieve marginal productivity improvements (e.g., by digitizing existing products

or providing new ways of organizing the production system), digital technologies are importantly changing the nature of innovation itself. The large wave of rapid and accelerating web-driven innovation can be explained by a type of almost costless combinatorial innovation. It relies on the fact that parts that are being combined into new products are bits (protocols and languages) rather than physical parts and components and thus have no time-to-manufacture, no inventory issues, no delivery problems, and can be shipped around the world instantaneously.<sup>5</sup>

In particular, digital technologies are affecting innovation directly in the following ways:

- **R&D and basic research:** New technologies augment tools used in research and decrease costs of previously unaffordable research activities. They allow more accurate inference based on larger amounts of data and enable more extensive long-distance research collaboration, including crowd-sourcing.
- **Product and process innovation:** Digital technology makes possible new products and services, and re-engineering production systems give cost and quality advantages. Chapter 1.2 in this *Report* provides extensive case study evidence for a wide range of industries to illustrate this point.<sup>6</sup>
- **Business model innovation:** Digital technologies are allowing firms to entirely reimagine current business models within the emerging network of people and machines, giving price and quality-of-service advantages over incumbents. Key for businesses are the new opportunities this brings for ways of matching people to needs and of leveraging the network for decentralized information gathering to create systems that are constantly re-optimizing themselves. Thus, in addition to allowing for more efficient *directed/explicit* learning systems in the form of crowd-sourcing models for innovation, the new level of connectivity that characterizes the emerging industrial landscape is also creating increasingly *self-learning* systems. Some of the biggest success stories of the digital era have been companies that have moved into the business of market-making. The gains to be had from this approach to leveraging technology are currently looking bigger than the gains to be had from incremental product and process improvements for existing products.

In an indirect way, digital technology is leading to more innovation by changing the incentives of incumbents to innovate. This is competition-driven innovation, where innovation itself does not necessarily involve new technologies. In particular, this includes technology having the effect of:

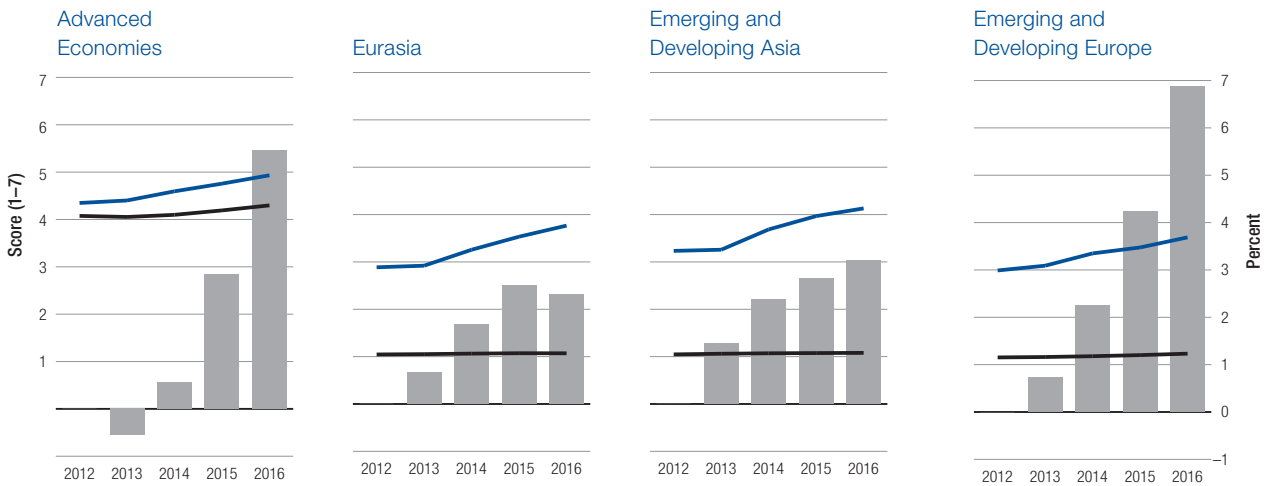
- **Increasing market size:** Technology acts to integrate markets by reducing communication costs and increasing matching efficiency, which in turn increases competitive pressures. For example, online platforms through which firms can connect almost without cost to a global consumer base are creating a tougher competitive environment.
- **Reducing barriers to entry:** New online services, such as globally accessible cloud computing and online marketing platforms, are saving start-ups and small- and medium-sized enterprises (SMEs) a significant share of the fixed costs of running a business. This facilitates entry and scaling, and thereby contributes to a leveling of the playing field vis-à-vis large incumbents. Mettler and Williams (2011) identify six such types of business platforms: crowd-financing, digital utilities, professional services marketplaces, micro-manufacturing, innovation marketplaces, and e-commerce platforms.<sup>7</sup>
- **Acquiring and leveraging knowledge of consumer preferences:** Big data is giving firms the opportunity to target products so they more closely align with consumer preferences based on more accurate information about the latter. This can act like a quality upgrade from the point of view of the consumer, and therefore increases pressure on other firms to innovate themselves.

In addition to increasing competitive pressures from new forms of innovation, the central position of networks in this emerging industrial landscape is dramatically changing the rules of the game for companies across sectors: a key implication for businesses is that the ability to scale fast is starting to become a precondition for innovation success.

Why is innovation alone no longer enough? Across industries, achieving scale quickly (in terms of customer base) is crucial because of the self-reinforcing nature of network effects and the implied winner-take-all outcome for the player that achieves a large enough network the fastest.<sup>8</sup> Scale is also important for self-optimization of systems: the more participants, the faster the system updates priors about the behavior of market participants, allowing for ever closer matches of preferences and creating yet more value. Quick scaling is also allowing companies to set industry standards, which can act as a competitive advantage because the company that scales quickly sets the precedent and thus can define that precedent. Businesses therefore need to substantially accelerate all processes across the firm in order to win the race for the market.

The ability to scale cannot be taken for granted in the digital economy. An ecosystem that systematically allows top innovations to be scaled globally remains a key feature of only a handful of places, including Silicon Valley.<sup>9</sup>

Figure 2: Trends for perceived capacity to innovate and PCT patents per million population, 2012–16



Sources: NRI, 2012–2016 editions. Based on Executive Opinion Survey data and World Intellectual Property Organization (WIPO) PCT data, sourced from the Organisation for Economic Co-operation and Development (OECD) Patent Database.

Technology-enabled innovation is thus creating significant competitive pressures for tech and non-tech firms alike. In competitive economies, the only way to escape is yet more innovation. These mechanisms look set to be reinforced as the Fourth Industrial Revolution is starting to gain a foothold.

### Key findings

This section presents the four key findings that emerge from an analysis of the last five years of NRI data.

**1. The changing nature of innovation:** *The minds of business executives around the world are increasingly focused on innovation as reflected by the steady upward trend in firms' perceived capacity to innovate. Traditional measures for innovation, such as the number of patents registered, are telling only part of the story. This is related to the fact that the current transformation is nurtured by a different type of innovation, increasingly based on digital technologies and on the new business models it allows: executives in almost 100 countries report increases in the perceived impact of ICTs on business-model innovation compared with last year.*

The World Economic Forum's Executive Opinion Survey annually asks more than 14,000 business executives in more than 140 economies about their perception of the capacity to innovate by firms in their country. The data of the last five years show some striking global patterns. Business executives across all regions of the world state that the capacity to innovate of firms in their countries has increased steadily (Figure 2). With this clear global shift in focus toward innovation by the business sector, three questions arise: Is the increased innovation capacity being realized and reflected in terms of innovation output? If it is, what kinds

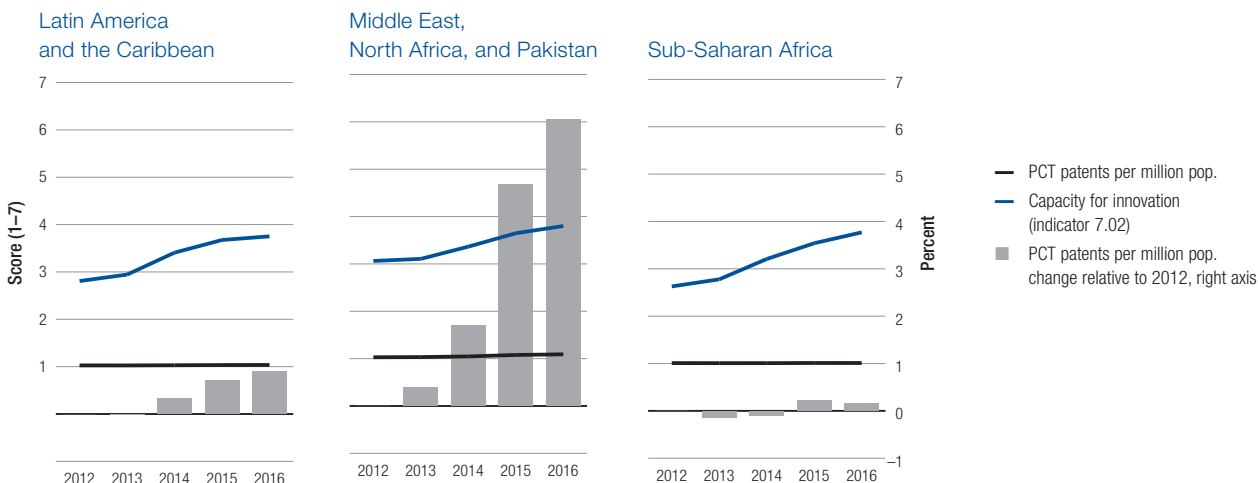
of innovation are firms engaging in? What is driving this favorable shift in innovation capacity?

Consider the most traditional of innovation output measures: the number of patents normalized by population size. Patenting activity continues on an upward trend in advanced economies and is starting to pick up across most regions of the world. It has been growing in particular in Emerging Europe as well as in the Middle East and North Africa. Figure 2 illustrates these positive trends (with a change in patenting compared to the 2012 base on the right-hand scale). Nevertheless, much of the increased innovation capacity remains unaccounted for once innovation output in the form of patents is taken into account. Several explanations are possible for this observation.

For technologically advanced countries, patent trends are more closely matched to perceived innovation trends, yet in some sectors there is a divergence between the two. Patenting is slowing, particularly in industries with high digital content, at the same time that innovation is accelerating (see Box 3). Several reasons for this slowdown are put forward in Box 3: one driver is the shortening of product cycles, which is especially evident in industries, such as audio-visual technologies and telecommunications, that are most affected by digital disruption. In addition, patent pendency times have been rising. These two developments combined often make it unprofitable for firms to patent their innovations. In addition, the pressure to innovate has increased to such an extent that many firms are focusing their resources entirely on cost-saving/efficiency innovation rather than attempting moonshots, or what Clayton Christensen calls "empowering innovation."<sup>10</sup> Thus, although digital innovation is accelerating, the expectation is that these



Figure 2: Trends for perceived capacity to innovate and PCT patents per million population, 2012–16 (cont'd.)



Notes: The number of PCT patents per million population is shown on a normalized scale of 1 to 7. Based on a constant sample of 127 economies. Groupings follow the IMF classification; IMF "CIS" = "Eurasia."

trends will be captured less and less well by traditional innovation measures in the future.

A broader measure of innovation outcomes—the Economic impacts pillar of the NRI, which comprises both patents and survey-based measures of the impact of ICTs on business model and on organizational model innovation—can give some additional insights: the 2016 iteration of the NRI sees a positive change compared to 2015 in the perceived impact of ICTs on business model innovation in almost 100 countries. Importantly, as Figure 3 demonstrates, the increased power of ICTs to enable new business models is being felt across the entire networked readiness spectrum.<sup>11</sup> ICT-driven business model innovation thus is a candidate to be watched as an important source of digital innovation impact.

**2. The increasing urgency to adopt and innovate continuously:** *Although innovation is clearly on executives' minds, seven countries truly stand out in terms of their digital innovation performance. A closer look at their characteristics reveals very high rates of business ICT adoption and a top innovation environment.*

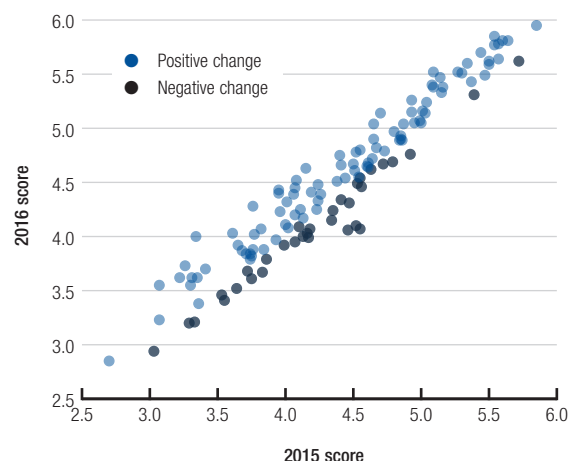
Although perceived capacity to innovate is going up across the world, certain countries are far ahead of the rest in terms of innovation impact as captured by the NRI (Figure 4): when looking at the score distribution for the Economic impacts pillar of the NRI, seven countries stand out in terms of their performance: Finland, Switzerland, Sweden, Israel, Singapore, the Netherlands, and the United States. A closer examination of these top seven innovative countries gives important clues about potential drivers for innovation success in the digital era.

In order to establish how the top seven are different from other countries, Figure 5 shows the distribution

of ranks for these countries across all other individual pillars of the NRI. The data reveal some striking patterns: top innovation impact performers are *all* characterized by top ranks in business usage of digital technologies. More particularly, this means these countries perform especially well on the combination of firm technology absorption, innovation capacity, patenting, and business-to-business (B2B) and business-to-consumer (B2C) Internet use as well as ICT staff training. In addition to having very high levels of business ICT use, the top seven all rank highly in terms of their business and innovation environment as well as in individual technology usage.

At the *country* level, high levels of business adoption of digital technologies and a strong business and innovation environment thus stand out as a key

Figure 3: Perceived impact of technology on business model innovation: 2015 vs 2016



Source: NRI, 2015 and 2016 editions.  
Note: Numbers are based on a constant sample of a 135 economies.

### Box 3: The decline of patents in ICT-driven industries

The World Intellectual Property Organization (WIPO) (2015) shows a global rise of patent applications to a total of 2.7 million, an increase of 4.5 percent over 2014.<sup>1</sup> Yet two patent fields—audio-visual technologies and telecommunications—show a constant decline in their number of patent applications over the last 10 years, of 13 percent and 20 percent, respectively. Moreover, since peaking in 2005, the total number of patent filings of the top 100 global patent applicants has followed a downward trend of more than 20 percent in the last decade. This has resulted in part from a sharp decline in filings by three large companies, which have reduced their patent activities by more than two-thirds. Those three and the remaining companies in the top 100 are predominantly in the computer, semiconductor, telecommunications, and consumer electronic business. Three potential drivers of this trend are shortening product life cycles, longer patent pendency times, and a shift in innovation types:

#### Product life cycles are getting shorter

Various studies have shown that the duration of product life cycles is steadily decreasing across all industries. Between 1997 and 2012 the average life cycle length across industries fell by 24 percent.<sup>2</sup> The digitalization of almost every business aspect and the resulting efficiency boosts have contributed a big part of this development.

Besides a general shortening of product life cycles, the existence of differences across various industry sectors are especially important with respect to their development cycle times and useful product life spans.<sup>3</sup> For fast, risky industries even small delays in time-to-market can have extensive effects on the expected return. Being late to market yields a significant loss of revenue; this can quickly exceed the costs incurred during the development and manufacturing phase.

Imagine a semiconductor company that produces a chip with two years of product life on the market. Releasing a new chip only one quarter (three months) too late means the company loses more than one-third of the expected return of releasing on time. This could potentially exceed the development costs of the product and be a very sensitive profit killer. Compare this to the world's largest passenger airplane, the Airbus A380, which has a useful product life of around 20 years. Delays in the delivery of commercial airplanes are rather the rule than the exception, and the incurred cost of mistakes are easier to amortize.

#### Patent pendency time is getting longer

The average patent pendency time has increased in many patent offices around the world to four years and more. This trend, together with the simultaneous shortening of product life cycles across all industries, could have led to a situation

where filing patents increasingly become an unpractical and tardy means for technological innovations with short-term applicability. If this was true, we would see the affected industries rather shifting to more time-strategic, broad patenting of features for the sole purpose of delaying the development cycle for competitors.

#### A shift in the type of innovation toward efficiency

Clayton Christensen (2012) distinguishes three major forms of innovation: “empowering,” “sustaining,” and “efficiency” innovations. While the first and the second type create and sustain jobs, the third is describing innovations that streamline processes and tend to reduce the number of available jobs.<sup>4</sup>

Fast-paced industries in the sustaining category will feel a continuous pressure to increase productivity, and will incentivize to invest and operate in the efficiency innovation scheme. The 2015 industry employment and output projections to 2024 by the US Bureau of Labor Statistics, for example, find that the US computer and peripheral equipment manufacturing industry is among those with the highest projected changes both in terms of increases in output and declines in employment.<sup>5</sup> This is an indication that the industry is running in full efficiency innovation mode.

How can such an industry then be open to taking more risks by working on completely new approaches and potential moonshots if most resources are spent to increase efficiency to stay in business? One way could be through new partnership models with, and investment in, start-ups. If a business is running like clockwork and trimmed toward optimized outcomes, it might not be the right environment to follow out-of-the-box ideas. A positive development is that an increasing number of agile entrepreneurs with bold ideas are starting to shake up industries that are fully engaged with themselves. In addition, corporate investment arms that strategically back young companies are on the rise. A diversification of corporate culture might be essential for survival in the long run.

#### Notes

- 1 WIPO 2015.
- 2 Roland Berger Strategy Consultants 2012.
- 3 Prasad 1997.
- 4 Christensen 2012.
- 5 United States Department of Labor, Bureau of Labor Statistics 2015.

Contributed by Bernhard Petermeier, Technology Pioneers, World Economic Forum.

characteristic of highly innovative countries. To the extent that digitization allows for faster processes, this finding resonates with both survey-based and anecdotal evidence at the *firm* level, which shows that speed in bringing new inventions to market is the most crucial factor in becoming and staying a top innovative firm in the Digital Age.<sup>12</sup> Because digital technologies are driving winner-take-all dynamics for an increasing number of industries, getting there first matters.

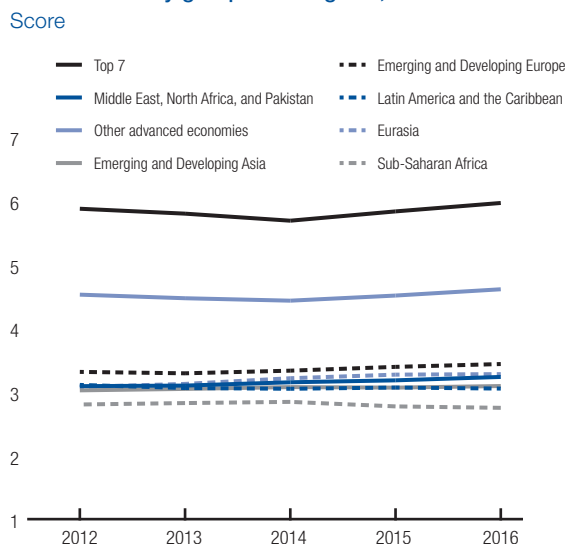
Note that a crucial ingredient for innovation success will continue to be talent competitiveness. Although the NRI contains a broad measure of skills, it currently does not map the availability of the very specialized talent needed to drive digital innovation.<sup>13</sup> Yet this type of talent will be at the core of any success story in the unfolding Fourth Industrial Revolution: it will limit or enhance the ability of individual countries to fuel their development, growth, and employment strategies through digital

innovation. When it comes to succeeding at innovation, countries critically need to think not only about educating future innovators but also about how to retain talent once educated, as the pull of Silicon Valley remains strong.<sup>14</sup>

**3. Missed opportunities:** In recent years, digital innovation has been primarily driven by consumer demand. Yet this increasing demand for digital products and services by a global consumer base is being met by a relatively small number of companies. Businesses need to act now and adopt digital technologies to capture their part of this growing market. A widening and worrying gap is also emerging between growth in individual ICT usage and public-sector engagement in the digital economy, as government usage is increasingly falling short of expectations. Governments can do more to invest in innovative digital solutions to drive social impact.

The NRI data suggest that business usage and adoption is stagnating or moving only slowly across regions (Figure 6). This suggests that a large number of existing firms are not getting in the game fast enough. The data also imply that it is not a lack of technology take-up by individuals that is holding back business adoption: companies that do adopt digital technologies will find themselves with a fast-growing connected consumer base. As Figure 6 shows, this trend of rising individual adoption is remarkably uniform across all regions of the world. The number of Internet users grew in all but nine countries since the 2015 iteration of the Index. Household ownership of personal computers and

**Figure 4: Economic impact of ICTs in the Top 7 economies vs other country groups and regions, 2012–16**

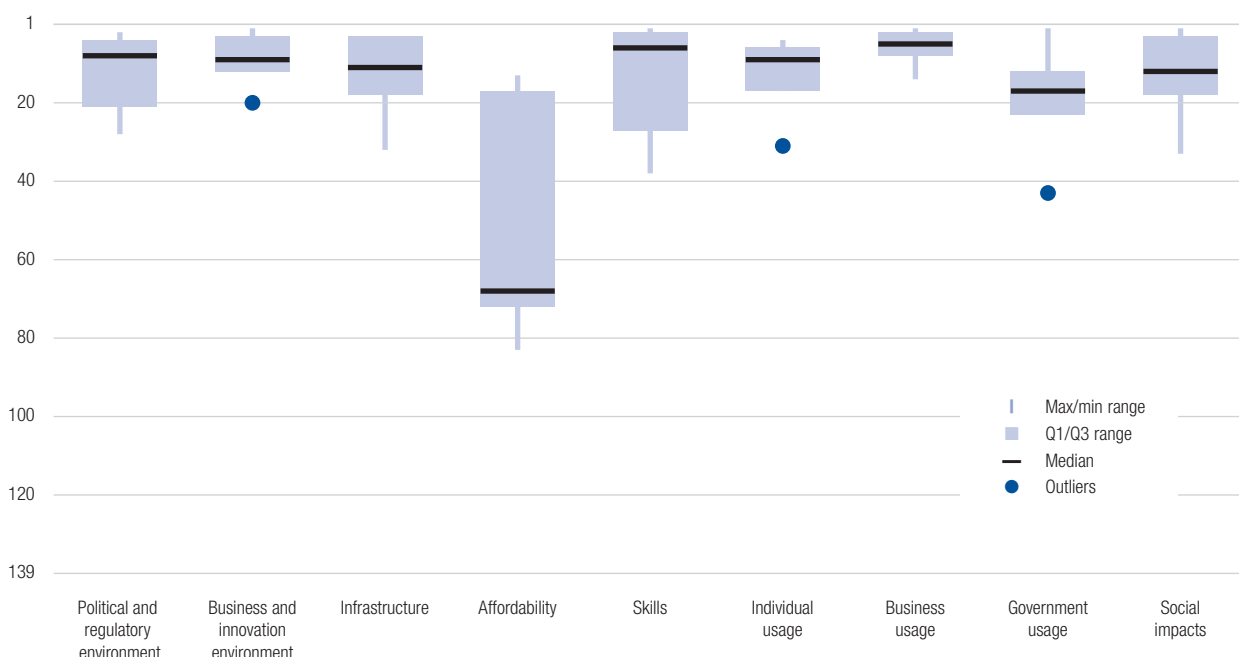


Source: NRI, 2012–2016 editions.  
 Notes: Top 7 identifies the seven best performers in terms of economic impact: Finland, Switzerland, Sweden, Israel, Singapore, the Netherlands, and the United States. Numbers are based on a constant sample of a 127 economies. Groupings follow the IMF classification; IMF “CIS” = “Eurasia.”

the number of households with an Internet connection is also increasing in all but a handful of countries. In particular, the quality of Internet service is improving, with fixed and mobile broadband subscriptions increasing across the board.

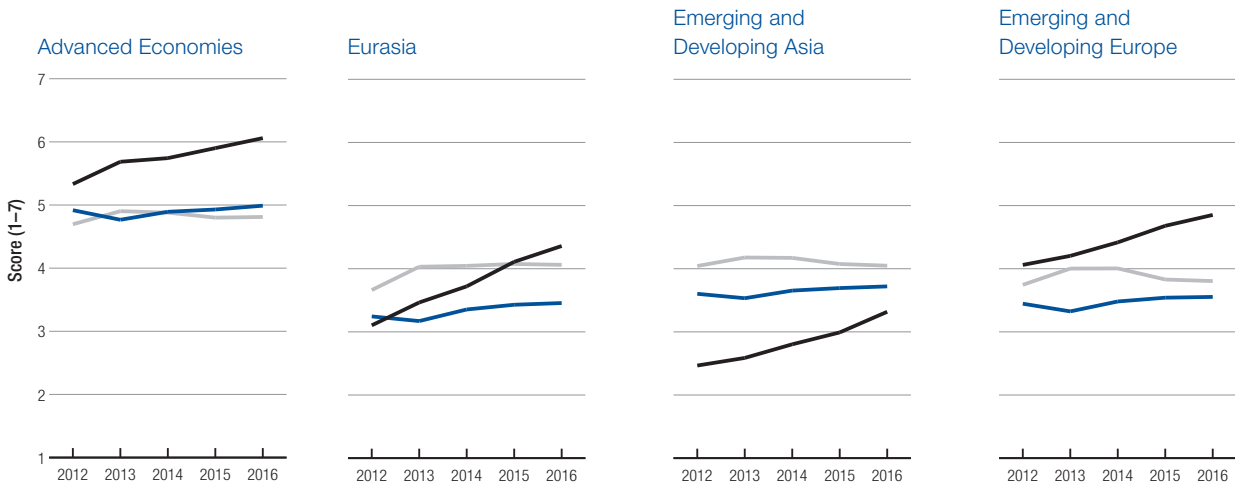
Furthermore, an expectations gap has opened up with respect to public-sector performance in using

**Figure 5: Distribution of ranks for Top 7 performers on the economic impacts pillar across the remaining 9 pillars**  
 Rank (1 to 139)



Source: NRI, 2016 edition.  
 Note: The light blue boxes identify the interquartile range—from the 75th to the 25th percentile—for each distribution.

Figure 6: Time trends for individual, business, and government usage, 2012–16



Source: NRI, 2012–2016 editions.

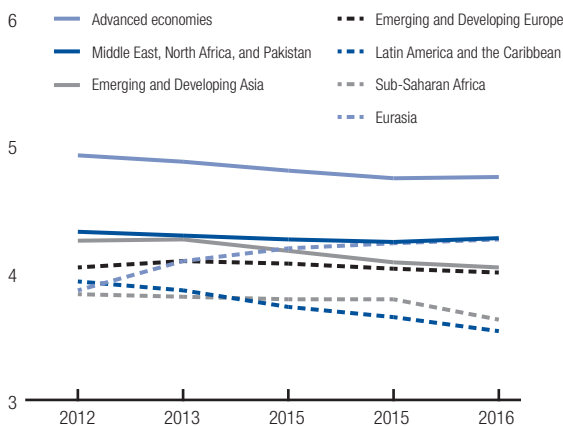
and promoting digital technologies. The upward trend in government usage (NRI pillar 8) observed up to 2013 is slowly being reversed in all regions of the world (Figure 6). Governments are also seen to be falling behind in terms of using digital technologies efficiently for social impact (NRI indicator 10.03, Figure 7). Using ICTs to more efficiently provide services to citizens is an important area where digital technologies can make a difference in generating broad-based gains.

Yet it does not have to be the government alone that is driving social outcomes. Indeed, overall social impact scores (NRI pillar 10) are up in a group of countries, in particular the advanced economies (Figure 8). ICTs can be used in many innovative ways to achieve social impact—for example, in facilitating access to basic services such as healthcare, finance, and insurance (Figure 9). Even in cases where the government remains

firmly in charge of the system, access to the system can be facilitated by digital technologies and private initiative. A pioneering example of such a public-private digital collaboration for social impact is a Dutch service provider that has partnered with the government to facilitate access to the justice system (Box 4).

**4. Building a resilient digital economy:** As the new digital economy is taking shape, offering it the right framework conditions will be crucial to ensuring its sustainability. Digital technologies are unleashing new economic and social dynamics that will need to be managed if the digital transformation of industries and societies are to deliver long-term and broad-based gains. A resilient digital economy also calls for new types of leadership, governance, and behaviors. A critical ingredient for the success and sustainability of the

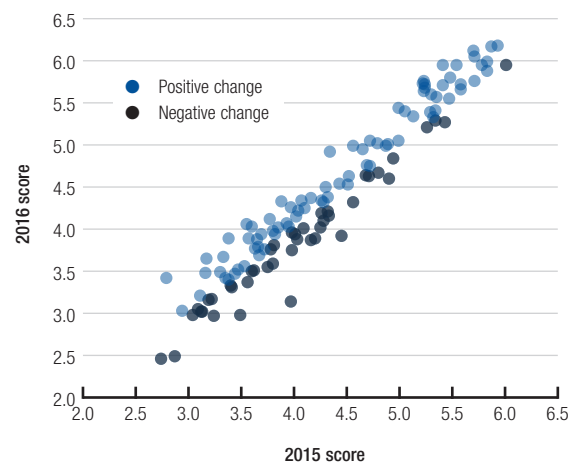
Figure 7: Impacts of ICTs on government efficiency, 2012–16  
Score (1–7)



Source: NRI, 2012–2016 editions.

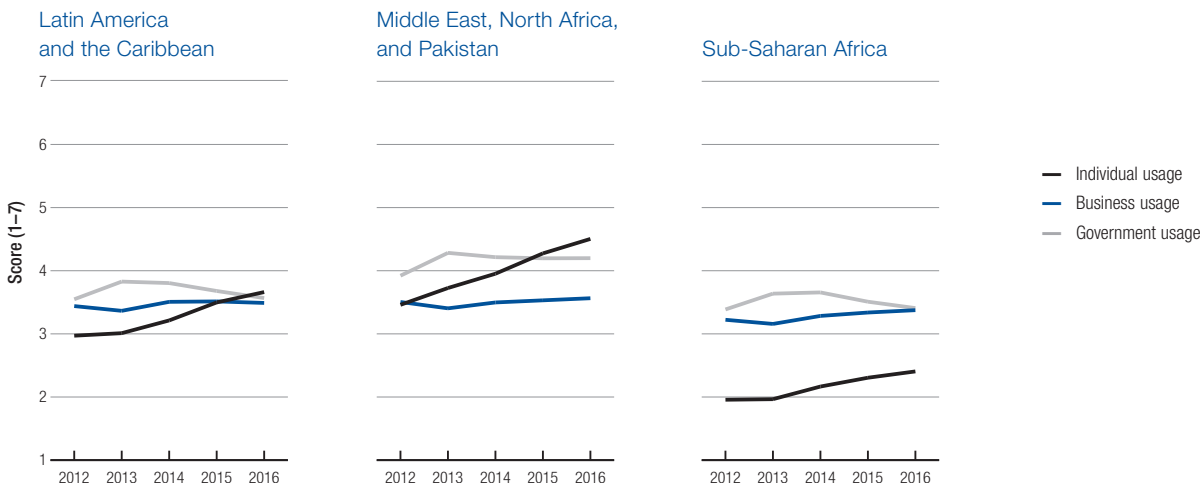
Note: Regional groupings follow the IMF classification; IMF "CIS" = "Eurasia."

Figure 8: Social impacts score (pillar 10): 2015 vs 2016



Source: NRI, 2015–2016 editions.

Figure 6: Time trends for individual, business, and government usage, 2012–16 (cont'd.)



Notes: Based on a constant sample of 127 economies. Groupings follow the IMF classification; IMF "CIS" = "Eurasia."

emerging system will be agile governance frameworks that allow societies to anticipate and shape the impact of emerging technologies and react quickly to changing circumstances.

From an economic standpoint, two developments that come in the wake of the unfolding digital revolution carry direct implications for future competitiveness and inclusive growth and will require a careful policy response: the impact of digital technologies and new networks on (1) competition dynamics in product markets and (2) labor market dynamics.

As network dynamics are becoming a key feature of competition in the emerging platform economy, being able to bring products to market fast and scale rapidly is increasingly important for companies. At the same time, the risk of lock-in needs to be managed. Governments can play a supportive role in creating a level playing field by ensuring a business environment that allows firms to quickly react to new developments; this includes speedy procedures for opening a new business and bringing products to market, providing a supportive innovation ecosystem, ensuring that barriers to entry stay low by enforcing a competition regime that counteracts potential network lock-in, and promoting and facilitating ICT adoption by building out infrastructure and having a clear ICT strategy.

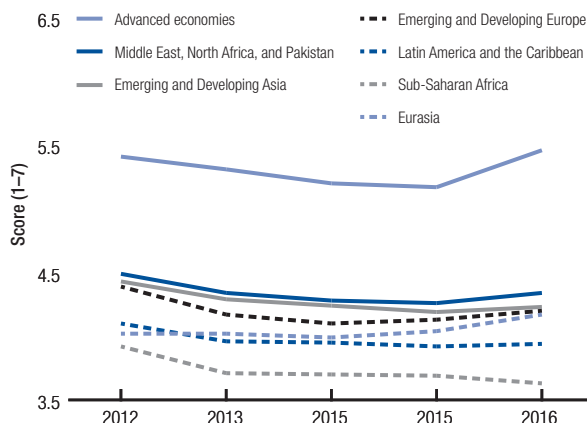
Similar to trade liberalization, the spread of digital technologies is creating winners and losers within the labor force. Two key ways in which digital technologies are affecting outcomes can be identified.

First, as digital technologies are increasingly allowing for the automation of routine jobs, they are currently accelerating the polarization of the income distribution because middle-skilled workers are most affected up to this point. In the United States, total employment grew significantly in the lower end of the skill spectrum, where

wages were generally stagnating or grew slightly, and at the higher end of the spectrum, where wages grew significantly. Many middle-skilled workers have been seeing their earnings decline or their jobs evaporate.<sup>15</sup>

Economies need to face the double challenge of further upgrading the skills of workers at the upper end of the spectrum while ensuring that the rest, the majority, of the population also receive the necessary training to prosper in the digital world. The World Economic Forum *Future of Jobs* report examines future skills needs via a survey of Chief Human Resource Officers from 366 companies worldwide. The responses indicate that complex problem-solving skills comprise the set of skills that will be considered a core requirement by the largest share of jobs across industries (36 percent). Skills that are not considered crucial today will account for about a third of the most-needed skills by 2020.

Figure 9: Impact of ICTs on access to basic services (indicator 10.01), 2012–16



Source: NRI, 2012–2016 editions. Note: Groupings follow the IMF classification; IMF "CIS" = "Eurasia."

#### Box 4: Public-private collaboration in digital social innovation: Rechtwijzer, the Dutch digital platform for dispute resolution

Rechtwijzer 2.0 is a collaborative effort between Hiil Innovating Justice, the Dutch Legal Aid Board, Modria, and the Dutch Ministry of Justice and Security. The online-based dispute resolution (ODR) platform aims to inform people about their legal options as well as to support legal professionals so they can intervene more effectively. The initiative allows citizens to find sustainable solutions to their legal issues, such as divorce, separation, landlord-tenant disputes, and employment disputes. The ODR platform empowers citizens to access justice by providing simple models that have worked for others as well as tailored support by legal professionals. The platform is a major innovation that helps citizens get access to justice and could offer a sustainable solution to many judicial systems.

Rechtwijzer 2.0 is a great example of a wider movement and need: justice innovation. Justice innovation is a form of

social innovation that is key to reforming judicial systems. It uses market-based approaches that benefit society. It will help close the gap on the estimated 4 billion people who do not have adequate access to justice. Social innovation is described by the Global Agenda Council on Social Innovation as “the application of innovative, practical, sustainable, market-based approaches to benefit society in general, and low-income or underserved populations in particular.”<sup>1</sup> This approach is more collaborative and will empower low-income people to participate in the global economy with dignity.

#### Note

1 World Economic Forum 2016e.

Contributed by Lisa Ventura, Society and Innovation, World Economic Forum.

Demand for narrow technical skills such as programming or equipment operation and control will be rather stable, while demand will grow for cognitive abilities, content, process, and social skills.<sup>16</sup> Policy must play an important role in terms of supporting the transition of workers into new jobs and ensuring that workers’ skills match market demand.

In addition to automation, a second mechanism by which digital technologies are affecting the labor market is through the effects of the platform economy.<sup>17</sup> Digital platforms are used not only to match consumers with goods but also increasingly to match workers with jobs. This is leading to more freelance activity and fewer workers being employed by firms in full-time jobs with correspondingly more uncertainty over income flows and less social protection (e.g., insurance, pension). Despite these developments, continued social protection for workers needs to be ensured.

#### **Anticipatory governance of innovation**

Given the likelihood that extremely powerful and multi-use technologies will be developed, tested, and commercialized in coming years, it will be important to guide innovation and commercialization processes with the wider social, economic, and environmental context in mind. Importantly, new technologies should not be thought of as panaceas or simple tools but rather as entities that exert power over users and that will have different impacts in different social contexts. It is therefore critical to keep in mind the social reality in which emerging technologies will be used and to appreciate the economic and social dynamics they may exacerbate, such as inequality.

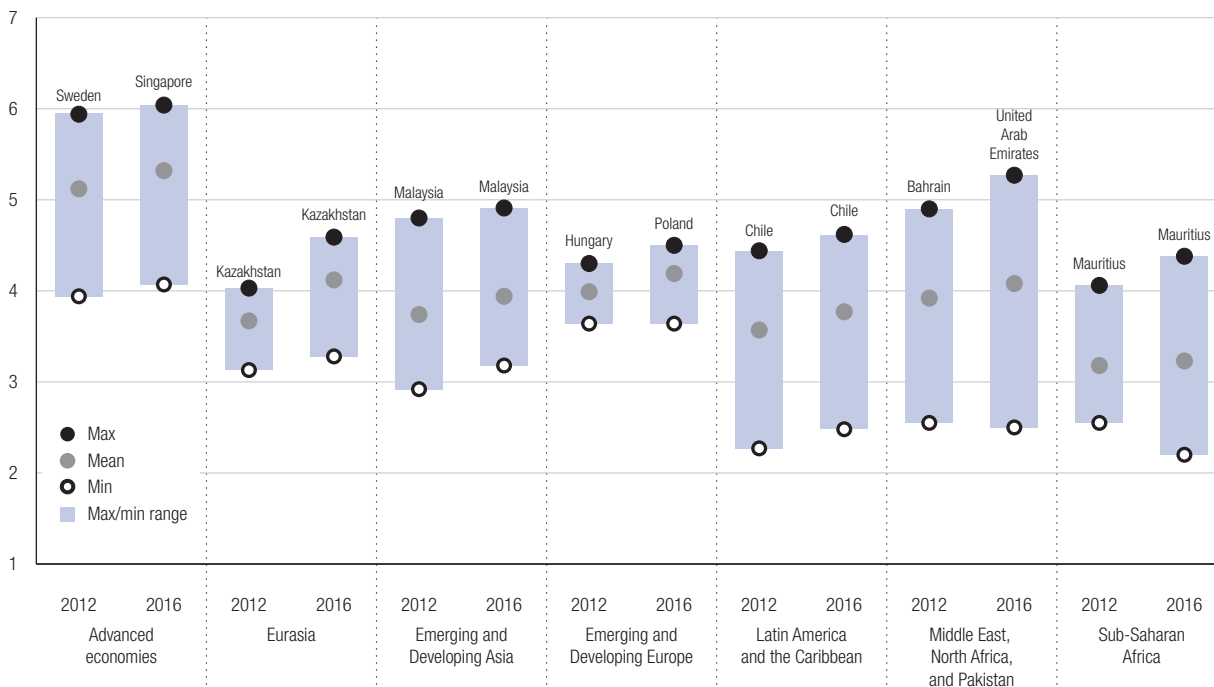
Ideally the governance of innovation processes would start before economic policies become a relevant

instrument, anticipating some of the important societal challenges as applications are developed. Recognizing these challenges, the European Union has recently adopted guidelines on Responsible Research and Innovation (RRI) that reflect these considerations.<sup>18</sup> RRI is currently applied mainly with regard to emerging technologies—notably nanotechnologies, genomics, synthetic biology, and geo-engineering. It has been defined as “a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products in order to allow a proper embedding of scientific and technological advances in our society.”<sup>19</sup>

In terms of evaluating the social desirability of research undertakings, several sets of principles have been suggested: (1) orienting research so as to address major existing or emerging global risks—tightening supplies of energy, water, and food; pandemics; aging societies; global warming; public health and security;<sup>20</sup> (2) constitutional values<sup>21</sup>—for example, in the case of the European Union, “respect for human dignity, liberty, democracy, equality, the rule of law and respect for human rights, including the rights of persons belonging to minorities. [...] Moreover [...] pluralism, non-discrimination, tolerance, justice, solidarity and equality between women and men”;<sup>22</sup> and (3) general principles of human and labor rights as enshrined in the UN Global Compact’s 10 principles.<sup>23</sup>

One key challenge to more appropriate forms of innovation governance is the fact that technologies change far faster than regulatory regimes do. As the World Economic Forum’s Global Agenda Council on the Future of Software and Society has pointed out,

**Figure 10: The Networked Readiness Index by regional group, 2012 vs 2016**  
Score (1–7)



Source: NRI, 2012–2016 editions.

Note: Numbers are based on a constant sample of 132 economies. Groupings follow the IMF classification; IMF "CIS" = "Eurasia."

technology has so fundamentally changed many behaviors and processes being governed that current regulations are not fully relevant (see *A Call for Agile Governance Principles*). In an attempt to close this "agility gap," the Council took inspiration from agile approaches used in software development to create four "agile governance" principles. The work proposes that policymakers could create governance systems that are more robust, adaptable, and responsive to changing technologies if their decision-making frameworks valued outcomes over rules; if they valued responding to change over following a plan; participation over control; and self-organization over centralization. In addition to suggesting these new heuristics, the Council looks at specific areas where new policy options need to be generated in order to ensure that emerging technologies deliver inclusive benefits to society, including the "gig economy," the use of decentralized payment systems, peer-to-peer transactions, and autonomous devices.

Building on this work, as well as work by the Global Agenda Council on Justice and others, in July 2016 the World Economic Forum launched a new set of Global Future Councils that includes a number of councils specifically focused on the governance of emerging technologies and the potential for new forms of agile governance to guide innovation and the Fourth Industrial Revolution toward positive outcomes for society.

## COUNTRY AND REGIONAL TRENDS FROM THE NRI

This section of the chapter turns to the general global and regional trends emerging from this year's results of the NRI (see Tables 1 through 5), as well as to a detailed analysis of the performance of selected economies.

Networked readiness continues to improve almost everywhere in the world, with a clear upward trend in mean country performance across all regions; however, convergence within regions is far from being the norm (Figure 10). Clearly divergent regional performances are observed for the group of countries within Eurasia; Emerging and Developing Europe; the Middle East, North Africa, and Pakistan (MENAP); and sub-Saharan Africa. In the case of MENAP and sub-Saharan Africa, this is driven by the fact that top countries improve their performance at the same time that the performance of the worst-scoring countries is deteriorating. There is a clear upward trend for the entire range of countries for the group of Advanced Economies, Emerging and Developing Asia, Eurasia, and Latin America and the Caribbean. Notably, the group of Emerging and Developing Asian countries is both moving up and converging in terms of overall NRI scores. Average performance on the NRI in 2016 is highest for the group of Advanced Economies, followed by Emerging and Developing Europe, the Eurasian countries and MENAP (the two are approximately even), Emerging and Developing Asia, Latin America and the Caribbean, and Sub-Saharan Africa.

Table 1: The Networked Readiness Index 2016

Rank	Country/Economy	Value	2015 rank (out of 143)	Income level*	Group†
1	Singapore	6.0	1	HI	ADV
2	Finland	6.0	2	HI-OECD	ADV
3	Sweden	5.8	3	HI-OECD	ADV
4	Norway	5.8	5	HI-OECD	ADV
5	United States	5.8	7	HI-OECD	ADV
6	Netherlands	5.8	4	HI-OECD	ADV
7	Switzerland	5.8	6	HI-OECD	ADV
8	United Kingdom	5.7	8	HI-OECD	ADV
9	Luxembourg	5.7	9	HI-OECD	ADV
10	Japan	5.6	10	HI-OECD	ADV
11	Denmark	5.6	15	HI-OECD	ADV
12	Hong Kong SAR	5.6	14	HI	ADV
13	Korea, Rep.	5.6	12	HI-OECD	ADV
14	Canada	5.6	11	HI-OECD	ADV
15	Germany	5.6	13	HI-OECD	ADV
16	Iceland	5.5	19	HI-OECD	ADV
17	New Zealand	5.5	17	HI-OECD	ADV
18	Australia	5.5	16	HI-OECD	ADV
19	Taiwan, China	5.5	18	HI	ADV
20	Austria	5.4	20	HI-OECD	ADV
21	Israel	5.4	21	HI-OECD	ADV
22	Estonia	5.4	22	HI-OECD	ADV
23	Belgium	5.4	24	HI-OECD	ADV
24	France	5.3	26	HI-OECD	ADV
25	Ireland	5.3	25	HI-OECD	ADV
26	United Arab Emirates	5.3	23	HI	MENAP
27	Qatar	5.2	27	HI	MENAP
28	Bahrain	5.1	30	HI	MENAP
29	Lithuania	4.9	31	HI	ADV
30	Portugal	4.9	28	HI-OECD	ADV
31	Malaysia	4.9	32	UM	EDA
32	Latvia	4.8	33	HI	ADV
33	Saudi Arabia	4.8	35	HI	MENAP
34	Malta	4.8	29	HI	ADV
35	Spain	4.8	34	HI-OECD	ADV
36	Czech Republic	4.7	43	HI-OECD	ADV
37	Slovenia	4.7	37	HI-OECD	ADV
38	Chile	4.6	38	HI-OECD	LATAM
39	Kazakhstan	4.6	40	UM	EURAS
40	Cyprus	4.6	36	HI	ADV
41	Russian Federation	4.5	41	HI	EURAS
42	Poland	4.5	50	HI-OECD	EDE
43	Uruguay	4.5	46	HI	LATAM
44	Costa Rica	4.5	49	UM	LATAM
45	Italy	4.4	55	HI-OECD	ADV
46	Macedonia, FYR	4.4	47	UM	EDE
47	Slovak Republic	4.4	59	HI-OECD	ADV
48	Turkey	4.4	48	UM	EDE
49	Mauritius	4.4	45	UM	SSA
50	Hungary	4.4	53	HI-OECD	EDE
51	Montenegro	4.3	56	UM	EDE
52	Oman	4.3	42	HI	MENAP
53	Azerbaijan	4.3	57	UM	EURAS
54	Croatia	4.3	54	HI	EDE
55	Panama	4.3	51	UM	LATAM
56	Armenia	4.3	58	LM	EURAS
57	Mongolia	4.3	61	UM	EDA
58	Georgia	4.3	60	LM	EURAS
59	China	4.2	62	UM	EDA
60	Jordan	4.2	52	UM	MENAP
61	Kuwait	4.2	72	HI	MENAP
62	Thailand	4.2	67	UM	EDA
63	Sri Lanka	4.2	65	LM	EDA
64	Ukraine	4.2	71	LM	EURAS
65	South Africa	4.2	75	UM	SSA
66	Romania	4.1	63	UM	EDE
67	Trinidad and Tobago	4.1	70	HI	LATAM
68	Colombia	4.1	64	UM	LATAM
69	Bulgaria	4.1	73	UM	EDE
70	Greece	4.1	66	HI-OECD	ADV
71	Moldova	4.0	68	LM	EURAS
72	Brazil	4.0	84	UM	LATAM
73	Indonesia	4.0	79	LM	EDA
74	Seychelles	4.0	74	HI	SSA
75	Serbia	4.0	77	UM	EDE
76	Mexico	4.0	69	UM	LATAM
77	Philippines	4.0	76	LM	EDA
78	Morocco	3.9	78	LM	MENAP
79	Vietnam	3.9	85	LM	EDA
80	Rwanda	3.9	83	LI	SSA
81	Tunisia	3.9	81	UM	MENAP
82	Ecuador	3.9	n/a	UM	LATAM
83	Jamaica	3.9	82	UM	LATAM
84	Albania	3.9	92	UM	EDE
85	Cape Verde	3.8	87	LM	SSA
86	Kenya	3.8	86	LM	SSA
87	Bhutan	3.8	88	LM	EDA
88	Lebanon	3.8	99	UM	MENAP
89	Argentina	3.8	91	HI	LATAM
90	Peru	3.8	90	UM	LATAM
91	India	3.8	89	LM	EDA
92	Iran, Islamic Rep.	3.7	96	UM	MENAP
93	El Salvador	3.7	80	LM	LATAM
94	Honduras	3.7	100	LM	LATAM
95	Kyrgyz Republic	3.7	98	LM	EURAS
96	Egypt	3.7	94	LM	MENAP
97	Bosnia and Herzegovina	3.6	n/a	UM	EDE
98	Dominican Republic	3.6	95	UM	LATAM
99	Namibia	3.6	102	UM	SSA
100	Guyana	3.6	93	LM	LATAM
101	Botswana	3.5	104	UM	SSA
102	Ghana	3.5	101	LM	SSA
103	Guatemala	3.5	107	LM	LATAM
104	Lao PDR	3.4	97	LM	EDA
105	Paraguay	3.4	105	UM	LATAM
106	Côte d'Ivoire	3.4	115	LM	SSA
107	Senegal	3.4	106	LM	SSA
108	Venezuela	3.4	103	HI	LATAM
109	Cambodia	3.4	110	LI	EDA
110	Pakistan	3.4	112	LM	MENAP
111	Bolivia	3.3	111	LM	LATAM
112	Bangladesh	3.3	109	LM	EDA
113	Gambia, The	3.3	108	LI	SSA
114	Tajikistan	3.3	117	LM	EURAS
115	Lesotho	3.3	124	LM	SSA
116	Zambia	3.2	114	LM	SSA
117	Algeria	3.2	120	UM	MENAP
118	Nepal	3.2	118	LI	EDA
119	Nigeria	3.2	119	LM	SSA
120	Ethiopia	3.1	130	LI	SSA
121	Uganda	3.1	116	LI	SSA
122	Zimbabwe	3.0	121	LI	SSA
123	Mozambique	3.0	129	LI	SSA
124	Cameroon	3.0	126	LM	SSA
125	Gabon	2.9	122	UM	SSA
126	Tanzania	2.9	123	LI	SSA
127	Mali	2.9	127	LI	SSA
128	Benin	2.9	n/a	LI	SSA
129	Swaziland	2.9	125	LM	SSA
130	Liberia	2.8	n/a	LI	SSA
131	Nicaragua	2.8	128	LM	LATAM
132	Malawi	2.7	133	LI	SSA
133	Myanmar	2.7	139	LM	EDA
134	Guinea	2.6	142	LI	SSA
135	Madagascar	2.6	135	LI	SSA
136	Mauritania	2.5	138	LM	MENAP
137	Haiti	2.5	137	LI	LATAM
138	Burundi	2.4	141	LI	SSA
139	Chad	2.2	143	LI	SSA

Note: Income level classification follows the World Bank classification by income (situation as of July 2015). Group classification follows the International Monetary Fund's classification (situation as of April 2016). IMF "CIS" = "Eurasia."

\* Income groups: HI = high-income economies that are not members of the OECD; HI-OECD = high-income OECD members; UM = upper-middle-income economies; LM = lower-middle-income economies; LI = low-income economies.

† Groups: ADV = Advanced economies; EDA = Emerging and Developing Asia; EDE = Emerging and Developing Europe; EURAS = Eurasia; LATAM = Latin America and the Caribbean; MENAP = Middle East, North Africa, and Pakistan; SSA = Sub-Saharan Africa.



Table 2: Environment subindex and pillars

ENVIRONMENT SUBINDEX			Political and regulatory environment		Business and innovation environment		ENVIRONMENT SUBINDEX			Political and regulatory environment		Business and innovation environment	
Rank	Country/Economy	Value	Rank	Value	Rank	Value	Rank	Country/Economy	Value	Rank	Value	Rank	Value
1	Singapore	6.0	2	5.9	1	6.0	71	Ghana	4.0	54	4.0	92	4.0
2	New Zealand	5.6	3	5.9	6	5.4	72	Côte d'Ivoire	4.0	51	4.0	96	3.9
3	United Kingdom	5.6	5	5.7	5	5.5	73	Sri Lanka	3.9	64	3.8	81	4.1
4	Hong Kong SAR	5.6	14	5.4	2	5.8	74	Azerbaijan	3.9	79	3.7	74	4.2
5	Finland	5.6	4	5.8	9	5.4	75	Lesotho	3.9	52	4.0	100	3.9
6	Norway	5.5	6	5.7	7	5.4	76	Seychelles	3.9	59	3.9	97	3.9
7	Switzerland	5.5	7	5.6	8	5.4	77	Morocco	3.9	70	3.8	87	4.1
8	Netherlands	5.5	8	5.6	10	5.4	78	Armenia	3.9	116	3.2	50	4.6
9	Luxembourg	5.5	1	5.9	27	5.0	79	Mexico	3.9	77	3.7	83	4.1
10	Canada	5.4	15	5.4	4	5.5	80	Senegal	3.9	76	3.7	88	4.0
11	Ireland	5.4	11	5.5	11	5.4	81	Kenya	3.9	75	3.7	93	4.0
12	Sweden	5.3	10	5.5	20	5.2	82	Iran, Islamic Rep.	3.9	91	3.5	76	4.2
13	United States	5.3	21	5.2	3	5.5	83	China	3.9	58	3.9	104	3.8
14	Denmark	5.3	17	5.3	16	5.3	84	Guyana	3.9	86	3.6	79	4.1
15	Qatar	5.3	18	5.3	15	5.3	85	Italy	3.8	96	3.4	68	4.3
16	Australia	5.2	13	5.4	23	5.1	86	Vietnam	3.8	82	3.6	91	4.0
17	Japan	5.2	9	5.5	33	4.9	87	Dominican Republic	3.8	100	3.4	69	4.3
18	Iceland	5.2	22	5.1	17	5.3	88	Albania	3.8	109	3.2	61	4.4
19	United Arab Emirates	5.2	25	5.1	13	5.4	89	Philippines	3.8	87	3.6	85	4.1
20	Germany	5.2	16	5.4	28	5.0	90	Gambia, The	3.8	43	4.2	123	3.4
21	Malaysia	5.1	24	5.1	18	5.2	91	Lebanon	3.8	126	3.0	49	4.6
22	Belgium	5.1	20	5.2	22	5.1	92	Greece	3.8	108	3.3	66	4.3
23	Estonia	5.0	27	5.0	26	5.1	93	Lao PDR	3.8	68	3.8	106	3.8
24	Israel	5.0	28	4.7	12	5.4	94	Ukraine	3.8	113	3.2	67	4.3
25	Austria	5.0	19	5.2	40	4.7	95	Kyrgyz Republic	3.7	103	3.3	75	4.2
26	France	5.0	23	5.1	35	4.8	96	Trinidad and Tobago	3.7	104	3.3	77	4.1
27	Rwanda	4.9	12	5.4	63	4.4	97	Peru	3.7	118	3.1	70	4.3
28	Saudi Arabia	4.9	29	4.6	25	5.1	98	Honduras	3.7	95	3.4	95	3.9
29	Taiwan, China	4.8	40	4.2	14	5.3	99	India	3.7	78	3.7	110	3.7
30	Portugal	4.7	33	4.4	24	5.1	100	Mali	3.7	71	3.7	116	3.6
31	Korea, Rep.	4.7	34	4.3	21	5.1	101	Uganda	3.7	72	3.7	118	3.6
32	Chile	4.7	38	4.3	19	5.2	102	Colombia	3.7	97	3.4	94	4.0
33	South Africa	4.7	26	5.0	65	4.3	103	Serbia	3.7	110	3.2	82	4.1
34	Mauritius	4.7	30	4.6	41	4.7	104	El Salvador	3.6	106	3.3	90	4.0
35	Bahrain	4.6	36	4.3	29	5.0	105	Ecuador	3.6	111	3.2	86	4.1
36	Lithuania	4.6	41	4.2	31	5.0	106	Ethiopia	3.6	89	3.6	109	3.7
37	Latvia	4.6	45	4.2	30	5.0	107	Guatemala	3.6	122	3.0	73	4.2
38	Jordan	4.5	39	4.2	38	4.8	108	Liberia	3.6	84	3.6	117	3.6
39	Malta	4.5	32	4.5	56	4.5	109	Tunisia	3.6	90	3.5	112	3.7
40	Czech Republic	4.5	35	4.3	47	4.6	110	Nepal	3.5	114	3.2	99	3.9
41	Spain	4.4	47	4.0	37	4.8	111	Moldova	3.5	125	3.0	89	4.0
42	Macedonia, FYR	4.4	62	3.9	32	5.0	112	Tanzania	3.5	83	3.6	125	3.4
43	Cyprus	4.4	56	3.9	36	4.8	113	Egypt	3.5	102	3.3	113	3.7
44	Uruguay	4.4	44	4.2	51	4.6	114	Cameroon	3.5	105	3.3	114	3.7
45	Slovenia	4.4	67	3.8	34	4.9	115	Pakistan	3.4	128	3.0	98	3.9
46	Zambia	4.3	61	3.9	39	4.8	116	Nigeria	3.4	117	3.2	111	3.7
47	Kazakhstan	4.3	48	4.0	54	4.5	117	Malawi	3.4	93	3.5	126	3.4
48	Poland	4.2	57	3.9	53	4.6	118	Brazil	3.4	98	3.4	124	3.4
49	Turkey	4.2	69	3.8	43	4.7	119	Cambodia	3.4	124	3.0	108	3.7
50	Jamaica	4.2	49	4.0	62	4.4	120	Mozambique	3.3	112	3.2	121	3.5
51	Hungary	4.2	50	4.0	59	4.4	121	Bosnia and Herzegovina	3.3	120	3.1	120	3.6
52	Oman	4.2	53	4.0	58	4.4	122	Swaziland	3.3	115	3.2	122	3.4
53	Namibia	4.2	31	4.5	103	3.9	123	Benin	3.3	99	3.4	130	3.3
54	Thailand	4.2	80	3.7	48	4.6	124	Argentina	3.3	127	3.0	115	3.6
55	Panama	4.1	85	3.6	45	4.7	125	Paraguay	3.3	133	2.7	101	3.9
56	Georgia	4.1	73	3.7	55	4.5	126	Gabon	3.3	107	3.3	131	3.3
57	Croatia	4.1	92	3.5	44	4.7	127	Madagascar	3.2	129	2.8	119	3.6
58	Mongolia	4.1	81	3.6	52	4.6	128	Zimbabwe	3.1	121	3.0	132	3.2
59	Botswana	4.1	46	4.1	84	4.1	129	Bolivia	3.1	119	3.1	134	3.2
60	Montenegro	4.1	94	3.5	46	4.7	130	Bangladesh	3.1	137	2.5	107	3.7
61	Slovak Republic	4.1	74	3.7	60	4.4	131	Algeria	3.1	123	3.0	133	3.2
62	Indonesia	4.1	65	3.8	64	4.4	132	Nicaragua	3.0	130	2.7	128	3.3
63	Bhutan	4.1	37	4.3	102	3.9	133	Myanmar	3.0	134	2.7	127	3.3
64	Cape Verde	4.0	55	4.0	80	4.1	134	Burundi	2.9	136	2.5	129	3.3
65	Romania	4.0	66	3.8	71	4.2	135	Mauritania	2.8	135	2.6	135	3.0
66	Bulgaria	4.0	101	3.3	42	4.7	136	Haiti	2.8	131	2.7	138	2.8
67	Russian Federation	4.0	88	3.6	57	4.5	137	Guinea	2.7	138	2.5	137	2.9
68	Kuwait	4.0	63	3.8	72	4.2	138	Chad	2.7	132	2.7	139	2.6
69	Costa Rica	4.0	60	3.9	78	4.1	139	Venezuela	2.6	139	2.2	136	3.0
70	Tajikistan	4.0	42	4.2	105	3.8							

Table 3: Readiness subindex and pillars

READINESS SUBINDEX			Infrastructure		Affordability		Skills	
Rank	Country/Economy	Value	Rank	Value	Rank	Value	Rank	Value
1	Finland	6.6	3	7.0	13	6.4	2	6.5
2	Taiwan, China	6.4	1	7.0	12	6.5	23	5.8
3	Iceland	6.4	7	7.0	19	6.3	15	6.0
4	Norway	6.4	1	7.0	28	6.1	12	6.0
5	United States	6.4	5	7.0	17	6.4	27	5.8
6	Austria	6.3	13	6.6	5	6.7	28	5.7
7	Sweden	6.3	3	7.0	25	6.2	25	5.8
8	Canada	6.2	7	7.0	61	5.6	11	6.1
9	Switzerland	6.2	11	6.8	70	5.4	3	6.4
10	Australia	6.2	7	7.0	57	5.6	13	6.0
11	Hong Kong SAR	6.2	25	6.0	16	6.4	10	6.1
12	Denmark	6.1	17	6.4	31	6.1	17	5.9
13	Germany	6.1	12	6.6	55	5.6	8	6.1
14	Korea, Rep.	6.1	5	7.0	48	5.8	35	5.6
15	Japan	6.1	14	6.6	49	5.8	14	6.0
16	Singapore	6.1	15	6.6	72	5.3	1	6.5
17	Belgium	6.1	19	6.4	62	5.5	4	6.4
18	Estonia	6.0	16	6.5	59	5.6	19	5.9
19	Luxembourg	5.9	26	6.0	36	6.0	20	5.9
20	United Kingdom	5.9	20	6.3	53	5.7	24	5.8
21	Cyprus	5.9	33	5.5	22	6.3	16	6.0
22	Czech Republic	5.9	23	6.3	46	5.8	39	5.5
23	Netherlands	5.9	18	6.4	83	5.0	6	6.2
24	New Zealand	5.9	10	6.8	97	4.6	7	6.2
25	Slovenia	5.8	24	6.1	60	5.6	21	5.8
26	Bahrain	5.8	31	5.8	40	5.9	31	5.7
27	France	5.8	22	6.3	76	5.2	18	5.9
28	Poland	5.8	35	5.3	11	6.6	40	5.5
29	Ireland	5.7	27	6.0	77	5.2	9	6.1
30	Ukraine	5.7	51	4.7	6	6.6	33	5.6
31	Latvia	5.6	43	5.0	23	6.3	36	5.6
32	Russian Federation	5.5	52	4.7	10	6.6	48	5.4
33	Portugal	5.5	40	5.1	41	5.9	34	5.6
34	Spain	5.5	34	5.4	42	5.9	57	5.3
35	Trinidad and Tobago	5.5	37	5.2	44	5.9	43	5.5
36	Malta	5.5	21	6.3	88	4.8	44	5.5
37	Israel	5.5	32	5.5	68	5.5	38	5.5
38	Costa Rica	5.5	60	4.5	21	6.3	30	5.7
39	Kazakhstan	5.5	64	4.4	7	6.6	45	5.4
40	Turkey	5.5	59	4.5	2	6.9	69	5.0
41	Italy	5.5	39	5.1	52	5.7	37	5.6
42	Lithuania	5.4	57	4.5	34	6.0	26	5.8
43	Armenia	5.4	61	4.4	18	6.3	51	5.4
44	Mongolia	5.3	79	4.0	4	6.7	62	5.2
45	Montenegro	5.3	41	5.0	67	5.5	50	5.4
46	Georgia	5.3	65	4.4	15	6.4	64	5.1
47	Croatia	5.3	47	4.8	66	5.5	42	5.5
48	Serbia	5.2	45	4.9	56	5.6	61	5.2
49	Macedonia, FYR	5.2	56	4.6	39	5.9	66	5.1
50	Bosnia and Herzegovina	5.2	50	4.7	32	6.1	84	4.7
51	Kuwait	5.2	30	5.8	89	4.8	77	4.9
52	Moldova	5.1	69	4.2	29	6.1	70	5.0
53	Romania	5.1	55	4.6	73	5.2	41	5.5
54	Qatar	5.1	29	5.8	120	3.1	5	6.4
55	Brazil	5.1	58	4.5	26	6.2	91	4.5
56	United Arab Emirates	5.0	28	5.9	116	3.4	22	5.8
57	Mauritius	5.0	68	4.3	65	5.5	53	5.3
58	Hungary	5.0	48	4.8	80	5.0	56	5.3
59	Slovak Republic	5.0	70	4.2	51	5.8	72	5.0
60	Saudi Arabia	5.0	36	5.2	101	4.3	49	5.4
61	Panama	5.0	63	4.4	33	6.1	93	4.5
62	Thailand	4.9	67	4.3	64	5.5	73	5.0
63	Sri Lanka	4.9	103	3.0	35	6.0	32	5.7
64	Tunisia	4.9	82	3.7	24	6.3	85	4.7
65	Chile	4.9	54	4.6	84	4.9	67	5.1
66	Colombia	4.9	76	4.1	58	5.6	79	4.9
67	Azerbaijan	4.8	74	4.1	71	5.3	68	5.1
68	Albania	4.8	75	4.1	92	4.7	29	5.7
69	South Africa	4.8	44	4.9	74	5.2	95	4.4
70	Oman	4.8	46	4.9	96	4.6	76	5.0
71	Ecuador	4.8	78	4.0	78	5.1	63	5.2
72	Bulgaria	4.8	38	5.2	111	3.8	52	5.4
73	Malaysia	4.8	71	4.2	91	4.7	46	5.4
74	Seychelles	4.8	49	4.7	98	4.5	74	5.0
75	China	4.7	90	3.3	63	5.5	47	5.4
76	Uruguay	4.7	53	4.7	87	4.8	83	4.8
77	Greece	4.7	42	5.0	110	3.9	58	5.3
78	Argentina	4.7	66	4.3	n/a	n/a	71	5.0
79	Kyrgyz Republic	4.7	97	3.1	27	6.1	81	4.8
80	Bhutan	4.7	73	4.1	45	5.9	103	4.1
81	Indonesia	4.6	105	2.9	38	5.9	65	5.1
82	Vietnam	4.6	121	2.4	3	6.8	82	4.8
83	Iran, Islamic Rep.	4.6	101	3.0	37	6.0	80	4.8
84	Mexico	4.6	84	3.7	54	5.7	92	4.5
85	Venezuela	4.6	89	3.3	50	5.8	88	4.6
86	Paraguay	4.5	62	4.4	79	5.1	105	3.9
87	Lebanon	4.5	77	4.0	109	4.0	55	5.3
88	India	4.4	114	2.6	8	6.6	101	4.1
89	Peru	4.4	72	4.1	95	4.6	94	4.5
90	Jamaica	4.4	93	3.2	69	5.4	86	4.6
91	El Salvador	4.4	83	3.7	75	5.2	98	4.2
92	Philippines	4.4	87	3.6	107	4.1	54	5.3
93	Jordan	4.3	92	3.2	94	4.6	59	5.3
94	Morocco	4.3	102	3.0	20	6.3	110	3.7
95	Algeria	4.3	80	3.9	99	4.4	89	4.6
96	Cape Verde	4.3	100	3.1	86	4.8	75	5.0
97	Egypt	4.2	94	3.1	47	5.8	111	3.7
98	Bangladesh	4.1	107	2.8	14	6.4	122	3.1
99	Honduras	4.1	96	3.1	85	4.9	97	4.2
100	Cambodia	4.1	98	3.1	43	5.9	120	3.3
101	Guyana	4.0	104	2.9	104	4.2	78	4.9
102	Bolivia	4.0	91	3.2	103	4.3	90	4.6
103	Dominican Republic	4.0	85	3.7	106	4.2	104	4.0
104	Pakistan	4.0	126	2.1	1	6.9	127	2.8
105	Kenya	3.9	99	3.1	102	4.3	96	4.2
106	Nepal	3.9	130	1.9	30	6.1	115	3.6
107	Lao PDR	3.9	108	2.7	82	5.0	106	3.9
108	Lesotho	3.7	120	2.4	81	5.0	108	3.8
109	Guatemala	3.7	86	3.6	108	4.0	118	3.4
110	Namibia	3.6	81	3.9	119	3.2	109	3.8
111	Botswana	3.5	95	3.1	125	2.9	87	4.6
112	Guinea	3.5	132	1.8	9	6.6	137	2.1
113	Ghana	3.5	125	2.2	105	4.2	102	4.1
114	Zimbabwe	3.4	123	2.3	112	3.8	100	4.1
115	Rwanda	3.3	106	2.8	114	3.6	117	3.5
116	Ethiopia	3.1	122	2.3	93	4.6	131	2.5
117	Nigeria	3.1	113	2.6	100	4.3	134	2.4
118	Myanmar	3.1	115	2.6	122	3.0	113	3.6
119	Gabon	3.0	128	2.0	113	3.6	116	3.5
120	Nicaragua	3.0	88	3.5	136	1.9	112	3.6
121	Tajikistan	3.0	133	1.6	134	2.2	60	5.2
122	Gambia, The	3.0	109	2.7	123	3.0	121	3.2
123	Swaziland	3.0	119	2.5	133	2.2	99	4.2
124	Uganda	3.0	112	2.7	117	3.3	126	2.9
125	Mozambique	2.9	131	1.9	90	4.8	136	2.1
126	Côte d'Ivoire	2.9	110	2.7	127	2.9	123	3.1
127	Zambia	2.7	129	2.0	129	2.5	114	3.6
128	Benin	2.6	116	2.6	126	2.9	133	2.4
129	Senegal	2.6	118	2.5	130	2.5	128	2.8
130	Tanzania	2.6	117	2.6	131	2.3	125	2.9
131	Cameroon	2.6	138	1.1	128	2.8	107	3.8
132	Haiti	2.5	137	1.1	115	3.5	124	3.0
133	Burundi	2.5	134	1.3	124	2.9	119	3.3
134	Malawi	2.4	111	2.7	135	2.0	130	2.7
135	Liberia	2.2	135	1.2	121	3.1	132	2.4
136	Mauritania	2.1	136	1.2	118	3.3	138	1.9
137	Madagascar	2.0	124	2.2	138	1.0	129	2.8
138	Chad	1.9	127	2.0	137	1.9	139	1.9
139	Mali	1.9	139	1.1	132	2.3	135	2.4

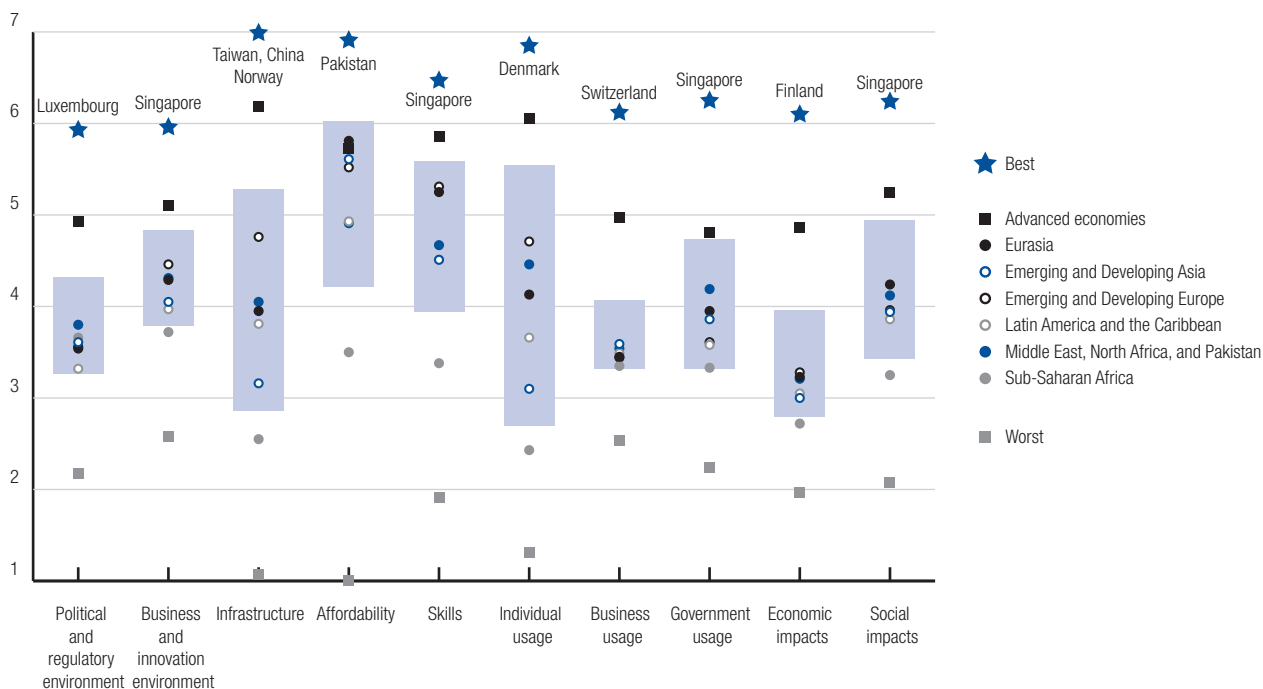
Table 4: Usage subindex and pillars

USAGE SUBINDEX			Individual usage		Business usage		Government usage	
Rank	Country/Economy	Value	Rank	Value	Rank	Value	Rank	Value
1	Singapore	6.0	12	6.4	14	5.4	1	6.3
2	Japan	5.9	11	6.4	3	5.9	7	5.4
3	Netherlands	5.9	8	6.6	7	5.8	14	5.4
4	Sweden	5.9	4	6.7	2	6.0	23	5.0
5	Luxembourg	5.9	2	6.8	15	5.4	9	5.4
6	Korea, Rep.	5.8	10	6.5	13	5.4	4	5.6
7	Finland	5.8	6	6.6	5	5.8	21	5.0
8	United States	5.8	17	6.2	4	5.9	12	5.4
9	Norway	5.8	3	6.7	11	5.5	18	5.2
10	Denmark	5.8	1	6.9	9	5.7	38	4.7
11	United Kingdom	5.7	5	6.6	16	5.2	10	5.4
12	Switzerland	5.7	9	6.6	1	6.1	43	4.5
13	United Arab Emirates	5.6	19	6.2	27	4.6	2	6.2
14	Germany	5.6	18	6.2	6	5.8	30	4.8
15	Israel	5.5	31	5.6	8	5.8	17	5.3
16	Taiwan, China	5.5	24	6.0	12	5.5	24	5.0
17	New Zealand	5.5	20	6.1	20	5.0	13	5.4
18	Iceland	5.5	7	6.6	18	5.1	36	4.7
19	Qatar	5.4	23	6.0	25	4.8	5	5.5
20	France	5.4	25	6.0	19	5.0	15	5.3
21	Austria	5.4	27	5.9	10	5.6	28	4.8
22	Australia	5.4	13	6.3	24	4.8	22	5.0
23	Estonia	5.4	15	6.3	28	4.4	8	5.4
24	Bahrain	5.3	14	6.3	37	4.0	3	5.7
25	Hong Kong SAR	5.3	16	6.3	21	4.9	37	4.7
26	Canada	5.2	30	5.7	22	4.9	19	5.1
27	Belgium	5.2	22	6.0	17	5.2	42	4.6
28	Ireland	5.2	28	5.9	23	4.9	25	4.9
29	Saudi Arabia	5.1	21	6.0	42	3.9	11	5.4
30	Malaysia	5.1	47	5.1	26	4.7	6	5.5
31	Lithuania	4.9	35	5.5	29	4.3	33	4.7
32	Spain	4.8	33	5.6	43	3.9	32	4.7
33	Malta	4.7	26	5.9	40	4.0	49	4.3
34	Portugal	4.7	45	5.1	33	4.2	29	4.8
35	Latvia	4.6	36	5.5	35	4.1	50	4.3
36	Oman	4.5	39	5.3	94	3.4	34	4.7
37	Czech Republic	4.5	29	5.8	31	4.3	101	3.4
38	Uruguay	4.5	44	5.2	90	3.4	27	4.8
39	Chile	4.5	52	4.9	47	3.9	39	4.6
40	Russian Federation	4.5	40	5.3	67	3.6	44	4.4
41	Azerbaijan	4.4	56	4.8	58	3.7	35	4.7
42	Slovenia	4.4	38	5.4	30	4.3	86	3.6
43	Italy	4.4	37	5.5	52	3.8	62	4.0
44	Kazakhstan	4.4	58	4.8	69	3.6	26	4.8
45	Slovak Republic	4.4	34	5.6	48	3.9	73	3.7
46	Costa Rica	4.3	55	4.8	38	4.0	56	4.1
47	Kuwait	4.3	32	5.6	72	3.6	81	3.7
48	Hungary	4.2	41	5.3	73	3.6	70	3.8
49	Poland	4.2	42	5.3	64	3.6	82	3.6
50	Macedonia, FYR	4.2	49	5.0	92	3.4	58	4.1
51	China	4.1	75	3.9	44	3.9	40	4.6
52	Cyprus	4.1	51	4.9	54	3.8	75	3.7
53	Jordan	4.1	70	4.1	41	3.9	47	4.4
54	Colombia	4.1	71	4.1	82	3.5	31	4.8
55	Mauritius	4.1	66	4.3	55	3.8	48	4.3
56	Montenegro	4.1	61	4.6	99	3.4	53	4.2
57	Brazil	4.0	57	4.8	59	3.7	84	3.6
58	Croatia	4.0	43	5.2	98	3.4	90	3.5
59	Turkey	4.0	65	4.3	56	3.8	57	4.1
60	Morocco	4.0	67	4.2	105	3.3	41	4.6
61	Panama	4.0	72	4.0	39	4.0	60	4.1
62	Greece	4.0	50	4.9	87	3.5	91	3.5
63	Thailand	4.0	64	4.3	51	3.9	69	3.8
64	Bulgaria	4.0	48	5.0	77	3.5	102	3.3
65	Armenia	4.0	69	4.1	101	3.4	46	4.4
66	Philippines	3.9	79	3.8	36	4.0	63	4.0
67	Sri Lanka	3.9	102	2.8	49	3.9	20	5.0
68	Romania	3.9	60	4.7	68	3.6	96	3.5
69	Trinidad and Tobago	3.9	59	4.7	79	3.5	94	3.5
70	Seychelles	3.9	62	4.3	70	3.6	79	3.7
71	Mongolia	3.9	82	3.7	61	3.7	51	4.2
72	Georgia	3.8	68	4.1	108	3.2	54	4.1
73	Argentina	3.8	53	4.9	103	3.4	111	3.3
74	Mexico	3.8	84	3.6	66	3.6	52	4.2
75	South Africa	3.8	77	3.9	32	4.2	105	3.3
76	Moldova	3.8	63	4.3	112	3.2	66	3.9
77	Lebanon	3.8	46	5.1	97	3.4	124	2.9
78	Indonesia	3.8	92	3.3	34	4.1	65	3.9
79	Serbia	3.7	54	4.9	125	3.1	106	3.3
80	Tunisia	3.7	78	3.9	107	3.3	55	4.1
81	Vietnam	3.7	85	3.6	81	3.5	61	4.0
82	Ecuador	3.7	87	3.5	83	3.5	64	3.9
83	Rwanda	3.6	127	1.9	60	3.7	16	5.3
84	Kenya	3.6	107	2.6	50	3.9	45	4.4
85	Jamaica	3.6	86	3.5	62	3.7	87	3.6
86	Albania	3.6	83	3.6	93	3.4	76	3.7
87	Cape Verde	3.6	81	3.7	95	3.4	88	3.6
88	Ukraine	3.6	76	3.9	63	3.6	114	3.1
89	Egypt	3.5	80	3.8	129	3.0	67	3.8
90	El Salvador	3.5	91	3.3	78	3.5	85	3.6
91	Ghana	3.5	89	3.5	80	3.5	98	3.4
92	Peru	3.5	93	3.2	91	3.4	74	3.7
93	Honduras	3.4	104	2.8	46	3.9	78	3.7
94	Namibia	3.4	98	3.0	57	3.7	92	3.5
95	Senegal	3.4	106	2.6	53	3.8	68	3.8
96	Botswana	3.4	94	3.2	96	3.4	89	3.6
97	Dominican Republic	3.4	95	3.2	88	3.5	95	3.5
98	Venezuela	3.3	74	3.9	131	3.0	118	3.0
99	Iran, Islamic Rep.	3.3	90	3.3	126	3.1	93	3.5
100	Côte d'Ivoire	3.3	109	2.6	65	3.6	80	3.7
101	Bhutan	3.3	99	2.9	111	3.2	83	3.6
102	Gambia, The	3.3	108	2.6	85	3.5	77	3.7
103	India	3.3	120	2.1	75	3.6	59	4.1
104	Kyrgyz Republic	3.2	88	3.5	109	3.2	117	3.0
105	Guyana	3.2	105	2.7	76	3.5	99	3.4
106	Guatemala	3.2	100	2.8	45	3.9	122	2.9
107	Bosnia and Herzegovina	3.2	73	4.0	123	3.1	133	2.6
108	Bolivia	3.1	97	3.0	132	3.0	108	3.3
109	Nigeria	3.1	112	2.5	86	3.5	112	3.3
110	Cambodia	3.1	101	2.8	104	3.3	116	3.0
111	Bangladesh	3.0	121	2.1	119	3.1	72	3.8
112	Paraguay	3.0	96	3.1	121	3.1	128	2.7
113	Zambia	3.0	126	2.0	71	3.6	104	3.3
114	Cameroon	2.9	125	2.0	74	3.6	107	3.3
115	Mali	2.9	113	2.5	124	3.1	113	3.2
116	Tajikistan	2.9	116	2.3	102	3.4	115	3.1
117	Lao PDR	2.9	124	2.0	89	3.4	110	3.3
118	Pakistan	2.9	123	2.1	110	3.2	103	3.3
119	Gabon	2.9	110	2.5	115	3.2	119	2.9
120	Uganda	2.9	129	1.9	106	3.3	97	3.4
121	Zimbabwe	2.8	114	2.5	117	3.1	120	2.9
122	Benin	2.8	119	2.2	84	3.5	127	2.8
123	Ethiopia	2.8	136	1.6	127	3.0	71	3.8
124	Mozambique	2.8	128	1.9	114	3.2	109	3.3
125	Algeria	2.8	103	2.8	133	2.9	130	2.7
126	Tanzania	2.7	134	1.7	122	3.1	100	3.4
127	Swaziland	2.7	115	2.4	116	3.2	131	2.7
128	Lesotho	2.7	122	2.1	120	3.1	121	2.9
129	Nepal	2.6	117	2.2	128	3.0	129	2.7
130	Liberia	2.6	130	1.8	113	3.2	123	2.9
131	Nicaragua	2.6	111	2.5	130	3.0	138	2.3
132	Madagascar	2.6	135	1.6	100	3.4	125	2.8
133	Mauritania	2.5	118	2.2	135	2.8	134	2.5
134	Malawi	2.5	137	1.5	118	3.1	126	2.8
135	Guinea	2.3	133	1.8	136	2.8	135	2.5
136	Haiti	2.3	132	1.8	134	2.8	139	2.2
137	Myanmar	2.3	131	1.8	138	2.6	137	2.3
138	Chad	2.2	139	1.3	137	2.6	132	2.6
139	Burundi	2.1	138	1.3	139	2.5	136	2.4

Table 5: Impact subindex and pillars

IMPACT SUBINDEX			Economic impacts		Social impacts		IMPACT SUBINDEX			Economic impacts		Social impacts	
Rank	Country/Economy	Value	Rank	Value	Rank	Value	Rank	Country/Economy	Value	Rank	Value	Rank	Value
1	Singapore	6.1	5	5.9	1	6.2	71	Moldova	3.7	81	3.1	60	4.2
2	Netherlands	6.0	6	5.8	3	6.1	72	Senegal	3.6	63	3.3	81	3.9
3	Sweden	5.8	3	6.1	12	5.6	73	India	3.6	80	3.1	69	4.1
4	Finland	5.8	1	6.1	18	5.5	74	Honduras	3.6	53	3.5	87	3.8
5	United States	5.8	7	5.8	7	5.7	75	Ecuador	3.6	86	3.0	68	4.1
6	Israel	5.7	4	5.9	15	5.5	76	Vietnam	3.6	92	2.9	65	4.2
7	United Kingdom	5.6	11	5.3	5	5.9	77	Romania	3.6	72	3.2	79	3.9
8	Switzerland	5.6	2	6.1	33	5.0	78	Indonesia	3.5	85	3.1	73	4.0
9	Norway	5.6	8	5.4	8	5.7	79	Brazil	3.5	75	3.1	77	3.9
10	Korea, Rep.	5.6	14	5.1	4	6.0	80	Morocco	3.5	110	2.8	59	4.3
11	Canada	5.4	12	5.2	11	5.6	81	Peru	3.5	88	3.0	72	4.1
12	Luxembourg	5.4	9	5.4	23	5.3	82	Seychelles	3.5	73	3.2	86	3.8
13	Hong Kong SAR	5.3	13	5.2	14	5.5	83	Côte d'Ivoire	3.4	66	3.3	92	3.6
14	Japan	5.3	15	5.1	16	5.5	84	Tunisia	3.4	93	2.9	78	3.9
15	Germany	5.3	10	5.4	30	5.2	85	Egypt	3.4	58	3.4	103	3.5
16	Estonia	5.2	24	4.6	6	5.9	86	Dominican Republic	3.4	68	3.2	94	3.6
17	Denmark	5.2	16	5.1	26	5.3	87	Cape Verde	3.4	77	3.1	89	3.7
18	United Arab Emirates	5.2	26	4.3	2	6.1	88	Trinidad and Tobago	3.4	78	3.1	90	3.7
19	France	5.2	20	4.9	17	5.5	89	Serbia	3.4	79	3.1	93	3.6
20	Taiwan, China	5.2	18	5.0	20	5.4	90	Kuwait	3.4	102	2.9	84	3.9
21	Australia	5.2	23	4.7	9	5.7	91	El Salvador	3.4	106	2.8	80	3.9
22	Iceland	5.1	22	4.8	21	5.4	92	Argentina	3.4	87	3.0	88	3.7
23	Belgium	5.0	19	4.9	31	5.1	93	South Africa	3.4	57	3.4	112	3.3
24	Austria	5.0	21	4.9	29	5.2	94	Jamaica	3.3	76	3.1	97	3.5
25	New Zealand	5.0	25	4.6	19	5.4	95	Guyana	3.3	94	2.9	91	3.7
26	Ireland	5.0	17	5.0	34	5.0	96	Guatemala	3.3	71	3.2	107	3.4
27	Qatar	4.9	28	4.2	10	5.6	97	Albania	3.3	121	2.6	76	4.0
28	Lithuania	4.8	27	4.3	25	5.3	98	Bhutan	3.2	119	2.6	85	3.8
29	Portugal	4.7	31	4.1	24	5.3	99	Tajikistan	3.2	101	2.9	96	3.5
30	Malaysia	4.6	30	4.1	28	5.2	100	Gambia, The	3.2	103	2.9	95	3.5
31	Latvia	4.5	34	4.0	32	5.1	101	Namibia	3.2	98	2.9	100	3.5
32	Bahrain	4.5	48	3.5	13	5.5	102	Iran, Islamic Rep.	3.2	100	2.9	101	3.5
33	Malta	4.5	33	4.0	37	4.9	103	Lebanon	3.2	83	3.1	114	3.3
34	Spain	4.4	35	4.0	39	4.8	104	Lao PDR	3.1	97	2.9	110	3.4
35	Chile	4.4	47	3.5	27	5.2	105	Pakistan	3.1	105	2.8	106	3.4
36	Uruguay	4.4	62	3.4	22	5.4	106	Bolivia	3.1	113	2.7	98	3.5
37	Slovenia	4.3	29	4.1	50	4.5	107	Bangladesh	3.1	104	2.8	108	3.4
38	Saudi Arabia	4.3	40	3.7	36	4.9	108	Botswana	3.1	107	2.8	105	3.4
39	China	4.2	37	3.8	41	4.7	109	Mali	3.1	96	2.9	113	3.3
40	Kazakhstan	4.2	51	3.5	35	4.9	110	Kyrgyz Republic	3.1	114	2.7	104	3.4
41	Russian Federation	4.1	38	3.7	45	4.6	111	Ghana	3.1	117	2.7	99	3.5
42	Costa Rica	4.1	49	3.5	40	4.8	112	Venezuela	3.0	118	2.6	102	3.5
43	Czech Republic	4.1	32	4.1	67	4.2	113	Zambia	3.0	115	2.7	111	3.3
44	Slovak Republic	4.1	41	3.6	47	4.6	114	Nigeria	3.0	90	2.9	123	3.0
45	Panama	4.0	45	3.6	51	4.5	115	Cameroon	3.0	89	2.9	124	3.0
46	Azerbaijan	4.0	50	3.5	48	4.5	116	Mozambique	2.9	112	2.7	117	3.1
47	Hungary	4.0	36	3.8	64	4.2	117	Cambodia	2.9	111	2.7	122	3.0
48	Italy	4.0	39	3.7	62	4.2	118	Paraguay	2.9	109	2.8	125	3.0
49	Sri Lanka	4.0	70	3.2	42	4.7	119	Ethiopia	2.9	131	2.4	109	3.4
50	Kenya	3.9	54	3.4	52	4.5	120	Uganda	2.9	120	2.6	118	3.1
51	Jordan	3.9	61	3.4	53	4.4	121	Bosnia and Herzegovina	2.8	123	2.6	119	3.1
52	Colombia	3.9	84	3.1	43	4.7	122	Tanzania	2.8	132	2.4	115	3.3
53	Macedonia, FYR	3.9	55	3.4	55	4.3	123	Benin	2.8	108	2.8	128	2.8
54	Armenia	3.9	56	3.4	56	4.3	124	Zimbabwe	2.8	133	2.3	116	3.2
55	Rwanda	3.9	99	2.9	38	4.8	125	Lesotho	2.7	130	2.4	121	3.1
56	Cyprus	3.9	43	3.6	70	4.1	126	Liberia	2.7	125	2.5	127	2.9
57	Montenegro	3.8	52	3.5	63	4.2	127	Madagascar	2.7	126	2.5	126	2.9
58	Turkey	3.8	67	3.2	54	4.4	128	Nepal	2.7	136	2.3	120	3.1
59	Poland	3.8	44	3.6	74	4.0	129	Algeria	2.6	124	2.6	132	2.7
60	Mongolia	3.8	82	3.1	49	4.5	130	Gabon	2.6	127	2.5	129	2.7
61	Greece	3.8	65	3.3	58	4.3	131	Malawi	2.6	128	2.5	130	2.7
62	Philippines	3.8	60	3.4	66	4.2	132	Nicaragua	2.6	122	2.6	133	2.6
63	Georgia	3.8	91	2.9	44	4.6	133	Mauritania	2.5	116	2.7	134	2.4
64	Croatia	3.8	42	3.6	82	3.9	134	Swaziland	2.5	134	2.3	131	2.7
65	Thailand	3.7	74	3.2	57	4.3	135	Myanmar	2.4	129	2.4	135	2.4
66	Oman	3.7	95	2.9	46	4.6	136	Haiti	2.3	135	2.3	136	2.4
67	Mauritius	3.7	69	3.2	61	4.2	137	Burundi	2.1	137	2.1	138	2.2
68	Bulgaria	3.7	46	3.5	83	3.9	138	Guinea	2.1	139	2.0	137	2.2
69	Ukraine	3.7	59	3.4	75	4.0	139	Chad	2.1	138	2.0	139	2.1
70	Mexico	3.7	64	3.3	71	4.1							

**Figure 11: Best and worst performers and regional performance by NRI pillar**  
Score (1–7)



Notes: The light blue boxes identify the interquartile range—from the 75th to the 25th percentile—for each distribution. Regional groupings follow the IMF classification; IMF “CIS” = “Eurasia.”

The overall improvement in the NRI score masks a diversity of trends across subindexes (Figure 12 on page 22). Most importantly, there is a clear positive trend both in terms of Usage and Impact across regions. The regulatory and innovation environment is perceived to be improving as well, but although this improvement has been large in Eurasia, it is almost negligible in Latin America and the Caribbean, where regulatory reforms seem to have come to a standstill in many countries. Performance in terms of Readiness is mostly stagnant, with large intertemporal fluctuations driven by changes in affordability and sluggish improvements in skills and infrastructure, where investments have not been enough to keep up with the pace of increase in Usage. Affordability remains a barrier to ICT adoption and use in sub-Saharan Africa, and indeed this barrier seems to be growing.

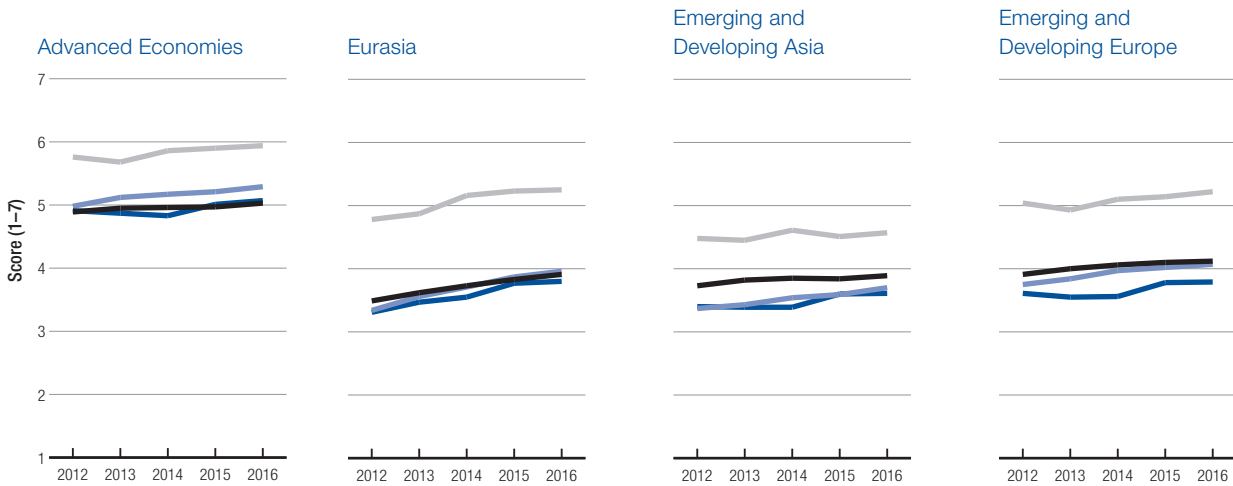
The distribution of scores across the 10 pillars shows interesting patterns (Figure 11) and provides further support for the findings outlined above. Infrastructure and individual usage are the two areas with the largest dispersion of performance across countries, with advanced economies leading the way and sub-Saharan Africa still behind other regions—although certain countries in the region are pushing ahead (see the Country/Economy Profiles). Countries’ scores in business usage and economic impact is most skewed toward the lower end of the distribution, with the average performance of advanced economies placed well ahead that of the rest of the world and that of the best performers (Switzerland and Finland,

respectively) having the largest gap from the upper end of the interquartile range. This confirms that businesses in only a few economies are leveraging ICTs at their full potential and reaping the resulting strong economic impact. As in previous years, affordability is the only area where advanced economies as a whole are not the best-performing group (note that while “affordability” indicators capture prices without quality adjustments, it is ultimately the price that poses the entry barrier for the poorest and not the quality-adjusted price). The advanced economies are preceded in this regard by the group of Eurasian countries, and Pakistan is the market with the lowest price points. Sub-Saharan Africa is at this moment still the lowest-scoring region, with the notable exception of the perceived political and regulatory environment, where the region follows advanced economies and MENAP countries and precedes Emerging and Developing Asia, Emerging and Developing Europe, Eurasia, and Latin America and the Caribbean. In terms of best performers, Luxembourg replaces New Zealand this year as having the best political and regulatory environment, and Finland has been topped by Singapore as the country with the best skillset.

Overall, and as was explored in detail in the 2015 edition of this *Report*, the digital divide is still wide, yet progress is being made. In particular, several initiatives have been formed to tackle this gap, including the World Economic Forum’s Internet for All initiative, which aims to help connect the 4 billion people who are not yet online (see Box 5).

**Figure 12: Trends at the subindex level, 2012–16**

Score (1–7)



Source: NRI, 2012–2016 editions.

### Top 10 NRI performers

The composition of the group of top 10 performers is unchanged from last year. The group consists of a mix of high-income Southeast Asian (Singapore and Japan) and European countries (Finland, Sweden, Norway, the Netherlands, Switzerland, the United Kingdom, and Luxembourg) as well as the United States. Networked readiness therefore remains highly correlated with per capita income.

**1. Singapore** tops the Index this year, defending its number 1 position. Its outstanding performance is underlined by the fact that it ranks 1st in the world in three of the four subindexes (Environment, Usage, and Impact), driven by top spots on several pillars: political and regulatory environment (2nd), business and innovation environment (1st), skills (1st), government usage (1st), and social impact (1st). Overall, this ranking is to a large extent the result of strong government commitment to the digital agenda, including its Smart Nation program. The drop in the Readiness subindex to 16th place is largely explained by a drop in the affordability of broadband, although the price points of broadband packages may hide quality differences (i.e., a price increase may come with a quality increase). Singapore currently has an offline population of 18 percent, potentially explained by its demographics, and the country is still out of the top 10 for individual usage (12th) and business adoption (14th). Nevertheless, gains from ICT adoption are widely shared in Singapore, as the country tops the Social impacts pillar, making excellent use of digital technologies to provide access to basic and government services and ensuring that schools are connected.

**2. Finland** stays in 2nd place with an unchanged overall score, but sees some slight rank drops for the Environment, Usage, and Impact subindexes. The

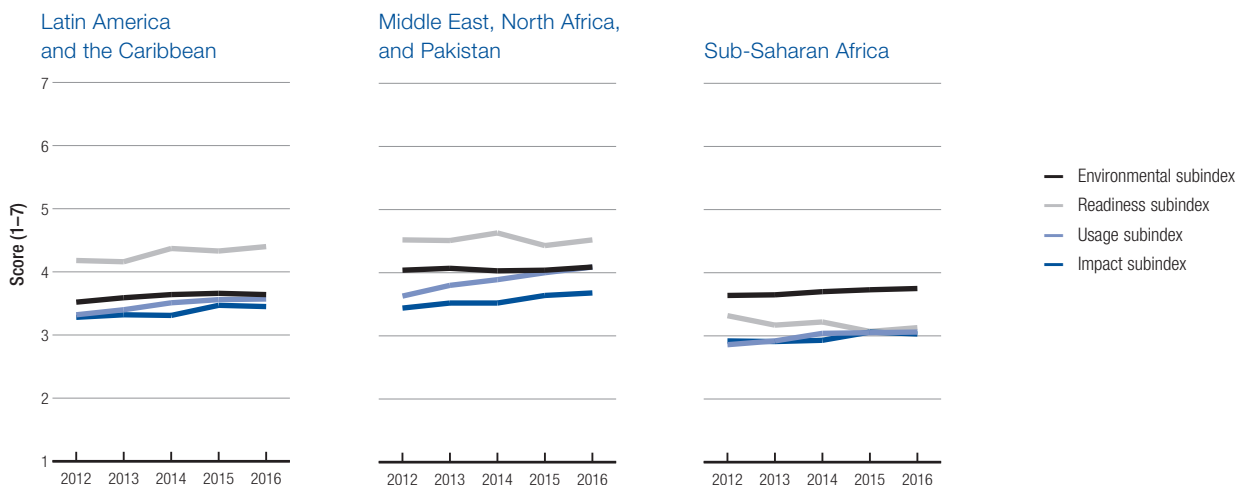
country tops the rankings in the Readiness subindex.

This is the result of high scores in particular in the infrastructure (3rd) and skills pillars (2nd); in addition, affordability is very good (13th), although Finland is one of several countries that sees broadband prices increase significantly this year (51st, down from 39th in 2015). There is currently room for improvement in particular in the business and innovation environment, where Finland ranks 9th. With 14 days to start a business, the country comes in only at a low 81st place in this particular indicator; as pressure for firms to bring products to market quickly is increasing, these types of framework conditions matter more than ever. That said, Finland has extremely good access to the latest technologies (1st) as well as venture capital (6th), and its businesses are highly connected (5th on business usage). These factors are all important in helping Finland achieve its top global rank in economic impacts. The government is currently perceived as playing a less proactive role in promoting ICTs than in the past (21st place, down from 10th in 2013): indicators are dropping for government procurement of advanced technologies, importance of ICTs to government vision, government success in ICT promotion, and ICT use to boost government efficiency.

**3. Sweden** keeps its 3rd position in the NRI as scores in all four subindexes remain almost unchanged. Overall, it ranks best in Usage (4th), which derives from very high scores in individual (4th) and business usage (2nd), and notably does very well in Impact (3rd). Businesses are taking advantage of the fact that their consumer base is highly connected, which is reflected in one of the highest rates of B2C interaction globally (4th). Government, on the other hand, is not yet connecting with citizens online to the same extent as business, with a 45th rank for the government E-Participation

**Figure 12: Trends at the subindex level, 2012–16** (cont'd.)

Score (1–7)



Notes: Based on a constant sample of 127 economies. Groupings follow the IMF classification; IMF "CIS" = "Eurasia."

Index. In general, the Swedish government is perceived as less proactive than other advanced economies in their use of digital technologies (23rd for government usage); in particular, business executives feel that it has somewhat been losing sight of the digital agenda (20th for government ICT vision, down from 11th in 2014). Yet the government has been taking steps to improve the overall framework conditions for business: there is visible progress in several areas of the political and regulatory environment and the business and innovation

environment pillars. In particular, Sweden slashes the number of days it takes to start a business from 16 to 7, moving it up 45 places in the ranking in this indicator to 42nd place. Driven to an important extent by the business sector, digital technologies are making themselves felt in terms of economic impact (3rd) and an improvement by four places in social impact to 12th.

**4. Norway** moves up one rank to 4th place, with small but positive score changes in all four subindexes. The country seems to have reached a plateau, with little

### Box 5: The World Economic Forum's Internet for All initiative

Internet for All is one of the core projects of the Forum's Digital Economy and Society System Initiative. As a critical enabler of the Fourth Industrial Revolution, Internet for All focuses on connecting the over 4 billion people not yet connected to the Internet. The project's core objective is to develop scalable, replicable, public-private collaboration models to accelerate Internet access and adoption at the national, regional, and global levels.

In 2015, Internet for All convened stakeholders from various backgrounds to collect successful practice examples for global Internet access and adoption, and to develop a framework in which to accelerate achieving "Internet for all." The framework emphasizes the need for an ecosystem approach to simultaneously address the challenges related to infrastructure, affordability, skills and awareness, and content. The report also includes a checklist, based on the framework, to help policymakers and others assess where their countries currently stand and the kinds of programs to consider. The white paper "Internet for All: A Framework for Accelerating Internet Access and Adoption" can be accessed at [http://www3.weforum.org/docs/WEF\\_Internet\\_for\\_All\\_Framework\\_Accelerating\\_Internet\\_Access\\_Adoption\\_report\\_2016.pdf](http://www3.weforum.org/docs/WEF_Internet_for_All_Framework_Accelerating_Internet_Access_Adoption_report_2016.pdf).

In 2016, Internet for All has two main objectives:

1. To develop new scalable and replicable on-the-ground models of public-private collaboration, in partnership with governments, to accelerate the achievement of the broader social and economic priorities of the country/region in the context of accelerating Internet for all. Programs will be launched initially in up to three countries/regions. The first such program, for Northern Corridor countries in East Africa (Kenya, Rwanda, South Sudan, and Uganda), was launched in May 2016, and additional country program partnership opportunities in Asia and Latin America will also be explored.
2. To develop a physical and digital platform that results in increased coordination and collaboration among the multiple private, bilateral/multilateral, and non-profit organizations involved in catalyzing Internet access and adoption at the global, regional, and country levels.

movement in its total NRI score in recent years. Its digital economy is built on the very solid basis of top regulatory and innovation environments (6th and 7th, respectively) as well as the world's best ICT infrastructure. Although fixed broadband prices are relatively high (71st) there has not been a further increase this year, and with 96.3 percent of the population online (2nd for individuals using the Internet), the high prices do not seem to act as an access barrier. Similar to the situation in Sweden, Norwegian firms are capitalizing on the high ICT literacy among the general population and workforce by using digital technologies heavily in their interactions with consumers as well as among each other (8th and 7th, respectively). There has also been a visible positive move in government usage (importance in vision, success in ICT promotion, and government efficiency), moving the country up six places to the 18th rank in the government usage pillar. Unsurprisingly, these strong digital foundations are reflected in two 8th ranks for the two Impact pillars.

**5. The United States** moves up two ranks overall, continuing a positive trend from 2013 (from 9th place in 2013 to 7th in both 2014 and 2015 to 5th place this year). This is based on improvements in all four subindexes.<sup>24</sup> The United States stands out in terms of its extremely favorable business and innovation environment (3rd), which has given rise to one of the most agile and digitized business sectors globally. The public sector is also using digital technologies effectively to deliver services to citizens (4th on the Government Online Service index) and to facilitate participation (9th on the E-Participation Index). All stakeholders can take advantage of very low broadband prices (ranked 17th), with the cheapest package at US\$16 per month, compared to a global average of US\$52 and an average of US\$26 in high-income countries;<sup>25</sup> however, although international Internet bandwidth per user has been growing steadily in recent years, the race has accelerated such that the United States is slipping from 34rd in 2013 to 42nd this year. The overall impact of digital technologies in the United States is strong (it ranks 7th for both economic and social impacts) and growing, in particular in the social dimension: this year, the United States moves up 15 places to rank 15th in the perceived impact of ICTs on access to basic services.

**6. The Netherlands** drops by two spots in the overall rankings, but remains one of the countries that makes the best use of digital technologies to achieve both economic and, in particular, social impacts (it ranks 6th and 3rd, respectively, in the two pillars and 2nd in the Impact subindex). This is despite high mobile tariffs (105th) and high and rising broadband prices (85th, down from 68th). Other drops at the indicator level can largely be attributed to the fact that, although conditions are stable or even improving slightly in absolute terms, other countries are moving ahead faster. This is true in particular for the business and innovation environment

as well as ICT infrastructure. The Dutch population is one of the most technology savvy and connected in the world (8th for individual usage), an asset that both the government and the business sector are making good use of (3rd for B2C Internet use, 8th for the Government Online Service index, and 1st for the E-Participation index). Businesses are extensively deploying digital technologies to reshape their business and organizational models (4th in both indicators) and basic service providers, whether they are public or private, are working hand-in-hand with the population to facilitate access via their platforms (2nd).

**7. Switzerland** slips by one spot overall to 7th, placing in the top 10 for the Environment, Readiness, and Impact and 12th for Usage subindexes. The country moves up by two places in the innovation environment assessment, largely driven by a jump in perceived availability of venture capital as well as continued high levels of government procurement of advanced technologies; this is against an overall global trend of falling government demand for the latest technologies. However, in general the government has so far been a less avid adopter and promoter of digitization, as reflected in a 43rd place for government usage. Although it is strong in the high-tech procurement market, it seems to be using digital technologies relatively less to interact with citizens. On the other hand, the country remarkably places 1st for business usage, driven by high business technology absorption and innovation capacity and high levels of digital B2B interaction (interestingly, more than with consumers). This in turn has been generating strong economic impact (2nd rank), as reflected also in a steady upward trend in the share of knowledge-intensive jobs (3rd).

**8. The United Kingdom** remains in 8th position, improving slightly in absolute scores on all four subindexes. Improvements at the indicator level are particularly concentrated in the business and innovation environment: perceived venture capital availability, the quality of management schools, and government procurement of advanced technologies have all increased compared to last year, while the number of days and procedures to start a business was reduced. Although infrastructure and individual usage are moving in the right direction, they are not moving fast enough to result in gains in the rankings. Business adoption is high and UK businesses are top in the world in making use of the Internet to interact with their consumers as well as with their production network (1st in B2C, 2nd in B2B). They are also pushing the boundaries in terms of using ICTs to reshape their business and organizational models (ranking 2nd and 1st, respectively). The government is also moving closer to the global frontier in terms of technology use, jumping six places into the top 10 of the government usage pillar.

**9. Luxembourg's** NRI rank stays the same as last year at 9th place, with its overall score continuing its steady upward trend. Improvements at the pillar level



come in three areas: political and regulatory environment and individual usage, moving Luxembourg to 1st and 2nd place in these categories, respectively, and in the area where the country is most behind, affordability: here in particular, a large drop in mobile cellular tariffs moves the country up 14 places in the affordability pillar. Although performance in terms of innovation environment is mixed, good availability of venture capital (8th) and a strong government commitment to procuring advanced technologies (5th) bode well for the commercialization of new ideas. In general government is perceived to play an important role in supporting Luxembourg's digital economy, with business executives attesting to a high importance of ICTs in the government's vision (5th) and its success in ICT promotion (6th). Furthermore, strong framework conditions have been put in place, reflected in the top rank regarding the level of sophistication for ICT related laws (e.g., for e-commerce, digital signatures, and consumer protection). The country also boasts a top infrastructure with top ranks for international bandwidth (1st) and the number of secure servers per capita (3rd).

**10. Japan** remains in 10th place overall, as in 2015, and is able to climb two places to 2nd in the Usage subindex; with business and government usage already among the highest globally (3rd and 7th, respectively), the country moves up two places in individual usage to 11th place. The business and innovation environment is improving visibly with progress in the perceived availability of venture capital, the quality of management schools, and government procurement of advanced technologies; this is the continuation of a strong positive trend, moving the country from 40th place in 2014 to 33rd in 2016 in this particular pillar. Japan also keeps building out its infrastructure, in particular international Internet bandwidth and the number of secure servers. In terms of impact, the country is slightly losing ground, mainly because its peers are moving ahead faster.

### Top movers

**Italy** is among the group of top movers this year, climbing up by 10 places to an overall NRI rank of 45. The most significant driver is a large improvement in terms of both economic and social impacts, putting Italy 18 places ahead in the Impact rankings to 48th. Over the past years, the Italian government has launched a number of policies aiming at improving the provision of online services to its citizens and creating a better environment for start-ups and innovative companies. However, key constraints remain, including the lack of venture capital and the overall political and business environment. Here the country seems to be moving in the right direction, gaining in almost every aspect of the regulatory environment pillar, but it remains far below the global average. Italy is currently doing best in individual usage (37th), followed by business (52nd) and government use (62nd). Yet only a small portion of Italians are connected to fixed broadband:

the number has been historically low but the gap with other advanced economies has only increased in recent years, when subscriptions per 100 people increased by less than 10 percent from 21.9 (28th highest, in 2010) to 23.5 (36th, in 2014). With the private sector currently reorganizing itself and the launch of the 2015 national Digital Agenda, which will unfold in the coming years, the country has an opportunity to close this gap. Going forward, it will be important to capitalize on this positive momentum.

The **Slovak Republic** is one of the two biggest movers in this year's NRI, climbing 12 ranks to 47th place, mainly on the back of reinforced effort from the public sector: although the country ranks fairly low in the regulatory environment (its lowest ranks overall are in this category), it is starting to catch up this year in terms of the effectiveness of law-making bodies, laws relating to ICTs, and judicial independence. Furthermore, the government is perceived to have been more active in procuring advanced technologies as well as putting digital technologies to use to increase government efficiency. This is reflected in large moves compared to last year for these indicators, of 29 and 31 places, respectively (to 89th and 80th). In addition, the business and innovation environment is perceived to be improving markedly in terms of venture capital and tech availability, as well as procedures to start a business. Together with fairly high individual usage (34th), a good level of buy-in from the business sector (48th), and quickly dropping fixed broadband prices, the efforts to embrace the digital economy are starting to pay off: the Slovak Republic is able to improve its ranking in the Impact subindex by 14 places to 44th. This is thanks to better access to basic services as well as firms taking advantage of digital technologies to innovate in terms of organizational and business models.

**Kuwait** is another top mover in the NRI this year, moving up 11 spots to 61st place. This gain is supported by substantial improvements in particular in Readiness, Usage, and Impact. These improvements are very much driven by individuals and businesses. Kuwait is doing very well overall in terms of individual adoption—ranking overall 32nd and very high in individual indicators: mobile coverage (1st), mobile phone subscriptions (2nd), households with personal computers (14th), and mobile broadband subscriptions (2nd)—and is close to attaining a rank in the top half for business adoption. In particular, the country substantially improves its international Internet bandwidth per user, jumping more than 50 places to rank 51st, according to ITU data. All of this is starting to show in terms of economic impacts: Kuwait reports a large perceived improvement in ICT impact on business model innovation this year (although starting from a low base). Although social impact is perceived to have improved less than economic impact, it is worth noting that the social impact of ICTs in Kuwait is perceived to be substantially higher than economic impact (84th for social, 102nd for

economic). This is a good basis on which to build for further improvements, and the government continues on its course to improve the regulatory environment, as it has done over the past year.

Despite an overall mixed performance, **South Africa** makes large strides in the overall NRI rankings to 65th, almost entirely driven by improvements in infrastructure and affordability. South Africa's digital transformation is mostly business driven, as the country notably performs best in business usage (32nd), followed by individual usage (77th), followed by government usage (105th). Although the country is perceived by South African business executives to be performing relatively well in terms of its regulatory and political environment, its innovation and business environment is rated significantly worse and, in addition, shows strong signs of deterioration—especially regarding technology and venture capital availability, government procurement of the latest technologies, and days as well as procedures to start a business. It would be a pity if these developments were to offset investments in infrastructure that have significantly increased international Internet bandwidth and put the country among the top 20 globally on this particular indicator. Furthermore, mobile tariffs have more than halved and broadband tariffs dropped slightly, reducing barriers to adoption also in terms of affordability. In order for impact to start materializing, significantly more buy-in from government will be needed across all areas of vision, promotion, and efficient use.

**Lebanon** is the second biggest mover this year, gaining 11 ranks to land in 88th place in the overall NRI. Importantly, the country is registering substantial positive moves in all four subindexes. In terms of adoption, Lebanon is doing best in individual usage (46th), followed by business usage (97th) and government usage (124th). Most indicators of personal usage have been improving over the past year, with the business sector catching up in its use and adoption of digital technologies; with overall perceived progress in business adoption being slow around the world, this is a positive exception to the trend. Starting from a low level, government indicators are also moving in the right direction: in particular, the regulatory environment is improving in terms of judicial independence, the efficiency of the legal system, and the effectiveness of law-making bodies. Substantial improvements are registered for the impact of ICTs on business models, organizational models, basic services, and government efficiency. Building also on a solid basis in terms of education, skills, and knowledge-intensive jobs, Lebanon has many of the factors in place to continue on this positive trajectory.

**Côte d'Ivoire** stands out as improving in almost every dimension of networked readiness. All but eight indicators go up this year, leaving the country nine places improved in 106th position. The business community reports large gains in the regulatory and

business environment. In particular, strong government efforts to lower entry barriers by slashing the number of days (from 32 to 7 days since 2013) and procedures to start a business (4 steps, down from 10) are noteworthy. Business executives also feel that the government has a strong ICT vision and correspondingly considerable success in ICT promotion (80th place for government usage, up from 114th). In addition, they attest to considerable ICT-driven improvements in government efficiency. As business and individual usage are also growing strongly, the existing infrastructure is starting to be stretched—this is one of the few areas where Côte d'Ivoire is falling behind. Going forward, progress in upgrading infrastructure and tackling affordability seem top priorities for sustaining momentum.

**Ethiopia** moves up 10 spots to 120th place in the NRI, led by the government sector (71st for government usage). Yet the business sector is starting to catch up, moving up 8 spots to 127th, as executives feel innovation capacity in the country is increasing and businesses are starting to explore the use of the Internet to interact with consumers (123rd this year, up from 138th). It will be important that this momentum is not broken by a deteriorating business environment; in particular, setting up a new business seems to be getting tougher, with the required number of days and procedures increasing. The private sector is also still constrained by a very small base of online consumers: only 31 percent of the population had a mobile phone subscription in 2014. Yet, because prices are falling significantly, ICTs will become accessible to a larger part of the population (93rd rank on affordability, up from 113th). In addition, the country has been edging forward on the skills dimension, although a large gap remains to be closed. Importantly, the NRI figures suggest that there have been significant improvements in giving schoolchildren access to the Internet (ranking 96th, up from 115th), an effort that will most certainly pay off in the coming years.

#### Other selected economies

The **Republic of Korea** further improves its score but less than its peers, and thus slips one notch to 13th. The country's political and regulatory environment, historically one of its relative weaknesses, has improved significantly, especially when it comes to the judicial system. Infrastructure has also improved further, allowing Korea to climb to 5th position globally on the back of increased international bandwidth capacity (approximately 50 percent higher) and a further increase in the number of secure servers installed in the country. Digital technologies are fully leveraged in Korea to provide online services to the population (4th) and allowing the participation of citizens in public life and decision-making (1st). With 98.5 percent of households having access to the Internet, Korea has one of the most tech-savvy populations in the world. However, a stronger entrepreneurial spirit will be necessary to bring

innovation out of the large *chaebols* and into the rest of the economy. Although it has increased in recent years, venture capital availability is still low, with most funds being channeled to existing companies rather than start-ups in the seed and early-growth stages.

**Canada** improves its absolute performance but less than its peers, thus sliding down three positions to 14th. The country can rely on one of the best business and innovation environments in the world (4th), where starting a business is easy and quick (ranking 3rd on both time and procedures to start a business). The potential of a highly skilled workforce (11th) remains partially untapped, as individual usage remains relatively low (30th): for example, there are only 54.3 mobile broadband subscriptions per 100 people in Canada (52nd), compared to 102.7 in the United States. Although the government has been quite successful in using digital technologies to provide online services (10th) and allow citizens' e-participation (14th), it has not shown a strong vision for ICTs (49th) nor has it been particularly successful in promoting them (38th). This might change in the future because the government is stepping up efforts to promote innovation policies, which will need to include a strong ICT component. Once an innovation leader in the mobile industry, Canada still relies heavily on mining and medium-technology sectors. Improving businesses' adoption of ICTs (22nd) can be a powerful driver of innovation for the country.

**Germany** drops two spots this year to 15th place, despite a slight improvement in its absolute score. Although businesses operate in a very good regulatory environment (16th), more can be done to support new firms—for example, by reducing further the number of days and procedures required to start a business. Germany's infrastructure and skills base is one of the best in the world, while fixed broadband prices are high and rising. Individual adoption and usage is increasing further, although it is not moving fast enough to move Germany up in the rankings on this dimension. Germany is one of the highest-scoring countries for business usage (6th), yet the government is not yet using digital technologies to their full potential (30th); that said, executives feel that the government is starting to develop a stronger digital vision. A big positive jump is registered this year for the impact of ICTs on access to basic services.

With a stable overall score, **Australia** slips two spots to 18th position. Improvements in terms of Environment (16th, up one) are outweighed by a deterioration of the country's level of Readiness, especially when it comes to affordability (57th), where fixed broadband subscriptions remain particularly expensive (US\$46.7 PPP per month, ranked 100th worldwide). Individual usage has also increased in the country, with mobile broadband subscriptions largely widespread (10th highest penetration in the world) and more common than fixed ones (25th). The Australian government and public sector are among the leaders in the world in providing online services (8th

and allowing citizens' e-participation (7th), but there is room for improvement in the level of businesses' adoption of ICTs (28th), as the country still relies heavily on mining industries. The country's National Innovation and Science Agenda, launched in December 2015, if fully implemented, might help to orient Australia's economy more toward innovation, bridging some of the gaps, especially in venture capital availability (40th worldwide) and the creation of new business models via ICTs (41st).

With an improvement of performance across the board, **France** climbs up two positions to 24th place. Government and businesses are pushing the frontier of networked readiness in the country. France is the global leader in delivering public online services to its citizens and one of the best in terms of allowing their e-participation to the government's decision process (4th). Over the past year, the government has also increased efforts in promoting ICTs and providing a long-term vision for the sector, including a Digital Republic Bill aiming to guide the way in which the ICT revolution will shape French society in the future. French businesses have also stepped up their efforts to leverage ICTs, especially in terms of adopting new organizational models (26th, up 22 positions) and improving B2B transactions (33rd, up 11). The country can rely on a skilled workforce (18th) and on good infrastructure (22nd), allowing, among other things, one of the highest penetrations in the world of fixed broadband (4th). Issues remain especially in the business environment, which has one of the highest taxation rates in the world—62.7 percent—although on a slowly declining trend.

The **United Arab Emirates** continues to lead the Arab world in terms of networked readiness in 26th position. The government is leading the way to greater digital connectivity (2nd in terms of government usage), providing a consistent vision for the sector and achieving success at promoting it (1st on both indicators). Individual usage has also further improved (19th, up one spot) especially in terms of mobile broadband subscriptions and households with Internet access, although other important ICT services are not yet widely available: in 2014, fixed broadband subscriptions were still 11.6 per 100 people. Businesses' adoption of and the economic impacts of ICTs have been improving in recent years, but a gap still exists with most advanced economies in this area. Patent activity, both general and ICT-related, remains relatively low.

**Malaysia's** overall position in the NRI has remained largely stable in recent years, with the country climbing one spot to 31st position in 2016. This strong performance continues to be supported by a government that is fully committed to the digital agenda and that is seen to be ahead of its peers in terms of adopting the latest technologies. With approximately two-thirds of the population online, individual usage is growing further (47th, up 10 spots); in particular, the uptake of mobile broadband has taken

off and reached almost 60 percent. An agile business sector (26th for business usage) is using ICTs to its advantage, interacting with consumers online and re-optimizing business models and organizational structures, thereby contributing to the overall strong performance. An increase in international Internet bandwidth (currently ranked 81st) combined with a drop in broadband prices (110th) would give a further boost to Malaysia's digital economy.

**Saudi Arabia** climbs up two positions to 33rd this year. The government is leading the way to increased networked readiness, promoting ICTs in the country; however, individual usage (21st) and business adoption (42nd) are still lagging behind. Affordability of ICTs (101st) and the general level of skills in the workforce (49th) remain an issue, with only 64 percent of the population using the Internet on a regular basis. Allowing further means of e-participation (51st) might contribute to spurring individual ICT adoption. The business and innovation environment is hampered by one of the most complex and lengthy processes in the world to start a business (125th and 97th, respectively), which reduces access to the market of potential new and innovative competitors. Saudi Arabia remains an oil-based economy, with low patenting activity in both general technology and ICTs. A transition to a more innovation-driven economic model will require improvements in the country's ICT readiness, with a broad-based participation of the population and of the business community in the digital revolution.

The **Russian Federation** remains in 41st place this year, as in 2015. The country places in the top third of the rankings for Readiness, Usage, and Impact, yet continues to be held back by a weak and deteriorating regulatory environment. As mobile and fixed Internet tariffs are very low and dropping further (10th place overall on affordability), individual usage continues to rise in almost every dimension, leaving Russia in 40th place in this category. However, the data suggest that infrastructure build-out is not keeping up with demand as Russia sees its availability of Internet bandwidth per user falling. Although Russia is close to the median in terms of business use overall, online sales to consumers (as opposed to other firms) are particularly strong (35th place). The positive impact of ICTs is felt both in the economic and the social dimensions, as reflected in rankings in the top third for both impact pillars.

**Turkey's** overall ranking and score remains unchanged from last year at 48th place, yet this fact masks strong conflicting movements at the pillar level. With some of the cheaper mobile and fixed Internet tariffs around and improving digital skills in the population, individual usage is broadening further. Yet these positive movements are offset by a deteriorating regulatory and business environment as well as the declining importance of ICTs in the government's vision and promotion. Overall, the negative effects seem to

outweigh the positive ones, with economic impacts and particularly social outcomes suffering. Turkey, however, remains in the top third of the rankings in terms of its business and innovation environment, a good basis from which to push further ahead.

**China** moves up by three places to 59th based on improvements in Usage and Impact. Adoption by individuals has increased, particularly in terms of mobile broadband subscriptions, which nearly doubled in one year from 21.4 to 41.8 per 100 population. Chinese businesses will need to step up their efforts to embrace digital technologies and spur innovative processes for the country to become an innovation-driven, high-income economy. Although patenting activity has increased significantly in recent years, it is still relatively low compared with that of advanced economies, and the full economic and social impacts of ICTs are still in the process of materializing. The business environment remains one of the key bottlenecks (104th): according to World Bank data, China maintains high taxation on businesses (67.8 percent) and has lengthy and complex processes to set up a new business (121st and 120th, respectively), discouraging new and more competitive firms from entering the market. Recognizing the challenge, the government is currently implementing a reform program to streamline business procedures across the country. The full results of these reforms will be reflected in future assessments.

**Colombia** maintains the same score as last year, but slips four ranks to 68th because other countries improved their performances. ICT adoption among the population kept increasing at a fast rate: there were 45.1 mobile broadband subscriptions per 100 people in 2014, up from 25.0 in 2013 and 3.7 in 2011. This increase in individual usage has not been matched by a similar trend among businesses or within the government. The extent of usage of ICTs for B2B and B2C operations as well as for the creation of new business models has been stagnating in past years. The overall political and business environment in the country remains its main weakness, with low effectiveness of law-making bodies (121st) and an inefficient judicial system (1,288 days are required to enforce a contract, ranking 133rd in the world in this indicator). Taxation also remains disproportionately high, at a rate of 69.7 percent (6th highest among the countries in the sample).

**Brazil** comes in at 72nd place this year, partially reversing the strong downward trend of recent years.<sup>26</sup> ICT adoption and usage by both individuals and the business community is good and supported by very good affordability—in particular, cheap fixed broadband Internet connections (14th). Brazil makes large strides in terms of improving individual usage this year, climbing five places to 57th—this is a considerable achievement, given that other countries are also moving quickly on individual adoption. Yet networked readiness in the country continues to be held back by a weak regulatory

environment. The business and innovation environment is also ranked as one of the weakest in the world (124th), with both venture capital availability and government technology procurement falling further. Government support of the ICT agenda is perceived to be weak and the business community sees the government as failing to deliver in terms of incorporating digital technologies in their overall strategy (121st) as well as in the direct promotion of ICT (122nd).

**Indonesia** moves up six spots to 73rd place this year, driven in part by improvements in affordability and an accompanying strong rise in individual usage (92nd, up five spots). In order to capitalize on this positive trend, infrastructure will need to keep up; as the number of users is increasing, the existing infrastructure is starting to be stretched, which has the country dropping seven spots to rank 105th in this particular pillar. Business and government usage are already high at 34th and 65th rank, with a flat trend line for business and one that has been slightly on the decline for government. Although momentum across pillars is somewhat heterogeneous, a recently reformed regulatory (65th) and business environment (64th) provide a good basis for building out the digital economy, as long as recent backward slides for some important indicators are reversed (legislative, legal system, availability of latest technologies, and number of procedures to start a business).

**Mexico** places 76th in the NRI overall this year.<sup>27</sup> Individual usage (84th) is rising further; in particular, mobile broadband subscriptions are becoming increasingly popular and individual usage is thus catching up with business usage (66th) and government usage (52nd). Although government use of ICTs was already considered relatively strong in the 2015 NRI, Mexico moves up 13 places in government ICT vision this year, to 71st; importantly, the government makes good use of ICTs to interact with the population, ranking 35th on the government services index. At the same time, the regulatory environment is perceived to have deteriorated along several lines, such as the efficiency of the legal system in settling disputes (104th) and challenging regulations (102nd). Economic impact is on an upward trajectory and Mexico is edging back on the social impacts ranking, having been overtaken by a significant number of countries between 2014 and 2015.

**Rwanda** climbs three spots this year to 80th position, driven by a government that is very focused on the digital agenda. The government is also making strong efforts to provide a stable regulatory framework, resulting in an improvement of five ranks in the Environment subindex. The private sector is making large strides in terms of adopting digital technologies, moving up 10 places to 60th rank for business usage. Individual adoption is still lagging (127th) as mobile fees and broadband prices remain high; efforts to provide Internet access in schools is an important step in the direction of boosting social gains, providing the next generation with

important digital skills. In general, the social impact of digital technologies is being felt, in particular with regard to giving access to basic services.

**Argentina** continues on its upward trajectory, ranking 89th this year. Weak (though improving) regulatory and innovation environments seem to be the two biggest bottlenecks preventing larger gains from digital technologies. With mobile phone use one of the highest in the world (13th) and an overall solid adoption rate among individuals, businesses are making use of digital technologies to transact with consumers (76th), yet B2B ICT use remains low (120th). There is also much room for greater public-sector adoption of digital technologies: although the Argentinian government seems to be making good use of ICTs to provide services to the population (55th), the business community in 2015 perceived the government as lacking in vision and effort when it comes to ICT promotion. Yet the recent change in government looks ready to bring renewed momentum to the digital agenda. Consistent with previous years, Argentina does not have data in the affordability pillar because of the lack of reliable PPP estimates.

Despite of improvements in its political and regulatory environment (78th, up four) and in its business and innovation environment (110th, up five), **India** slips down two positions to an overall rank of 91. Although India's absolute score has changed only marginally in recent years, the drop can be attributed in part to the fact that other countries are moving ahead at higher speeds. In addition, lack of infrastructure (114th) and low levels of skills among the population (101st) remain the key bottlenecks to widespread ICT adoption, especially in terms of individual usage (120th). A third of the Indian population is still illiterate (95th) and a similar share of youth is not enrolled in secondary education (103rd). Only 15 out of 100 households have access to the Internet and mobile broadband remains a privilege of the few, with only 5.5 subscriptions for every 100 people. This is in spite of the fact that affordability has long been one of the strengths of the Indian ICT ecosystem, with the country ranking 8th this year in this area. A deep divide persists between well-connected metropolitan hubs and remote rural areas, where even the most basic infrastructure is insufficient. In 2015 the government launched the Digital India program, which aims to close this gap by fostering investment in digital infrastructure, improving digital literacy, and increasingly providing online services to citizens. India's performance in terms of providing online services and allowing e-participation has so far been in line with that of peer countries, but far from the global best (57th and 40th, respectively).

Although **Nigeria** did not move overall in the NRI rankings, staying in 119th position, this fact masks significant heterogeneity in terms of moves in individual dimensions of networked readiness—in particular, a six-spot move up in Readiness (to 117th) and a ten-spot

move down in Impacts (to 114th). The improvement in Readiness is to a large extent thanks to Nigeria reaching full mobile coverage this year; broadband prices have also fallen slightly, although they remain high. The political and regulatory environment are perceived to be improving on several fronts, while at the same time the business and innovation environment are perceived as deteriorating. Government usage and engagement is perceived to have dropped significantly over the course of the last year, yet this may change under the new government that came to power in 2015. Overall, conditions for ICT impacts seem to have deteriorated: both economic and social impacts record a decline. A policy priority with far-reaching benefits in other areas should be to address the country's skills gap (134th).

## CONCLUSIONS

The picture that emerges from this year's analysis gives reason for optimism but not for complacency. Although there are still large heterogeneities across countries in terms of networked readiness, the overall trend is positive across all regions of the world.

In particular, individual adoption is growing steadily across the globe as efforts continue to close the digital divide. Business executives are optimistic about their countries' growing innovation capacities, yet the digital innovation impact is so far coming through much more strongly in some countries than in others—the gap between seven digital front runners and the followers is wide. The analysis identifies a high level of business adoption and usage of digital technologies as one of the key characteristics of countries in which ICTs are having a robust economic and digital innovation impact. In most countries, businesses are perceived to be moving at only a moderate pace in truly embracing all dimensions of digitization—in their relations upstream with suppliers and downstream with consumers. This process will need renewed momentum if firms are hoping to thrive in the Fourth Industrial Revolution.

Although government use and promotion of ICTs has recently started to fall short of expectations across regions, a number of countries are making large strides in the Index thanks to a strong government ICT vision and engagement in the digital economy. Overall, governments can do more to drive the social impact of digital technologies—for example, by using them to make basic government services more accessible. As technologies are rapidly evolving and can be expected to have a profound impact on our economies and societies, new governance structures will also urgently need to be put in place in order to channel technological forces in ways that bring broad-based gains to societies.

## NOTES

1 Varian 2010.

2 Owen et al. 2012.

- 3 For instance, the prevalence of Internet in schools would ideally be measured by computing the percentage of a country's schools that have Internet access. Similarly, the intensity of competition would ideally be measured by computing a business concentration index (Herfindahl–Hirschman Index). In both cases, however, such statistics are not available for enough countries.
- 4 Eurostat and OECD 2005, p. 46; cited in Dutta et al. 2015.
- 5 Varian 2010.
- 6 For additional detailed case study evidence, see <http://reports.weforum.org/digital-transformation-of-industries/go-to-the-case-studies/>.
- 7 Mettler and Williams 2011, pp. 26–27.
- 8 Positive network effects arise from the fact that a larger number of participants will lead to better and more frequent matches, which in turn means higher value creation, making it more attractive still for new participants to join.
- 9 Fox 2014.
- 10 Christensen 2012.
- 11 The change in the mean of the score distribution from 2015 to 2016 is positive and significantly different from zero at the 10 percent level.
- 12 BCG 2015. In addition, the following factors are often cited as critical for innovation in the Digital Age: capitalizing on the Internet of Things, high-quality broadband, increasing automation and autonomy of production, a tech savvy and experimenting/risk-loving customer base, availability of venture capital, and a government that puts in place rules that inspire trust in the system (World Economic Forum/Accenture, 2016).
- 13 See INSEAD's Global Talent Competitiveness Index, which in its 2017 edition will focus on technology and talent: <http://global-indices.insead.edu/gtci/>.
- 14 Fox 2014.
- 15 Autor 2010.
- 16 World Economic Forum 2016b.
- 17 Sundararajan 2016.
- 18 For example, these principles are embedded in the Europe 2020 strategy to create smart growth and the Horizon 2020 program that defines tackling societal challenges as one of the main priorities; see also, for example, Owen et al. 2012.
- 19 von Schomberg 2011.
- 20 Lund Declaration 2009.
- 21 European Commission 2012.
- 22 See the European Union's Founding Principles of the Union, available at [http://europa.eu/scadplus/constitution/objectives\\_en.htm](http://europa.eu/scadplus/constitution/objectives_en.htm).
- 23 United Nations 2000.
- 24 Note that the improvement in readiness is largely the result of a large drop in fixed broadband tariffs; this drop occurred between 2014 and 2015, yet was not reflected in the data collected for the 2015 edition of the NRI. The price correction was made by the ITU after the publication of the NRI in 2015.
- 25 ITU 2015.
- 26 Although there has been an upward movement in the NRI rankings for Brazil this year, this is to some extent the result of a reinstatement of indicator 2.07 (tertiary education enrollment rate), which was not available last year.
- 27 Note that Mexico is seeing a deterioration in its assessment of Readiness this year because of the way in which the pricing of broadband access is captured. The ITU reports the price of the cheapest package provided by the market leader. The reported price increase came at the same time as an increase in broadband speed included in the package, so it can to some extent be attributed to an increase in quality; nevertheless, accessibility is reduced, which is what the rank move reflects.

## REFERENCES

- Autor, D. 2010. *The Polarization of Job Opportunities in the U.S. Labor Market: Implications for Employment and Earnings*. Washington, DC: Center for American Progress and The Hamilton Project.
- BCG (The Boston Consulting Group). 2015. "The Most Innovative Companies 2015: Four Factors that Differentiate Leaders." Available at <https://www.bcgperspectives.com/most-innovative-companies-2015/>.
- Browne, C., A. Di Battista, T. Geiger, and T. Gutknecht. 2015. "The Executive Opinion Survey: The Voice of the Business Community." In *The Global Competitiveness Report 2015–2016*. K. Schwab, editor. Geneva: World Economic Forum. 75–85.
- Christensen, C. 2012. "A Capitalist's Dilemma, Whoever Wins on Tuesday." *The New York Times*, November 3. Available at <http://www.nytimes.com/2012/11/04/business/a-capitalists-dilemma-whoever-becomes-president.html?ref=business&r=3>.
- Dutta, S. B. Lanvin, and S. Wunsch-Vincent, eds. 2015. *The Global Innovation Index 2015: Effective Innovation Policies for Development*. Ithaca, Fontainebleau, and Geneva: Cornell University, INSEAD, and WIPO.
- European Commission. 2012. *Ethical and Regulatory Challenges to Science and Research Policy at the Global Level*. Brussels: European Commission. Available at [http://ec.europa.eu/research/science-society/document\\_library/pdf\\_06/ethical-and-regulatory-challenges-042012\\_en.pdf](http://ec.europa.eu/research/science-society/document_library/pdf_06/ethical-and-regulatory-challenges-042012_en.pdf).
- European Union. No date. "The Founding Principles of the Union." Available at [http://europa.eu/scadplus/constitution/objectives\\_en.htm](http://europa.eu/scadplus/constitution/objectives_en.htm).
- Eurostat and OECD (Organisation for Economic Co-operation and Development). 2005. *Oslo Manual: Guidelines for Collecting and Interpreting Innovation Data*, 3rd edition. Paris: OECD.
- Fox, J. 2014. "What Still Makes Silicon Valley So Special." *Harvard Business Review*, December 5. Available at <https://hbr.org/2014/12/what-still-makes-silicon-valley-so-special>.
- ITU (International Telecommunication Union). 2015. "ICT Facts & Figures: The World in 2015." *Policy Note*. Geneva: ITU.
- Lanvin, B. and P. Evans. 2016. *The Global Talent Competitiveness Index*. Fontainebleau: INSEAD.
- Lund Declaration. 2009. *New Worlds: New Solutions: Research and Innovation as a Basis for Developing Europe in a Global Context*. Final Report. The Swedish EU Presidency Conference. Lund, Sweden, July 7–8, 2009. Available at [https://www.vr.se/download/18.29b9c5ae1268d01cd5c8000631/New\\_Worlds\\_New\\_Solutions\\_Report.pdf](https://www.vr.se/download/18.29b9c5ae1268d01cd5c8000631/New_Worlds_New_Solutions_Report.pdf).
- Mettler, A. and A. D. Williams. 2011. *The Rise of the Micro-Multinational: How Freelancers and Technology-Savvy Startups are Driving Growth, Jobs and Innovation*. Brussels: The Lisbon Council.
- Owen, R., P. M. Macnaghten, and J. Stilgoe. 2012. "Responsible Research and Innovation: From Science in Society to Science for Society, with Society." *Science and Public Policy* 39 (6): 751–60. doi:10.1093/scipol/scs093. Available at <http://spp.oxfordjournals.org/content/39/6/751>.
- Prasad, B. 1997. "Analysis of Pricing Strategies for New Product Introduction." *Pricing Strategy and Practice* 5 (4): 132–41.
- Roland Berger Strategy Consultants. 2012. *Mastering Product Complexity*. Available at [https://www.rolandberger.de/media/pdf/Roland\\_Berger\\_Master\\_product\\_complexity\\_20121108.pdf](https://www.rolandberger.de/media/pdf/Roland_Berger_Master_product_complexity_20121108.pdf).
- . 2015. *The Digital Transformation of Industry*. Available at [http://www.rolandberger.com/media/pdf/Roland\\_Berger\\_digital\\_transformation\\_of\\_industry\\_20150315.pdf](http://www.rolandberger.com/media/pdf/Roland_Berger_digital_transformation_of_industry_20150315.pdf).
- Schwab, K. 2016. *The Fourth Industrial Revolution*. Geneva: World Economic Forum.
- Sundararajan, A. 2016. *The Sharing Economy: The End of Employment and the Rise of Crowd-Based Capitalism*. Cambridge, MA: MIT Press.
- United Nations. 2000. The Ten Principles of the UN Global Compact. Available at <https://www.unglobalcompact.org/what-is-gc/mission/principles>.
- United States Department of Labor, Bureau of Labor Statistics. 2015. "Industry Employment and Output Projections to 2024." *Monthly Labor Review*, December. Available at <http://www.bls.gov/opub/mlr/2015/article/industry-employment-and-output-projections-to-2024.htm>.
- Varian, H. 2010. "Computer-Mediated Transactions." *American Economic Review* 100 (2): 1–10.
- Varian, H., J. Farrell, and C. Shapiro. 2004. *The Economics of Information Technology: An Introduction*. Cambridge, UK; The Raffaele Mattioli Lectures, Cambridge University Press.
- von Schomberg, R. 2011. "Prospects for Technology Assessment in a Framework of Responsible Research and Innovation." In *Technikfolgen abschätzen lehren: Bildungspotenziale transdisziplinärer Methoden*, eds. M. Dusseldorp and R. Beecroft. Wiesbaden: Vs Verlag.
- WIPO (World Intellectual Property Organization). 2015. *World Intellectual Property Indicators 2015*. Geneva: WIPO.
- World Bank. 2016. *World Development Report 2016: Digital Dividends*. Washington, DC: World Bank.
- World Economic Forum, Global Agenda Council on the Economics of Innovation. 2016. "Key Findings: Leading Indicators of Innovation Index." White Paper. Available at [http://www3.weforum.org/docs/WEF\\_GAC\\_on\\_Economics\\_Innovation.pdf](http://www3.weforum.org/docs/WEF_GAC_on_Economics_Innovation.pdf).
- World Economic Forum. No date. *A Call for Agile Governance Principles*. Available at [http://www3.weforum.org/docs/IP/2016/ICT/Agile\\_Governance\\_Summary.pdf](http://www3.weforum.org/docs/IP/2016/ICT/Agile_Governance_Summary.pdf).
- . 2016a. "Digital Transformation of Industries: Digital Enterprise." World Economic Forum White Paper, in collaboration with Accenture. Geneva: World Economic Forum. Available at <http://reports.weforum.org/digital-transformation-of-industries/wp-content/blogs.dir/94/mp/files/pages/files/digital-enterprise-narrative-final-january-2016.pdf>.
- . 2016b. *The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*. Geneva: World Economic Forum. Available at <http://reports.weforum.org/future-of-jobs-2016/>.
- . 2016c. "Global Agenda Council on Media, Entertainment and Information, Digital Media Readiness Framework." World Economic Forum White Paper. Geneva: World Economic Forum. Available at [http://www3.weforum.org/docs/WEF\\_WhitePaper\\_GAC\\_Digital\\_Media\\_Readiness\\_Framework.pdf..](http://www3.weforum.org/docs/WEF_WhitePaper_GAC_Digital_Media_Readiness_Framework.pdf..)
- . 2016d. "Internet for All: A Framework for Accelerating Internet Access and Adoption." World Economic Forum White Paper. Geneva: World Economic Forum. Available at [http://www3.weforum.org/docs/WEF\\_WhitePaper\\_GAC\\_Digital\\_Media\\_Readiness\\_Framework.pdf](http://www3.weforum.org/docs/WEF_WhitePaper_GAC_Digital_Media_Readiness_Framework.pdf).
- . 2016e. *Social Innovation: A Guide to Achieving Corporate and Societal Value*, prepared in collaboration with Oliver Wyman. Geneva: World Economic Forum. [http://www3.weforum.org/docs/WEF\\_Social\\_Innovation\\_Guide.pdf](http://www3.weforum.org/docs/WEF_Social_Innovation_Guide.pdf).





## Appendix:

# The Networked Readiness Index framework: A methodological note

The *Global Information Technology Report* series and the Networked Readiness Index (NRI) were launched by the World Economic Forum in 2001. This represented one of the first attempts to make conceptual sense of the complex information and communication technologies (ICT) reality, identifying the common factors that enable countries to use technology effectively. The networked readiness framework that underpins the NRI was intended to provide guidance for policymakers and civil society on the factors that they need to take into account to fully leverage ICTs in their growth strategies.

The economic literature has largely established the fundamental role of innovation in boosting long-term productivity and growth. Although networked readiness represents only one ingredient in the innovation process, it has become an increasingly important one. Several studies have established the link between ICTs and productivity gains, especially in advanced economies.<sup>1</sup> This will be particularly important in the next decades as the Fourth Industrial Revolution transforms the way economies work and the way societies organize themselves.

The impact of ICTs on our lives goes well beyond their effects on productivity and growth; they also act as a vector of social development and transformation. ICTs can improve access to basic services, enhance connectivity, and create new employment opportunities. Ultimately, ICTs hold significant potential to improve the quality of people's lives and to enhance the way they live, communicate, interact, and engage among themselves and with their governments.

In recent years, the emphasis has moved from the issue of ensuring access to the question of how to make the best use of ICTs in order to improve business innovation, governance, citizens' political participation, and social cohesion. In light of this shift in emphasis, and after two years of research and consultations with experts, the Impact subindex was added to the NRI framework in 2012.<sup>2</sup> Yet there is still room to improve the way we measure the actual impact of ICTs because the availability of data remains limited to only some of the relevant areas of impact. In addition, the complex relationships between ICTs and socioeconomic performance are not fully understood and their causality

not fully established. However, our hope is to highlight the opportunities offered by ICTs and provide an indication of the ways they are transforming economies and societies around the world.

The networked readiness framework, briefly outlined in the chapter, rests on six principles:

- A high-quality regulatory and business environment is critical in order to fully leverage ICTs and generate impact.
- Similarly, ICT readiness—as measured by ICT affordability, skills, and infrastructure—is a pre-condition to generating impact.
- Fully leveraging ICTs requires a society-wide effort. All stakeholders—the government, the business sector, and the population at large—have a role to play.
- ICT use should not be an end in itself. The impact that ICTs actually have on the economy and society is what ultimately matters.
- The set of drivers—the environment, readiness, and use—interact, co-evolve, and reinforce each other to create greater impact. In turn, greater impact creates more incentives for countries to further improve their framework conditions, their readiness for ICTs, and their use of ICTs, thus creating a virtuous cycle. Conversely, weaknesses in any particular dimension are likely to hinder progress in others.
- Finally, the networked readiness framework should provide clear policy guidance.

### STRUCTURE OF THE NETWORKED READINESS INDEX

The networked readiness framework translates into the NRI, a composite index made up of four main categories (*subindexes*), 10 subcategories (*pillars*), and 53 individual indicators distributed across the different pillars. The full list of indicators, grouped by pillars and subindexes, is provided below.

In this list, the number preceding the period indicates the pillar to which the variable belongs (e.g.,

indicator 2.05 belongs to the 2nd pillar; indicator 8.03 belongs to the 8th pillar). The numbering of the indicators matches the numbering of the data tables at the end of the *Report*.

The computation of the NRI is based on successive aggregations of scores, from the indicator level (i.e., the most disaggregated level) to the overall NRI score (i.e., the highest level). Scores for indicators derived from the World Economic Forum's Executive Opinion Survey (the Survey) are always measured on a 1-to-7 scale and therefore do not require transformation prior to aggregation. These are identified in the list of indicators by an asterisk (\*). All the other indicators come from external sources, as described in the Technical Notes and Sources section at the end of the *Report*. In order to align them with the Survey's results, we apply a min-max transformation, transforming them into a 1-to-7 scale.<sup>3</sup>

Unless noted otherwise, we use an arithmetic mean to aggregate individual indicators within each pillar and also for higher aggregation levels (i.e., pillars and subindexes).<sup>4</sup>

Throughout the *Report*, scores in the various dimensions of the NRI pillars are reported with a precision of one decimal point. However, exact figures are always used at every step of the computation of the NRI.

A description of each subindex and pillar are provided below, along with the rationale for their inclusion.<sup>10</sup>

### Environment subindex

The success of a country in leveraging ICTs depends in part on the quality of the overall operating environment. The *Environment* subindex therefore assesses the extent to which a country's market conditions and regulatory framework support entrepreneurship, innovation, and ICT development.

The *Political and regulatory environment* pillar (nine indicators) assesses the extent to which a country's political and regulatory environments facilitate ICT penetration and the development of business activities. It does so by measuring the extent of intellectual property rights protection, the prevalence of software piracy, the efficiency and independence of the judiciary, the efficiency of the law-making process, and the overall quality of regulations pertaining to ICTs.

The *Business and innovation environment* pillar (nine indicators) gauges the extent to which the business environment supports entrepreneurship by taking into account measures of red tape, the ease of starting a business, and taxation. It also measures the conditions that allow innovation to flourish by including indicators on the overall availability of technology, the intensity of competition, the demand conditions for innovative products (as proxied by the development of government procurement of advanced technology products), and the availability of venture capital for funding innovation-related projects.

### Readiness subindex

The *Readiness* subindex measures the extent to which a country has in place the infrastructure and other factors to support the uptake of ICTs.

The *Infrastructure* pillar (four indicators) captures the state of a country's ICT infrastructure as well as infrastructure that matters for ICT development: mobile network coverage, international Internet bandwidth, secure Internet servers, and electricity production. The *Affordability* pillar (three indicators) assesses the affordability of ICTs in a country through measures of mobile telephony usage costs and broadband Internet subscription costs, as well as an indicator that assesses the state of liberalization in 17 categories of ICT services, because more intense competition tends to reduce retail prices in the long run.

The *Skills* pillar (four indicators) measures the capacity of the population to make effective use of ICTs by taking into account the enrollment rate in secondary education, the overall quality of the education system, and of mathematics and science education in particular, and the adult literacy rate.

### Usage subindex

The *Usage* subindex assesses the level of ICT adoption by a society's main stakeholders: government, businesses, and individuals.

The *Individual usage* pillar (seven indicators) measures the level of diffusion of selected ICTs among a country's population, using mobile telephony penetration, Internet usage, personal computer ownership, and the use of social networks.

The *Business usage* pillar (six indicators) captures the extent to which businesses in a country use the Internet for business-to-business (B2B) and business-to-consumer (B2C) operations, as well as their efforts to integrate ICTs in their operations. It also measures the capacity of firms to come up with new technologies by taking into account the number of patent applications under the Patent Cooperation Treaty (PCT). Finally, it measures the extent of staff training as a proxy for the capacity of management and staff to innovate.

The *Government usage* pillar (three indicators) assesses the leadership and success of the government in developing and implementing strategies for ICT development, as well as in using ICTs, as measured by the availability and quality of government online services.

### Impact subindex

The *Impact* subindex gauges the broad economic and social impacts accruing from ICTs.

The *Economic impacts* pillar (four indicators) measures the effect of ICTs on competitiveness through technological and non-technological innovations in a country—as measured by the number of patent applications as well as by the

## NETWORKED READINESS INDEX 2016

### Networked Readiness

- Index = 1/4 Environment subindex
- + 1/4 Readiness subindex
- + 1/4 Usage subindex
- + 1/4 Impact subindex

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### ENVIRONMENT SUBINDEX

- Environment subindex = 1/2 Political and regulatory environment
- + 1/2 Business and innovation environment

#### 1st pillar: Political and regulatory environment

- 1.01 Effectiveness of law-making bodies\*
- 1.02 Laws relating to ICTs\*
- 1.03 Judicial independence\*
- 1.04 Efficiency of legal system in settling disputes<sup>5</sup>
- 1.05 Efficiency of legal system in challenging regulations<sup>5</sup>
- 1.06 Intellectual property protection\*
- 1.07 Software piracy rate, % software installed
- 1.08 Number of procedures to enforce a contract<sup>6</sup>
- 1.09 Number of days to enforce a contract<sup>6</sup>

#### 2nd pillar: Business and innovation environment

- 2.01 Availability of latest technologies\*
- 2.02 Venture capital availability\*
- 2.03 Total tax rate, % profits
- 2.04 Number of days to start a business<sup>7</sup>
- 2.05 Number of procedures to start a business<sup>7</sup>
- 2.06 Intensity of local competition\*
- 2.07 Tertiary education gross enrollment rate, %
- 2.08 Quality of management schools\*
- 2.09 Government procurement of advanced technology products\*

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### READINESS SUBINDEX

- Readiness subindex = 1/3 Infrastructure
- + 1/3 Affordability
- + 1/3 Skills

#### 3rd pillar: Infrastructure

- 3.01 Electricity production, kWh/capita
- 3.02 Mobile network coverage, % population
- 3.03 International Internet bandwidth, kb/s per user
- 3.04 Secure Internet servers per million population

#### 4th pillar: Affordability<sup>8</sup>

- 4.01 Prepaid mobile cellular tariffs, PPP \$/min.
- 4.02 Fixed broadband Internet tariffs, PPP \$/month
- 4.03 Internet and telephony sectors competition index, 0–2 (best)

#### 5th pillar: Skills

- 5.01 Quality of education system\*
- 5.02 Quality of math and science education\*
- 5.03 Secondary education gross enrollment rate, %
- 5.04 Adult literacy rate, %

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### USAGE SUBINDEX

- Usage subindex = 1/3 Individual usage
- + 1/3 Business usage
- + 1/3 Government usage

#### 6th pillar: Individual usage

- 6.01 Mobile phone subscriptions per 100 population
- 6.02 Percentage of individuals using the Internet
- 6.03 Percentage of households with computer
- 6.04 Households with Internet access, %
- 6.05 Fixed broadband Internet subscriptions per 100 population
- 6.06 Mobile broadband Internet subscriptions per 100 population
- 6.07 Use of virtual social networks\*

#### 7th pillar: Business usage

- 7.01 Firm-level technology absorption\*
- 7.02 Capacity for innovation\*
- 7.03 PCT patent applications per million population
- 7.04 ICT use for business-to-business transactions<sup>9</sup>
- 7.05 Business-to-consumer Internet use<sup>9</sup>
- 7.06 Extent of staff training\*

#### 8th pillar: Government usage

- 8.01 Importance of ICTs to government vision\*
- 8.02 Government Online Service Index, 0–1 (best)
- 8.03 Government success in ICT promotion\*

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### IMPACT SUBINDEX

- Impact subindex = 1/2 Economic impacts
- + 1/2 Social impacts

#### 9th pillar: Economic impacts

- 9.01 Impact of ICTs on business models\*
- 9.02 ICT PCT patent applications per million population
- 9.03 Impact of ICTs on organizational models\*
- 9.04 Knowledge intensive jobs, % workforce

#### 10th pillar: Social impacts

- 10.01 Impact of ICTs on access to basic services\*
- 10.02 Internet access in schools\*
- 10.03 ICT use and government efficiency\*
- 10.04 E-Participation Index, 0–1 (best)

role of ICTs in the development of new products, processes, and organizational models. It also measures the overall shift of an economy toward more knowledge-intensive activities.

The *Social impacts* pillar (four indicators) aims to assess a country's societal progress brought about or enhanced by the use of ICTs. Such progress includes—but is not limited to—access to education and healthcare, energy savings, and more-active civil participation. Currently, because of data limitations, this pillar focuses on assessing the extent to which ICTs allow access to basic services (education, financial services, and healthcare); the use of the Internet at school, as a proxy for the potential benefits that are associated with the use of ICTs in education; the impact of ICTs on government efficiency; and the quality and usefulness of information and services provided by a country for the purpose of engaging its citizens in public policymaking through the use of e-government programs.

Measuring the impacts of ICTs remains a complex task, and the development of rigorous, international comparable statistics is still in its infancy. As a result, many of the areas where ICTs have a significant impact—especially those where the impact does not translate directly into commercial activities, as is the case in environment, healthcare, and education—are not captured in the NRI. Therefore the Impact subindex should be regarded as work in progress.

## METHODOLOGY AND DATA

The structure of the NRI is unchanged from the previous edition.

About half of the 53 individual indicators used in the NRI are sourced from international organizations. The main providers are the International Telecommunication Union (ITU); the World Bank; the United Nations Educational, Scientific and Cultural Organization (UNESCO); and other UN agencies. Carefully chosen alternative data sources, including national sources, are used to fill data gaps in certain cases. The other half of the NRI indicators are derived from the World Economic Forum's annual Survey. The Survey is used to measure concepts that are qualitative in nature or for which internationally comparable statistics are not available for enough countries.<sup>11</sup>

The Survey is administered annually to over 14,000 business executives in all the economies included in the NRI (see Browne et al. 2015 for more details). The Survey represents a unique source of insight into many critical aspects related to a country's enabling environment, such as the extent of red tape and the degree of intellectual property protection; aspects related to the preparedness of its population, such as the quality of the education system; to ICT usage, such as its capacity to innovate and the importance of its government's vision

for ICTs; and to ICT impacts, such as the contribution of ICTs to the development of new products and services and to improving access to basic services.

Some of the indicators composing the Index are subject to significant changes in value from one year to the next. In particular, the two price measures (indicators 4.01 and 4.02) used to calculate the affordability pillar score can reflect changes in both the benchmarks used by the ITU and in the Purchasing Power Parity (PPP) estimates sourced from the World Bank. Although there have been no changes to the PPP methodology this year (the conversion factor used is still based on the International Comparison Program 2011),<sup>12</sup> figures for the costs in local currencies of four different services provided by the ITU have changed significantly for some countries.

For two indicators, the number of missing data points remains very high. Indicators 1.07 *Software piracy rate* and 9.04 *Share of workforce employed in knowledge-intensive jobs* are missing data for 35 and 29 economies, respectively, and were not included the calculation for those economies. For each of the other 53 indicators of the NRI, the number of missing data points does not exceed four. In addition, in the absence of data on the adult literacy rate (indicator 5.04) for as many as 22 Organisation for Economic Co-operation and Development (OECD) member countries and Hong Kong SAR, a value of 99 percent was assumed for the purpose of calculating the Skills pillar score.

## COUNTRY COVERAGE

The inclusion of an economy depends on the availability and quality of indicators. To be included in the NRI, the number of missing (or outdated) data points for an economy cannot reach five, or 10 percent of all indicators. Because almost half of the indicators entering the NRI are derived from the Executive Opinion Survey, which is the basis for the Global Competitiveness Report (GCR), the coverage of a country in the GCR is a necessary—but not a sufficient—condition for a country's inclusion in the NRI.

## NOTES

- 1 Draca et al. 2006; Cardona et al. 2013.
- 2 Dutta et al. 2012.
- 3 Formally, we have:

$$6 \times \left( \frac{\text{country score} - \text{sample minimum}}{\text{sample maximum} - \text{sample minimum}} \right) + 1$$

The *sample minimum* and *sample maximum* are, respectively, the lowest and highest country scores in the sample of economies covered by the GCI. In some instances, adjustments were made to account for extreme outliers. For those indicators for which a higher value indicates a worse outcome (i.e., indicators 1.07, 1.08, 1.09, 2.03, 2.04, 2.05, 4.01, and 4.02), the transformation formula takes the following form, thus ensuring that 1 and 7 still corresponds to the worst and best possible outcomes, respectively:

$$-6 \times \left( \frac{\text{country score} - \text{sample minimum}}{\text{sample maximum} - \text{sample minimum}} \right) + 7$$

- 4 Formally, for a category  $i$  composed of  $K$  indicators, we have:

$$\text{category}_i = \frac{\sum_{k=1}^K \text{indicator}_k}{K}$$

When two individual indicators are averaged (e.g., indicators 1.04 and 1.05 in the 1st pillar), each receives half the weight of a normal indicator.

- 5 For indicators 1.04 and 1.05, the average of the two scores is used in the computation of the NRI.
- 6 For indicators 1.08 and 1.09, the average of the two normalized scores is used in the computation of the NRI.
- 7 For indicators 2.04 and 2.05, the average of the two normalized scores is used in the computation of the NRI.
- 8 The affordability pillar is computed as follows: the average of the normalized scores of indicators 4.01 Prepaid mobile cellular tariffs and 4.02 Fixed broadband Internet tariffs is multiplied by a competition factor, the value of which is derived from indicator 4.03 Internet and telephony sectors competition index. It corresponds to the score achieved by an economy on this indicator normalized on a scale from 0.75 (worst) to 1.00 (best), using the min-max transformation described above. A normalized score of 0.75 is assigned to an economy with a competition index score of 0, which means that a monopolistic situation prevails in the 17 categories of ICT services considered. A normalized score of 1.00 is assigned to an economy where all 17 categories are fully liberalized. Where data are missing for indicator 4.03 (i.e., Mongolia and Venezuela), the score on the affordability pillar, which is simply the average of the normalized scores of indicators 4.01 and 4.02, is used. The competition index score for Taiwan, China was derived from national sources.
- 9 For indicators 7.04 and 7.05, the average of the two scores is used in the computation of the NRI.
- 10 See Dutta et al. 2012 for a more detailed description of each component.
- 11 For instance, the prevalence of Internet in schools would ideally be measured by computing the percentage of a country's schools that have Internet access. Similarly, the intensity of competition would ideally be measured by computing a business concentration index (Herfindahl–Hirschman Index). In both cases, however, such statistics are not available for enough countries.
- 12 See <http://icp.worldbank.org/> for more information about PPP and the 2011 revision.

## REFERENCES

- Browne, C., A. Di Battista, T. Geiger, and T. Gutknecht. 2015. "The Executive Opinion Survey: The Voice of the Business Community." In *The Global Competitiveness Report 2015–2016*. K. Schwab, editor. Geneva: World Economic Forum. 75–85.
- Cardona, M., T. Kretschmera, and T. Strobel. 2013. "ICT and Productivity: Conclusions from the Empirical Literature." *Information Economics and Policy* 25 (3): 109–25.
- Draca, M., R. Sadun, and J. Van Reenen. 2006. "Productivity and ICT: A Review of the Evidence." CEP Discussion Paper No. 749. Centre for Economic Performance (CEP). August.
- Dutta, S., B. Bilbao-Osorio, and T. Geiger. 2012. "The Networked Readiness Index 2012: Benchmarking ICT Progress and Impacts for the Next Decade." In *The Global Information Technology Report 2012*. S. Dutta and B. Bilbao-Osorio, editors. Geneva: World Economic Forum. 3–34.



# Cross-Border Data Flows, Digital Innovation, and Economic Growth

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Forty years ago, the queen of England became one of the first individuals, and the first head of state, to transmit real-time electronic data over national borders.<sup>1</sup> In 1976, just three years after the United States connected ARPANET to London's University College and the Royal Radar Establishment in Norway, Her Majesty Queen Elizabeth II sent an email under the username "HME2."<sup>2</sup> Today over 3.2 billion people across the world have access to and use the Internet, and the flow of digital communication between countries, companies, and citizens, as a component of the "knowledge economy," has been recognized for years as a critical driver of economic growth and productivity.<sup>3</sup> Countries adept at fostering digital activity have witnessed the emergence of new industries as well as the accelerated development of traditional sectors.<sup>4</sup> However, despite the intensive and extensive growth of the global Internet, concerns over growing barriers to digital flows are mounting.

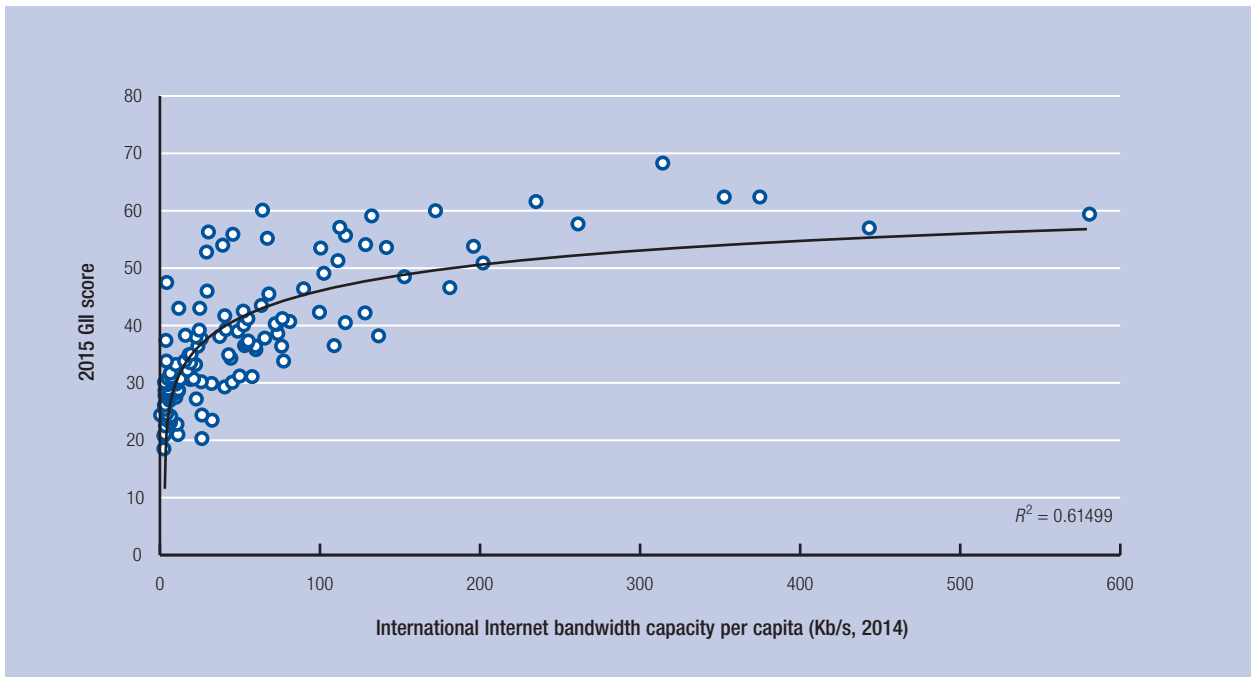
This chapter explores the impact of the free flow of data across national borders on innovation and growth. First reviewed is the literature on the impact of cross-border data flows on countries, companies, and individuals. The chapter then presents an original analysis of the growth of new services built on the free flow of trade through global digitization, and concludes by discussing policy guidelines that mitigate national concerns over data transmission while simultaneously maximizing the benefits of cross-border data flows.

## THE GROWTH OF GLOBAL DIGITAL INDUSTRIES AND THEIR NATIONAL ECONOMIC IMPACTS

The development of the commercial Internet has occurred concurrently with a massive expansion of the global economy, which has experienced 6.6-fold growth in nominal terms—from US\$11.1 trillion to US\$73.5 trillion since 1980.<sup>5</sup> Internet protocol (IP) traffic continues to advance rapidly, with 2019 traffic projected to be 64 times its 2005 volume.<sup>6</sup> Global Internet bandwidth accounts for much of this growth, more than quadrupling between 2010 (<50 terabytes per second) and 2014 (>200 terabytes per second).<sup>7</sup> More importantly, total cross-border Internet traffic increased 18-fold from 2005 to 2012.<sup>8</sup>

This cumulative growth impacts all facets of national economies, not just their budding technology sectors—in fact, an estimated 75 percent of the Internet's benefit is captured by companies in traditional industries.<sup>9</sup> A wide range of positive economic impacts stems from the flow of digital data across borders. For example, 61 percent (US\$383.7 billion) of total US service exports were digitally delivered in 2012, and 53 percent of total US imports were digitally delivered.<sup>10</sup> In absolute terms, the amount of digitally delivered exports and imports is even larger in the European Union, which digitally delivered US\$465 billion in exports in 2012 and spent US\$297 billion on imports. Digital trade is credited with

Figure 1: Cross-border data traffic and national innovation, by country



Sources: Cornell University, INSEAD, and WIPO 2015; ITU 2015b.  
 Note: The Global Innovation Index (GI) scores range from 0 to 100 (best). Kb/s = kilobits per second.

an estimated increase in US gross domestic product (GDP) of 3.4 percent to 4.8 percent in 2011 and with the creation of up to 2.4 million jobs, according to the United States International Trade Commission (US ITC).<sup>11</sup> The United Nations Conference on Trade and Development (UNCTAD) also estimates that about 50 percent of all traded services is enabled by innovation stemming from the technology sector, which includes the facilitation of cross-border data flows.<sup>12</sup> According to a newly released report by McKinsey & Company, data flows account for US\$2.8 trillion of global GDP in 2014 and “cross-border data flows now generate more economic value than traditional flows of traded goods.”<sup>13</sup>

Beyond this economic impact, the free flow of data is, itself, a significant driver of innovation. It allows the sharing of ideas and information and the dissemination of knowledge as well as collaboration and cross-pollination among individuals and companies. Internet-enabled innovation requires an environment that encourages individuals to experiment with new

uses of the Internet. In places with severe restrictions that inhibit digital collaboration, people are less likely to experiment and, as a result, innovation is less likely to emerge. Countries with an open Internet tend to be more innovative, as demonstrated in Figure 1, which illustrates the relationship between a country’s ability to share information and its capacity for innovation. The figure demonstrates that countries with a higher capacity to share data internationally (as reflected by a high international Internet bandwidth capacity per capita) tend to have a greater degree of national innovation as well, quantified in the figure by each country’s score on the 2015 Global Innovation Index, a leading measure of innovation capacity at the country level, which is calculated according to 79 different indicators.<sup>14</sup>

Additionally, a high degree of correlation is observed between various measures of potential data flow at the country level and outcome measures. One measure of potential data flow is Freedom House’s 2015 Freedom on the Net indicator, which measures 65 countries

Table 1: Correlation coefficients

Country correlation coefficients	Measures of potential data flows	
	International Internet bandwidth	Freedom on the Net (inverse scale; high to low)
Outcome measures		
Global Innovation Index score	0.72	-0.49
2015 NRI Economic impacts pillar	0.71	-0.49

Sources: Cornell University, INSEAD, and WIPO 2015; Freedom House 2015; ITU 2015b; World Economic Forum 2015.  
 Note: The Freedom on the Net scores range from 0 to 100, where 0 = most free and 100 = least free. Thus a lower score (greater freedom) for a given country is correlated with higher innovation and better economic outcomes.<sup>899</sup>



on the basis of obstacles to Internet access, limits on content, and violations of user rights. When correlated with the Economic impacts pillar of the 2015 Networked Readiness Index's Impact subindex (Table 1), which serves as an outcome measure, a clear relationship is demonstrated.

### THE IMPACT OF CROSS-BORDER DATA FLOWS: FIRMS AND THE ENGINE OF ECONOMIC ACTIVITY

Cross-border data flows acutely impact the ability of firms to conduct business internationally.

In a recent report, Business Roundtable identifies at least six different areas of activity whereby firms may transmit data across national borders to support business operations. These include interconnected machinery, big data analytics, back-office consolidation, supply-chain automation, digital collaboration, and cloud scalability.<sup>15</sup> See Box 1.

Cross-border flows (data and voice, in particular) reduce costs related to both trade and transactions. This includes customer engagement (finding and fulfilling orders) as well as other operational costs associated with doing business. One recent report by the US ITC estimates that the Internet reduces trade costs by 26 percent on average.<sup>16</sup> Additionally, small- and medium-sized enterprises that utilize the Internet to trade on global platforms have a survival rate of 54 percent, which is 30 percent higher than that of offline businesses. Furthermore, those small- and medium-sized firms that are online are almost as likely to export as large businesses.<sup>17</sup>

At the firm level, a multitude of specific examples illustrate how the ability to transmit data internationally improves firm operations and performance. For example, Unilever, the consumer goods company with over 174,000 employees and operations across 190 countries, has developed a global enterprise data warehouse wherein it collects information from all of its operations to deliver full visibility into the entire system. The primary objective of this effort was to compile a comprehensive consumer database, enabling analysis at the most granular level possible. Additionally, aggregating information on the firm's operations helps identify areas where lowering costs and improving business performance can drive more affordable products for consumers.<sup>18</sup>

Similarly, Rio Tinto, the mining company with operations in over 40 countries across six continents, collects real-time data from its trucks and drills, which are then transmitted to its Processing Excellence Center (PEC) in Brisbane, Australia. Active monitoring and real-time adjustment of Rio Tinto's operations have already driven significant savings from operational efficiencies, with more savings certain to follow on the heels of new and emerging process innovation.<sup>19</sup>

At Cisco, the ability to transfer data across borders optimizes the company's operations. For example, the

#### Box 1: Firms' uses of cross-border data flows

In a 2015 report, Business Roundtable—an industry group representing companies with \$7.2 trillion in annual revenues and 16 million employees—identified the following six mechanisms by which cross-border data flows drive business benefits to firms.

**Interconnected machinery.** Companies improve processes and optimize efficiency by interconnecting elements of the production chain, such as real-time monitoring of capital equipment to reduce downtime or to be able to prepare for immediate service replacements.

**Big data analytics.** Companies collect data gathered from various, or all, aspects of their operations across regions and apply advanced statistical analysis to be able to make better decisions, both for the business and for customer satisfaction.

**Back-office consolidation.** Companies centralize standard business operations to take advantage of economies of scale (e.g., human resources, accounting, payroll, support call centers, marketing, etc.) by improving buying power and eliminating overlap.

**Supply-chain automation.** Companies track inventory levels, process reordering automatically, and match supply and demand.

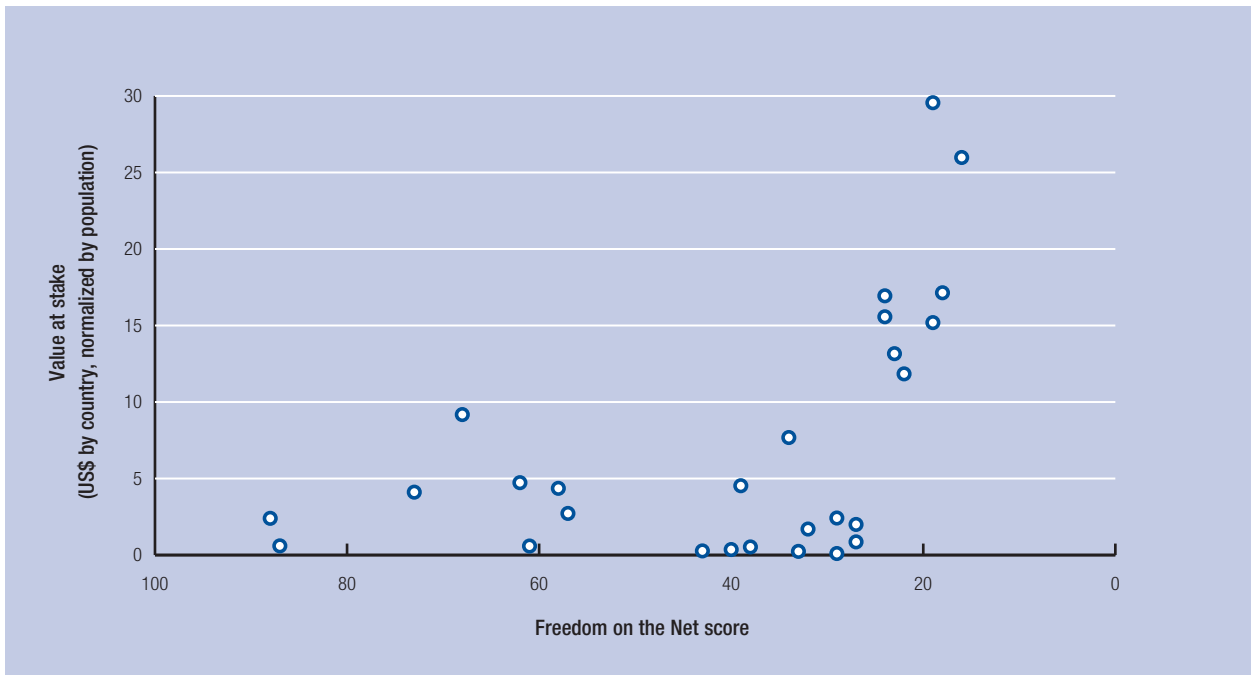
**Digital collaboration.** Companies increase communication and collaboration between teams.

**Cloud scalability.** Companies lower capital expenditure and cost structure of information technology (IT) hardware, infrastructure, software, and applications, all provided as a service, and they reduce capital investment in idle capacity, thus lowering the total cost of ownership and increasing business agility and resilience to failures.

Source: Business Roundtable 2015.

Research Triangle Park facility in Raleigh, North Carolina (Cisco's largest technical assistance center, which has more than 4,500 employees) provides around-the-clock tech support to customers 24 hours a day, 7 days a week, anywhere in the world. When customers and Cisco employees confront challenging hardware or software problems, technical experts are able to log in remotely, run diagnostic tools, and exchange data to and from one another seamlessly. This type of business activity fundamentally relies upon the free flow of data.<sup>20</sup> As the appendix to this chapter further illustrates, firms around the world innovate and optimize business outcomes by transferring data across borders. Moreover, when trade flows between businesses are curtailed, innovation may decelerate through the interruption of technology transfer or through the reduction of competition-driven development, which is why the uninhibited exchange of data is increasingly critical to productivity and growth.

Figure 2: Freedom on the Net as a driver of innovation, by country



Sources: Authors' calculation; Barbier et al. 2016; Freedom House 2015; IMF 2015.  
 Note: Freedom on the Net scores range from 0 to 100, where 0 = most free, 100 = least free.

### THE IMPACT OF CROSS-BORDER DATA FLOWS: INDIVIDUALS AND ENTREPRENEURS

At the individual level, the ability to access cloud-based information provides significant benefit. Individuals are increasingly storing more of their personal information online. Cisco's Global Cloud Index estimates that, by 2019, 2 billion Internet users (or 55 percent of all consumer Internet users) will use personal cloud storage, up from 1.1 billion users in 2014. Globally, consumer cloud storage traffic per user will be 1.6 gigabytes per month by 2019, compared to 992 megabytes per month in 2014.<sup>21</sup> Cloud-based services may be hosted in the domestic market or in other countries.

New entrepreneurs also benefit from access to infrastructure, platforms, and software from cloud-based services, which may reside in other countries. These include applications, data, middleware, operating systems, virtualization, servers, storage, and networking capabilities or equipment. Because of the ability to access these services on a pay-as-you-go model rather than committing to a large initial capital investment, the financial barriers to new business entry have fallen significantly. By one estimate, the cost for an entrepreneur to establish a business with a working prototype has fallen from around US\$2 million in the 1990s down to less than US\$50,000 and approximately six weeks of work.<sup>22</sup> Furthermore, depending on the business model, in some cases startup costs—when supported by the affordability of cloud-based infrastructure—can be as low as US\$3,000.<sup>23</sup>

### THE FREE FLOW OF DATA AND THE DIGITAL ECONOMY VALUE AT STAKE

Cisco's data analysis demonstrates that the free flow of data enables people and things to connect, which can improve processes and add tremendous value to any given economy. The potential bottom-line *value at stake* (defined as the combination of increased revenues and lower costs that is created or will migrate among companies and industries as a result of increasing the adoption of Internet technologies) is estimated to be US\$29.7 trillion over the 2015–24 period.<sup>24</sup> This includes up to US\$23.8 trillion in the private sector, where up to one-third of corporate profits may be at stake and where telecommunications service providers have an opportunity to capture US\$1.8 trillion in new economic value. Up to US\$5.9 trillion may be generated in the public sector as well. These improvements to the overall digital economy represent a potential annual GDP upside of 0.43 percent and potential employment creation of 2.7 million jobs worldwide.

Figure 2 highlights the relationship between the value at stake that can be generated by the digital economy and the Freedom on the Net score. The figure suggests that countries with higher Freedom on the Net scores are better poised to benefit from potential value at stake from digitization.

In other words, those countries and companies that have not positioned themselves in an environment that fosters open Internet practices may find innovation and economic growth hampered. Risks related to

**Table 2: Examples of cross-border data flow restrictions**

Restriction type	Restriction description
<b>Local data storage</b>	Restricts data flows by requiring specified data—often but not always personal information—to be stored on local servers. May also require specific applications or services to operate in-country, processing data locally to avoid offshore transfer.
<b>Data protection</b>	Restricts data flows through the application of data privacy laws with adequacy and/or consent requirements that cannot reasonably be met without local data storage.
<b>Geolocation data privacy</b>	Restricts data flows by preventing the collection, disclosure, transfer, or storage of geolocation data without an individual's consent.
<b>Traffic routing</b>	Affects data flows by requiring communications providers to route Internet traffic in a specific way.

Source: Business Roundtable 2015.

cybersecurity also slow innovation, as demonstrated by new Cisco survey research, wherein senior executives have determined that cybersecurity concerns have forced their companies to drop some mission-critical projects. Specifically, 39 percent of the 1,014 executives surveyed state that their organization has “halted a mission-critical initiative due to cybersecurity concerns.” In Cisco’s survey, 71 percent of all respondents somewhat or strongly agree that cybersecurity threats—both potential and actual—hinder innovation. Furthermore, 60 percent somewhat or strongly agree that cybersecurity risk dampens smart and connected product development, a critical element on the path to digitization.<sup>25</sup>

### RESTRICTIONS ON CROSS-BORDER DATA FLOWS

The Internet was architected with protocols to identify the fastest possible route to transmit packets of data between any two points. However, increasing concerns of national governments around privacy, security, and local competition have resulted in some policy and regulatory impediments. Difficulties arise when overly restrictive regulations on cross-border data flows create trade barriers and impact business models. Overly burdensome regulations can slow or prevent business transactions, which increases costs and obstructs the delivery of products to the market. Examples of these restrictions, as noted by Business Roundtable, are included in Table 2.

The number and impact of restrictions that are implemented around the world appear to be increasing. The US ITC identifies localization requirements as a barrier for 82 percent of large firms and 52 percent of small- and medium-sized enterprises in the digital communications sector. Localization mandates are the most frequently identified digital trade barrier.<sup>26</sup>

These restrictions impose significant business costs. The burden of compliance related to both cost and logistics can slow or stop business activity and

limit innovation. For example, one analysis estimates that disruptions to cross-border data flows and services trade could result in a negative impact on the European Union of up to 1.3 percent of GDP as well as a potential drop in EU manufacturing exports to the United States of up to 11 percent.<sup>27</sup> In seven different countries and regions of the world studied in one analysis, data localization requirements would also result in lower GDP.<sup>28</sup> Conversely, efforts to decrease barriers to cross-border data traffic have been shown to drive growth and, based on 2014 estimates, the removal of obstacles to the flow of data could increase GDP by 0.1 percent to 0.3 percent in the United States.<sup>29</sup>

### THE PATH FORWARD: BALANCING GROWTH, DATA FLOWS, AND NATIONAL CONCERNS

As demonstrated above, the benefits of cross-border data flows are significant. Additional empirical work needs to be done, however.<sup>30</sup> And there are still cases where national concerns over privacy, security, and local economic activity may prompt regulations to curb some flows. In those instances, we propose the following guidelines (see Box 2 for examples):

- Minimize fragmentation by ensuring that any policy actions are least-trade-restrictive to achieve legitimate public policy objectives.
- Carefully craft regulations that are as narrow in scope as possible, with clearly articulated goals.
- Coordinate globally to minimize conflicts in regulations between different jurisdictions.
- Evaluate the full costs of any proposed regulation and ensure that costs of compliance do not outweigh the quantifiable benefits.
- Adhere to trade obligations.

In sum, any limitations on cross-border data flows should address specific concrete—not merely

## Box 2: Country examples: Singapore and the Netherlands

Steps taken in several economies embody the spirit of the proposed guidelines, illustrating the feasibility of their implementation across national boundaries. For example, the government of Singapore has promoted data centers in an effort to attract their establishment by private or third party entities within its borders.<sup>1</sup> Additionally, Singapore's Personal Data Protection Commission (PDPC) has actively engaged industry in the development of good practices in data management, including those that regard the transfer of data.<sup>2</sup> Furthermore, guidelines for industry compliance with the Personal Data Protection Act (2014) developed by the PDPC have been narrow in scope and organized by sector, and developed in consultation with industry.

While Singapore has enhanced its presence as a global leader in digital transfer by emerging as a major hub for finance and services, the Netherlands has done so by serving as a major port for traded goods as well as a hub for European data traffic. Despite taking different routes to become more connected, both economies have recognized the importance of digital flows, including those both internally and externally facing. Supporting this notion, in the March 2016 report on digital globalization, the McKinsey Global Institute (MGI) finds that global flows of goods, foreign direct investment, people, and data contribute structurally to economic growth by increasing productivity.<sup>3</sup> Assessing MGI's two most highly ranked economies in country connectedness, Singapore (1st) and the Netherlands (2nd) both also rank in the top 10 for data flow, underscoring the crucial significance of open borders for data transfer and, subsequently, global competitiveness and innovation.

### Notes

- 1 See the Singapore, Ministry of Communications and Information website at <http://www.mci.gov.sg/web/content/infocomm-media-masterplan/preliminary-ideas/establish-agile-pervasive-and-trusted-icm-infrastructure/digital-harbour>.
- 2 See PDPC Singapore 2016.
- 3 Manyika et al. 2016.

theoretical—problems, be least intrusive, be minimally restrictive, and, if possible, be time-bound. In cases where market-driven forces justify fragmentation because of business-enhancing reasons, such as when intellectual property may be affected, segmentation should be driven by the market rather than by government requirements.

These actions would minimize any collateral damage done to the economy imposing restrictions, and they would ensure that the Internet continues to serve as a driver of innovation, economic growth, and social development.

### NOTES

- 1 Wired.com 2012.
- 2 History.com Staff 2010.

- 3 Katz 2012; ITU 2015a.
- 4 Pélissié du Rausas 2011.
- 5 IMF 2015.
- 6 Cisco VNI 2015.
- 7 TeleGeography, available at <https://www.telegeography.com/research-services/global-bandwidth-research-service/>.
- 8 Manyika et al. 2014.
- 9 Pélissié du Rausas 2011.
- 10 Meltzer 2014. Note that a major challenge for understanding just how potent this impact is, however, is the lack of data available.
- 11 US ITC 2014.
- 12 Lee-Makiyama 2015; UNCTAD 2009.
- 13 Manyika et al. 2016, p. 2.
- 14 Cornell University, INSEAD, and WIPO 2015.
- 15 Business Roundtable 2015.
- 16 US ITC 2014, p. 65.
- 17 Austin and Olarreaga 2012.
- 18 Castro and McQuinn 2015.
- 19 Castro and McQuinn 2015.
- 20 Moore 2015.
- 21 Cisco 2015.
- 22 Center for an Urban Future 2012; Mulas, Minges, and Applebaum 2015.
- 23 Mulas, Minges, and Applebaum 2015; Mytton 2010.
- 24 Barbier et al. 2016.
- 25 Barbier et al. 2016.
- 26 US ITC 2014.
- 27 Bauer et al. 2013, p. 3; Castro and McQuinn 2015.
- 28 Bauer et al. 2014.
- 29 Castro and McQuinn 2015; US ITC 2014.
- 30 For example, quantifying firm-level impact of new or existing processes enabled by cross-border data flows.

### REFERENCES

- Austin, S. and M. Olarreaga. 2012. *Enabling Traders to Enter and Grow on the Global Stage*. An eBay Report. Brussels: eBay EU Liaison Office.
- Barbier, J., A. Dixit, R. Moriarty, C. Namboodri, K. O'Connell, and M. Riegel. 2016. "Where to Begin Your Journey to Digital Value in the Private Sector." *Economic Analysis 2015–2024*. San Jose, CA; Singapore, and Amsterdam: Cisco. Available at <http://www.connectedfuturemag.com/a/S15R12/value-at-stake/>.
- Bauer, M., F. Erixon, M. Krol, H. Lee-Makiyama, with B. Verschelde. 2013. "The Economic Importance of Getting Data Protection Right: Protecting Privacy, Transmitting Data, Moving Commerce." European Centre for International Political Economy (ECIPE), March. Brussels: ECIPE for the US Chamber of Commerce. Available at [https://www.uschamber.com/sites/default/files/documents/files/020508\\_EconomicImportance\\_Final\\_Revised\\_lr.pdf](https://www.uschamber.com/sites/default/files/documents/files/020508_EconomicImportance_Final_Revised_lr.pdf).
- Bauer, M., H. Lee-Makiyama, E. van der Marel, and B. Verschelde. 2014. "The Costs of Data Localisation: Friendly Fire on Economic Recovery." ECIPE Occasional Paper 3/2014. Brussels: ECIPE. Available at [www.ecipe.org/app/uploads/2014/12/OCC320141.pdf](http://www.ecipe.org/app/uploads/2014/12/OCC320141.pdf).
- Business Roundtable. 2015. *Putting Data to Work: Maximizing the Value of Information in an Interconnected World*. Washington, DC: Business Roundtable. Available at <http://businessroundtable.org/sites/default/files/reports/BRT%20PuttingDataToWork.pdf>.
- Castro, D. and A. McQuinn. 2015. "Cross-Border Data Flows Enable Growth in All Industries." Washington, DC: ITIF.

- Center for an Urban Future. 2012. *New Tech City*. New York: Center for an Urban Future. Available at [https://nycfuture.org/pdf/New\\_Tech\\_City.pdf](https://nycfuture.org/pdf/New_Tech_City.pdf).
- Cisco. 2015. "Cisco Global Cloud Index: Forecast and Methodology, 2014–2019 White Paper." [http://www.cisco.com/c/en/us/solutions/collateral/service-provider/global-cloud-index-gci/Cloud\\_Index\\_White\\_Paper.html](http://www.cisco.com/c/en/us/solutions/collateral/service-provider/global-cloud-index-gci/Cloud_Index_White_Paper.html).
- Cisco VNI. 2015. "Cisco Visual Networking Index: Forecast and Methodology, 2014–2019 White Paper." Available at [http://www.cisco.com/c/en/us/solutions/collateral/service-provider/ip-ngn-ip-next-generation-network/white\\_paper\\_c11-481360.html](http://www.cisco.com/c/en/us/solutions/collateral/service-provider/ip-ngn-ip-next-generation-network/white_paper_c11-481360.html).
- Cornell University, INSEAD, and WIPO. 2015. *The Global Innovation Index 2015: Effective Innovation Policies for Development*. Fontainebleau, Ithaca, and Geneva: Cornell University, INSEAD, and WIPO.
- Freedom House. 2015. *Freedom on the Net 2015*. Washington, DC: Freedom House. Available at <https://freedomhouse.org/report/freedom-net/freedom-net-2015>.
- History.com Staff. 2010. "The Invention of the Internet." History.com, A+E Networks. <http://www.history.com/topics/inventions/invention-of-the-internet>.
- IMF (International Monetary Fund). 2015. *World Economic Outlook Database*, October 2015 edition. Available at <https://www.imf.org/external/pubs/ft/weo/2015/02/weodata/index.aspx>.
- ITU (International Telecommunication Union). 2015a. "ITU Releases 2015 ICT Figures: Statistics Confirm ICT Revolution of the Past 15 Years." Press Release, May 26. Available at [https://www.itu.int/net/pressoffice/press\\_releases/2015/17.aspx](https://www.itu.int/net/pressoffice/press_releases/2015/17.aspx).
- . 2015b. *World Telecommunication/ICT Indicators database 2015*, 18th edition. Available at <http://www.itu.int/ITU-D/ict/publications/world/world.html>.
- Katz, R. 2012. *The Impact of Broadband on the Economy: Research to Date and Policy Issues*. *Broadband Series*. April 2012. Geneva: ITU [https://www.itu.int/ITU-D/treg/broadband/ITU-BB-Reports\\_Impact-of-Broadband-on-the-Economy.pdf](https://www.itu.int/ITU-D/treg/broadband/ITU-BB-Reports_Impact-of-Broadband-on-the-Economy.pdf).
- Lee-Makiyama, H. 2015. "Digital Trade in the U.S. and Global Economies." Submission to the USITC investigation. European Centre for International Political Economy Available at [http://www.ecipe.org/app/uploads/2014/12/USITC\\_speech.pdf](http://www.ecipe.org/app/uploads/2014/12/USITC_speech.pdf).
- Manyika, J., J. Bughin, S. Lund, O. Nottebohm, D. Poulter, S. Jauch, and S. Ramaswamy. 2014. *Global Flows in a Digital Age: How Trade, Finance, People, and Data Connect the World Economy*. Report, April. McKinsey Global Institute. Available at [www.mckinsey.com/insights/globalization/global\\_flows\\_in\\_a\\_digital\\_age](http://www.mckinsey.com/insights/globalization/global_flows_in_a_digital_age).
- Manyika, J., S. Lund, J. Bughin, J. Woetzel, K. Stamenov, and D. Dhringra. 2016. *Digital Globalization: The New Era of Global Flows*. Report, March. Available at <http://www.mckinsey.com/business-functions/mckinsey-digital/our-insights/digital-globalization-the-new-era-of-global-flows>.
- Meltzer, J. 2014. "The Importance of the Internet and Transatlantic Data Flow for U.S. and EU Trade and Investment." Brookings Institute Working Paper 74, October.
- Moore, G. 2015. "How Free Trade Supports NC Jobs." *The News&Observer*, Op-Ed, March 6. Available at <http://www.newsobserver.com/opinion/op-ed/article12878609.html>.
- Mulas, V., M. Mingos, and H. Applebaum. 2015. "Boosting Tech Innovation Ecosystems in Cities: A Framework for Growth and Sustainability of Urban Tech Innovation Ecosystems." Discussion Paper. Washington, DC: World Bank. Available at <https://openknowledge.worldbank.org/handle/10986/23029>.
- Mytton, D. 2010. "How Much Does It Cost to Start a Tech Company?" Server Density Blog, February 15. Available at <https://blog.serverdensity.com/how-much-does-it-cost-to-start-a-tech-company>.
- PDPC (Personal Data Protection Commission) Singapore. 2016. Personal Data Protection Commission website: Guidelines. Available at <https://www.pdpc.gov.sg/legislation-and-guidelines/advisory-guidelines>.
- Péllissé du Rausas, M., J. Manyika, E. Hazan, J. Bughin, M. Chui, and R. Said. 2011. *Internet Matters: The Net's Sweeping Impact on Growth, Jobs, and Prosperity*. Report, May. McKinsey Global Institute. Available at [http://www.mckinsey.com/insights/high\\_tech\\_telecoms\\_internet/internet\\_matters](http://www.mckinsey.com/insights/high_tech_telecoms_internet/internet_matters).
- UNCTAD (United Nations Conference on Trade and Development). 2009. *Information Economy Report: Trends and Outlook in Turbulent Times*. New York and Geneva: United Nations. Available at [http://unctad.org/en/docs/ier2009\\_en.pdf](http://unctad.org/en/docs/ier2009_en.pdf).
- US ITC (United States International Trade Commission). 2014. *Digital Trade in the U.S. and Global Economies, Part 2*. Publication 4485, Investigation No. 332-540, August. Washington, DC: US International Trade Commission. Available at [www.usitc.gov/publications/332/pub4485.pdf](http://www.usitc.gov/publications/332/pub4485.pdf).
- Wired.com. 2012. "How the Queen of England Beat Everyone to the Internet." Available at <http://www.wired.com/2012/12/queen-and-the-internet/>.
- World Economic Forum. 2015. *The Global Information and Technology Report 2015: ICTs for Inclusive Growth*. Geneva: World Economic Forum.

## Appendix:

### Examples of firm-level cross-border data flows

#### Alliance Medical

Alliance Medical has been a pioneer in the trend of remote interpretation and diagnosis of medical images—such as x-rays, ultrasounds, and magnetic resonance imaging (MRI) images. This service reduces wait times and improves the expediency of diagnoses. In addition to the efficiency cost savings, offloading these tasks also allows doctors to spend more time with patients.

#### Caterpillar

Caterpillar is a global leader in the manufacture of heavy machinery and engines for use in industries from construction and mining to heavy-duty transportation. Real-time sensors in their products monitor performance data and transmit via cellular and satellite connectivity, allowing users to remotely analyze and monitor assets. This allows customers to identify underutilized machines, thus maximizing efficiency, and to make better equipment placement decisions, thus creating substantial cost savings for customers. Cross-border data flow restrictions, such as constraints on the movement of Global Positioning System (GPS) data, may limit Caterpillar's ability to offer such advanced services in certain markets.

#### Boeing

Boeing has developed a real-time information tool, the Airplane Health Management (AHM), that gathers and transmits data in real time to maintenance crews on the ground. The data are sent across borders (while aircraft are in the air) and helps to reduce delays, midflight turn-backs, and cancellations. A single Boeing 737 engine produces up to 20 terabytes of data every hour in flight. Data are analyzed in real time, even mid-flight, to find and diagnose problems. Any issues are relayed to waiting airline maintenance personnel at the aircraft's next airport destination. The crews can then meet the aircraft with the appropriate airplane parts to make necessary repairs. This sort of intelligence aids operators in spotting trends, eliminating inefficiencies, saving money, and reducing wait times.

#### General Electric (GE)

GE has embedded advanced sensors in a wide array of machinery to improve the performance of industrial equipment and machines purchased by its customers. The sensors remotely capture performance data from around the globe; these data are used to improve product reliability, safety, and efficiency. For example, in aviation, GE monitors sensor data from aircraft engines around the globe, thus optimizing engines, to help airlines anticipate maintenance issues and address them before aircraft need to be grounded, saving time and money for airlines and travelers. This sensor system saves airlines more than US\$2 billion per year worldwide because the sensor technology reduces delays and cancellations caused by aircraft maintenance needs—a capability predicated on the ability to aggregate and analyze sensor data supplied from locations to generate savings for individuals, governments, and businesses across the globe.

#### MasterCard

As a global payments industry leader, MasterCard connects consumers, financial institutions, merchants, governments, and businesses through electronic payments. The company processes payment transactions initiated in more than 40 million locations in more than 210 countries and territories. Global payment services are inherently dependent on cross-border data flows because each payment transaction requires transfers of payment transaction data between the merchant, the merchant's bank, MasterCard, and the consumer's bank. MasterCard enables merchants to engage in international trade and sell goods and services to foreign travelers. Even when the merchant, the consumer, and their banks are all based in the same country, MasterCard may leverage its global operations hub to add value to the transaction and facilitate safe, efficient, and cost-effective transactions. However, some countries impose restrictions that require local processing of all electronic payment transactions. In doing so, restrictions can force the building or replication of costly infrastructure domestically; this cost may then be passed onto consumers.

### Royal Dutch Shell

Royal Dutch Shell has over 150,000 employees across 90 countries and is headquartered in the Netherlands. As one of the world's largest oil and gas companies, it also has a global computing footprint with three main global data centers. Shell uses these computing resources to manage and analyze the data generated by sensors in its wells, particularly from sensitive, low-power sensors that generate high-resolution seismic data. Transmitting data to the global data centers, these sensors are able to detect resources in wells thought to have run dry.

### Tesco

Tesco is a global retailer with stores in 12 countries in Asia, Europe, and North America. The consumer goods giant processes real-time data from its electronic shelves to make national pricing changes instantly as well as to predict when products on its shelves need to be reordered, thus preventing understocking and lost revenue. These benefits are passed on to customers in the form of better service, fresher ingredients, lower prices, boosted convenience, and fully stocked shelves. Tesco also combines weather forecasts for each location, updated several times a day, to adjust deliveries and refrigeration needs to prevent food spoilage.

### Volvo

Volvo is a Swedish vehicle manufacturer employing over 115,000 people, with operations in over 190 countries. The company embeds real-time vehicle location data and diagnostic information and transmission capabilities into its vehicles and allows for their systems to alert drivers to needed repairs or software upgrades, as well as locating lost or stolen vehicles during emergencies. The company enables customers to gather data on all of their trucks for real-time monitoring, optimizing vehicle and fleet fuel efficiency.

### Walmart

Walmart is the world's largest retailer, with over 11,000 stores in 27 countries employing over 2.2 million people worldwide; it maintains e-commerce websites in 10 countries. The company tracks its performance and global operations by collecting data on all aspects of its business, centralizing data, and deploying shared services (such as human resources support with cloud-based platforms). Virtualizing support operations and back-office consolidation helps to reduce the duplication of hardware and software and to increase operating efficiency through economies of scale. Data flow restrictions can prevent such efficiency-enhancing innovations and in the long run discourage larger job-creating investments in other areas of the business.

Sources: Business Roundtable 2015; Castro and McQuinn 2015.





# Part 2

## Data Presentation



# 2.1

## Country/Economy Profiles



# How to Read the Country/Economy Profiles

The Country/Economy Profiles section presents a profile for each of the 139 economies covered in *The Global Information Technology Report 2016*. Each profile summarizes an economy's performance in the various dimensions of the Networked Readiness Index (NRI).

## 1 PERFORMANCE HIGHLIGHTS

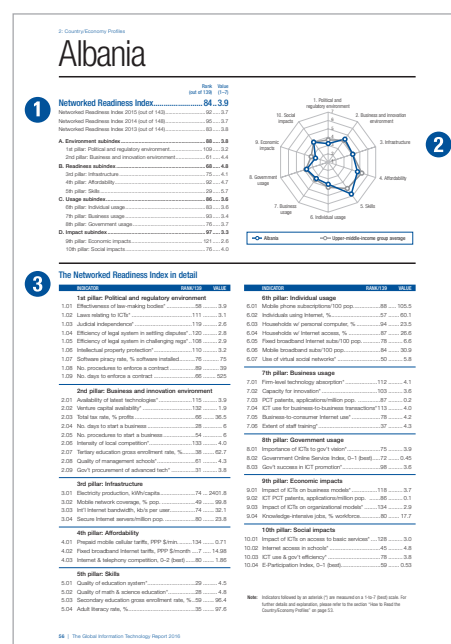
The first section of the profile presents the economy's performance in the overall NRI, the four main components, and the 10 pillars. For each of these dimensions, the economy's rank (out of 139 economies) and score (on a 1-to-7 scale) are reported.

On the radar chart to the right of the table, a blue line plots the economy's score on each of the 10 pillars. The gray line represents the average score of all economies in the income group to which the economy under review belongs. The country classification by income group is defined by the World Bank and reflects the situation as of July 2015. Note that the two high-income groups in this classification, High income: OECD and High income: non-OECD, were merged into a single group for the purpose of the analysis.

## 3 THE NETWORKED READINESS INDEX IN DETAIL

This section presents an economy's performance in each of the 53 indicators composing the NRI. The indicators are organized by pillar. The numbering of the variables matches that of the data tables in the next section of the *Report*, which provides descriptions, rankings, and scores for all the indicators. The indicators derived from the 2014 and 2015 editions of the World Economic Forum's Executive Opinion Survey are identified by an asterisk (\*). These indicators are always measured on a 1-to-7 scale (where 1 and 7 correspond to the worst and best possible outcomes, respectively). For more information on the Executive Opinion Survey and a detailed explanation of how scores are computed, refer to Chapter 1.3 of *The Global Competitiveness Report 2015–2016*, available for free on the World Economic Forum website at [www.weforum.org/gcr](http://www.weforum.org/gcr).

For those indicators not derived from the Executive Opinion Survey, the scale is reported next to the title. The Technical Notes and Sources at the end of this



*Report* provide further details on each indicator, including its definition, method of computation, and sources. Note that for the sake of readability, the years were omitted. However, the year of each data point is indicated in the corresponding data table. For more information on the framework and computation of the NRI, refer to Chapter 1.1.

## THE GITR ONLINE

In complement to the analysis presented in this *Report*, the GITR's portal—available at [www.weforum.org/gitr](http://www.weforum.org/gitr)—offers additional analysis and a number of analytical tools and visualizations, including sortable rankings and maps. The portal also offers the option of downloading portions of the NRI dataset.



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Costa Rica	82	Japan	117	Norway	152	United Arab Emirates	187
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Croatia	84	Kazakhstan	119	Pakistan	154	United States	189
Cyprus	85	Kenya	120	Panama	155	Uruguay	190
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Denmark	87	Kuwait	122	Peru	157	Vietnam	192
Dominican Republic	88	Kyrgyz Republic	123	Philippines	158	Zambia	193
Ecuador	89	Lao PDR	124	Poland	159	Zimbabwe	194
Egypt	90	Latvia	125	Portugal	160		

# Albania

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 84.. 3.9

Networked Readiness Index (out of 143)..... 92..... 3.7  
 Networked Readiness Index 2014 (out of 148)..... 95..... 3.7  
 Networked Readiness Index 2013 (out of 144)..... 83..... 3.8

### A. Environment subindex..... 88..... 3.8

1st pillar: Political and regulatory environment..... 109..... 3.2  
 2nd pillar: Business and innovation environment..... 61..... 4.4

### B. Readiness subindex ..... 68..... 4.8

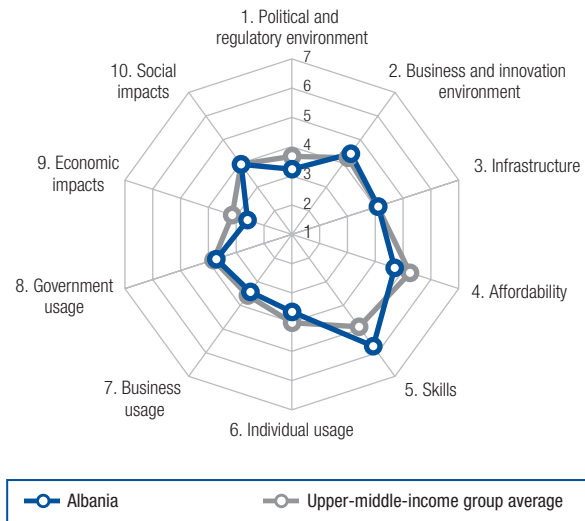
3rd pillar: Infrastructure ..... 75..... 4.1  
 4th pillar: Affordability ..... 92..... 4.7  
 5th pillar: Skills..... 29..... 5.7

### C. Usage subindex..... 86..... 3.6

6th pillar: Individual usage..... 83..... 3.6  
 7th pillar: Business usage..... 93..... 3.4  
 8th pillar: Government usage..... 76..... 3.7

### D. Impact subindex..... 97..... 3.3

9th pillar: Economic impacts..... 121..... 2.6  
 10th pillar: Social impacts..... 76..... 4.0



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	58	3.9
1.02 Laws relating to ICTs*	111	3.1
1.03 Judicial independence*	119	2.6
1.04 Efficiency of legal system in settling disputes*	120	2.8
1.05 Efficiency of legal system in challenging regs*	108	2.9
1.06 Intellectual property protection*	110	3.2
1.07 Software piracy rate, % software installed	76	7.5
1.08 No. procedures to enforce a contract	89	3.9
1.09 No. days to enforce a contract	66	5.25
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	115	3.9
2.02 Venture capital availability*	132	1.9
2.03 Total tax rate, % profits	66	36.5
2.04 No. days to start a business	28	6
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	133	4.0
2.07 Tertiary education gross enrollment rate, %	38	62.7
2.08 Quality of management schools*	61	4.3
2.09 Gov't procurement of advanced tech*	31	3.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	74	2401.8
3.02 Mobile network coverage, % pop.	49	99.8
3.03 Int'l Internet bandwidth, kb/s per user	74	32.1
3.04 Secure Internet servers/million pop.	80	23.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	134	0.71
4.02 Fixed broadband Internet tariffs, PPP \$/month	7	14.98
4.03 Internet & telephony competition, 0-2 (best)	80	1.86
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	29	4.5
5.02 Quality of math & science education*	28	4.8
5.03 Secondary education gross enrollment rate, %	59	96.4
5.04 Adult literacy rate, %	35	97.6

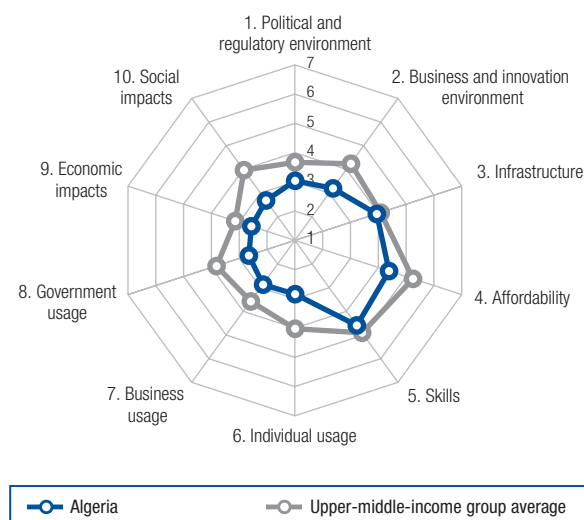
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	88	105.5
6.02 Individuals using Internet, %	57	60.1
6.03 Households w/ personal computer, %	94	23.5
6.04 Households w/ Internet access, %	87	26.6
6.05 Fixed broadband Internet subs/100 pop.	78	6.6
6.06 Mobile broadband subs/100 pop.	84	30.9
6.07 Use of virtual social networks*	50	5.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	112	4.1
7.02 Capacity for innovation*	103	3.6
7.03 PCT patents, applications/million pop.	87	0.2
7.04 ICT use for business-to-business transactions*	113	4.0
7.05 Business-to-consumer Internet use*	78	4.2
7.06 Extent of staff training*	37	4.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	75	3.9
8.02 Government Online Service Index, 0-1 (best)	72	0.45
8.03 Gov't success in ICT promotion*	98	3.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	118	3.7
9.02 ICT PCT patents, applications/million pop.	86	0.1
9.03 Impact of ICTs on organizational models*	134	2.9
9.04 Knowledge-intensive jobs, % workforce	80	17.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	128	3.0
10.02 Internet access in schools*	45	4.8
10.03 ICT use & gov't efficiency*	78	3.8
10.04 E-Participation Index, 0-1 (best)	59	0.53

Note: Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Algeria

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>117..</b>	<b>3.2</b>
Networked Readiness Index 2015 (out of 143).....	120.....	3.1
Networked Readiness Index 2014 (out of 148).....	129.....	3.0
Networked Readiness Index 2013 (out of 144).....	131.....	2.8
<b>A. Environment subindex.....</b>	<b>131.....</b>	<b>3.1</b>
1st pillar: Political and regulatory environment.....	123.....	3.0
2nd pillar: Business and innovation environment.....	133.....	3.2
<b>B. Readiness subindex.....</b>	<b>95.....</b>	<b>4.3</b>
3rd pillar: Infrastructure.....	80.....	3.9
4th pillar: Affordability.....	99.....	4.4
5th pillar: Skills.....	89.....	4.6
<b>C. Usage subindex.....</b>	<b>125.....</b>	<b>2.8</b>
6th pillar: Individual usage.....	103.....	2.8
7th pillar: Business usage.....	133.....	2.9
8th pillar: Government usage.....	130.....	2.7
<b>D. Impact subindex.....</b>	<b>129.....</b>	<b>2.6</b>
9th pillar: Economic impacts.....	124.....	2.6
10th pillar: Social impacts.....	132.....	2.7



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	110	3.0
1.02 Laws relating to ICTs*	123	2.8
1.03 Judicial independence*	95	3.3
1.04 Efficiency of legal system in settling disputes*	85	3.4
1.05 Efficiency of legal system in challenging regs*	85	3.3
1.06 Intellectual property protection*	105	3.3
1.07 Software piracy rate, % software installed.....	96	85
1.08 No. procedures to enforce a contract.....	125	45
1.09 No. days to enforce a contract.....	97	630
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	129	3.6
2.02 Venture capital availability*.....	79	2.6
2.03 Total tax rate, % profits.....	136	72.7
2.04 No. days to start a business.....	102	20
2.05 No. procedures to start a business.....	125	12
2.06 Intensity of local competition*.....	137	3.7
2.07 Tertiary education gross enrollment rate, %.....	75	34.6
2.08 Quality of management schools*.....	117	3.4
2.09 Gov't procurement of advanced tech*.....	92	3.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	86	1568.4
3.02 Mobile network coverage, % pop.....	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user.....	72	32.9
3.04 Secure Internet servers/million pop.....	122	2.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	79	0.28
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	101	49.98
4.03 Internet & telephony competition, 0–2 (best).....	105	1.33
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	91	3.3
5.02 Quality of math & science education*.....	105	3.3
5.03 Secondary education gross enrollment rate, %.....	42	99.9
5.04 Adult literacy rate, %.....	84	80.2

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	105	92.9
6.02 Individuals using Internet, %.....	106	18.1
6.03 Households w/ personal computer, %.....	89	28.2
6.04 Households w/ Internet access, %.....	89	25.9
6.05 Fixed broadband Internet subs/100 pop.....	89	4.0
6.06 Mobile broadband subs/100 pop.....	98	20.8
6.07 Use of virtual social networks*.....	123	4.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	136	3.4
7.02 Capacity for innovation*.....	126	3.3
7.03 PCT patents, applications/million pop.....	89	0.2
7.04 ICT use for business-to-business transactions*.....	132	3.6
7.05 Business-to-consumer Internet use*.....	128	3.3
7.06 Extent of staff training*.....	126	3.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	119	3.1
8.02 Government Online Service Index, 0–1 (best).....	130	0.08
8.03 Gov't success in ICT promotion*.....	115	3.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	126	3.6
9.02 ICT PCT patents, applications/million pop.....	95	0.0
9.03 Impact of ICTs on organizational models*.....	133	2.9
9.04 Knowledge-intensive jobs, % workforce.....	81	17.6
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	124	3.2
10.02 Internet access in schools*.....	128	2.8
10.03 ICT use & gov't efficiency*.....	116	3.3
10.04 E-Participation Index, 0–1 (best).....	132	0.08

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

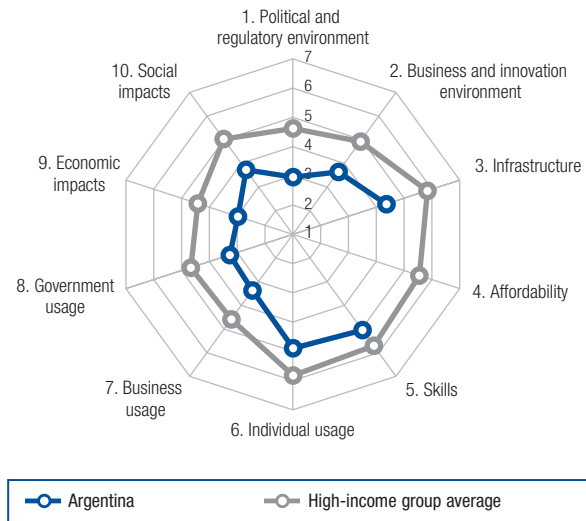
# Argentina

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 89.. 3.8

Networked Readiness Index (out of 143)..... 91 ..... 3.7  
 Networked Readiness Index 2014 (out of 148)..... 100 ..... 3.5  
 Networked Readiness Index 2013 (out of 144)..... 99 ..... 3.5

<b>A. Environment subindex</b> .....	<b>124</b> .....	<b>3.3</b>
1st pillar: Political and regulatory environment.....	127	3.0
2nd pillar: Business and innovation environment.....	115	3.6
<b>B. Readiness subindex</b> .....	<b>78</b> .....	<b>4.7</b>
3rd pillar: Infrastructure.....	66	4.3
4th pillar: Affordability.....	n/a	n/a
5th pillar: Skills.....	71	5.0
<b>C. Usage subindex</b> .....	<b>73</b> .....	<b>3.8</b>
6th pillar: Individual usage.....	53	4.9
7th pillar: Business usage.....	103	3.4
8th pillar: Government usage.....	111	3.3
<b>D. Impact subindex</b> .....	<b>92</b> .....	<b>3.4</b>
9th pillar: Economic impacts.....	87	3.0
10th pillar: Social impacts.....	88	3.7



## The Networked Readiness Index in detail

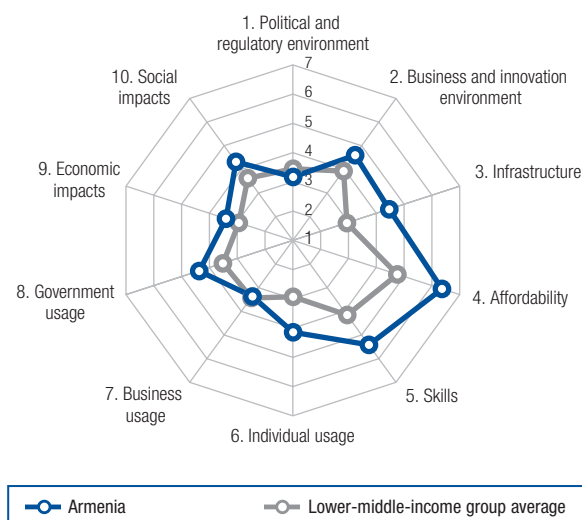
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	132	2.3
1.02 Laws relating to ICTs*	114	3.0
1.03 Judicial independence*	128	2.4
1.04 Efficiency of legal system in settling disputes*	128	2.7
1.05 Efficiency of legal system in challenging regs*	133	2.3
1.06 Intellectual property protection*	124	3.0
1.07 Software piracy rate, % software installed	67	69
1.08 No. procedures to enforce a contract	58	36
1.09 No. days to enforce a contract	84	590
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	126	3.7
2.02 Venture capital availability*	126	2.0
2.03 Total tax rate, % profits	139	137.4
2.04 No. days to start a business	106	25
2.05 No. procedures to start a business	135	14
2.06 Intensity of local competition*	123	4.3
2.07 Tertiary education gross enrollment rate, %	15	80.0
2.08 Quality of management schools*	35	4.8
2.09 Gov't procurement of advanced tech*	134	2.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	61	3271.7
3.02 Mobile network coverage, % pop.	109	94.1
3.03 Int'l Internet bandwidth, kb/s per user	56	48.1
3.04 Secure Internet servers/million pop.	63	52.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	n/a	n/a
4.02 Fixed broadband Internet tariffs, PPP \$/month	n/a	n/a
4.03 Internet & telephony competition, 0-2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	108	3.1
5.02 Quality of math & science education*	113	3.1
5.03 Secondary education gross enrollment rate, %	28	106.3
5.04 Adult literacy rate, %	30	98.1

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	13	158.8
6.02 Individuals using Internet, %	48	64.7
6.03 Households w/ personal computer, %	55	62.1
6.04 Households w/ Internet access, %	61	52.0
6.05 Fixed broadband Internet subs/100 pop.	52	15.6
6.06 Mobile broadband subs/100 pop.	53	53.6
6.07 Use of virtual social networks*	53	5.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	115	4.0
7.02 Capacity for innovation*	74	3.9
7.03 PCT patents, applications/million pop.	70	1.2
7.04 ICT use for business-to-business transactions*	120	3.9
7.05 Business-to-consumer Internet use*	76	4.2
7.06 Extent of staff training*	88	3.8
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	137	2.6
8.02 Government Online Service Index, 0-1 (best)	55	0.55
8.03 Gov't success in ICT promotion*	133	2.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	125	3.6
9.02 ICT PCT patents, applications/million pop.	73	0.2
9.03 Impact of ICTs on organizational models*	85	3.8
9.04 Knowledge-intensive jobs, % workforce	60	23.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	109	3.5
10.02 Internet access in schools*	75	4.1
10.03 ICT use & gov't efficiency*	126	3.0
10.04 E-Participation Index, 0-1 (best)	54	0.55

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Armenia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>56</b>	<b>4.3</b>
Networked Readiness Index 2015 (out of 143).....	58	4.2
Networked Readiness Index 2014 (out of 148).....	65	4.0
Networked Readiness Index 2013 (out of 144).....	82	3.8
<b>A. Environment subindex</b> .....	<b>78</b>	<b>3.9</b>
1st pillar: Political and regulatory environment.....	116	3.2
2nd pillar: Business and innovation environment.....	50	4.6
<b>B. Readiness subindex</b> .....	<b>43</b>	<b>5.4</b>
3rd pillar: Infrastructure.....	61	4.4
4th pillar: Affordability.....	18	6.3
5th pillar: Skills.....	51	5.4
<b>C. Usage subindex</b> .....	<b>65</b>	<b>4.0</b>
6th pillar: Individual usage.....	69	4.1
7th pillar: Business usage.....	101	3.4
8th pillar: Government usage.....	46	4.4
<b>D. Impact subindex</b> .....	<b>54</b>	<b>3.9</b>
9th pillar: Economic impacts.....	56	3.4
10th pillar: Social impacts.....	56	4.3



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	98	3.2
1.02 Laws relating to ICTs*	50	4.2
1.03 Judicial independence*	106	3.0
1.04 Efficiency of legal system in settling disputes*	89	3.3
1.05 Efficiency of legal system in challenging regs*	115	2.8
1.06 Intellectual property protection*	93	3.5
1.07 Software piracy rate, % software installed	99	86
1.08 No. procedures to enforce a contract	134	49
1.09 No. days to enforce a contract	75	570
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	87	4.4
2.02 Venture capital availability*	90	2.5
2.03 Total tax rate, % profits	11	19.9
2.04 No. days to start a business	9	3
2.05 No. procedures to start a business	3	2
2.06 Intensity of local competition*	85	4.8
2.07 Tertiary education gross enrollment rate, %	58	46.6
2.08 Quality of management schools*	115	3.4
2.09 Gov't procurement of advanced tech*	108	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	70	2576.7
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	58	44.5
3.04 Secure Internet servers/million pop.	70	40.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	56	0.22
4.02 Fixed broadband Internet tariffs, PPP \$/month	24	21.04
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	84	3.5
5.02 Quality of math & science education*	47	4.4
5.03 Secondary education gross enrollment rate, %	58	96.6
5.04 Adult literacy rate, %	8	99.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	64	115.9
6.02 Individuals using Internet, %	75	46.3
6.03 Households w/ personal computer, %	68	51.5
6.04 Households w/ Internet access, %	70	46.6
6.05 Fixed broadband Internet subs/100 pop.	72	9.1
6.06 Mobile broadband subs/100 pop.	77	34.2
6.07 Use of virtual social networks*	59	5.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	113	4.1
7.02 Capacity for innovation*	87	3.8
7.03 PCT patents, applications/million pop.	56	2.8
7.04 ICT use for business-to-business transactions*	70	4.7
7.05 Business-to-consumer Internet use*	70	4.4
7.06 Extent of staff training*	116	3.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	54	4.1
8.02 Government Online Service Index, 0–1 (best)	43	0.61
8.03 Gov't success in ICT promotion*	50	4.3
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	62	4.5
9.02 ICT PCT patents, applications/million pop.	66	0.4
9.03 Impact of ICTs on organizational models*	61	4.3
9.04 Knowledge-intensive jobs, % workforce	50	26.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	63	4.3
10.02 Internet access in schools*	70	4.2
10.03 ICT use & gov't efficiency*	40	4.5
10.04 E-Participation Index, 0–1 (best)	59	0.53

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Australia

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 18..5.5

Networked Readiness Index (out of 143)..... 16..... 5.5  
 Networked Readiness Index 2014 (out of 148)..... 18..... 5.4  
 Networked Readiness Index 2013 (out of 144)..... 18..... 5.3

### A. Environment subindex..... 16..... 5.2

1st pillar: Political and regulatory environment..... 13..... 5.4  
 2nd pillar: Business and innovation environment..... 23..... 5.1

### B. Readiness subindex ..... 10..... 6.2

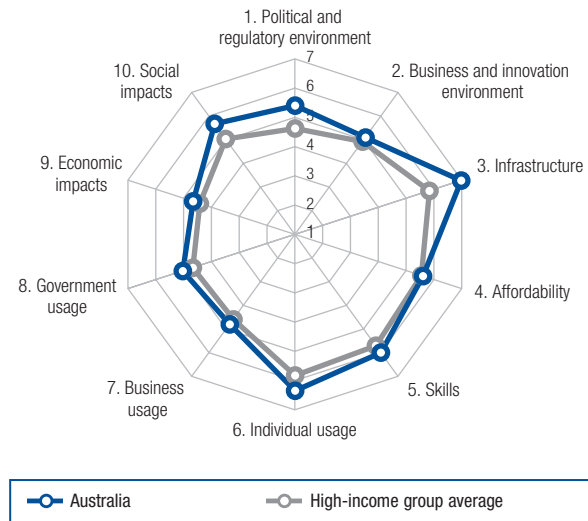
3rd pillar: Infrastructure ..... 7 ..... 7.0  
 4th pillar: Affordability ..... 57 ..... 5.6  
 5th pillar: Skills ..... 13 ..... 6.0

### C. Usage subindex..... 22..... 5.4

6th pillar: Individual usage..... 13..... 6.3  
 7th pillar: Business usage ..... 24 ..... 4.8  
 8th pillar: Government usage ..... 22 ..... 5.0

### D. Impact subindex..... 21..... 5.2

9th pillar: Economic impacts..... 23..... 4.7  
 10th pillar: Social impacts..... 9..... 5.7



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	22	4.8
1.02 Laws relating to ICTs*	29	4.8
1.03 Judicial independence*	13	6.2
1.04 Efficiency of legal system in settling disputes*	22	4.9
1.05 Efficiency of legal system in challenging regs*	23	4.7
1.06 Intellectual property protection*	13	5.8
1.07 Software piracy rate, % software installed	5	21
1.08 No. procedures to enforce a contract	12	28
1.09 No. days to enforce a contract	23	395
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	24	5.9
2.02 Venture capital availability*	40	3.1
2.03 Total tax rate, % profits	101	47.6
2.04 No. days to start a business	6	3
2.05 No. procedures to start a business	11	3
2.06 Intensity of local competition*	9	5.9
2.07 Tertiary education gross enrollment rate, %	6	86.6
2.08 Quality of management schools*	19	5.3
2.09 Gov't procurement of advanced tech*	70	3.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	11	10765.5
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	38	75.1
3.04 Secure Internet servers/million pop.	14	1348.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	19	0.10
4.02 Fixed broadband Internet tariffs, PPP \$/month 100	100	46.70
4.03 Internet & telephony competition, 0-2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	13	5.1
5.02 Quality of math & science education*	27	4.8
5.03 Secondary education gross enrollment rate, %	3	137.6
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

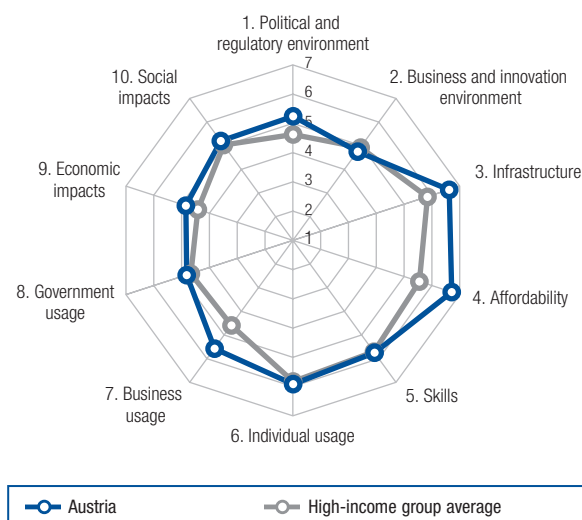
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	43	131.2
6.02 Individuals using Internet, %	19	84.6
6.03 Households w/ personal computer, %	17	85.6
6.04 Households w/ Internet access, %	17	86.9
6.05 Fixed broadband Internet subs/100 pop.	25	27.7
6.06 Mobile broadband subs/100 pop.	10	112.2
6.07 Use of virtual social networks*	32	6.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	22	5.6
7.02 Capacity for innovation*	25	4.8
7.03 PCT patents, applications/million pop.	22	76.4
7.04 ICT use for business-to-business transactions*	26	5.5
7.05 Business-to-consumer Internet use*	25	5.5
7.06 Extent of staff training*	24	4.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	47	4.3
8.02 Government Online Service Index, 0-1 (best)	8	0.93
8.03 Gov't success in ICT promotion*	55	4.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	41	4.9
9.02 ICT PCT patents, applications/million pop.	20	24.0
9.03 Impact of ICTs on organizational models*	25	5.0
9.04 Knowledge-intensive jobs, % workforce	13	44.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	27	5.4
10.02 Internet access in schools*	6	6.1
10.03 ICT use & gov't efficiency*	42	4.5
10.04 E-Participation Index, 0-1 (best)	7	0.94

Note: Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Austria

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>20..</b>	<b>5.4</b>
Networked Readiness Index 2015 (out of 143).....	20.....	5.4
Networked Readiness Index 2014 (out of 148).....	22.....	5.3
Networked Readiness Index 2013 (out of 144).....	19.....	5.2
<b>A. Environment subindex.....</b>	<b>25.....</b>	<b>5.0</b>
1st pillar: Political and regulatory environment.....	19.....	5.2
2nd pillar: Business and innovation environment.....	40.....	4.7
<b>B. Readiness subindex.....</b>	<b>6.....</b>	<b>6.3</b>
3rd pillar: Infrastructure.....	13.....	6.6
4th pillar: Affordability.....	5.....	6.7
5th pillar: Skills.....	28.....	5.7
<b>C. Usage subindex.....</b>	<b>21.....</b>	<b>5.4</b>
6th pillar: Individual usage.....	27.....	5.9
7th pillar: Business usage.....	10.....	5.6
8th pillar: Government usage.....	28.....	4.8
<b>D. Impact subindex.....</b>	<b>24.....</b>	<b>5.0</b>
9th pillar: Economic impacts.....	21.....	4.9
10th pillar: Social impacts.....	29.....	5.2



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	42	4.2
1.02 Laws relating to ICTs*	19	5.1
1.03 Judicial independence*	27	5.2
1.04 Efficiency of legal system in settling disputes*	21	5.0
1.05 Efficiency of legal system in challenging regs*	20	4.7
1.06 Intellectual property protection*	19	5.7
1.07 Software piracy rate, % software installed	6	2.2
1.08 No. procedures to enforce a contract	4	2.5
1.09 No. days to enforce a contract	26	3.97
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	19	6.1
2.02 Venture capital availability*	58	2.9
2.03 Total tax rate, % profits	115	51.7
2.04 No. days to start a business	104	2.2
2.05 No. procedures to start a business	92	8
2.06 Intensity of local competition*	15	5.7
2.07 Tertiary education gross enrollment rate, %	14	80.0
2.08 Quality of management schools*	32	4.9
2.09 Gov't procurement of advanced tech*	66	3.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	26	7611.3
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	36	79.6
3.04 Secure Internet servers/million pop.	16	1267.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	14	0.08
4.02 Fixed broadband Internet tariffs, PPP \$/month	30	22.93
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	37	4.3
5.02 Quality of math & science education*	37	4.6
5.03 Secondary education gross enrollment rate, %	50	99.3
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

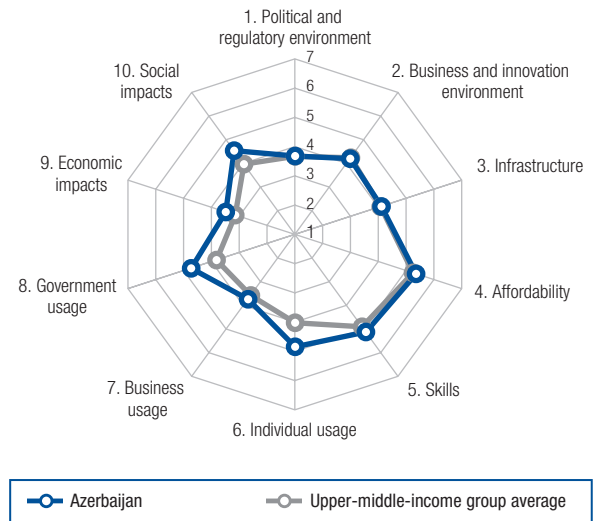
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	18	151.9
6.02 Individuals using Internet, %	25	81.0
6.03 Households w/ personal computer, %	21	83.7
6.04 Households w/ Internet access, %	26	81.0
6.05 Fixed broadband Internet subs/100 pop.	24	27.7
6.06 Mobile broadband subs/100 pop.	32	67.2
6.07 Use of virtual social networks*	47	5.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	17	5.7
7.02 Capacity for innovation*	8	5.4
7.03 PCT patents, applications/million pop.	11	169.0
7.04 ICT use for business-to-business transactions*	15	5.7
7.05 Business-to-consumer Internet use*	26	5.4
7.06 Extent of staff training*	15	5.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	41	4.4
8.02 Government Online Service Index, 0–1 (best)	23	0.75
8.03 Gov't success in ICT promotion*	35	4.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	25	5.3
9.02 ICT PCT patents, applications/million pop.	13	37.3
9.03 Impact of ICTs on organizational models*	32	4.7
9.04 Knowledge-intensive jobs, % workforce	22	40.4
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	9	5.9
10.02 Internet access in schools*	33	5.3
10.03 ICT use & gov't efficiency*	28	4.8
10.04 E-Participation Index, 0–1 (best)	40	0.63

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Azerbaijan

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index</b> .....	<b>53</b>	<b>4.3</b>
Networked Readiness Index (out of 143).....	57	4.3
Networked Readiness Index 2014 (out of 148).....	49	4.3
Networked Readiness Index 2013 (out of 144).....	56	4.1
<b>A. Environment subindex</b> .....	<b>74</b>	<b>3.9</b>
1st pillar: Political and regulatory environment.....	79	3.7
2nd pillar: Business and innovation environment.....	74	4.2
<b>B. Readiness subindex</b> .....	<b>67</b>	<b>4.8</b>
3rd pillar: Infrastructure.....	74	4.1
4th pillar: Affordability.....	71	5.3
5th pillar: Skills.....	68	5.1
<b>C. Usage subindex</b> .....	<b>41</b>	<b>4.4</b>
6th pillar: Individual usage.....	56	4.8
7th pillar: Business usage.....	58	3.7
8th pillar: Government usage.....	35	4.7
<b>D. Impact subindex</b> .....	<b>46</b>	<b>4.0</b>
9th pillar: Economic impacts.....	50	3.5
10th pillar: Social impacts.....	48	4.5



## The Networked Readiness Index in detail

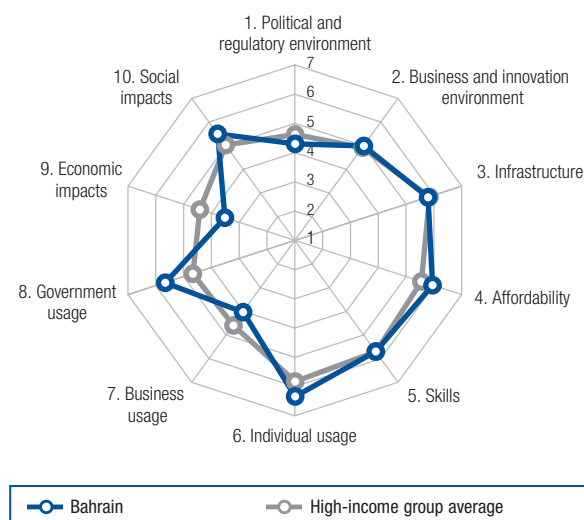
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	76	3.7
1.02 Laws relating to ICTs*	24	5.0
1.03 Judicial independence*	101	3.2
1.04 Efficiency of legal system in settling disputes*	63	3.8
1.05 Efficiency of legal system in challenging regs*	62	3.5
1.06 Intellectual property protection*	92	3.5
1.07 Software piracy rate, % software installed.....	96	85
1.08 No. procedures to enforce a contract.....	94	40
1.09 No. days to enforce a contract.....	6	277
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	54	5.0
2.02 Venture capital availability*.....	71	2.7
2.03 Total tax rate, % profits.....	78	39.8
2.04 No. days to start a business.....	9	3
2.05 No. procedures to start a business.....	3	2
2.06 Intensity of local competition*.....	120	4.3
2.07 Tertiary education gross enrollment rate, %.....	90	23.2
2.08 Quality of management schools*.....	121	3.3
2.09 Gov't procurement of advanced tech*.....	12	4.2
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	71	2480.0
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	73	32.2
3.04 Secure Internet servers/million pop.....	88	13.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	100	0.35
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	49	28.34
4.03 Internet & telephony competition, 0-2 (best).....	92	1.73
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	107	3.1
5.02 Quality of math & science education*.....	104	3.3
5.03 Secondary education gross enrollment rate, %.....	32	102.8
5.04 Adult literacy rate, %.....	4	99.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	77	110.9
6.02 Individuals using Internet, %.....	54	61.0
6.03 Households w/ personal computer, %.....	67	51.7
6.04 Households w/ Internet access, %.....	59	54.6
6.05 Fixed broadband Internet subs/100 pop.....	45	19.9
6.06 Mobile broadband subs/100 pop.....	41	61.5
6.07 Use of virtual social networks*.....	26	6.1
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	62	4.7
7.02 Capacity for innovation*.....	53	4.1
7.03 PCT patents, applications/million pop.....	79	0.5
7.04 ICT use for business-to-business transactions*.....	38	5.2
7.05 Business-to-consumer Internet use*.....	44	4.9
7.06 Extent of staff training*.....	90	3.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	8	5.2
8.02 Government Online Service Index, 0-1 (best).....	75	0.43
8.03 Gov't success in ICT promotion*.....	8	5.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	45	4.8
9.02 ICT PCT patents, applications/million pop.....	80	0.1
9.03 Impact of ICTs on organizational models*.....	30	4.8
9.04 Knowledge-intensive jobs, % workforce.....	62	23.4
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	42	4.9
10.02 Internet access in schools*.....	68	4.3
10.03 ICT use & gov't efficiency*.....	12	5.4
10.04 E-Participation Index, 0-1 (best).....	75	0.43

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Bahrain

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>28</b>	<b>5.1</b>
Networked Readiness Index 2015 (out of 143).....	30	4.9
Networked Readiness Index 2014 (out of 148).....	29	4.9
Networked Readiness Index 2013 (out of 144).....	29	4.8
<b>A. Environment subindex</b> .....	<b>35</b>	<b>4.6</b>
1st pillar: Political and regulatory environment.....	36	4.3
2nd pillar: Business and innovation environment.....	29	5.0
<b>B. Readiness subindex</b> .....	<b>26</b>	<b>5.8</b>
3rd pillar: Infrastructure.....	31	5.8
4th pillar: Affordability.....	40	5.9
5th pillar: Skills.....	31	5.7
<b>C. Usage subindex</b> .....	<b>24</b>	<b>5.3</b>
6th pillar: Individual usage.....	14	6.3
7th pillar: Business usage.....	37	4.0
8th pillar: Government usage.....	3	5.7
<b>D. Impact subindex</b> .....	<b>32</b>	<b>4.5</b>
9th pillar: Economic impacts.....	48	3.5
10th pillar: Social impacts.....	13	5.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	27	4.5
1.02 Laws relating to ICTs*	39	4.5
1.03 Judicial independence*	41	4.7
1.04 Efficiency of legal system in settling disputes*	33	4.5
1.05 Efficiency of legal system in challenging regs*	28	4.4
1.06 Intellectual property protection*	31	4.8
1.07 Software piracy rate, % software installed	43	5.3
1.08 No. procedures to enforce a contract	133	4.8
1.09 No. days to enforce a contract	98	6.35
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	29	5.7
2.02 Venture capital availability*	23	3.6
2.03 Total tax rate, % profits	4	13.5
2.04 No. days to start a business	56	9
2.05 No. procedures to start a business	74	7
2.06 Intensity of local competition*	47	5.3
2.07 Tertiary education gross enrollment rate, %	72	36.8
2.08 Quality of management schools*	43	4.6
2.09 Gov't procurement of advanced tech*	15	4.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	3	19205.2
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	52	49.1
3.04 Secure Internet servers/million pop.	43	177.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	38	0.15
4.02 Fixed broadband Internet tariffs, PPP \$/month	69	34.08
4.03 Internet & telephony competition, 0–2 (best)	69	1.90
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	26	4.6
5.02 Quality of math & science education*	42	4.6
5.03 Secondary education gross enrollment rate, %	48	99.4
5.04 Adult literacy rate, %	43	95.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	5	173.3
6.02 Individuals using Internet, %	10	91.0
6.03 Households w/ personal computer, %	7	94.6
6.04 Households w/ Internet access, %	25	81.0
6.05 Fixed broadband Internet subs/100 pop.	42	21.4
6.06 Mobile broadband subs/100 pop.	4	126.2
6.07 Use of virtual social networks*	15	6.3
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	33	5.3
7.02 Capacity for innovation*	70	3.9
7.03 PCT patents, applications/million pop.	55	2.8
7.04 ICT use for business-to-business transactions*	31	5.4
7.05 Business-to-consumer Internet use*	68	4.5
7.06 Extent of staff training*	22	4.8
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	9	5.2
8.02 Government Online Service Index, 0–1 (best)	7	0.94
8.03 Gov't success in ICT promotion*	12	5.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	38	4.9
9.02 ICT PCT patents, applications/million pop.	76	0.2
9.03 Impact of ICTs on organizational models*	37	4.6
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	26	5.4
10.02 Internet access in schools*	34	5.3
10.03 ICT use & gov't efficiency*	10	5.4
10.04 E-Participation Index, 0–1 (best)	14	0.82

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

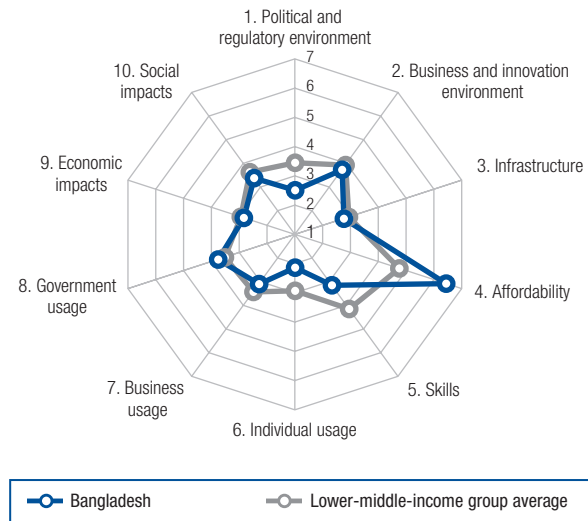
# Bangladesh

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 112.. 3.3

Networked Readiness Index (out of 143).....	109.....	3.3
Networked Readiness Index 2014 (out of 148).....	119.....	3.2
Networked Readiness Index 2013 (out of 144).....	114.....	3.2

<b>A. Environment subindex.....</b>	<b>130.....</b>	<b>3.1</b>
1st pillar: Political and regulatory environment.....	137.....	2.5
2nd pillar: Business and innovation environment.....	107.....	3.7
<b>B. Readiness subindex.....</b>	<b>98.....</b>	<b>4.1</b>
3rd pillar: Infrastructure.....	107.....	2.8
4th pillar: Affordability.....	14.....	6.4
5th pillar: Skills.....	122.....	3.1
<b>C. Usage subindex.....</b>	<b>111.....</b>	<b>3.0</b>
6th pillar: Individual usage.....	121.....	2.1
7th pillar: Business usage.....	119.....	3.1
8th pillar: Government usage.....	72.....	3.8
<b>D. Impact subindex.....</b>	<b>107.....</b>	<b>3.1</b>
9th pillar: Economic impacts.....	104.....	2.8
10th pillar: Social impacts.....	108.....	3.4



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	118	2.9
1.02 Laws relating to ICTs*	118	3.0
1.03 Judicial independence*	129	2.4
1.04 Efficiency of legal system in settling disputes*	130	2.6
1.05 Efficiency of legal system in challenging regs*	117	2.7
1.06 Intellectual property protection*	134	2.6
1.07 Software piracy rate, % software installed.....	100	87
1.08 No. procedures to enforce a contract.....	108	41
1.09 No. days to enforce a contract.....	138	1442
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	106	4.0
2.02 Venture capital availability*.....	122	2.1
2.03 Total tax rate, % profits.....	44	31.6
2.04 No. days to start a business.....	101	20
2.05 No. procedures to start a business.....	105	9
2.06 Intensity of local competition*.....	75	5.0
2.07 Tertiary education gross enrollment rate, %.....	107	13.4
2.08 Quality of management schools*.....	105	3.7
2.09 Gov't procurement of advanced tech*.....	129	2.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	116	337.5
3.02 Mobile network coverage, % pop.....	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user.....	110	6.6
3.04 Secure Internet servers/million pop.....	134	0.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	3	0.04
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	4	12.77
4.03 Internet & telephony competition, 0-2 (best).....	105	1.33
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	87	3.4
5.02 Quality of math & science education*.....	106	3.3
5.03 Secondary education gross enrollment rate, %.....	112	58.3
5.04 Adult literacy rate, %.....	102	61.5

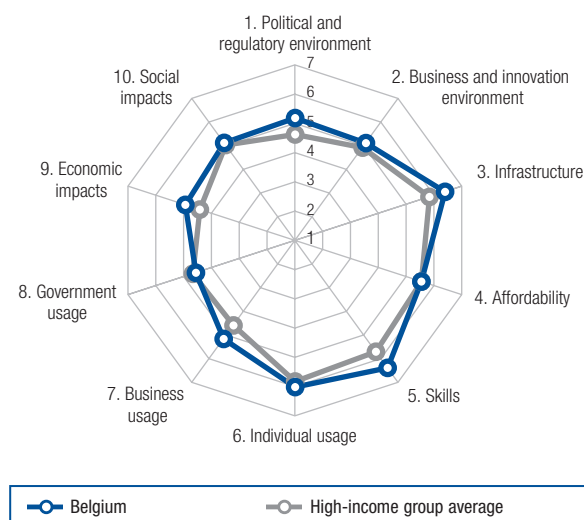
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	116	80.0
6.02 Individuals using Internet, %.....	126	9.6
6.03 Households w/ personal computer, %.....	124	6.9
6.04 Households w/ Internet access, %.....	119	6.5
6.05 Fixed broadband Internet subs/100 pop.....	99	2.0
6.06 Mobile broadband subs/100 pop.....	107	13.4
6.07 Use of virtual social networks*.....	118	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	108	4.1
7.02 Capacity for innovation*.....	117	3.4
7.03 PCT patents, applications/million pop.....	112	0.0
7.04 ICT use for business-to-business transactions*.....	124	3.8
7.05 Business-to-consumer Internet use*.....	110	3.7
7.06 Extent of staff training*.....	129	3.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	56	4.1
8.02 Government Online Service Index, 0-1 (best).....	90	0.35
8.03 Gov't success in ICT promotion*.....	63	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	116	3.8
9.02 ICT PCT patents, applications/million pop.....	100	0.0
9.03 Impact of ICTs on organizational models*.....	106	3.5
9.04 Knowledge-intensive jobs, % workforce.....	71	20.0
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	110	3.5
10.02 Internet access in schools*.....	121	3.2
10.03 ICT use & gov't efficiency*.....	98	3.5
10.04 E-Participation Index, 0-1 (best).....	81	0.39

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Belgium

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>23</b>	<b>5.4</b>
Networked Readiness Index 2015 (out of 143).....	24	5.3
Networked Readiness Index 2014 (out of 148).....	27	5.1
Networked Readiness Index 2013 (out of 144).....	24	5.1
<b>A. Environment subindex</b> .....	<b>22</b>	<b>5.1</b>
1st pillar: Political and regulatory environment.....	20	5.2
2nd pillar: Business and innovation environment.....	22	5.1
<b>B. Readiness subindex</b> .....	<b>17</b>	<b>6.1</b>
3rd pillar: Infrastructure.....	19	6.4
4th pillar: Affordability.....	62	5.5
5th pillar: Skills.....	4	6.4
<b>C. Usage subindex</b> .....	<b>27</b>	<b>5.2</b>
6th pillar: Individual usage.....	22	6.0
7th pillar: Business usage.....	17	5.2
8th pillar: Government usage.....	42	4.6
<b>D. Impact subindex</b> .....	<b>23</b>	<b>5.0</b>
9th pillar: Economic impacts.....	19	4.9
10th pillar: Social impacts.....	31	5.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	35	4.3
1.02 Laws relating to ICTs*	34	4.6
1.03 Judicial independence*	16	5.8
1.04 Efficiency of legal system in settling disputes*	34	4.5
1.05 Efficiency of legal system in challenging regs*	22	4.7
1.06 Intellectual property protection*	18	5.7
1.07 Software piracy rate, % software installed	9	24
1.08 No. procedures to enforce a contract	5	26
1.09 No. days to enforce a contract	54	505
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	15	6.2
2.02 Venture capital availability*	28	3.5
2.03 Total tax rate, % profits	121	58.4
2.04 No. days to start a business	15	4
2.05 No. procedures to start a business	11	3
2.06 Intensity of local competition*	6	6.0
2.07 Tertiary education gross enrollment rate, %	24	72.3
2.08 Quality of management schools*	2	6.0
2.09 Gov't procurement of advanced tech*	58	3.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	29	7342.8
3.02 Mobile network coverage, % pop.	37	99.9
3.03 Int'l Internet bandwidth, kb/s per user	11	263.9
3.04 Secure Internet servers/million pop.	21	854.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	92	0.32
4.02 Fixed broadband Internet tariffs, PPP \$/month	59	30.41
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	5	5.5
5.02 Quality of math & science education*	3	6.0
5.03 Secondary education gross enrollment rate, %	1	163.1
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	69	114.3
6.02 Individuals using Internet, %	18	85.0
6.03 Households w/ personal computer, %	20	83.8
6.04 Households w/ Internet access, %	22	82.8
6.05 Fixed broadband Internet subs/100 pop.	8	36.0
6.06 Mobile broadband subs/100 pop.	48	57.8
6.07 Use of virtual social networks*	25	6.1
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	19	5.6
7.02 Capacity for innovation*	13	5.3
7.03 PCT patents, applications/million pop.	16	107.0
7.04 ICT use for business-to-business transactions*	18	5.7
7.05 Business-to-consumer Internet use*	30	5.3
7.06 Extent of staff training*	11	5.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	52	4.3
8.02 Government Online Service Index, 0–1 (best)	31	0.68
8.03 Gov't success in ICT promotion*	46	4.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	20	5.4
9.02 ICT PCT patents, applications/million pop.	19	28.3
9.03 Impact of ICTs on organizational models*	22	5.1
9.04 Knowledge-intensive jobs, % workforce	10	46.2
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	18	5.7
10.02 Internet access in schools*	25	5.6
10.03 ICT use & gov't efficiency*	50	4.4
10.04 E-Participation Index, 0–1 (best)	40	0.63

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

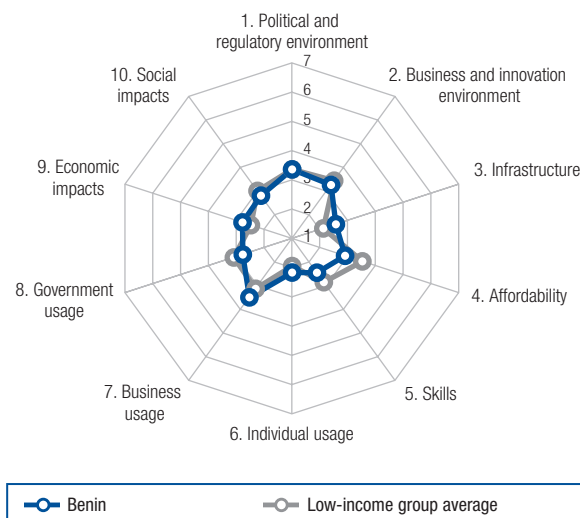
# Benin

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 128.. 2.9

Networked Readiness Index (out of 143)..... n/a..... n/a  
 Networked Readiness Index 2014 (out of 148)..... 135..... 2.8  
 Networked Readiness Index 2013 (out of 144)..... 123..... 3.0

<b>A. Environment subindex..... 123..... 3.3</b>	
1st pillar: Political and regulatory environment..... 99..... 3.4	
2nd pillar: Business and innovation environment..... 130..... 3.3	
<b>B. Readiness subindex ..... 128..... 2.6</b>	
3rd pillar: Infrastructure ..... 116..... 2.6	
4th pillar: Affordability ..... 126..... 2.9	
5th pillar: Skills..... 133..... 2.4	
<b>C. Usage subindex..... 122..... 2.8</b>	
6th pillar: Individual usage..... 119..... 2.2	
7th pillar: Business usage..... 84..... 3.5	
8th pillar: Government usage..... 127..... 2.8	
<b>D. Impact subindex..... 123..... 2.8</b>	
9th pillar: Economic impacts..... 108..... 2.8	
10th pillar: Social impacts..... 128..... 2.8	



## The Networked Readiness Index in detail

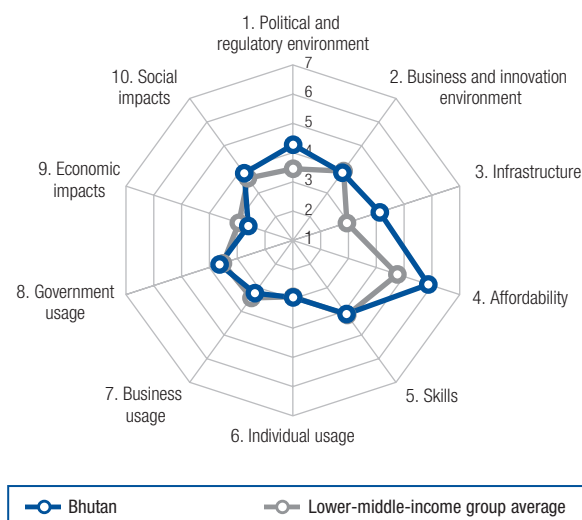
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	87	3.4
1.02 Laws relating to ICTs*	130	2.5
1.03 Judicial independence*	87	3.5
1.04 Efficiency of legal system in settling disputes*	100	3.2
1.05 Efficiency of legal system in challenging regs*	89	3.2
1.06 Intellectual property protection*	78	3.8
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract	108	4.1
1.09 No. days to enforce a contract	112	750
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	132	3.5
2.02 Venture capital availability*	114	2.2
2.03 Total tax rate, % profits	125	63.3
2.04 No. days to start a business	72	12
2.05 No. procedures to start a business	74	7
2.06 Intensity of local competition*	81	4.9
2.07 Tertiary education gross enrollment rate, %.....	105	15.4
2.08 Quality of management schools*.....	119	3.3
2.09 Gov't procurement of advanced tech*.....	111	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	138	16.8
3.02 Mobile network coverage, % pop. ....	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user.....	130	2.8
3.04 Secure Internet servers/million pop. ....	119	2.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	78	0.27
4.02 Fixed broadband Internet tariffs, PPP \$/month	125	113.62
4.03 Internet & telephony competition, 0-2 (best)....	126	0.91
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	134	2.4
5.02 Quality of math & science education*.....	109	3.2
5.03 Secondary education gross enrollment rate, %	116	54.4
5.04 Adult literacy rate, %.....	115	38.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	96	99.7
6.02 Individuals using Internet, %.....	132	5.3
6.03 Households w/ personal computer, %.....	129	4.8
6.04 Households w/ Internet access, %.....	133	3.5
6.05 Fixed broadband Internet subs/100 pop.....	116	0.4
6.06 Mobile broadband subs/100 pop.....	130	2.8
6.07 Use of virtual social networks*.....	122	4.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	117	4.0
7.02 Capacity for innovation*.....	22	4.9
7.03 PCT patents, applications/million pop. ....	121	0.0
7.04 ICT use for business-to-business transactions* 100	100	4.3
7.05 Business-to-consumer Internet use*.....	107	3.8
7.06 Extent of staff training*.....	110	3.5
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	115	3.2
8.02 Government Online Service Index, 0-1 (best)...	126	0.11
8.03 Gov't success in ICT promotion*.....	108	3.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	114	3.8
9.02 ICT PCT patents, applications/million pop. ....	103	0.0
9.03 Impact of ICTs on organizational models*.....	110	3.5
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*....	137	2.6
10.02 Internet access in schools*.....	115	3.3
10.03 ICT use & gov't efficiency*.....	118	3.2
10.04 E-Participation Index, 0-1 (best).....	119	0.18

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Bhutan

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>87</b>	<b>3.8</b>
Networked Readiness Index 2015 (out of 143).....	88	3.7
Networked Readiness Index 2014 (out of 148).....	94	3.7
Networked Readiness Index 2013 (out of 144).....	n/a	n/a
<b>A. Environment subindex</b> .....	<b>63</b>	<b>4.1</b>
1st pillar: Political and regulatory environment.....	37	4.3
2nd pillar: Business and innovation environment.....	102	3.9
<b>B. Readiness subindex</b> .....	<b>80</b>	<b>4.7</b>
3rd pillar: Infrastructure.....	73	4.1
4th pillar: Affordability.....	45	5.9
5th pillar: Skills.....	103	4.1
<b>C. Usage subindex</b> .....	<b>101</b>	<b>3.3</b>
6th pillar: Individual usage.....	99	2.9
7th pillar: Business usage.....	111	3.2
8th pillar: Government usage.....	83	3.6
<b>D. Impact subindex</b> .....	<b>98</b>	<b>3.2</b>
9th pillar: Economic impacts.....	119	2.6
10th pillar: Social impacts.....	85	3.8



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	24	4.8
1.02 Laws relating to ICTs*	103	3.3
1.03 Judicial independence*	35	4.9
1.04 Efficiency of legal system in settling disputes*	30	4.5
1.05 Efficiency of legal system in challenging regs*	43	4.0
1.06 Intellectual property protection*	54	4.1
1.07 Software piracy rate, % software installed	n/a	n/a
1.08 No. procedures to enforce a contract	131	4.7
1.09 No. days to enforce a contract	3	2.25
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	105	4.1
2.02 Venture capital availability*	83	2.6
2.03 Total tax rate, % profits	62	35.3
2.04 No. days to start a business	86	15
2.05 No. procedures to start a business	92	8
2.06 Intensity of local competition*	102	4.6
2.07 Tertiary education gross enrollment rate, %	112	10.9
2.08 Quality of management schools*	98	3.8
2.09 Gov't procurement of advanced tech*	41	3.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	15	10004.8
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	131	2.5
3.04 Secure Internet servers/million pop.	87	14.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	36	0.14
4.02 Fixed broadband Internet tariffs, PPP \$/month	41	26.21
4.03 Internet & telephony competition, 0–2 (best)	105	1.33
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	51	4.0
5.02 Quality of math & science education*	83	3.8
5.03 Secondary education gross enrollment rate, %	88	84.2
5.04 Adult literacy rate, %	98	64.9

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	112	82.1
6.02 Individuals using Internet, %	94	34.4
6.03 Households w/ personal computer, %	95	21.9
6.04 Households w/ Internet access, %	88	26.3
6.05 Fixed broadband Internet subs/100 pop.	92	3.3
6.06 Mobile broadband subs/100 pop.	89	28.2
6.07 Use of virtual social networks*	100	5.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	120	3.9
7.02 Capacity for innovation*	88	3.8
7.03 PCT patents, applications/million pop.	121	0.0
7.04 ICT use for business-to-business transactions*	122	3.9
7.05 Business-to-consumer Internet use*	122	3.5
7.06 Extent of staff training*	86	3.8
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	45	4.3
8.02 Government Online Service Index, 0–1 (best)	106	0.24
8.03 Gov't success in ICT promotion*	59	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	119	3.7
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	123	3.3
9.04 Knowledge-intensive jobs, % workforce	88	14.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	69	4.2
10.02 Internet access in schools*	92	3.8
10.03 ICT use & gov't efficiency*	52	4.2
10.04 E-Participation Index, 0–1 (best)	86	0.35

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

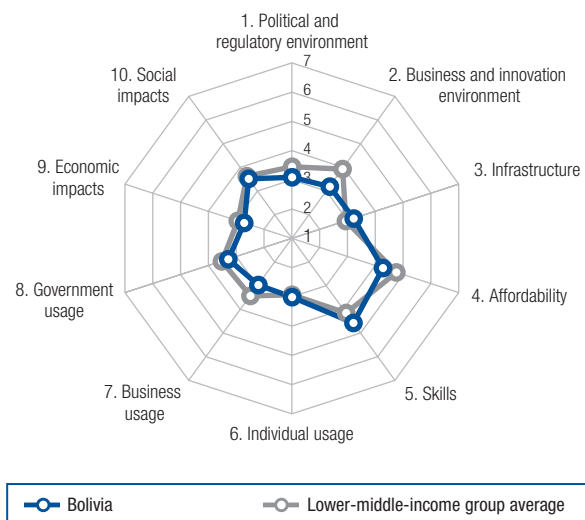
# Bolivia

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 111..3.3

Networked Readiness Index (out of 143)..... 111..... 3.3  
 Networked Readiness Index 2014 (out of 148)..... 120..... 3.2  
 Networked Readiness Index 2013 (out of 144)..... 119..... 3.0

- A. Environment subindex..... 129..... 3.1**
  - 1st pillar: Political and regulatory environment..... 119..... 3.1
  - 2nd pillar: Business and innovation environment..... 134..... 3.2
- B. Readiness subindex ..... 102..... 4.0**
  - 3rd pillar: Infrastructure ..... 91..... 3.2
  - 4th pillar: Affordability ..... 103..... 4.3
  - 5th pillar: Skills..... 90..... 4.6
- C. Usage subindex..... 108..... 3.1**
  - 6th pillar: Individual usage..... 97..... 3.0
  - 7th pillar: Business usage..... 132..... 3.0
  - 8th pillar: Government usage..... 108..... 3.3
- D. Impact subindex..... 106..... 3.1**
  - 9th pillar: Economic impacts..... 113..... 2.7
  - 10th pillar: Social impacts..... 98..... 3.5



## The Networked Readiness Index in detail

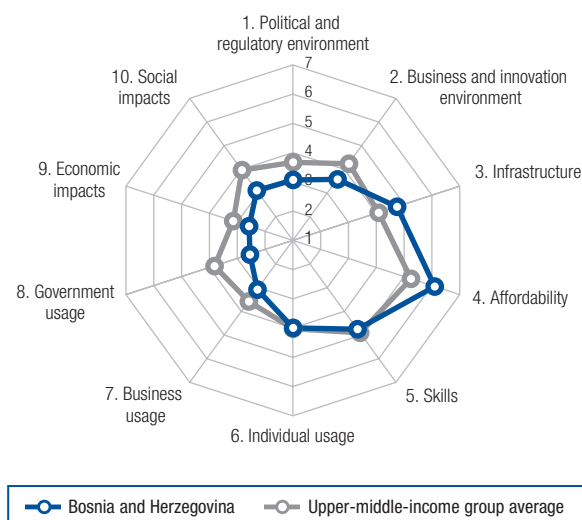
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	90	3.4
1.02 Laws relating to ICTs*	112	3.1
1.03 Judicial independence*	125	2.6
1.04 Efficiency of legal system in settling disputes*	102	3.2
1.05 Efficiency of legal system in challenging regs*	119	2.7
1.06 Intellectual property protection*	107	3.2
1.07 Software piracy rate, % software installed	82	79
1.08 No. procedures to enforce a contract	94	40
1.09 No. days to enforce a contract	85	591
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	124	3.8
2.02 Venture capital availability*	41	3.1
2.03 Total tax rate, % profits	138	83.7
2.04 No. days to start a business	128	50
2.05 No. procedures to start a business	136	15
2.06 Intensity of local competition*	126	4.3
2.07 Tertiary education gross enrollment rate, %	71	38.4
2.08 Quality of management schools*	129	3.1
2.09 Gov't procurement of advanced tech*	72	3.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	102	775.3
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	93	15.5
3.04 Secure Internet servers/million pop.	89	12.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	117	0.46
4.02 Fixed broadband Internet tariffs, PPP \$/month	57	30.40
4.03 Internet & telephony competition, 0-2 (best)	130	0.80
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	105	3.1
5.02 Quality of math & science education*	125	2.8
5.03 Secondary education gross enrollment rate, %	86	84.7
5.04 Adult literacy rate, %	45	95.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	99	96.3
6.02 Individuals using Internet, %	91	39.0
6.03 Households w/ personal computer, %	82	34.9
6.04 Households w/ Internet access, %	101	17.0
6.05 Fixed broadband Internet subs/100 pop.	102	1.6
6.06 Mobile broadband subs/100 pop.	90	28.1
6.07 Use of virtual social networks*	132	4.3
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	131	3.7
7.02 Capacity for innovation*	124	3.3
7.03 PCT patents, applications/million pop.	101	0.1
7.04 ICT use for business-to-business transactions*	130	3.7
7.05 Business-to-consumer Internet use*	130	3.3
7.06 Extent of staff training*	123	3.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	103	3.4
8.02 Government Online Service Index, 0-1 (best)	81	0.39
8.03 Gov't success in ICT promotion*	125	3.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	115	3.8
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	107	3.5
9.04 Knowledge-intensive jobs, % workforce	85	15.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	99	3.8
10.02 Internet access in schools*	107	3.5
10.03 ICT use & gov't efficiency*	114	3.4
10.04 E-Participation Index, 0-1 (best)	78	0.41

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Bosnia and Herzegovina

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>97</b>	<b>3.6</b>
Networked Readiness Index 2015 (out of 143).....	n/a	n/a
Networked Readiness Index 2014 (out of 148).....	68	4.0
Networked Readiness Index 2013 (out of 144).....	78	3.8
<b>A. Environment subindex</b> .....	<b>121</b>	<b>3.3</b>
1st pillar: Political and regulatory environment.....	120	3.1
2nd pillar: Business and innovation environment.....	120	3.6
<b>B. Readiness subindex</b> .....	<b>50</b>	<b>5.2</b>
3rd pillar: Infrastructure.....	50	4.7
4th pillar: Affordability.....	32	6.1
5th pillar: Skills.....	84	4.7
<b>C. Usage subindex</b> .....	<b>107</b>	<b>3.2</b>
6th pillar: Individual usage.....	73	4.0
7th pillar: Business usage.....	123	3.1
8th pillar: Government usage.....	133	2.6
<b>D. Impact subindex</b> .....	<b>121</b>	<b>2.8</b>
9th pillar: Economic impacts.....	123	2.6
10th pillar: Social impacts.....	119	3.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	115	2.9
1.02 Laws relating to ICTs*	131	2.5
1.03 Judicial independence*	110	2.9
1.04 Efficiency of legal system in settling disputes*	127	2.7
1.05 Efficiency of legal system in challenging regs*	116	2.8
1.06 Intellectual property protection*	130	2.9
1.07 Software piracy rate, % software installed	61	65
1.08 No. procedures to enforce a contract	69	37
1.09 No. days to enforce a contract	87	595
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	103	4.2
2.02 Venture capital availability*	106	2.3
2.03 Total tax rate, % profits	21	23.3
2.04 No. days to start a business	133	67
2.05 No. procedures to start a business	125	12
2.06 Intensity of local competition*	117	4.4
2.07 Tertiary education gross enrollment rate, %	92	22.1
2.08 Quality of management schools*	120	3.3
2.09 Gov't procurement of advanced tech*	137	2.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	49	4564.1
3.02 Mobile network coverage, % pop.	49	99.8
3.03 Int'l Internet bandwidth, kb/s per user	59	43.0
3.04 Secure Internet servers/million pop.	72	35.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	91	0.32
4.02 Fixed broadband Internet tariffs, PPP \$/month	12	16.39
4.03 Internet & telephony competition, 0–2 (best)	80	1.86
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	135	2.4
5.02 Quality of math & science education*	92	3.6
5.03 Secondary education gross enrollment rate, %	76	89.0
5.04 Adult literacy rate, %	24	98.5

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop	107	91.3
6.02 Individuals using Internet, %	56	60.8
6.03 Households w/ personal computer, %	74	45.0
6.04 Households w/ Internet access, %	65	50.0
6.05 Fixed broadband Internet subs/100 pop	57	14.2
6.06 Mobile broadband subs/100 pop	92	27.8
6.07 Use of virtual social networks*	98	5.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	83	4.4
7.02 Capacity for innovation*	133	3.0
7.03 PCT patents, applications/million pop.	60	1.7
7.04 ICT use for business-to-business transactions*	115	4.0
7.05 Business-to-consumer Internet use*	99	4.0
7.06 Extent of staff training*	136	2.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	136	2.6
8.02 Government Online Service Index, 0–1 (best)	103	0.28
8.03 Gov't success in ICT promotion*	138	2.3
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	122	3.6
9.02 ICT PCT patents, applications/million pop.	68	0.3
9.03 Impact of ICTs on organizational models*	128	3.1
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	113	3.5
10.02 Internet access in schools*	83	3.9
10.03 ICT use & gov't efficiency*	137	2.6
10.04 E-Participation Index, 0–1 (best)	110	0.24

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

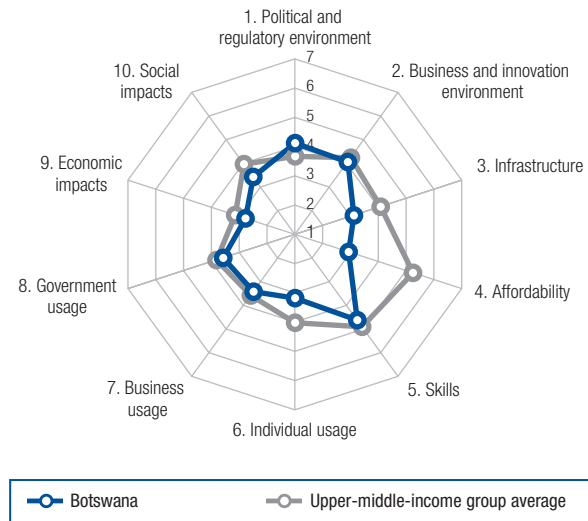
# Botswana

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 101..3.5

Networked Readiness Index (out of 143)..... 104..... 3.4  
 Networked Readiness Index 2014 (out of 148)..... 103..... 3.4  
 Networked Readiness Index 2013 (out of 144)..... 96..... 3.5

<b>A. Environment subindex..... 59..... 4.1</b>	
1st pillar: Political and regulatory environment..... 46..... 4.1	
2nd pillar: Business and innovation environment..... 84..... 4.1	
<b>B. Readiness subindex ..... 111 ..... 3.5</b>	
3rd pillar: Infrastructure ..... 95..... 3.1	
4th pillar: Affordability ..... 125..... 2.9	
5th pillar: Skills..... 87..... 4.6	
<b>C. Usage subindex..... 96..... 3.4</b>	
6th pillar: Individual usage..... 94..... 3.2	
7th pillar: Business usage..... 96..... 3.4	
8th pillar: Government usage..... 89..... 3.6	
<b>D. Impact subindex..... 108..... 3.1</b>	
9th pillar: Economic impacts..... 107..... 2.8	
10th pillar: Social impacts..... 105..... 3.4	



## The Networked Readiness Index in detail

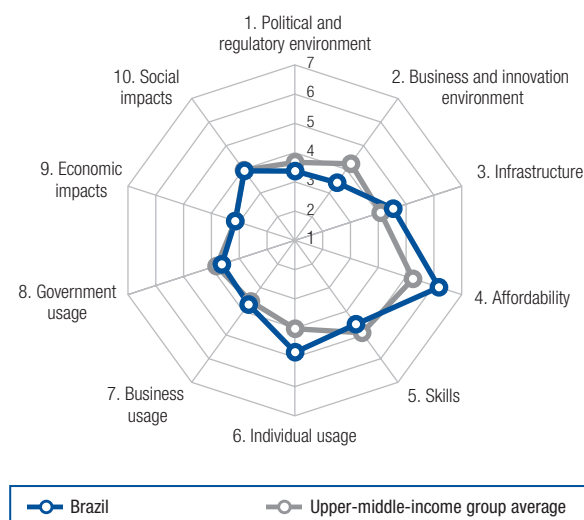
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	29	4.5
1.02 Laws relating to ICTs*	102	3.3
1.03 Judicial independence*	36	4.8
1.04 Efficiency of legal system in settling disputes*	32	4.5
1.05 Efficiency of legal system in challenging regs*	33	4.2
1.06 Intellectual property protection*	47	4.3
1.07 Software piracy rate, % software installed.....	82	79
1.08 No. procedures to enforce a contract.....	12	28
1.09 No. days to enforce a contract.....	96	625
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	98	4.2
2.02 Venture capital availability*.....	80	2.6
2.03 Total tax rate, % profits.....	25	25.1
2.04 No. days to start a business.....	127	48
2.05 No. procedures to start a business.....	105	9
2.06 Intensity of local competition*.....	72	5.0
2.07 Tertiary education gross enrollment rate, %.....	84	27.5
2.08 Quality of management schools*.....	112	3.5
2.09 Gov't procurement of advanced tech*.....	54	3.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	113	400.2
3.02 Mobile network coverage, % pop.....	90	98.0
3.03 Int'l Internet bandwidth, kb/s per user.....	91	16.4
3.04 Secure Internet servers/million pop.....	95	11.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	111	0.41
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	115	73.04
4.03 Internet & telephony competition, 0-2 (best).....	113	1.21
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	77	3.6
5.02 Quality of math & science education*.....	95	3.5
5.03 Secondary education gross enrollment rate, %.....	89	83.9
5.04 Adult literacy rate, %.....	72	88.5

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	8	167.3
6.02 Individuals using Internet, %.....	105	18.5
6.03 Households w/ personal computer, %.....	106	14.8
6.04 Households w/ Internet access, %.....	109	12.1
6.05 Fixed broadband Internet subs/100 pop.....	101	1.6
6.06 Mobile broadband subs/100 pop.....	58	49.7
6.07 Use of virtual social networks*.....	95	5.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	92	4.3
7.02 Capacity for innovation*.....	102	3.6
7.03 PCT patents, applications/million pop.....	96	0.1
7.04 ICT use for business-to-business transactions*.....	85	4.5
7.05 Business-to-consumer Internet use*.....	117	3.6
7.06 Extent of staff training*.....	51	4.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	61	4.0
8.02 Government Online Service Index, 0-1 (best).....	98	0.31
8.03 Gov't success in ICT promotion*.....	78	3.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	106	3.9
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	117	3.4
9.04 Knowledge-intensive jobs, % workforce.....	78	17.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	101	3.7
10.02 Internet access in schools*.....	116	3.3
10.03 ICT use & gov't efficiency*.....	81	3.8
10.04 E-Participation Index, 0-1 (best).....	98	0.31

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Brazil

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>72</b>	<b>4.0</b>
Networked Readiness Index 2015 (out of 143).....	84	3.9
Networked Readiness Index 2014 (out of 148).....	69	4.0
Networked Readiness Index 2013 (out of 144).....	60	4.0
<b>A. Environment subindex</b> .....	<b>118</b>	<b>3.4</b>
1st pillar: Political and regulatory environment.....	98	3.4
2nd pillar: Business and innovation environment.....	124	3.4
<b>B. Readiness subindex</b> .....	<b>55</b>	<b>5.1</b>
3rd pillar: Infrastructure.....	58	4.5
4th pillar: Affordability.....	26	6.2
5th pillar: Skills.....	91	4.5
<b>C. Usage subindex</b> .....	<b>57</b>	<b>4.0</b>
6th pillar: Individual usage.....	57	4.8
7th pillar: Business usage.....	59	3.7
8th pillar: Government usage.....	84	3.6
<b>D. Impact subindex</b> .....	<b>79</b>	<b>3.5</b>
9th pillar: Economic impacts.....	75	3.1
10th pillar: Social impacts.....	77	3.9



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	129	2.4
1.02 Laws relating to ICTs*	80	3.7
1.03 Judicial independence*	92	3.4
1.04 Efficiency of legal system in settling disputes*	123	2.8
1.05 Efficiency of legal system in challenging regs*	106	2.9
1.06 Intellectual property protection*	83	3.7
1.07 Software piracy rate, % software installed	38	5.0
1.08 No. procedures to enforce a contract	121	4.4
1.09 No. days to enforce a contract	109	7.31
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	85	4.5
2.02 Venture capital availability*	92	2.5
2.03 Total tax rate, % profits	133	69.2
2.04 No. days to start a business	135	83
2.05 No. procedures to start a business	120	11
2.06 Intensity of local competition*	41	5.4
2.07 Tertiary education gross enrollment rate, %	60	45.1
2.08 Quality of management schools*	84	4.0
2.09 Gov't procurement of advanced tech*	94	3.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	68	2792.2
3.02 Mobile network coverage, % pop.	35	100.0
3.03 Int'l Internet bandwidth, kb/s per user	60	43.0
3.04 Secure Internet servers/million pop.	58	68.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	87	0.31
4.02 Fixed broadband Internet tariffs, PPP \$/month	14	17.62
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	131	2.4
5.02 Quality of math & science education*	133	2.5
5.03 Secondary education gross enrollment rate, %	49	99.4
5.04 Adult literacy rate, %	66	92.6

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	35	139.0
6.02 Individuals using Internet, %	58	57.6
6.03 Households w/ personal computer, %	66	52.0
6.04 Households w/ Internet access, %	66	48.0
6.05 Fixed broadband Internet subs/100 pop.	63	11.7
6.06 Mobile broadband subs/100 pop.	24	78.2
6.07 Use of virtual social networks*	46	5.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	57	4.8
7.02 Capacity for innovation*	80	3.8
7.03 PCT patents, applications/million pop.	51	3.4
7.04 ICT use for business-to-business transactions*	78	4.6
7.05 Business-to-consumer Internet use*	40	5.0
7.06 Extent of staff training*	61	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	121	3.1
8.02 Government Online Service Index, 0–1 (best)	49	0.60
8.03 Gov't success in ICT promotion*	122	3.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	76	4.3
9.02 ICT PCT patents, applications/million pop.	58	0.5
9.03 Impact of ICTs on organizational models*	78	4.0
9.04 Knowledge-intensive jobs, % workforce	64	21.6
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	111	3.5
10.02 Internet access in schools*	97	3.6
10.03 ICT use & gov't efficiency*	110	3.4
10.04 E-Participation Index, 0–1 (best)	24	0.71

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

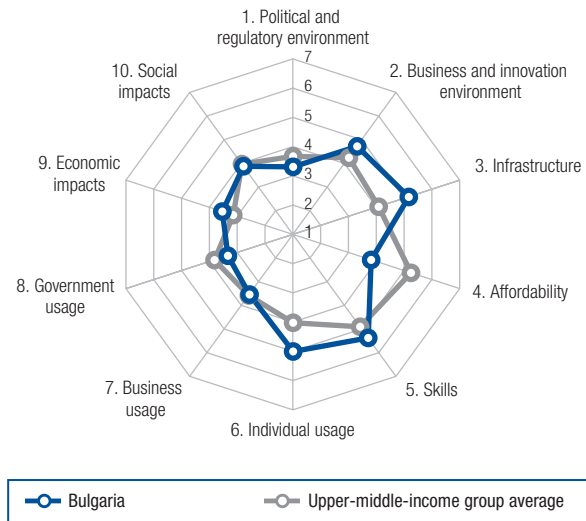
# Bulgaria

Rank (out of 139) Value (1-7)

## Networked Readiness Index.....69..4.1

Networked Readiness Index (out of 143).....73.....4.0  
 Networked Readiness Index 2014 (out of 148).....73.....4.0  
 Networked Readiness Index 2013 (out of 144).....71.....3.9

- A. Environment subindex.....66.....4.0**
  - 1st pillar: Political and regulatory environment.....101.....3.3
  - 2nd pillar: Business and innovation environment.....42.....4.7
- B. Readiness subindex.....72.....4.8**
  - 3rd pillar: Infrastructure.....38.....5.2
  - 4th pillar: Affordability.....111.....3.8
  - 5th pillar: Skills.....52.....5.4
- C. Usage subindex.....64.....4.0**
  - 6th pillar: Individual usage.....48.....5.0
  - 7th pillar: Business usage.....77.....3.5
  - 8th pillar: Government usage.....102.....3.3
- D. Impact subindex.....68.....3.7**
  - 9th pillar: Economic impacts.....46.....3.5
  - 10th pillar: Social impacts.....83.....3.9



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	123	2.7
1.02 Laws relating to ICTs*	57	4.1
1.03 Judicial independence*	116	2.7
1.04 Efficiency of legal system in settling disputes*	115	2.9
1.05 Efficiency of legal system in challenging regs*	114	2.8
1.06 Intellectual property protection*	117	3.1
1.07 Software piracy rate, % software installed	60	63
1.08 No. procedures to enforce a contract	76	38
1.09 No. days to enforce a contract	72	564
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	73	4.6
2.02 Venture capital availability*	62	2.8
2.03 Total tax rate, % profits	28	27.0
2.04 No. days to start a business	93	18
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	104	4.6
2.07 Tertiary education gross enrollment rate, %	27	70.8
2.08 Quality of management schools*	111	3.6
2.09 Gov't procurement of advanced tech*	86	3.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	36	5928.2
3.02 Mobile network coverage, % pop.	32	100.0
3.03 Int'l Internet bandwidth, kb/s per user	20	135.1
3.04 Secure Internet servers/million pop.	44	176.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	136	0.78
4.02 Fixed broadband Internet tariffs, PPP \$/month	32	24.12
4.03 Internet & telephony competition, 0-2 (best)	105	1.33
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	93	3.3
5.02 Quality of math & science education*	62	4.2
5.03 Secondary education gross enrollment rate, %	38	100.9
5.04 Adult literacy rate, %	26	98.4

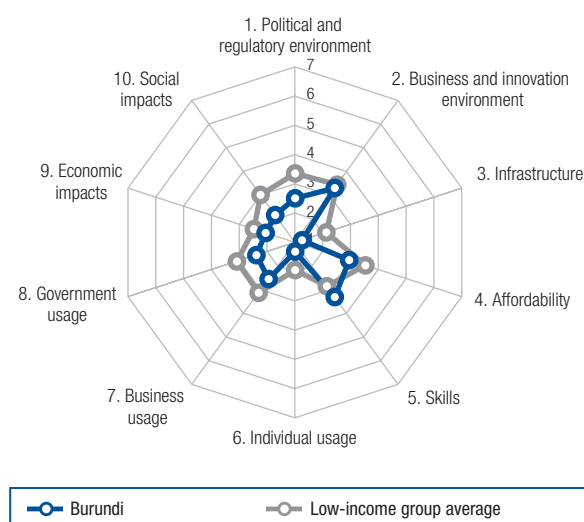
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	36	137.7
6.02 Individuals using Internet, %	61	55.5
6.03 Households w/ personal computer, %	58	57.9
6.04 Households w/ Internet access, %	55	56.7
6.05 Fixed broadband Internet subs/100 pop.	44	20.7
6.06 Mobile broadband subs/100 pop.	35	66.4
6.07 Use of virtual social networks*	62	5.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	85	4.4
7.02 Capacity for innovation*	79	3.8
7.03 PCT patents, applications/million pop.	44	6.8
7.04 ICT use for business-to-business transactions*	54	4.9
7.05 Business-to-consumer Internet use*	50	4.8
7.06 Extent of staff training*	117	3.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	78	3.8
8.02 Government Online Service Index, 0-1 (best)	110	0.24
8.03 Gov't success in ICT promotion*	81	3.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	74	4.4
9.02 ICT PCT patents, applications/million pop.	41	2.4
9.03 Impact of ICTs on organizational models*	63	4.2
9.04 Knowledge-intensive jobs, % workforce	43	31.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	64	4.3
10.02 Internet access in schools*	50	4.7
10.03 ICT use & gov't efficiency*	67	4.0
10.04 E-Participation Index, 0-1 (best)	105	0.25

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Burundi

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>138</b> .....	<b>2.4</b>
Networked Readiness Index 2015 (out of 143).....	141.....	2.4
Networked Readiness Index 2014 (out of 148).....	147.....	2.3
Networked Readiness Index 2013 (out of 144).....	144.....	2.3
<b>A. Environment subindex</b> .....	<b>134</b> .....	<b>2.9</b>
1st pillar: Political and regulatory environment.....	136.....	2.5
2nd pillar: Business and innovation environment.....	129.....	3.3
<b>B. Readiness subindex</b> .....	<b>133</b> .....	<b>2.5</b>
3rd pillar: Infrastructure.....	134.....	1.3
4th pillar: Affordability.....	124.....	2.9
5th pillar: Skills.....	119.....	3.3
<b>C. Usage subindex</b> .....	<b>139</b> .....	<b>2.1</b>
6th pillar: Individual usage.....	138.....	1.3
7th pillar: Business usage.....	139.....	2.5
8th pillar: Government usage.....	136.....	2.4
<b>D. Impact subindex</b> .....	<b>137</b> .....	<b>2.1</b>
9th pillar: Economic impacts.....	137.....	2.1
10th pillar: Social impacts.....	138.....	2.2



## The Networked Readiness Index in detail

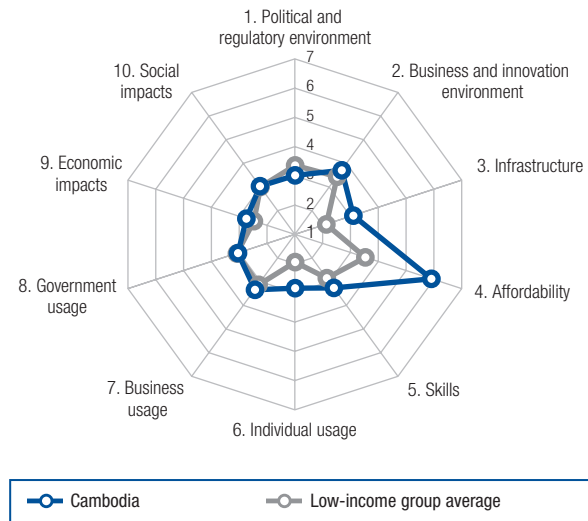
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	134	2.2
1.02 Laws relating to ICTs*	136	2.4
1.03 Judicial independence*	138	1.6
1.04 Efficiency of legal system in settling disputes*	116	2.9
1.05 Efficiency of legal system in challenging regs*	110	2.9
1.06 Intellectual property protection*	135	2.6
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	122	4.4
1.09 No. days to enforce a contract.....	115	8.32
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	137	3.1
2.02 Venture capital availability*	130	1.9
2.03 Total tax rate, % profits.....	81	40.3
2.04 No. days to start a business.....	15	4
2.05 No. procedures to start a business.....	11	3
2.06 Intensity of local competition*.....	135	3.9
2.07 Tertiary education gross enrollment rate, %.....	131	4.4
2.08 Quality of management schools*.....	137	2.6
2.09 Gov't procurement of advanced tech*.....	126	2.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	137	20.0
3.02 Mobile network coverage, % pop.....	136	30.0
3.03 Int'l Internet bandwidth, kb/s per user.....	109	6.9
3.04 Secure Internet servers/million pop.....	135	0.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	98	0.34
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	129	139.23
4.03 Internet & telephony competition, 0–2 (best).....	99	1.54
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	126	2.6
5.02 Quality of math & science education*.....	98	3.5
5.03 Secondary education gross enrollment rate, %.....	131	37.9
5.04 Adult literacy rate, %.....	78	85.6

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	139	30.5
6.02 Individuals using Internet, %.....	139	1.4
6.03 Households w/ personal computer, %.....	139	0.1
6.04 Households w/ Internet access, %.....	139	0.1
6.05 Fixed broadband Internet subs/100 pop.....	136	0.0
6.06 Mobile broadband subs/100 pop.....	134	0.5
6.07 Use of virtual social networks*.....	139	3.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	138	3.2
7.02 Capacity for innovation*.....	137	2.8
7.03 PCT patents, applications/million pop.....	121	0.0
7.04 ICT use for business-to-business transactions*.....	138	2.9
7.05 Business-to-consumer Internet use*.....	138	2.6
7.06 Extent of staff training*.....	137	2.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	125	3.0
8.02 Government Online Service Index, 0–1 (best).....	136	0.02
8.03 Gov't success in ICT promotion*.....	129	3.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	139	2.7
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	138	2.4
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	136	2.8
10.02 Internet access in schools*.....	138	1.7
10.03 ICT use & gov't efficiency*.....	131	2.8
10.04 E-Participation Index, 0–1 (best).....	136	0.06

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Cambodia

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>109..</b>	<b>3.4</b>
Networked Readiness Index (out of 143).....	110.....	3.3
Networked Readiness Index 2014 (out of 148).....	108.....	3.4
Networked Readiness Index 2013 (out of 144).....	106.....	3.3
<b>A. Environment subindex.....</b>	<b>119.....</b>	<b>3.4</b>
1st pillar: Political and regulatory environment.....	124.....	3.0
2nd pillar: Business and innovation environment.....	108.....	3.7
<b>B. Readiness subindex.....</b>	<b>100.....</b>	<b>4.1</b>
3rd pillar: Infrastructure.....	98.....	3.1
4th pillar: Affordability.....	43.....	5.9
5th pillar: Skills.....	120.....	3.3
<b>C. Usage subindex.....</b>	<b>110.....</b>	<b>3.1</b>
6th pillar: Individual usage.....	101.....	2.8
7th pillar: Business usage.....	104.....	3.3
8th pillar: Government usage.....	116.....	3.0
<b>D. Impact subindex.....</b>	<b>117.....</b>	<b>2.9</b>
9th pillar: Economic impacts.....	111.....	2.7
10th pillar: Social impacts.....	122.....	3.0



## The Networked Readiness Index in detail

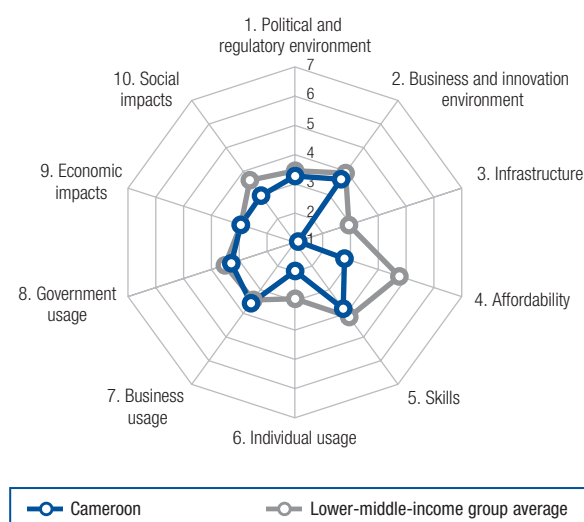
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	114	2.9
1.02 Laws relating to ICTs*.....	109	3.1
1.03 Judicial independence*.....	127	2.5
1.04 Efficiency of legal system in settling disputes*..	119	2.8
1.05 Efficiency of legal system in challenging regs*..	124	2.6
1.06 Intellectual property protection*.....	131	2.8
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	122	4.4
1.09 No. days to enforce a contract.....	51	4.83
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	101	4.2
2.02 Venture capital availability*.....	74	2.7
2.03 Total tax rate, % profits.....	14	21.0
2.04 No. days to start a business.....	136	87
2.05 No. procedures to start a business.....	74	7
2.06 Intensity of local competition*.....	97	4.7
2.07 Tertiary education gross enrollment rate, %.....	101	15.9
2.08 Quality of management schools*.....	124	3.2
2.09 Gov't procurement of advanced tech*.....	114	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	127	117.9
3.02 Mobile network coverage, % pop.....	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user.....	92	16.3
3.04 Secure Internet servers/million pop.....	113	3.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	65	0.23
4.02 Fixed broadband Internet tariffs, PPP \$/month ..	56	29.81
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	100	3.2
5.02 Quality of math & science education*.....	112	3.2
5.03 Secondary education gross enrollment rate, %	121	45.1
5.04 Adult literacy rate, %.....	89	77.2

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	40	132.7
6.02 Individuals using Internet, %.....	127	9.0
6.03 Households w/ personal computer, %.....	112	10.6
6.04 Households w/ Internet access, %.....	116	7.0
6.05 Fixed broadband Internet subs/100 pop.....	114	0.4
6.06 Mobile broadband subs/100 pop.....	81	31.1
6.07 Use of virtual social networks*.....	87	5.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	97	4.3
7.02 Capacity for innovation*.....	113	3.5
7.03 PCT patents, applications/million pop.....	108	0.0
7.04 ICT use for business-to-business transactions*..	82	4.5
7.05 Business-to-consumer Internet use*.....	98	4.0
7.06 Extent of staff training*.....	95	3.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	95	3.5
8.02 Government Online Service Index, 0-1 (best)...	114	0.17
8.03 Gov't success in ICT promotion*.....	102	3.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	71	4.4
9.02 ICT PCT patents, applications/million pop.....	93	0.0
9.03 Impact of ICTs on organizational models*.....	64	4.2
9.04 Knowledge-intensive jobs, % workforce.....	104	4.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	120	3.3
10.02 Internet access in schools*.....	106	3.5
10.03 ICT use & gov't efficiency*.....	120	3.2
10.04 E-Participation Index, 0-1 (best).....	115	0.20

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Cameroon

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>124</b> .....	<b>3.0</b>
Networked Readiness Index 2015 (out of 143).....	126.....	3.0
Networked Readiness Index 2014 (out of 148).....	131.....	2.9
Networked Readiness Index 2013 (out of 144).....	124.....	2.9
<b>A. Environment subindex</b> .....	<b>114</b> .....	<b>3.5</b>
1st pillar: Political and regulatory environment.....	105.....	3.3
2nd pillar: Business and innovation environment.....	114.....	3.7
<b>B. Readiness subindex</b> .....	<b>131</b> .....	<b>2.6</b>
3rd pillar: Infrastructure.....	138.....	1.1
4th pillar: Affordability.....	128.....	2.8
5th pillar: Skills.....	107.....	3.8
<b>C. Usage subindex</b> .....	<b>114</b> .....	<b>2.9</b>
6th pillar: Individual usage.....	125.....	2.0
7th pillar: Business usage.....	74.....	3.6
8th pillar: Government usage.....	107.....	3.3
<b>D. Impact subindex</b> .....	<b>115</b> .....	<b>3.0</b>
9th pillar: Economic impacts.....	89.....	2.9
10th pillar: Social impacts.....	124.....	3.0



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	79.....	3.7
1.02 Laws relating to ICTs*.....	110.....	3.1
1.03 Judicial independence*.....	103.....	3.1
1.04 Efficiency of legal system in settling disputes*.....	73.....	3.6
1.05 Efficiency of legal system in challenging regs*.....	73.....	3.4
1.06 Intellectual property protection*.....	69.....	3.9
1.07 Software piracy rate, % software installed.....	90.....	82
1.08 No. procedures to enforce a contract.....	113.....	42
1.09 No. days to enforce a contract.....	114.....	800
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	123.....	3.8
2.02 Venture capital availability*.....	108.....	2.3
2.03 Total tax rate, % profits.....	105.....	48.8
2.04 No. days to start a business.....	86.....	15
2.05 No. procedures to start a business.....	41.....	5
2.06 Intensity of local competition*.....	106.....	4.6
2.07 Tertiary education gross enrollment rate, %.....	110.....	11.9
2.08 Quality of management schools*.....	57.....	4.3
2.09 Gov't procurement of advanced tech*.....	75.....	3.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	117.....	308.4
3.02 Mobile network coverage, % pop.....	135.....	58.0
3.03 Int'l Internet bandwidth, kb/s per user.....	134.....	1.8
3.04 Secure Internet servers/million pop.....	126.....	1.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	102.....	0.35
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	126.....	127.72
4.03 Internet & telephony competition, 0–2 (best).....	111.....	1.22
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	72.....	3.6
5.02 Quality of math & science education*.....	66.....	4.1
5.03 Secondary education gross enrollment rate, %.....	115.....	56.4
5.04 Adult literacy rate, %.....	92.....	75.0

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	119.....	75.7
6.02 Individuals using Internet, %.....	121.....	11.0
6.03 Households w/ personal computer, %.....	114.....	9.6
6.04 Households w/ Internet access, %.....	119.....	6.5
6.05 Fixed broadband Internet subs/100 pop.....	132.....	0.1
6.06 Mobile broadband subs/100 pop.....	137.....	0.0
6.07 Use of virtual social networks*.....	117.....	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	84.....	4.4
7.02 Capacity for innovation*.....	46.....	4.3
7.03 PCT patents, applications/million pop.....	109.....	0.0
7.04 ICT use for business-to-business transactions*.....	92.....	4.4
7.05 Business-to-consumer Internet use*.....	103.....	3.9
7.06 Extent of staff training*.....	70.....	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	92.....	3.6
8.02 Government Online Service Index, 0–1 (best).....	113.....	0.20
8.03 Gov't success in ICT promotion*.....	60.....	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	93.....	4.1
9.02 ICT PCT patents, applications/million pop.....	103.....	0.0
9.03 Impact of ICTs on organizational models*.....	89.....	3.8
9.04 Knowledge-intensive jobs, % workforce.....	n/a.....	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	127.....	3.1
10.02 Internet access in schools*.....	114.....	3.4
10.03 ICT use & gov't efficiency*.....	103.....	3.5
10.04 E-Participation Index, 0–1 (best).....	123.....	0.16

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Canada

Rank (out of 139)    Value (1–7)

## Networked Readiness Index..... 14..5.6

Networked Readiness Index (out of 143)..... 11 ..... 5.5  
 Networked Readiness Index 2014 (out of 148)..... 17 ..... 5.4  
 Networked Readiness Index 2013 (out of 144)..... 12 ..... 5.4

### A. Environment subindex..... 10..... 5.4

1st pillar: Political and regulatory environment..... 15 ..... 5.4  
 2nd pillar: Business and innovation environment..... 4 ..... 5.5

### B. Readiness subindex ..... 8..... 6.2

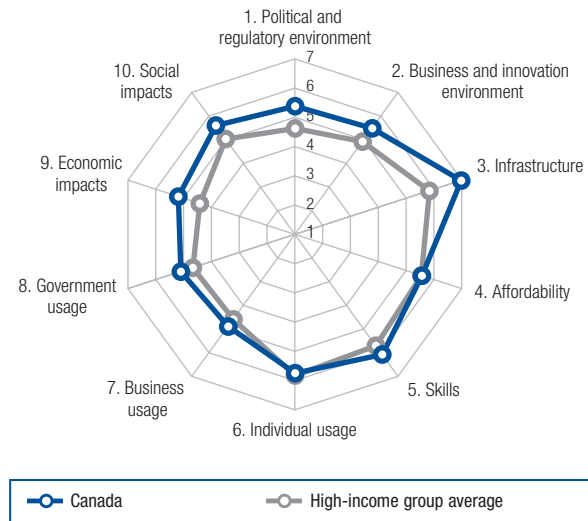
3rd pillar: Infrastructure ..... 7 ..... 7.0  
 4th pillar: Affordability ..... 61 ..... 5.6  
 5th pillar: Skills ..... 11 ..... 6.1

### C. Usage subindex..... 26..... 5.2

6th pillar: Individual usage..... 30 ..... 5.7  
 7th pillar: Business usage ..... 22 ..... 4.9  
 8th pillar: Government usage ..... 19 ..... 5.1

### D. Impact subindex..... 11 ..... 5.4

9th pillar: Economic impacts..... 12 ..... 5.2  
 10th pillar: Social impacts..... 11 ..... 5.6



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	13	5.3
1.02 Laws relating to ICTs*	13	5.1
1.03 Judicial independence*	11	6.2
1.04 Efficiency of legal system in settling disputes*	17	5.2
1.05 Efficiency of legal system in challenging regs*	14	5.0
1.06 Intellectual property protection*	12	5.8
1.07 Software piracy rate, % software installed	14	25
1.08 No. procedures to enforce a contract	58	36
1.09 No. days to enforce a contract	75	570
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	11	6.2
2.02 Venture capital availability*	20	3.7
2.03 Total tax rate, % profits	15	21.1
2.04 No. days to start a business	3	2
2.05 No. procedures to start a business	3	2
2.06 Intensity of local competition*	24	5.6
2.07 Tertiary education gross enrollment rate, %	n/a	n/a
2.08 Quality of management schools*	5	5.8
2.09 Gov't procurement of advanced tech*	55	3.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	4	18539.2
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	21	129.2
3.04 Secure Internet servers/million pop.	18	1210.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	60	0.23
4.02 Fixed broadband Internet tariffs, PPP \$/month	81	37.50
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	14	5.1
5.02 Quality of math & science education*	18	5.1
5.03 Secondary education gross enrollment rate, %	19	110.3
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

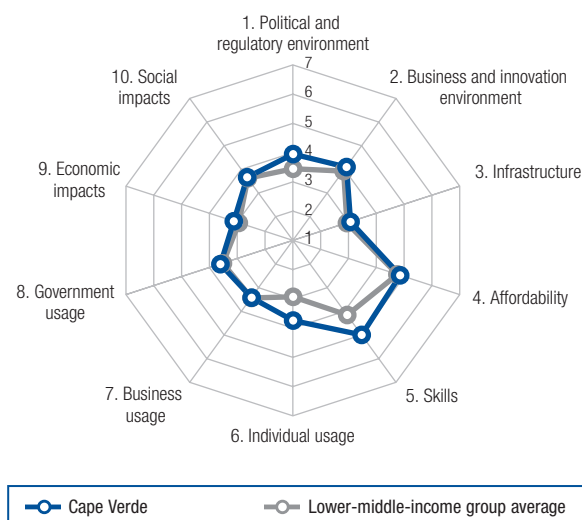
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	114	81.0
6.02 Individuals using Internet, %	14	87.1
6.03 Households w/ personal computer, %	15	87.6
6.04 Households w/ Internet access, %	18	86.6
6.05 Fixed broadband Internet subs/100 pop.	11	35.4
6.06 Mobile broadband subs/100 pop.	52	54.3
6.07 Use of virtual social networks*	18	6.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	29	5.4
7.02 Capacity for innovation*	23	4.9
7.03 PCT patents, applications/million pop.	19	89.3
7.04 ICT use for business-to-business transactions*	23	5.6
7.05 Business-to-consumer Internet use*	13	5.7
7.06 Extent of staff training*	25	4.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	49	4.3
8.02 Government Online Service Index, 0–1 (best)	10	0.91
8.03 Gov't success in ICT promotion*	38	4.5
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	18	5.5
9.02 ICT PCT patents, applications/million pop.	12	38.2
9.03 Impact of ICTs on organizational models*	12	5.4
9.04 Knowledge-intensive jobs, % workforce	16	43.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	12	5.8
10.02 Internet access in schools*	13	6.0
10.03 ICT use & gov't efficiency*	36	4.7
10.04 E-Participation Index, 0–1 (best)	14	0.82

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Cape Verde

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>85</b>	<b>3.8</b>
Networked Readiness Index 2015 (out of 143).....	87	3.8
Networked Readiness Index 2014 (out of 148).....	89	3.7
Networked Readiness Index 2013 (out of 144).....	81	3.8
<b>A. Environment subindex</b> .....	<b>64</b>	<b>4.0</b>
1st pillar: Political and regulatory environment.....	55	4.0
2nd pillar: Business and innovation environment.....	80	4.1
<b>B. Readiness subindex</b> .....	<b>96</b>	<b>4.3</b>
3rd pillar: Infrastructure.....	100	3.1
4th pillar: Affordability.....	86	4.8
5th pillar: Skills.....	75	5.0
<b>C. Usage subindex</b> .....	<b>87</b>	<b>3.6</b>
6th pillar: Individual usage.....	81	3.7
7th pillar: Business usage.....	95	3.4
8th pillar: Government usage.....	88	3.6
<b>D. Impact subindex</b> .....	<b>87</b>	<b>3.4</b>
9th pillar: Economic impacts.....	77	3.1
10th pillar: Social impacts.....	89	3.7



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	46	4.1
1.02 Laws relating to ICTs*	82	3.7
1.03 Judicial independence*	48	4.3
1.04 Efficiency of legal system in settling disputes*	93	3.3
1.05 Efficiency of legal system in challenging regs*	78	3.4
1.06 Intellectual property protection*	97	3.4
1.07 Software piracy rate, % software installed	n/a	n/a
1.08 No. procedures to enforce a contract	69	3.7
1.09 No. days to enforce a contract	34	4.25
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	75	4.6
2.02 Venture capital availability*	75	2.7
2.03 Total tax rate, % profits	66	36.5
2.04 No. days to start a business	57	10
2.05 No. procedures to start a business	74	7
2.06 Intensity of local competition*	114	4.4
2.07 Tertiary education gross enrollment rate, %	91	23.0
2.08 Quality of management schools*	76	4.0
2.09 Gov't procurement of advanced tech*	45	3.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	107	612.9
3.02 Mobile network coverage, % pop.	89	98.4
3.03 Int'l Internet bandwidth, kb/s per user	98	12.3
3.04 Secure Internet servers/million pop.	64	50.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	132	0.65
4.02 Fixed broadband Internet tariffs, PPP \$/month	18	19.17
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	55	4.0
5.02 Quality of math & science education*	77	4.0
5.03 Secondary education gross enrollment rate, %	65	92.6
5.04 Adult literacy rate, %	74	87.6

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	54	121.8
6.02 Individuals using Internet, %	87	40.3
6.03 Households w/ personal computer, %	87	32.2
6.04 Households w/ Internet access, %	91	24.8
6.05 Fixed broadband Internet subs/100 pop.	91	3.4
6.06 Mobile broadband subs/100 pop.	56	51.3
6.07 Use of virtual social networks*	81	5.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	67	4.6
7.02 Capacity for innovation*	99	3.6
7.03 PCT patents, applications/million pop.	121	0.0
7.04 ICT use for business-to-business transactions*	88	4.4
7.05 Business-to-consumer Internet use*	91	4.0
7.06 Extent of staff training*	100	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	38	4.5
8.02 Government Online Service Index, 0–1 (best)	117	0.17
8.03 Gov't success in ICT promotion*	45	4.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	65	4.5
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	82	3.9
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	62	4.3
10.02 Internet access in schools*	74	4.1
10.03 ICT use & gov't efficiency*	38	4.6
10.04 E-Participation Index, 0–1 (best)	130	0.10

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

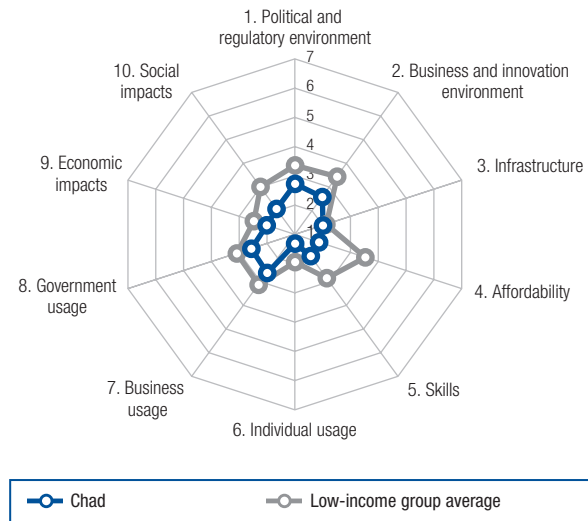
# Chad

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 139.. 2.2

Networked Readiness Index (out of 143)..... 143..... 2.3  
 Networked Readiness Index 2014 (out of 148)..... 148..... 2.2  
 Networked Readiness Index 2013 (out of 144)..... 142..... 2.5

- A. Environment subindex..... 138..... 2.7**
  - 1st pillar: Political and regulatory environment..... 132..... 2.7
  - 2nd pillar: Business and innovation environment..... 139..... 2.6
- B. Readiness subindex ..... 138..... 1.9**
  - 3rd pillar: Infrastructure ..... 127..... 2.0
  - 4th pillar: Affordability ..... 137..... 1.9
  - 5th pillar: Skills..... 139..... 1.9
- C. Usage subindex..... 138..... 2.2**
  - 6th pillar: Individual usage..... 139..... 1.3
  - 7th pillar: Business usage..... 137..... 2.6
  - 8th pillar: Government usage..... 132..... 2.6
- D. Impact subindex..... 139..... 2.1**
  - 9th pillar: Economic impacts..... 138..... 2.0
  - 10th pillar: Social impacts..... 139..... 2.1



## The Networked Readiness Index in detail

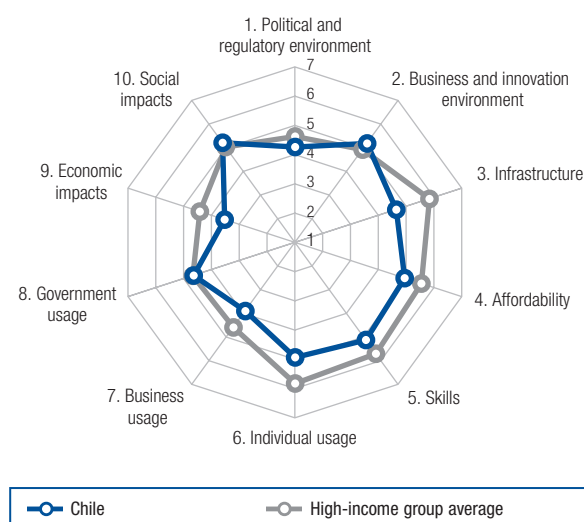
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	125	2.7
1.02 Laws relating to ICTs*	138	2.0
1.03 Judicial independence*	130	2.4
1.04 Efficiency of legal system in settling disputes*	118	2.9
1.05 Efficiency of legal system in challenging regs*	125	2.6
1.06 Intellectual property protection*	132	2.8
1.07 Software piracy rate, % software installed	n/a	n/a
1.08 No. procedures to enforce a contract	108	4.1
1.09 No. days to enforce a contract	111	743
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	138	2.9
2.02 Venture capital availability*	127	2.0
2.03 Total tax rate, % profits	127	63.5
2.04 No. days to start a business	131	60
2.05 No. procedures to start a business	105	9
2.06 Intensity of local competition*	138	3.7
2.07 Tertiary education gross enrollment rate, %	135	3.4
2.08 Quality of management schools*	127	3.1
2.09 Gov't procurement of advanced tech*	128	2.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	139	16.1
3.02 Mobile network coverage, % pop.	124	86.0
3.03 Int'l Internet bandwidth, kb/s per user	137	0.7
3.04 Secure Internet servers/million pop.	139	0.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	131	0.65
4.02 Fixed broadband Internet tariffs, PPP \$/month	137	1275.69
4.03 Internet & telephony competition, 0-2 (best)	101	1.50
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	123	2.7
5.02 Quality of math & science education*	120	3.0
5.03 Secondary education gross enrollment rate, %	138	22.4
5.04 Adult literacy rate, %	113	40.2

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	136	39.8
6.02 Individuals using Internet, %	136	2.5
6.03 Households w/ personal computer, %	135	2.9
6.04 Households w/ Internet access, %	136	2.7
6.05 Fixed broadband Internet subs/100 pop.	128	0.1
6.06 Mobile broadband subs/100 pop.	137	0.0
6.07 Use of virtual social networks*	138	3.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	137	3.3
7.02 Capacity for innovation*	128	3.2
7.03 PCT patents, applications/million pop.	121	0.0
7.04 ICT use for business-to-business transactions*	139	2.9
7.05 Business-to-consumer Internet use*	139	2.2
7.06 Extent of staff training*	133	3.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	127	3.0
8.02 Government Online Service Index, 0-1 (best)	133	0.05
8.03 Gov't success in ICT promotion*	107	3.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	138	2.8
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	139	2.2
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	139	2.5
10.02 Internet access in schools*	139	1.6
10.03 ICT use & gov't efficiency*	134	2.7
10.04 E-Participation Index, 0-1 (best)	132	0.08

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Chile

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>38</b>	<b>4.6</b>
Networked Readiness Index 2015 (out of 143).....	38	4.6
Networked Readiness Index 2014 (out of 148).....	35	4.6
Networked Readiness Index 2013 (out of 144).....	34	4.6
<b>A. Environment subindex</b> .....	<b>32</b>	<b>4.7</b>
1st pillar: Political and regulatory environment.....	38	4.3
2nd pillar: Business and innovation environment.....	19	5.2
<b>B. Readiness subindex</b> .....	<b>65</b>	<b>4.9</b>
3rd pillar: Infrastructure.....	54	4.6
4th pillar: Affordability.....	84	4.9
5th pillar: Skills.....	67	5.1
<b>C. Usage subindex</b> .....	<b>39</b>	<b>4.5</b>
6th pillar: Individual usage.....	52	4.9
7th pillar: Business usage.....	47	3.9
8th pillar: Government usage.....	39	4.6
<b>D. Impact subindex</b> .....	<b>35</b>	<b>4.4</b>
9th pillar: Economic impacts.....	47	3.5
10th pillar: Social impacts.....	27	5.2



## The Networked Readiness Index in detail

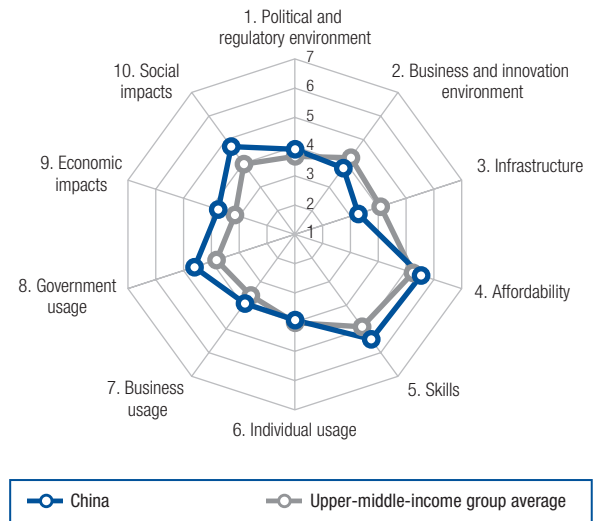
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	64	3.8
1.02 Laws relating to ICTs*	40	4.5
1.03 Judicial independence*	31	5.0
1.04 Efficiency of legal system in settling disputes*	47	4.0
1.05 Efficiency of legal system in challenging regs*	42	4.0
1.06 Intellectual property protection*	49	4.2
1.07 Software piracy rate, % software installed	51	5.9
1.08 No. procedures to enforce a contract	58	3.6
1.09 No. days to enforce a contract	50	4.80
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	33	5.6
2.02 Venture capital availability*	32	3.3
2.03 Total tax rate, % profits	32	28.9
2.04 No. days to start a business	28	6
2.05 No. procedures to start a business	74	7
2.06 Intensity of local competition*	22	5.6
2.07 Tertiary education gross enrollment rate, %	9	83.8
2.08 Quality of management schools*	21	5.3
2.09 Gov't procurement of advanced tech*	89	3.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	52	4157.1
3.02 Mobile network coverage, % pop.	104	95.0
3.03 Int'l Internet bandwidth, kb/s per user	40	73.1
3.04 Secure Internet servers/million pop.	47	127.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	93	0.32
4.02 Fixed broadband Internet tariffs, PPP \$/month	92	43.12
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	86	3.4
5.02 Quality of math & science education*	107	3.3
5.03 Secondary education gross enrollment rate, %	40	100.5
5.04 Adult literacy rate, %	36	97.3

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	39	133.3
6.02 Individuals using Internet, %	36	72.4
6.03 Households w/ personal computer, %	57	60.3
6.04 Households w/ Internet access, %	60	53.9
6.05 Fixed broadband Internet subs/100 pop.	58	14.1
6.06 Mobile broadband subs/100 pop.	57	50.5
6.07 Use of virtual social networks*	37	5.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	38	5.2
7.02 Capacity for innovation*	85	3.8
7.03 PCT patents, applications/million pop.	43	7.1
7.04 ICT use for business-to-business transactions*	37	5.2
7.05 Business-to-consumer Internet use*	38	5.1
7.06 Extent of staff training*	52	4.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	68	3.9
8.02 Government Online Service Index, 0–1 (best)	16	0.82
8.03 Gov't success in ICT promotion*	61	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	31	5.1
9.02 ICT PCT patents, applications/million pop.	52	0.8
9.03 Impact of ICTs on organizational models*	49	4.4
9.04 Knowledge-intensive jobs, % workforce	56	24.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	38	5.0
10.02 Internet access in schools*	49	4.8
10.03 ICT use & gov't efficiency*	44	4.5
10.04 E-Participation Index, 0–1 (best)	7	0.94

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# China

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index</b> .....	<b>59</b>	<b>4.2</b>
Networked Readiness Index (out of 143).....	62	4.2
Networked Readiness Index 2014 (out of 148).....	62	4.1
Networked Readiness Index 2013 (out of 144).....	58	4.0
<b>A. Environment subindex</b> .....	<b>83</b>	<b>3.9</b>
1st pillar: Political and regulatory environment.....	58	3.9
2nd pillar: Business and innovation environment.....	104	3.8
<b>B. Readiness subindex</b> .....	<b>75</b>	<b>4.7</b>
3rd pillar: Infrastructure.....	90	3.3
4th pillar: Affordability.....	63	5.5
5th pillar: Skills.....	47	5.4
<b>C. Usage subindex</b> .....	<b>51</b>	<b>4.1</b>
6th pillar: Individual usage.....	75	3.9
7th pillar: Business usage.....	44	3.9
8th pillar: Government usage.....	40	4.6
<b>D. Impact subindex</b> .....	<b>39</b>	<b>4.2</b>
9th pillar: Economic impacts.....	37	3.8
10th pillar: Social impacts.....	41	4.7



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	40	4.2
1.02 Laws relating to ICTs*	49	4.2
1.03 Judicial independence*	67	3.9
1.04 Efficiency of legal system in settling disputes*	50	4.0
1.05 Efficiency of legal system in challenging regs*	66	3.5
1.06 Intellectual property protection*	63	4.0
1.07 Software piracy rate, % software installed.....	73	74
1.08 No. procedures to enforce a contract.....	69	37
1.09 No. days to enforce a contract.....	44	453
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	95	4.3
2.02 Venture capital availability*	16	3.8
2.03 Total tax rate, % profits.....	131	67.8
2.04 No. days to start a business.....	121	31
2.05 No. procedures to start a business.....	120	11
2.06 Intensity of local competition*.....	36	5.4
2.07 Tertiary education gross enrollment rate, %.....	80	30.2
2.08 Quality of management schools*.....	85	3.9
2.09 Gov't procurement of advanced tech*.....	9	4.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	55	4005.2
3.02 Mobile network coverage, % pop.....	61	99.5
3.03 Int'l Internet bandwidth, kb/s per user.....	119	5.0
3.04 Secure Internet servers/million pop.....	102	7.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	6	0.06
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	68	33.99
4.03 Internet & telephony competition, 0-2 (best).....	118	1.14
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	56	3.9
5.02 Quality of math & science education*.....	49	4.4
5.03 Secondary education gross enrollment rate, %.....	60	96.2
5.04 Adult literacy rate, %.....	40	96.4

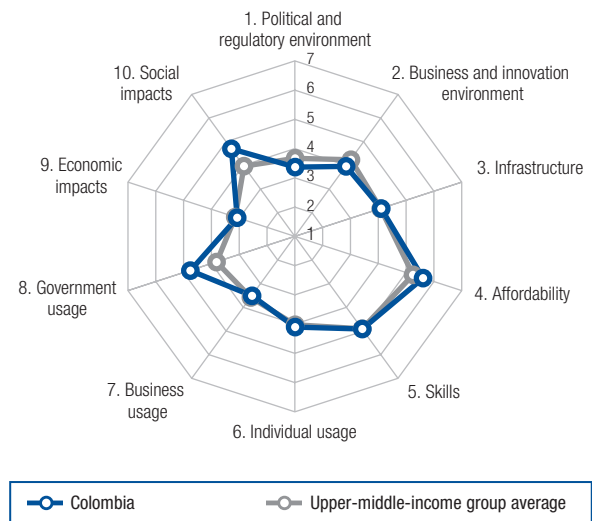
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	106	92.3
6.02 Individuals using Internet, %.....	70	49.3
6.03 Households w/ personal computer, %.....	71	46.7
6.04 Households w/ Internet access, %.....	69	47.4
6.05 Fixed broadband Internet subs/100 pop.....	56	14.4
6.06 Mobile broadband subs/100 pop.....	71	41.8
6.07 Use of virtual social networks*.....	121	4.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	66	4.7
7.02 Capacity for innovation*.....	49	4.2
7.03 PCT patents, applications/million pop.....	32	15.2
7.04 ICT use for business-to-business transactions*.....	57	4.9
7.05 Business-to-consumer Internet use*.....	32	5.3
7.06 Extent of staff training*.....	50	4.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	27	4.7
8.02 Government Online Service Index, 0-1 (best).....	47	0.61
8.03 Gov't success in ICT promotion*.....	39	4.5
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	49	4.7
9.02 ICT PCT patents, applications/million pop.....	26	9.5
9.03 Impact of ICTs on organizational models*.....	31	4.7
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	47	4.6
10.02 Internet access in schools*.....	47	4.8
10.03 ICT use & gov't efficiency*.....	41	4.5
10.04 E-Participation Index, 0-1 (best).....	33	0.65

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Colombia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>68</b> ..	<b>4.1</b>
Networked Readiness Index 2015 (out of 143).....	64	4.1
Networked Readiness Index 2014 (out of 148).....	63	4.0
Networked Readiness Index 2013 (out of 144).....	66	3.9
<b>A. Environment subindex</b> .....	<b>102</b> .....	<b>3.7</b>
1st pillar: Political and regulatory environment.....	97	3.4
2nd pillar: Business and innovation environment.....	94	4.0
<b>B. Readiness subindex</b> .....	<b>66</b> .....	<b>4.9</b>
3rd pillar: Infrastructure.....	76	4.1
4th pillar: Affordability.....	58	5.6
5th pillar: Skills.....	79	4.9
<b>C. Usage subindex</b> .....	<b>54</b> .....	<b>4.1</b>
6th pillar: Individual usage.....	71	4.1
7th pillar: Business usage.....	82	3.5
8th pillar: Government usage.....	31	4.8
<b>D. Impact subindex</b> .....	<b>52</b> .....	<b>3.9</b>
9th pillar: Economic impacts.....	84	3.1
10th pillar: Social impacts.....	43	4.7



## The Networked Readiness Index in detail

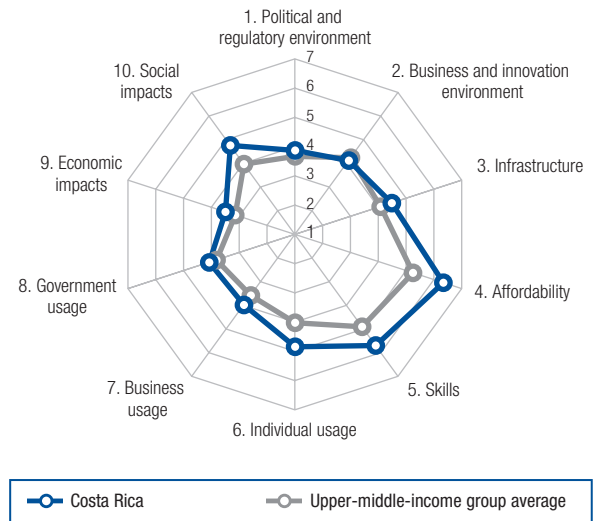
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	121	2.8
1.02 Laws relating to ICTs*	59	4.1
1.03 Judicial independence*	114	2.7
1.04 Efficiency of legal system in settling disputes*	105	3.1
1.05 Efficiency of legal system in challenging regs*	100	3.0
1.06 Intellectual property protection*	79	3.7
1.07 Software piracy rate, % software installed	41	5.2
1.08 No. procedures to enforce a contract	34	3.3
1.09 No. days to enforce a contract	133	1288
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	82	4.5
2.02 Venture capital availability*	70	2.7
2.03 Total tax rate, % profits	134	69.7
2.04 No. days to start a business	67	11
2.05 No. procedures to start a business	92	8
2.06 Intensity of local competition*	35	5.4
2.07 Tertiary education gross enrollment rate, %	54	51.3
2.08 Quality of management schools*	79	4.0
2.09 Gov't procurement of advanced tech*	68	3.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	93	1366.3
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	67	35.0
3.04 Secure Internet servers/million pop.	66	47.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	84	0.29
4.02 Fixed broadband Internet tariffs, PPP \$/month	63	31.24
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	102	3.1
5.02 Quality of math & science education*	117	3.1
5.03 Secondary education gross enrollment rate, %	52	99.2
5.04 Adult literacy rate, %	52	94.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop	71	113.1
6.02 Individuals using Internet, %	66	52.6
6.03 Households w/ personal computer, %	75	44.5
6.04 Households w/ Internet access, %	75	38.0
6.05 Fixed broadband Internet subs/100 pop	67	10.3
6.06 Mobile broadband subs/100 pop	65	45.1
6.07 Use of virtual social networks*	89	5.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	89	4.4
7.02 Capacity for innovation*	93	3.7
7.03 PCT patents, applications/million pop.	59	1.7
7.04 ICT use for business-to-business transactions*	69	4.7
7.05 Business-to-consumer Internet use*	56	4.7
7.06 Extent of staff training*	93	3.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	46	4.3
8.02 Government Online Service Index, 0–1 (best)	17	0.79
8.03 Gov't success in ICT promotion*	53	4.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	56	4.6
9.02 ICT PCT patents, applications/million pop.	69	0.3
9.03 Impact of ICTs on organizational models*	43	4.5
9.04 Knowledge-intensive jobs, % workforce	93	11.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	67	4.2
10.02 Internet access in schools*	77	4.1
10.03 ICT use & gov't efficiency*	56	4.2
10.04 E-Participation Index, 0–1 (best)	11	0.88

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Costa Rica

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index</b> .....	<b>44</b> .....	<b>4.5</b>
Networked Readiness Index (out of 143).....	49.....	4.4
Networked Readiness Index 2014 (out of 148).....	53.....	4.2
Networked Readiness Index 2013 (out of 144).....	53.....	4.1
<b>A. Environment subindex</b> .....	<b>69</b> .....	<b>4.0</b>
1st pillar: Political and regulatory environment.....	60.....	3.9
2nd pillar: Business and innovation environment.....	78.....	4.1
<b>B. Readiness subindex</b> .....	<b>38</b> .....	<b>5.5</b>
3rd pillar: Infrastructure.....	60.....	4.5
4th pillar: Affordability.....	21.....	6.3
5th pillar: Skills.....	30.....	5.7
<b>C. Usage subindex</b> .....	<b>46</b> .....	<b>4.3</b>
6th pillar: Individual usage.....	55.....	4.8
7th pillar: Business usage.....	38.....	4.0
8th pillar: Government usage.....	56.....	4.1
<b>D. Impact subindex</b> .....	<b>42</b> .....	<b>4.1</b>
9th pillar: Economic impacts.....	49.....	3.5
10th pillar: Social impacts.....	40.....	4.8



## The Networked Readiness Index in detail

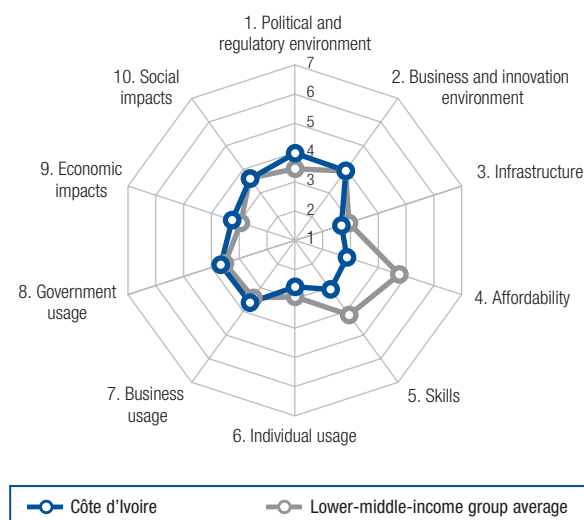
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	124	2.7
1.02 Laws relating to ICTs*	58	4.1
1.03 Judicial independence*	30	5.1
1.04 Efficiency of legal system in settling disputes*	79	3.5
1.05 Efficiency of legal system in challenging regs*	32	4.3
1.06 Intellectual property protection*	44	4.3
1.07 Software piracy rate, % software installed	51	5.9
1.08 No. procedures to enforce a contract	94	4.0
1.09 No. days to enforce a contract	117	8.52
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	64	4.9
2.02 Venture capital availability*	112	2.3
2.03 Total tax rate, % profits	120	58.0
2.04 No. days to start a business	105	24
2.05 No. procedures to start a business	105	9
2.06 Intensity of local competition*	55	5.2
2.07 Tertiary education gross enrollment rate, %	51	53.0
2.08 Quality of management schools*	27	5.1
2.09 Gov't procurement of advanced tech*	102	2.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	79	2174.7
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	55	48.2
3.04 Secure Internet servers/million pop.	52	99.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	17	0.09
4.02 Fixed broadband Internet tariffs, PPP \$/month	22	20.75
4.03 Internet & telephony competition, 0-2 (best)	103	1.44
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	28	4.5
5.02 Quality of math & science education*	55	4.3
5.03 Secondary education gross enrollment rate, %	10	120.3
5.04 Adult literacy rate, %	33	97.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	33	143.8
6.02 Individuals using Internet, %	69	49.4
6.03 Households w/ personal computer, %	65	52.3
6.04 Households w/ Internet access, %	57	55.1
6.05 Fixed broadband Internet subs/100 pop.	65	10.5
6.06 Mobile broadband subs/100 pop.	19	87.2
6.07 Use of virtual social networks*	55	5.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	44	5.0
7.02 Capacity for innovation*	40	4.4
7.03 PCT patents, applications/million pop.	57	2.4
7.04 ICT use for business-to-business transactions*	46	5.1
7.05 Business-to-consumer Internet use*	53	4.7
7.06 Extent of staff training*	31	4.5
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	85	3.6
8.02 Government Online Service Index, 0-1 (best)	43	0.61
8.03 Gov't success in ICT promotion*	77	3.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	44	4.8
9.02 ICT PCT patents, applications/million pop.	60	0.5
9.03 Impact of ICTs on organizational models*	40	4.6
9.04 Knowledge-intensive jobs, % workforce	54	25.0
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	48	4.6
10.02 Internet access in schools*	53	4.7
10.03 ICT use & gov't efficiency*	83	3.8
10.04 E-Participation Index, 0-1 (best)	14	0.82

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Côte d'Ivoire

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>106</b> ..	<b>3.4</b>
Networked Readiness Index 2015 (out of 143).....	115	3.2
Networked Readiness Index 2014 (out of 148).....	122	3.1
Networked Readiness Index 2013 (out of 144).....	120	3.0
<b>A. Environment subindex</b> .....	<b>72</b> .....	<b>4.0</b>
1st pillar: Political and regulatory environment.....	51	4.0
2nd pillar: Business and innovation environment.....	96	3.9
<b>B. Readiness subindex</b> .....	<b>126</b> .....	<b>2.9</b>
3rd pillar: Infrastructure.....	110	2.7
4th pillar: Affordability.....	127	2.9
5th pillar: Skills.....	123	3.1
<b>C. Usage subindex</b> .....	<b>100</b> .....	<b>3.3</b>
6th pillar: Individual usage.....	109	2.6
7th pillar: Business usage.....	65	3.6
8th pillar: Government usage.....	80	3.7
<b>D. Impact subindex</b> .....	<b>83</b> .....	<b>3.4</b>
9th pillar: Economic impacts.....	66	3.3
10th pillar: Social impacts.....	92	3.6



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	37	4.2
1.02 Laws relating to ICTs*	61	4.0
1.03 Judicial independence*	65	4.0
1.04 Efficiency of legal system in settling disputes*	29	4.6
1.05 Efficiency of legal system in challenging regs*	38	4.1
1.06 Intellectual property protection*	67	3.9
1.07 Software piracy rate, % software installed	85	80
1.08 No. procedures to enforce a contract	27	32
1.09 No. days to enforce a contract	66	525
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	66	4.8
2.02 Venture capital availability*	44	3.0
2.03 Total tax rate, % profits	117	51.9
2.04 No. days to start a business	42	7
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	105	4.6
2.07 Tertiary education gross enrollment rate, %	118	8.7
2.08 Quality of management schools*	42	4.6
2.09 Gov't procurement of advanced tech*	44	3.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	114	350.0
3.02 Mobile network coverage, % pop.	94	97.9
3.03 Int'l Internet bandwidth, kb/s per user	117	5.2
3.04 Secure Internet servers/million pop.	115	2.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	101	0.35
4.02 Fixed broadband Internet tariffs, PPP \$/month	117	79.04
4.03 Internet & telephony competition, 0–2 (best)	111	1.22
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	48	4.1
5.02 Quality of math & science education*	17	5.2
5.03 Secondary education gross enrollment rate, %	126	40.1
5.04 Adult literacy rate, %	112	43.1

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	84	106.2
6.02 Individuals using Internet, %	117	14.6
6.03 Households w/ personal computer, %	123	7.2
6.04 Households w/ Internet access, %	108	12.2
6.05 Fixed broadband Internet subs/100 pop.	112	0.6
6.06 Mobile broadband subs/100 pop.	95	24.6
6.07 Use of virtual social networks*	109	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	71	4.6
7.02 Capacity for innovation*	44	4.3
7.03 PCT patents, applications/million pop.	105	0.1
7.04 ICT use for business-to-business transactions*	94	4.3
7.05 Business-to-consumer Internet use*	102	4.0
7.06 Extent of staff training*	56	4.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	30	4.6
8.02 Government Online Service Index, 0–1 (best)	114	0.17
8.03 Gov't success in ICT promotion*	47	4.3
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	70	4.4
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	57	4.3
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	78	4.0
10.02 Internet access in schools*	80	4.0
10.03 ICT use & gov't efficiency*	48	4.4
10.04 E-Participation Index, 0–1 (best)	119	0.18

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Croatia

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 54.. 4.3

Networked Readiness Index (out of 143)..... 54..... 4.3  
 Networked Readiness Index 2014 (out of 148)..... 46..... 4.3  
 Networked Readiness Index 2013 (out of 144)..... 51..... 4.2

### A. Environment subindex..... 57..... 4.1

1st pillar: Political and regulatory environment..... 92..... 3.5  
 2nd pillar: Business and innovation environment..... 44..... 4.7

### B. Readiness subindex ..... 47..... 5.3

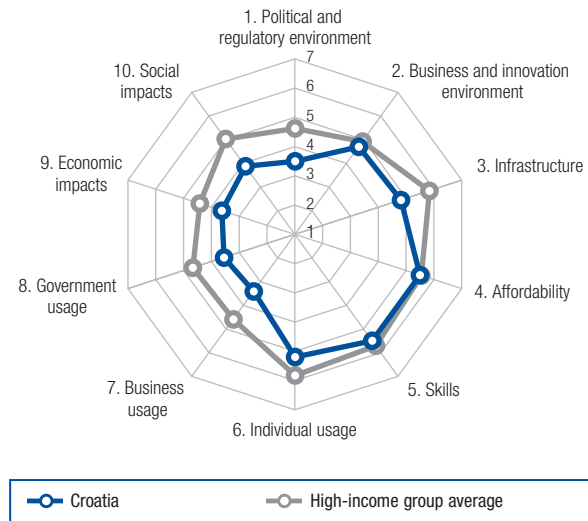
3rd pillar: Infrastructure ..... 47..... 4.8  
 4th pillar: Affordability ..... 66..... 5.5  
 5th pillar: Skills..... 42..... 5.5

### C. Usage subindex..... 58..... 4.0

6th pillar: Individual usage..... 43..... 5.2  
 7th pillar: Business usage..... 98..... 3.4  
 8th pillar: Government usage..... 90..... 3.5

### D. Impact subindex..... 64..... 3.8

9th pillar: Economic impacts..... 42..... 3.6  
 10th pillar: Social impacts..... 82..... 3.9



## The Networked Readiness Index in detail

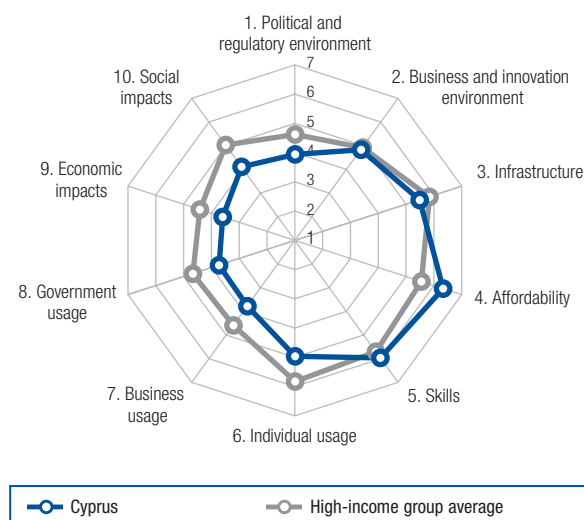
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	102	3.1
1.02 Laws relating to ICTs*	67	3.9
1.03 Judicial independence*	99	3.2
1.04 Efficiency of legal system in settling disputes*	136	2.3
1.05 Efficiency of legal system in challenging regs*	132	2.3
1.06 Intellectual property protection*	87	3.6
1.07 Software piracy rate, % software installed	41	5.2
1.08 No. procedures to enforce a contract	76	3.8
1.09 No. days to enforce a contract	78	5.72
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	57	5.0
2.02 Venture capital availability*	109	2.3
2.03 Total tax rate, % profits	12	20.0
2.04 No. days to start a business	72	12
2.05 No. procedures to start a business	74	7
2.06 Intensity of local competition*	83	4.9
2.07 Tertiary education gross enrollment rate, %	41	61.7
2.08 Quality of management schools*	80	4.0
2.09 Gov't procurement of advanced tech*	124	2.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	63	3131.3
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	47	58.0
3.04 Secure Internet servers/million pop.	40	219.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	76	0.27
4.02 Fixed broadband Internet tariffs, PPP \$/month	74	35.52
4.03 Internet & telephony competition, 0-2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	103	3.1
5.02 Quality of math & science education*	31	4.8
5.03 Secondary education gross enrollment rate, %	43	99.8
5.04 Adult literacy rate, %	16	99.3

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	91	104.4
6.02 Individuals using Internet, %	43	68.6
6.03 Households w/ personal computer, %	44	70.1
6.04 Households w/ Internet access, %	44	68.4
6.05 Fixed broadband Internet subs/100 pop.	39	23.0
6.06 Mobile broadband subs/100 pop.	30	68.5
6.07 Use of virtual social networks*	84	5.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	70	4.6
7.02 Capacity for innovation*	122	3.3
7.03 PCT patents, applications/million pop.	39	9.6
7.04 ICT use for business-to-business transactions*	65	4.7
7.05 Business-to-consumer Internet use*	71	4.3
7.06 Extent of staff training*	122	3.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	101	3.4
8.02 Government Online Service Index, 0-1 (best)	70	0.46
8.03 Gov't success in ICT promotion*	112	3.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	78	4.3
9.02 ICT PCT patents, applications/million pop.	43	2.0
9.03 Impact of ICTs on organizational models*	60	4.3
9.04 Knowledge-intensive jobs, % workforce	34	35.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	58	4.3
10.02 Internet access in schools*	55	4.6
10.03 ICT use & gov't efficiency*	93	3.6
10.04 E-Participation Index, 0-1 (best)	89	0.33

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Cyprus

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>40</b>	<b>4.6</b>
Networked Readiness Index 2015 (out of 143).....	36	4.7
Networked Readiness Index 2014 (out of 148).....	37	4.6
Networked Readiness Index 2013 (out of 144).....	35	4.6
<b>A. Environment subindex</b> .....	<b>43</b>	<b>4.4</b>
1st pillar: Political and regulatory environment.....	56	3.9
2nd pillar: Business and innovation environment.....	36	4.8
<b>B. Readiness subindex</b> .....	<b>21</b>	<b>5.9</b>
3rd pillar: Infrastructure.....	33	5.5
4th pillar: Affordability.....	22	6.3
5th pillar: Skills.....	16	6.0
<b>C. Usage subindex</b> .....	<b>52</b>	<b>4.1</b>
6th pillar: Individual usage.....	51	4.9
7th pillar: Business usage.....	54	3.8
8th pillar: Government usage.....	75	3.7
<b>D. Impact subindex</b> .....	<b>56</b>	<b>3.9</b>
9th pillar: Economic impacts.....	43	3.6
10th pillar: Social impacts.....	70	4.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	70	3.8
1.02 Laws relating to ICTs*	66	3.9
1.03 Judicial independence*	42	4.7
1.04 Efficiency of legal system in settling disputes*	68	3.7
1.05 Efficiency of legal system in challenging regs*	45	3.9
1.06 Intellectual property protection*	43	4.4
1.07 Software piracy rate, % software installed	33	4.7
1.08 No. procedures to enforce a contract	118	4.3
1.09 No. days to enforce a contract	128	1100
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	44	5.2
2.02 Venture capital availability*	107	2.3
2.03 Total tax rate, % profits	22	24.4
2.04 No. days to start a business	48	8
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	46	5.3
2.07 Tertiary education gross enrollment rate, %	50	53.1
2.08 Quality of management schools*	36	4.7
2.09 Gov't procurement of advanced tech*	71	3.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	56	3757.7
3.02 Mobile network coverage, % pop.	35	100.0
3.03 Int'l Internet bandwidth, kb/s per user	39	75.1
3.04 Secure Internet servers/million pop.	28	606.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	32	0.12
4.02 Fixed broadband Internet tariffs, PPP \$/month	33	24.15
4.03 Internet & telephony competition, 0–2 (best)	93	1.71
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	17	4.9
5.02 Quality of math & science education*	22	5.0
5.03 Secondary education gross enrollment rate, %	47	99.4
5.04 Adult literacy rate, %	18	99.1

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	100	96.3
6.02 Individuals using Internet, %	42	69.3
6.03 Households w/ personal computer, %	40	74.0
6.04 Households w/ Internet access, %	42	68.6
6.05 Fixed broadband Internet subs/100 pop.	43	21.1
6.06 Mobile broadband subs/100 pop.	70	42.1
6.07 Use of virtual social networks*	38	5.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	39	5.1
7.02 Capacity for innovation*	90	3.7
7.03 PCT patents, applications/million pop.	42	7.7
7.04 ICT use for business-to-business transactions*	62	4.8
7.05 Business-to-consumer Internet use*	65	4.6
7.06 Extent of staff training*	55	4.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	83	3.7
8.02 Government Online Service Index, 0–1 (best)	68	0.47
8.03 Gov't success in ICT promotion*	96	3.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	75	4.3
9.02 ICT PCT patents, applications/million pop.	35	3.7
9.03 Impact of ICTs on organizational models*	76	4.0
9.04 Knowledge-intensive jobs, % workforce	33	35.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	49	4.6
10.02 Internet access in schools*	38	5.0
10.03 ICT use & gov't efficiency*	73	3.9
10.04 E-Participation Index, 0–1 (best)	98	0.31

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

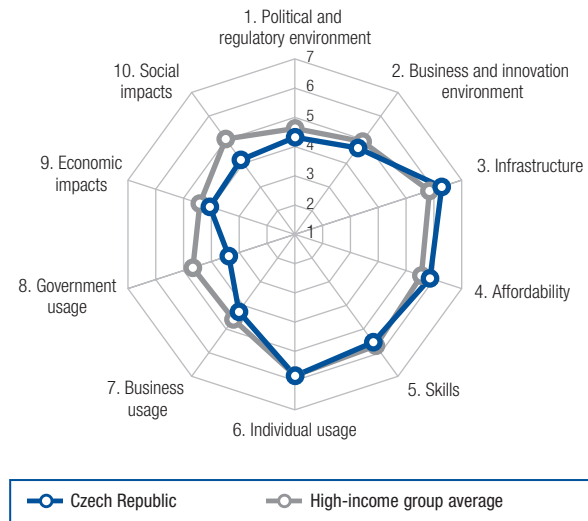
# Czech Republic

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 36.. 4.7

Networked Readiness Index (out of 143)..... 43..... 4.5  
 Networked Readiness Index 2014 (out of 148)..... 42..... 4.5  
 Networked Readiness Index 2013 (out of 144)..... 42..... 4.4

- A. Environment subindex..... 40..... 4.5**
  - 1st pillar: Political and regulatory environment..... 35..... 4.3
  - 2nd pillar: Business and innovation environment..... 47..... 4.6
- B. Readiness subindex ..... 22..... 5.9**
  - 3rd pillar: Infrastructure ..... 23..... 6.3
  - 4th pillar: Affordability ..... 46..... 5.8
  - 5th pillar: Skills..... 39..... 5.5
- C. Usage subindex..... 37..... 4.5**
  - 6th pillar: Individual usage..... 29..... 5.8
  - 7th pillar: Business usage..... 31..... 4.3
  - 8th pillar: Government usage..... 101..... 3.4
- D. Impact subindex..... 43..... 4.1**
  - 9th pillar: Economic impacts..... 32..... 4.1
  - 10th pillar: Social impacts..... 67..... 4.2



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	96	3.3
1.02 Laws relating to ICTs*	45	4.3
1.03 Judicial independence*	50	4.3
1.04 Efficiency of legal system in settling disputes*	90	3.3
1.05 Efficiency of legal system in challenging regs*	76	3.4
1.06 Intellectual property protection*	34	4.6
1.07 Software piracy rate, % software installed.....	20	3.4
1.08 No. procedures to enforce a contract.....	9	2.7
1.09 No. days to enforce a contract.....	92	6.11
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	32	5.6
2.02 Venture capital availability*	31	3.3
2.03 Total tax rate, % profits.....	112	50.4
2.04 No. days to start a business.....	86	15
2.05 No. procedures to start a business.....	92	8
2.06 Intensity of local competition*.....	14	5.7
2.07 Tertiary education gross enrollment rate, %.....	33	65.4
2.08 Quality of management schools*.....	63	4.3
2.09 Gov't procurement of advanced tech*.....	83	3.2
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	22	8194.6
3.02 Mobile network coverage, % pop.....	49	99.8
3.03 Int'l Internet bandwidth, kb/s per user.....	25	116.8
3.04 Secure Internet servers/million pop.....	25	691.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	72	0.26
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	39	26.18
4.03 Internet & telephony competition, 0-2 (best).....	75	1.87
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	60	3.8
5.02 Quality of math & science education*.....	57	4.3
5.03 Secondary education gross enrollment rate, %.....	30	104.4
5.04 Adult literacy rate, %.....	n/a	n/a <sup>1</sup>

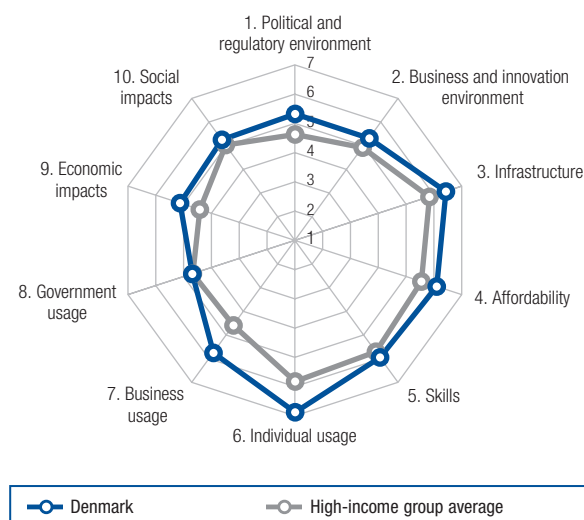
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	45	129.5
6.02 Individuals using Internet, %.....	27	79.7
6.03 Households w/ personal computer, %.....	34	78.5
6.04 Households w/ Internet access, %.....	31	78.0
6.05 Fixed broadband Internet subs/100 pop.....	23	27.9
6.06 Mobile broadband subs/100 pop.....	34	66.7
6.07 Use of virtual social networks*.....	41	5.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	48	5.0
7.02 Capacity for innovation*.....	26	4.8
7.03 PCT patents, applications/million pop.....	28	21.4
7.04 ICT use for business-to-business transactions*.....	28	5.5
7.05 Business-to-consumer Internet use*.....	11	5.8
7.06 Extent of staff training*.....	39	4.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	106	3.3
8.02 Government Online Service Index, 0-1 (best).....	85	0.37
8.03 Gov't success in ICT promotion*.....	101	3.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	35	5.0
9.02 ICT PCT patents, applications/million pop.....	33	4.3
9.03 Impact of ICTs on organizational models*.....	29	4.9
9.04 Knowledge-intensive jobs, % workforce.....	28	37.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	41	4.9
10.02 Internet access in schools*.....	29	5.4
10.03 ICT use & gov't efficiency*.....	87	3.8
10.04 E-Participation Index, 0-1 (best).....	105	0.25

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Denmark

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>11</b>	<b>5.6</b>
Networked Readiness Index 2015 (out of 143).....	15	5.5
Networked Readiness Index 2014 (out of 148).....	13	5.5
Networked Readiness Index 2013 (out of 144).....	8	5.6
<b>A. Environment subindex</b> .....	<b>14</b>	<b>5.3</b>
1st pillar: Political and regulatory environment.....	17	5.3
2nd pillar: Business and innovation environment.....	16	5.3
<b>B. Readiness subindex</b> .....	<b>12</b>	<b>6.1</b>
3rd pillar: Infrastructure.....	17	6.4
4th pillar: Affordability.....	31	6.1
5th pillar: Skills.....	17	5.9
<b>C. Usage subindex</b> .....	<b>10</b>	<b>5.8</b>
6th pillar: Individual usage.....	1	6.9
7th pillar: Business usage.....	9	5.7
8th pillar: Government usage.....	38	4.7
<b>D. Impact subindex</b> .....	<b>17</b>	<b>5.2</b>
9th pillar: Economic impacts.....	16	5.1
10th pillar: Social impacts.....	26	5.3



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	18	5.0
1.02 Laws relating to ICTs*	14	5.1
1.03 Judicial independence*	5	6.3
1.04 Efficiency of legal system in settling disputes*	19	5.0
1.05 Efficiency of legal system in challenging regs*	37	4.1
1.06 Intellectual property protection*	21	5.6
1.07 Software piracy rate, % software installed	7	23
1.08 No. procedures to enforce a contract	48	35
1.09 No. days to enforce a contract	29	410
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	23	6.0
2.02 Venture capital availability*	72	2.7
2.03 Total tax rate, % profits	24	24.5
2.04 No. days to start a business	9	3
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	45	5.3
2.07 Tertiary education gross enrollment rate, %	13	81.2
2.08 Quality of management schools*	17	5.4
2.09 Gov't procurement of advanced tech*	65	3.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	33	6188.7
3.02 Mobile network coverage, % pop.	59	99.5
3.03 Int'l Internet bandwidth, kb/s per user	9	341.7
3.04 Secure Internet servers/million pop.	6	2080.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	9	0.06
4.02 Fixed broadband Internet tariffs, PPP \$/month	70	34.15
4.03 Internet & telephony competition, 0–2 (best)	71	1.88
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	16	4.9
5.02 Quality of math & science education*	29	4.8
5.03 Secondary education gross enrollment rate, %	6	129.8
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

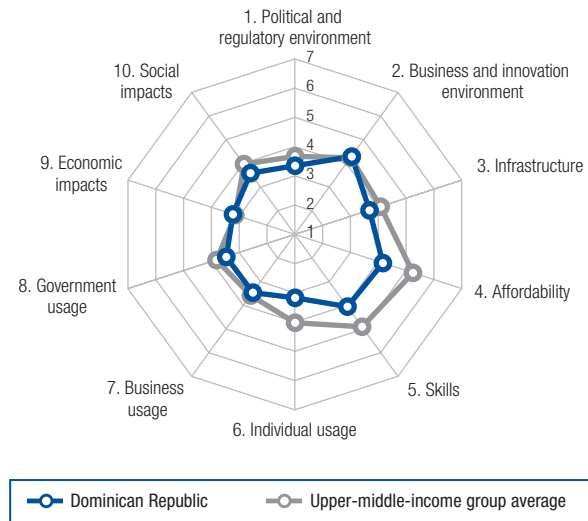
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	50	125.9
6.02 Individuals using Internet, %	3	96.0
6.03 Households w/ personal computer, %	6	95.0
6.04 Households w/ Internet access, %	8	93.1
6.05 Fixed broadband Internet subs/100 pop.	2	41.3
6.06 Mobile broadband subs/100 pop.	8	115.6
6.07 Use of virtual social networks*	21	6.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	15	5.7
7.02 Capacity for innovation*	11	5.3
7.03 PCT patents, applications/million pop.	8	209.3
7.04 ICT use for business-to-business transactions*	22	5.6
7.05 Business-to-consumer Internet use*	21	5.6
7.06 Extent of staff training*	16	5.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	36	4.5
8.02 Government Online Service Index, 0–1 (best)	35	0.66
8.03 Gov't success in ICT promotion*	34	4.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	29	5.1
9.02 ICT PCT patents, applications/million pop.	11	42.1
9.03 Impact of ICTs on organizational models*	24	5.0
9.04 Knowledge-intensive jobs, % workforce	11	45.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	16	5.7
10.02 Internet access in schools*	15	5.9
10.03 ICT use & gov't efficiency*	16	5.1
10.04 E-Participation Index, 0–1 (best)	54	0.55

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Dominican Republic

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index</b> .....	<b>98</b>	<b>3.6</b>
Networked Readiness Index (out of 143).....	95	3.6
Networked Readiness Index 2014 (out of 148).....	93	3.7
Networked Readiness Index 2013 (out of 144).....	90	3.6
<b>A. Environment subindex</b> .....	<b>87</b>	<b>3.8</b>
1st pillar: Political and regulatory environment.....	100	3.4
2nd pillar: Business and innovation environment.....	69	4.3
<b>B. Readiness subindex</b> .....	<b>103</b>	<b>4.0</b>
3rd pillar: Infrastructure.....	85	3.7
4th pillar: Affordability.....	106	4.2
5th pillar: Skills.....	104	4.0
<b>C. Usage subindex</b> .....	<b>97</b>	<b>3.4</b>
6th pillar: Individual usage.....	95	3.2
7th pillar: Business usage.....	88	3.5
8th pillar: Government usage.....	95	3.5
<b>D. Impact subindex</b> .....	<b>86</b>	<b>3.4</b>
9th pillar: Economic impacts.....	68	3.2
10th pillar: Social impacts.....	94	3.6



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	107	3.0
1.02 Laws relating to ICTs*	85	3.6
1.03 Judicial independence*	123	2.6
1.04 Efficiency of legal system in settling disputes*	99	3.2
1.05 Efficiency of legal system in challenging regs*	107	2.9
1.06 Intellectual property protection*	86	3.6
1.07 Software piracy rate, % software installed	76	75
1.08 No. procedures to enforce a contract	42	34
1.09 No. days to enforce a contract	45	460
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	63	4.9
2.02 Venture capital availability*	95	2.5
2.03 Total tax rate, % profits	90	42.4
2.04 No. days to start a business	85	15
2.05 No. procedures to start a business	74	7
2.06 Intensity of local competition*	44	5.3
2.07 Tertiary education gross enrollment rate, %	56	47.5
2.08 Quality of management schools*	103	3.7
2.09 Gov't procurement of advanced tech*	78	3.2
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	84	1719.6
3.02 Mobile network coverage, % pop.	88	98.5
3.03 Int'l Internet bandwidth, kb/s per user	84	24.9
3.04 Secure Internet servers/million pop.	77	28.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	119	0.47
4.02 Fixed broadband Internet tariffs, PPP \$/month	98	44.63
4.03 Internet & telephony competition, 0-2 (best)	95	1.71
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	125	2.6
5.02 Quality of math & science education*	137	2.2
5.03 Secondary education gross enrollment rate, %	93	78.4
5.04 Adult literacy rate, %	67	91.8

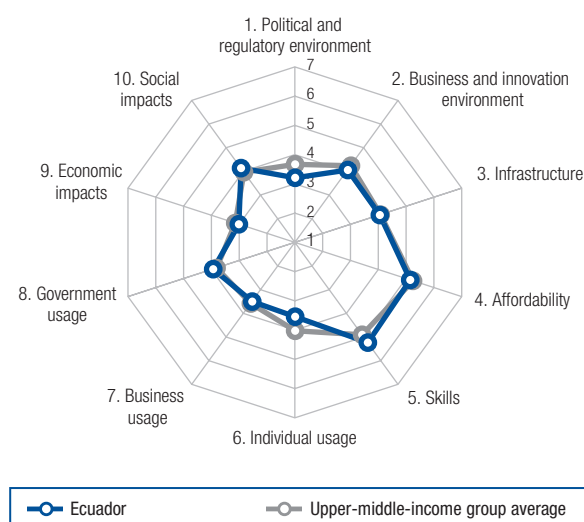
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	117	78.9
6.02 Individuals using Internet, %	68	49.6
6.03 Households w/ personal computer, %	92	26.2
6.04 Households w/ Internet access, %	96	21.1
6.05 Fixed broadband Internet subs/100 pop.	81	5.7
6.06 Mobile broadband subs/100 pop.	86	30.1
6.07 Use of virtual social networks*	83	5.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	75	4.5
7.02 Capacity for innovation*	92	3.7
7.03 PCT patents, applications/million pop.	85	0.3
7.04 ICT use for business-to-business transactions*	73	4.6
7.05 Business-to-consumer Internet use*	80	4.2
7.06 Extent of staff training*	103	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	100	3.5
8.02 Government Online Service Index, 0-1 (best)	83	0.39
8.03 Gov't success in ICT promotion*	97	3.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	43	4.8
9.02 ICT PCT patents, applications/million pop.	88	0.0
9.03 Impact of ICTs on organizational models*	51	4.4
9.04 Knowledge-intensive jobs, % workforce	82	17.2
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	73	4.1
10.02 Internet access in schools*	108	3.5
10.03 ICT use & gov't efficiency*	84	3.8
10.04 E-Participation Index, 0-1 (best)	89	0.33

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Ecuador

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>82</b>	<b>3.9</b>
Networked Readiness Index 2015 (out of 143).....	n/a	n/a
Networked Readiness Index 2014 (out of 148).....	82	3.9
Networked Readiness Index 2013 (out of 144).....	91	3.6
<b>A. Environment subindex</b> .....	<b>105</b>	<b>3.6</b>
1st pillar: Political and regulatory environment.....	111	3.2
2nd pillar: Business and innovation environment.....	86	4.1
<b>B. Readiness subindex</b> .....	<b>71</b>	<b>4.8</b>
3rd pillar: Infrastructure.....	78	4.0
4th pillar: Affordability.....	78	5.1
5th pillar: Skills.....	63	5.2
<b>C. Usage subindex</b> .....	<b>82</b>	<b>3.7</b>
6th pillar: Individual usage.....	87	3.5
7th pillar: Business usage.....	83	3.5
8th pillar: Government usage.....	64	3.9
<b>D. Impact subindex</b> .....	<b>75</b>	<b>3.6</b>
9th pillar: Economic impacts.....	86	3.0
10th pillar: Social impacts.....	68	4.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	119	2.8
1.02 Laws relating to ICTs*	62	4.0
1.03 Judicial independence*	132	2.1
1.04 Efficiency of legal system in settling disputes*	108	3.1
1.05 Efficiency of legal system in challenging regs*	138	2.0
1.06 Intellectual property protection*	77	3.8
1.07 Software piracy rate, % software installed	65	68
1.08 No. procedures to enforce a contract	89	39
1.09 No. days to enforce a contract	83	588
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	80	4.5
2.02 Venture capital availability*	105	2.3
2.03 Total tax rate, % profits	52	33.0
2.04 No. days to start a business	130	51
2.05 No. procedures to start a business	125	12
2.06 Intensity of local competition*	76	5.0
2.07 Tertiary education gross enrollment rate, %	65	40.5
2.08 Quality of management schools*	65	4.3
2.09 Gov't procurement of advanced tech*	74	3.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	88	1485.1
3.02 Mobile network coverage, % pop.	99	96.9
3.03 Int'l Internet bandwidth, kb/s per user	65	36.9
3.04 Secure Internet servers/million pop.	73	34.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	104	0.36
4.02 Fixed broadband Internet tariffs, PPP \$/month	77	36.13
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	71	3.6
5.02 Quality of math & science education*	85	3.8
5.03 Secondary education gross enrollment rate, %	31	104.2
5.04 Adult literacy rate, %	57	94.5

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop	92	103.9
6.02 Individuals using Internet, %	82	43.0
6.03 Households w/ personal computer, %	80	38.0
6.04 Households w/ Internet access, %	81	32.0
6.05 Fixed broadband Internet subs/100 pop	74	8.3
6.06 Mobile broadband subs/100 pop	85	30.9
6.07 Use of virtual social networks*	114	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	76	4.5
7.02 Capacity for innovation*	69	3.9
7.03 PCT patents, applications/million pop.	88	0.2
7.04 ICT use for business-to-business transactions*	75	4.6
7.05 Business-to-consumer Internet use*	88	4.1
7.06 Extent of staff training*	94	3.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	67	3.9
8.02 Government Online Service Index, 0–1 (best)	66	0.48
8.03 Gov't success in ICT promotion*	71	4.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	64	4.5
9.02 ICT PCT patents, applications/million pop.	85	0.1
9.03 Impact of ICTs on organizational models*	59	4.3
9.04 Knowledge-intensive jobs, % workforce	91	12.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	56	4.4
10.02 Internet access in schools*	76	4.1
10.03 ICT use & gov't efficiency*	58	4.1
10.04 E-Participation Index, 0–1 (best)	64	0.49

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Egypt

Rank (out of 139) Value (1-7)

## Networked Readiness Index.....96..3.7

Networked Readiness Index (out of 143).....94.....3.6  
 Networked Readiness Index 2014 (out of 148).....91.....3.7  
 Networked Readiness Index 2013 (out of 144).....80.....3.8

### A. Environment subindex.....113.....3.5

1st pillar: Political and regulatory environment.....102.....3.3  
 2nd pillar: Business and innovation environment.....113.....3.7

### B. Readiness subindex.....97.....4.2

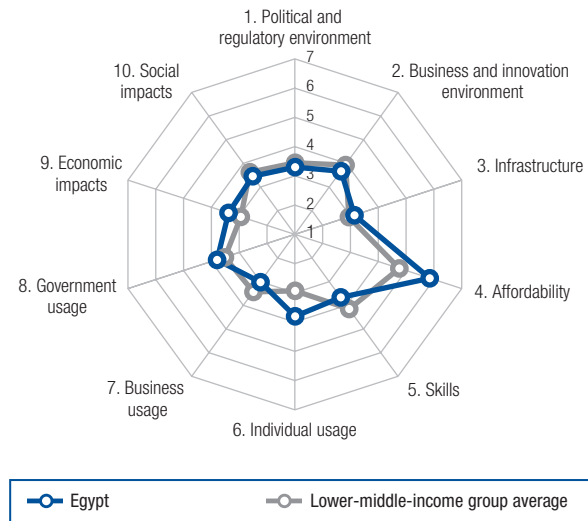
3rd pillar: Infrastructure.....94.....3.1  
 4th pillar: Affordability.....47.....5.8  
 5th pillar: Skills.....111.....3.7

### C. Usage subindex.....89.....3.5

6th pillar: Individual usage.....80.....3.8  
 7th pillar: Business usage.....129.....3.0  
 8th pillar: Government usage.....67.....3.8

### D. Impact subindex.....85.....3.4

9th pillar: Economic impacts.....58.....3.4  
 10th pillar: Social impacts.....103.....3.5



## The Networked Readiness Index in detail

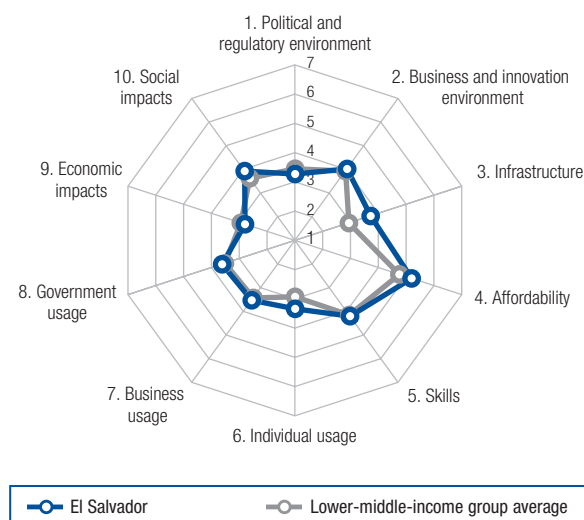
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	130	2.4
1.02 Laws relating to ICTs*	108	3.2
1.03 Judicial independence*	45	4.5
1.04 Efficiency of legal system in settling disputes*	82	3.4
1.05 Efficiency of legal system in challenging regs*	70	3.4
1.06 Intellectual property protection*	108	3.2
1.07 Software piracy rate, % software installed	56	62
1.08 No. procedures to enforce a contract	113	42
1.09 No. days to enforce a contract	126	1010
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	120	3.9
2.02 Venture capital availability*	91	2.5
2.03 Total tax rate, % profits	97	45.0
2.04 No. days to start a business	48	8
2.05 No. procedures to start a business	74	7
2.06 Intensity of local competition*	127	4.2
2.07 Tertiary education gross enrollment rate, %	79	30.3
2.08 Quality of management schools*	138	2.5
2.09 Gov't procurement of advanced tech*	80	3.2
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	81	1915.4
3.02 Mobile network coverage, % pop.	49	99.8
3.03 Int'l Internet bandwidth, kb/s per user	103	9.3
3.04 Secure Internet servers/million pop.	107	4.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	11	0.07
4.02 Fixed broadband Internet tariffs, PPP \$/month	72	34.88
4.03 Internet & telephony competition, 0-2 (best)	98	1.60
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	138	2.1
5.02 Quality of math & science education*	130	2.6
5.03 Secondary education gross enrollment rate, %	83	86.0
5.04 Adult literacy rate, %	91	75.2

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	68	114.3
6.02 Individuals using Internet, %	95	31.7
6.03 Households w/ personal computer, %	73	45.1
6.04 Households w/ Internet access, %	77	36.8
6.05 Fixed broadband Internet subs/100 pop.	90	3.7
6.06 Mobile broadband subs/100 pop.	68	43.5
6.07 Use of virtual social networks*	52	5.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	126	3.8
7.02 Capacity for innovation*	132	3.1
7.03 PCT patents, applications/million pop.	74	0.7
7.04 ICT use for business-to-business transactions*	67	4.7
7.05 Business-to-consumer Internet use*	90	4.0
7.06 Extent of staff training*	138	2.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	112	3.2
8.02 Government Online Service Index, 0-1 (best)	51	0.59
8.03 Gov't success in ICT promotion*	99	3.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	98	4.0
9.02 ICT PCT patents, applications/million pop.	71	0.2
9.03 Impact of ICTs on organizational models*	90	3.7
9.04 Knowledge-intensive jobs, % workforce	31	36.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	108	3.5
10.02 Internet access in schools*	132	2.6
10.03 ICT use & gov't efficiency*	112	3.4
10.04 E-Participation Index, 0-1 (best)	54	0.55

Note: Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# El Salvador

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>93</b>	<b>3.7</b>
Networked Readiness Index 2015 (out of 143).....	80	3.9
Networked Readiness Index 2014 (out of 148).....	98	3.6
Networked Readiness Index 2013 (out of 144).....	93	3.5
<b>A. Environment subindex</b> .....	<b>104</b>	<b>3.6</b>
1st pillar: Political and regulatory environment.....	106	3.3
2nd pillar: Business and innovation environment.....	90	4.0
<b>B. Readiness subindex</b> .....	<b>91</b>	<b>4.4</b>
3rd pillar: Infrastructure.....	83	3.7
4th pillar: Affordability.....	75	5.2
5th pillar: Skills.....	98	4.2
<b>C. Usage subindex</b> .....	<b>90</b>	<b>3.5</b>
6th pillar: Individual usage.....	91	3.3
7th pillar: Business usage.....	78	3.5
8th pillar: Government usage.....	85	3.6
<b>D. Impact subindex</b> .....	<b>91</b>	<b>3.4</b>
9th pillar: Economic impacts.....	106	2.8
10th pillar: Social impacts.....	80	3.9



## The Networked Readiness Index in detail

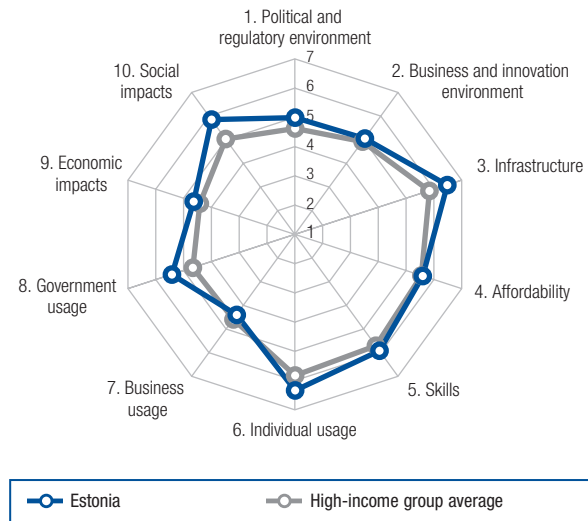
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	105	3.1
1.02 Laws relating to ICTs*	92	3.5
1.03 Judicial independence*	90	3.4
1.04 Efficiency of legal system in settling disputes*	110	3.0
1.05 Efficiency of legal system in challenging regs*	103	3.0
1.06 Intellectual property protection*	98	3.4
1.07 Software piracy rate, % software installed	85	80
1.08 No. procedures to enforce a contract	48	35
1.09 No. days to enforce a contract	113	786
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	93	4.3
2.02 Venture capital availability*	89	2.6
2.03 Total tax rate, % profits	74	38.7
2.04 No. days to start a business	91	17
2.05 No. procedures to start a business	92	8
2.06 Intensity of local competition*	62	5.1
2.07 Tertiary education gross enrollment rate, %	82	29.2
2.08 Quality of management schools*	90	3.9
2.09 Gov't procurement of advanced tech*	97	3.0
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	97	958.2
3.02 Mobile network coverage, % pop.	121	87.6
3.03 Int'l Internet bandwidth, kb/s per user	50	50.3
3.04 Secure Internet servers/million pop.	83	22.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	88	0.31
4.02 Fixed broadband Internet tariffs, PPP \$/month	80	36.62
4.03 Internet & telephony competition, 0–2 (best)	75	1.87
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	116	2.9
5.02 Quality of math & science education*	119	3.0
5.03 Secondary education gross enrollment rate, %	94	78.1
5.04 Adult literacy rate, %	73	88.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	32	144.0
6.02 Individuals using Internet, %	96	29.7
6.03 Households w/ personal computer, %	93	25.2
6.04 Households w/ Internet access, %	95	23.3
6.05 Fixed broadband Internet subs/100 pop.	84	5.0
6.06 Mobile broadband subs/100 pop.	100	18.4
6.07 Use of virtual social networks*	79	5.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	81	4.4
7.02 Capacity for innovation*	59	4.0
7.03 PCT patents, applications/million pop.	94	0.2
7.04 ICT use for business-to-business transactions*	95	4.3
7.05 Business-to-consumer Internet use*	63	4.6
7.06 Extent of staff training*	97	3.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	102	3.4
8.02 Government Online Service Index, 0–1 (best)	59	0.54
8.03 Gov't success in ICT promotion*	119	3.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	94	4.1
9.02 ICT PCT patents, applications/million pop.	99	0.0
9.03 Impact of ICTs on organizational models*	80	3.9
9.04 Knowledge-intensive jobs, % workforce	92	12.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	79	4.0
10.02 Internet access in schools*	99	3.6
10.03 ICT use & gov't efficiency*	105	3.4
10.04 E-Participation Index, 0–1 (best)	45	0.61

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Estonia

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index</b> .....	<b>22</b>	<b>5.4</b>
Networked Readiness Index (out of 143).....	22	5.3
Networked Readiness Index 2014 (out of 148).....	21	5.3
Networked Readiness Index 2013 (out of 144).....	22	5.1
<b>A. Environment subindex</b> .....	<b>23</b>	<b>5.0</b>
1st pillar: Political and regulatory environment.....	27	5.0
2nd pillar: Business and innovation environment.....	26	5.1
<b>B. Readiness subindex</b> .....	<b>18</b>	<b>6.0</b>
3rd pillar: Infrastructure.....	16	6.5
4th pillar: Affordability.....	59	5.6
5th pillar: Skills.....	19	5.9
<b>C. Usage subindex</b> .....	<b>23</b>	<b>5.4</b>
6th pillar: Individual usage.....	15	6.3
7th pillar: Business usage.....	28	4.4
8th pillar: Government usage.....	8	5.4
<b>D. Impact subindex</b> .....	<b>16</b>	<b>5.2</b>
9th pillar: Economic impacts.....	24	4.6
10th pillar: Social impacts.....	6	5.9



## The Networked Readiness Index in detail

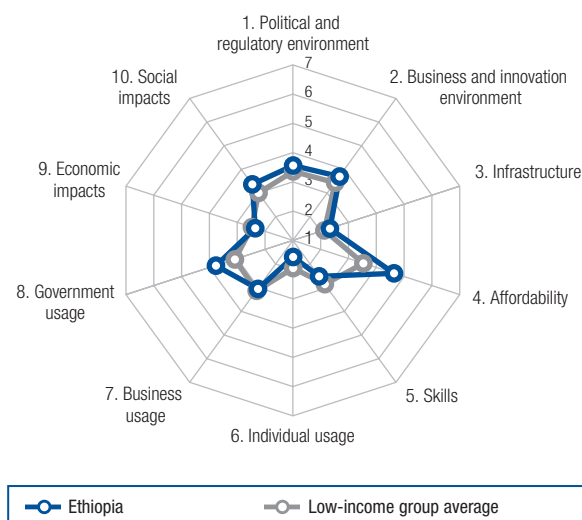
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	28	4.5
1.02 Laws relating to ICTs*	2	5.9
1.03 Judicial independence*	21	5.7
1.04 Efficiency of legal system in settling disputes*	39	4.3
1.05 Efficiency of legal system in challenging regs*	25	4.5
1.06 Intellectual property protection*	26	5.2
1.07 Software piracy rate, % software installed	33	4.7
1.08 No. procedures to enforce a contract	48	3.5
1.09 No. days to enforce a contract	34	4.25
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	26	5.8
2.02 Venture capital availability*	26	3.5
2.03 Total tax rate, % profits	109	49.4
2.04 No. days to start a business	13	4
2.05 No. procedures to start a business	11	3
2.06 Intensity of local competition*	20	5.6
2.07 Tertiary education gross enrollment rate, %	23	72.9
2.08 Quality of management schools*	37	4.7
2.09 Gov't procurement of advanced tech*	20	3.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	14	10072.1
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	78	28.7
3.04 Secure Internet servers/million pop.	19	927.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	97	0.33
4.02 Fixed broadband Internet tariffs, PPP \$/month	50	28.36
4.03 Internet & telephony competition, 0-2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	34	4.4
5.02 Quality of math & science education*	14	5.2
5.03 Secondary education gross enrollment rate, %	23	108.6
5.04 Adult literacy rate, %	2	99.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	12	160.7
6.02 Individuals using Internet, %	21	84.2
6.03 Households w/ personal computer, %	25	82.5
6.04 Households w/ Internet access, %	21	82.9
6.05 Fixed broadband Internet subs/100 pop.	21	28.9
6.06 Mobile broadband subs/100 pop.	6	117.0
6.07 Use of virtual social networks*	14	6.3
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	31	5.4
7.02 Capacity for innovation*	27	4.7
7.03 PCT patents, applications/million pop.	29	18.1
7.04 ICT use for business-to-business transactions*	5	6.0
7.05 Business-to-consumer Internet use*	9	5.8
7.06 Extent of staff training*	32	4.5
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	12	5.0
8.02 Government Online Service Index, 0-1 (best)	18	0.77
8.03 Gov't success in ICT promotion*	7	5.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	11	5.6
9.02 ICT PCT patents, applications/million pop.	25	9.8
9.03 Impact of ICTs on organizational models*	5	5.6
9.04 Knowledge-intensive jobs, % workforce	19	42.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	11	5.9
10.02 Internet access in schools*	8	6.1
10.03 ICT use & gov't efficiency*	4	5.8
10.04 E-Participation Index, 0-1 (best)	22	0.76

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Ethiopia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>120..</b>	<b>3.1</b>
Networked Readiness Index 2015 (out of 143).....	130.....	2.9
Networked Readiness Index 2014 (out of 148).....	130.....	2.9
Networked Readiness Index 2013 (out of 144).....	128.....	2.9
<b>A. Environment subindex.....</b>	<b>106.....</b>	<b>3.6</b>
1st pillar: Political and regulatory environment.....	89.....	3.6
2nd pillar: Business and innovation environment.....	109.....	3.7
<b>B. Readiness subindex.....</b>	<b>116.....</b>	<b>3.1</b>
3rd pillar: Infrastructure.....	122.....	2.3
4th pillar: Affordability.....	93.....	4.6
5th pillar: Skills.....	131.....	2.5
<b>C. Usage subindex.....</b>	<b>123.....</b>	<b>2.8</b>
6th pillar: Individual usage.....	136.....	1.6
7th pillar: Business usage.....	127.....	3.0
8th pillar: Government usage.....	71.....	3.8
<b>D. Impact subindex.....</b>	<b>119.....</b>	<b>2.9</b>
9th pillar: Economic impacts.....	131.....	2.4
10th pillar: Social impacts.....	109.....	3.4



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	75	3.7
1.02 Laws relating to ICTs*	113	3.1
1.03 Judicial independence*	93	3.4
1.04 Efficiency of legal system in settling disputes*	66	3.7
1.05 Efficiency of legal system in challenging regs*	96	3.1
1.06 Intellectual property protection*	103	3.3
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	76	3.8
1.09 No. days to enforce a contract.....	68	5.30
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	119	3.9
2.02 Venture capital availability*	76	2.7
2.03 Total tax rate, % profits.....	46	32.1
2.04 No. days to start a business.....	97	19
2.05 No. procedures to start a business.....	120	11
2.06 Intensity of local competition*.....	125	4.3
2.07 Tertiary education gross enrollment rate, %.....	125	6.3
2.08 Quality of management schools*.....	99	3.7
2.09 Gov't procurement of advanced tech*.....	49	3.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	130	92.2
3.02 Mobile network coverage, % pop.....	116	90.0
3.03 Int'l Internet bandwidth, kb/s per user.....	118	5.0
3.04 Secure Internet servers/million pop.....	138	0.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	26	0.11
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	67	33.50
4.03 Internet & telephony competition, 0–2 (best).....	135	0.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	68	3.7
5.02 Quality of math & science education*.....	87	3.7
5.03 Secondary education gross enrollment rate, %.....	133	36.2
5.04 Adult literacy rate, %.....	110	49.1

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	138	31.6
6.02 Individuals using Internet, %.....	135	2.9
6.03 Households w/ personal computer, %.....	136	2.8
6.04 Households w/ Internet access, %.....	135	2.9
6.05 Fixed broadband Internet subs/100 pop.....	113	0.5
6.06 Mobile broadband subs/100 pop.....	120	7.5
6.07 Use of virtual social networks*.....	128	4.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	128	3.8
7.02 Capacity for innovation*.....	112	3.5
7.03 PCT patents, applications/million pop.....	113	0.0
7.04 ICT use for business-to-business transactions*.....	134	3.5
7.05 Business-to-consumer Internet use*.....	123	3.4
7.06 Extent of staff training*.....	112	3.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	84	3.6
8.02 Government Online Service Index, 0–1 (best).....	71	0.46
8.03 Gov't success in ICT promotion*.....	74	3.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	121	3.6
9.02 ICT PCT patents, applications/million pop.....	97	0.0
9.03 Impact of ICTs on organizational models*.....	112	3.5
9.04 Knowledge-intensive jobs, % workforce.....	106	3.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	114	3.5
10.02 Internet access in schools*.....	96	3.7
10.03 ICT use & gov't efficiency*.....	85	3.8
10.04 E-Participation Index, 0–1 (best).....	105	0.25

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

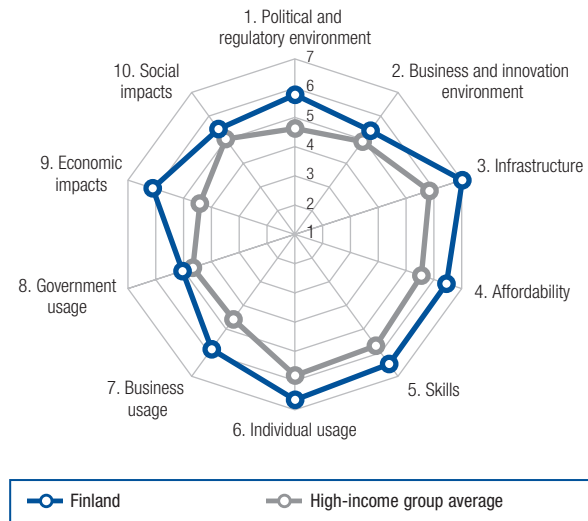
# Finland

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 2.. 6.0

Networked Readiness Index (out of 143)..... 2..... 6.0  
 Networked Readiness Index 2014 (out of 148)..... 1..... 6.0  
 Networked Readiness Index 2013 (out of 144)..... 1..... 6.0

<b>A. Environment subindex</b> .....	<b>5</b> .....	<b>5.6</b>
1st pillar: Political and regulatory environment.....	4	5.8
2nd pillar: Business and innovation environment.....	9	5.4
<b>B. Readiness subindex</b> .....	<b>1</b> .....	<b>6.6</b>
3rd pillar: Infrastructure.....	3	7.0
4th pillar: Affordability.....	13	6.4
5th pillar: Skills.....	2	6.5
<b>C. Usage subindex</b> .....	<b>7</b> .....	<b>5.8</b>
6th pillar: Individual usage.....	6	6.6
7th pillar: Business usage.....	5	5.8
8th pillar: Government usage.....	21	5.0
<b>D. Impact subindex</b> .....	<b>4</b> .....	<b>5.8</b>
9th pillar: Economic impacts.....	1	6.1
10th pillar: Social impacts.....	18	5.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	8	5.5
1.02 Laws relating to ICTs*	10	5.3
1.03 Judicial independence*	2	6.6
1.04 Efficiency of legal system in settling disputes*	3	5.8
1.05 Efficiency of legal system in challenging regs*	1	5.8
1.06 Intellectual property protection*	1	6.3
1.07 Software piracy rate, % software installed.....	9	24
1.08 No. procedures to enforce a contract.....	34	33
1.09 No. days to enforce a contract.....	19	375
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	1	6.6
2.02 Venture capital availability*.....	6	4.5
2.03 Total tax rate, % profits.....	72	37.9
2.04 No. days to start a business.....	81	14
2.05 No. procedures to start a business.....	11	3
2.06 Intensity of local competition*.....	89	4.8
2.07 Tertiary education gross enrollment rate, %.....	3	91.1
2.08 Quality of management schools*.....	13	5.4
2.09 Gov't procurement of advanced tech*.....	33	3.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	9	13100.1
3.02 Mobile network coverage, % pop.....	32	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	14	218.7
3.04 Secure Internet servers/million pop.....	8	1791.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	12	0.07
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	51	28.63
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	4	5.7
5.02 Quality of math & science education*.....	2	6.1
5.03 Secondary education gross enrollment rate, %.....	2	143.2
5.04 Adult literacy rate, %.....	n/a	n/a <sup>1</sup>

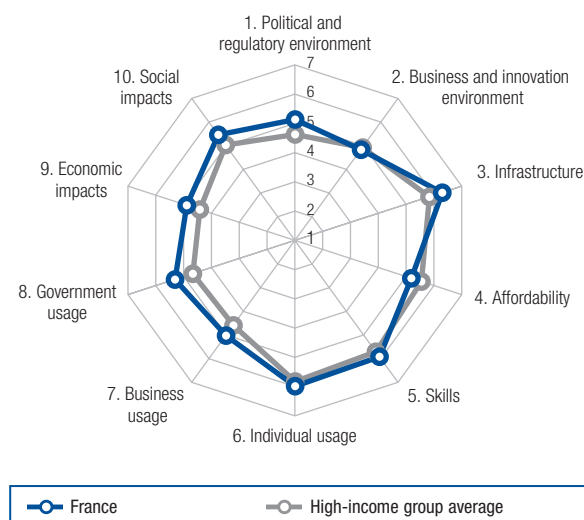
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	34	139.7
6.02 Individuals using Internet, %.....	7	92.4
6.03 Households w/ personal computer, %.....	9	91.9
6.04 Households w/ Internet access, %.....	13	89.8
6.05 Fixed broadband Internet subs/100 pop.....	15	32.3
6.06 Mobile broadband subs/100 pop.....	3	138.5
6.07 Use of virtual social networks*.....	10	6.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	10	5.8
7.02 Capacity for innovation*.....	6	5.6
7.03 PCT patents, applications/million pop.....	4	289.5
7.04 ICT use for business-to-business transactions*.....	8	5.9
7.05 Business-to-consumer Internet use*.....	37	5.1
7.06 Extent of staff training*.....	10	5.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	22	4.8
8.02 Government Online Service Index, 0-1 (best).....	18	0.77
8.03 Gov't success in ICT promotion*.....	28	4.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	1	5.9
9.02 ICT PCT patents, applications/million pop.....	2	149.0
9.03 Impact of ICTs on organizational models*.....	3	5.8
9.04 Knowledge-intensive jobs, % workforce.....	12	45.2
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	20	5.7
10.02 Internet access in schools*.....	12	6.0
10.03 ICT use & gov't efficiency*.....	19	5.0
10.04 E-Participation Index, 0-1 (best).....	24	0.71

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# France

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>24</b>	<b>5.3</b>
Networked Readiness Index 2015 (out of 143).....	26	5.2
Networked Readiness Index 2014 (out of 148).....	25	5.1
Networked Readiness Index 2013 (out of 144).....	26	5.1
<b>A. Environment subindex</b> .....	<b>26</b>	<b>5.0</b>
1st pillar: Political and regulatory environment.....	23	5.1
2nd pillar: Business and innovation environment.....	35	4.8
<b>B. Readiness subindex</b> .....	<b>27</b>	<b>5.8</b>
3rd pillar: Infrastructure.....	22	6.3
4th pillar: Affordability.....	76	5.2
5th pillar: Skills.....	18	5.9
<b>C. Usage subindex</b> .....	<b>20</b>	<b>5.4</b>
6th pillar: Individual usage.....	25	6.0
7th pillar: Business usage.....	19	5.0
8th pillar: Government usage.....	15	5.3
<b>D. Impact subindex</b> .....	<b>19</b>	<b>5.2</b>
9th pillar: Economic impacts.....	20	4.9
10th pillar: Social impacts.....	17	5.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	21	4.8
1.02 Laws relating to ICTs*	17	5.1
1.03 Judicial independence*	29	5.1
1.04 Efficiency of legal system in settling disputes*	28	4.6
1.05 Efficiency of legal system in challenging regs*	27	4.4
1.06 Intellectual property protection*	14	5.8
1.07 Software piracy rate, % software installed	22	36
1.08 No. procedures to enforce a contract	14	29
1.09 No. days to enforce a contract	23	395
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	21	6.0
2.02 Venture capital availability*	29	3.4
2.03 Total tax rate, % profits	124	62.7
2.04 No. days to start a business	15	4
2.05 No. procedures to start a business	41	5
2.06 Intensity of local competition*	29	5.5
2.07 Tertiary education gross enrollment rate, %	40	62.1
2.08 Quality of management schools*	11	5.5
2.09 Gov't procurement of advanced tech*	19	4.0
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	20	8606.2
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	12	221.7
3.04 Secure Internet servers/million pop.	26	683.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	121	0.48
4.02 Fixed broadband Internet tariffs, PPP \$/month	37	25.32
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	30	4.5
5.02 Quality of math & science education*	19	5.1
5.03 Secondary education gross enrollment rate, %	17	110.9
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	95	101.2
6.02 Individuals using Internet, %	23	83.8
6.03 Households w/ personal computer, %	24	82.8
6.04 Households w/ Internet access, %	20	83.0
6.05 Fixed broadband Internet subs/100 pop.	4	40.2
6.06 Mobile broadband subs/100 pop.	37	66.3
6.07 Use of virtual social networks*	45	5.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	26	5.5
7.02 Capacity for innovation*	20	5.1
7.03 PCT patents, applications/million pop.	14	117.2
7.04 ICT use for business-to-business transactions*	33	5.3
7.05 Business-to-consumer Internet use*	23	5.5
7.06 Extent of staff training*	28	4.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	42	4.4
8.02 Government Online Service Index, 0–1 (best)	1	1.00
8.03 Gov't success in ICT promotion*	37	4.5
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	28	5.2
9.02 ICT PCT patents, applications/million pop.	16	33.5
9.03 Impact of ICTs on organizational models*	26	4.9
9.04 Knowledge-intensive jobs, % workforce	15	44.0
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	25	5.4
10.02 Internet access in schools*	40	4.9
10.03 ICT use & gov't efficiency*	30	4.8
10.04 E-Participation Index, 0–1 (best)	4	0.96

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

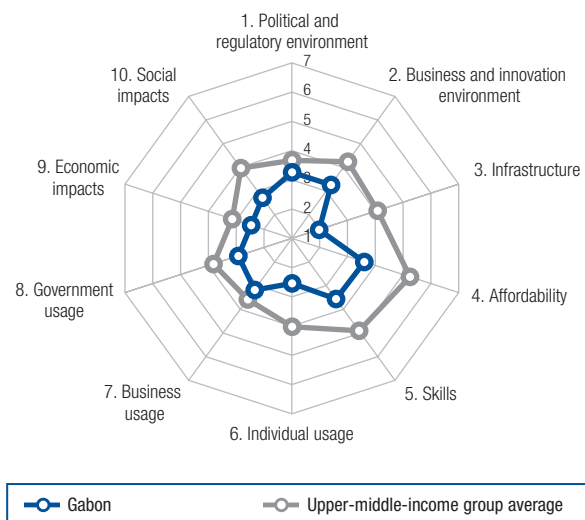
# Gabon

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 125.. 2.9

Networked Readiness Index (out of 143)..... 122..... 3.0  
 Networked Readiness Index 2014 (out of 148)..... 128..... 3.0  
 Networked Readiness Index 2013 (out of 144)..... 121..... 3.0

- A. Environment subindex..... 126..... 3.3**
  - 1st pillar: Political and regulatory environment..... 107..... 3.3
  - 2nd pillar: Business and innovation environment..... 131..... 3.3
- B. Readiness subindex ..... 119..... 3.0**
  - 3rd pillar: Infrastructure ..... 128..... 2.0
  - 4th pillar: Affordability ..... 113..... 3.6
  - 5th pillar: Skills..... 116..... 3.5
- C. Usage subindex..... 119..... 2.9**
  - 6th pillar: Individual usage..... 110..... 2.5
  - 7th pillar: Business usage..... 115..... 3.2
  - 8th pillar: Government usage..... 119..... 2.9
- D. Impact subindex..... 130..... 2.6**
  - 9th pillar: Economic impacts..... 127..... 2.5
  - 10th pillar: Social impacts..... 129..... 2.7



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	66	3.8
1.02 Laws relating to ICTs*	126	2.7
1.03 Judicial independence*	104	3.0
1.04 Efficiency of legal system in settling disputes*	80	3.5
1.05 Efficiency of legal system in challenging regs*	104	3.0
1.06 Intellectual property protection*	94	3.5
1.07 Software piracy rate, % software installed	n/a	n/a
1.08 No. procedures to enforce a contract	76	3.8
1.09 No. days to enforce a contract	127	1070
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	116	3.9
2.02 Venture capital availability*	117	2.2
2.03 Total tax rate, % profits	98	45.7
2.04 No. days to start a business	128	50
2.05 No. procedures to start a business	74	7
2.06 Intensity of local competition*	132	4.1
2.07 Tertiary education gross enrollment rate, %	119	8.4
2.08 Quality of management schools*	110	3.6
2.09 Gov't procurement of advanced tech*	125	2.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	89	1454.2
3.02 Mobile network coverage, % pop.	138	1.9
3.03 Int'l Internet bandwidth, kb/s per user	90	19.7
3.04 Secure Internet servers/million pop.	97	10.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	115	0.44
4.02 Fixed broadband Internet tariffs, PPP \$/month	105	54.72
4.03 Internet & telephony competition, 0-2 (best)	110	1.23
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	119	2.8
5.02 Quality of math & science education*	108	3.3
5.03 Secondary education gross enrollment rate, %	117	53.3
5.04 Adult literacy rate, %	79	83.2

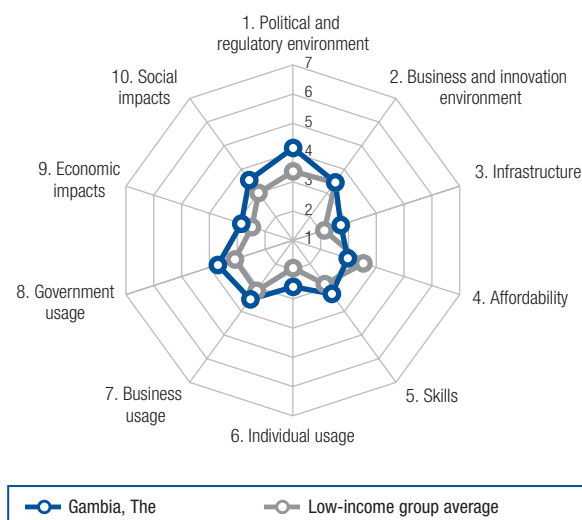
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	7	171.4
6.02 Individuals using Internet, %	125	9.8
6.03 Households w/ personal computer, %	108	12.5
6.04 Households w/ Internet access, %	112	9.7
6.05 Fixed broadband Internet subs/100 pop.	111	0.6
6.06 Mobile broadband subs/100 pop.	137	0.0
6.07 Use of virtual social networks*	112	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	86	4.4
7.02 Capacity for innovation*	116	3.4
7.03 PCT patents, applications/million pop.	100	0.1
7.04 ICT use for business-to-business transactions*	128	3.7
7.05 Business-to-consumer Internet use*	133	3.2
7.06 Extent of staff training*	99	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	94	3.6
8.02 Government Online Service Index, 0-1 (best)	128	0.09
8.03 Gov't success in ICT promotion*	95	3.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	130	3.5
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	131	3.0
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	134	3.0
10.02 Internet access in schools*	134	2.5
10.03 ICT use & gov't efficiency*	121	3.1
10.04 E-Participation Index, 0-1 (best)	112	0.22

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Gambia, The

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>113..</b>	<b>3.3</b>
Networked Readiness Index 2015 (out of 143).....	108.....	3.3
Networked Readiness Index 2014 (out of 148).....	107.....	3.4
Networked Readiness Index 2013 (out of 144).....	98.....	3.5
<b>A. Environment subindex.....</b>	<b>90.....</b>	<b>3.8</b>
1st pillar: Political and regulatory environment.....	43.....	4.2
2nd pillar: Business and innovation environment.....	123.....	3.4
<b>B. Readiness subindex.....</b>	<b>122.....</b>	<b>3.0</b>
3rd pillar: Infrastructure.....	109.....	2.7
4th pillar: Affordability.....	123.....	3.0
5th pillar: Skills.....	121.....	3.2
<b>C. Usage subindex.....</b>	<b>102.....</b>	<b>3.3</b>
6th pillar: Individual usage.....	108.....	2.6
7th pillar: Business usage.....	85.....	3.5
8th pillar: Government usage.....	77.....	3.7
<b>D. Impact subindex.....</b>	<b>100.....</b>	<b>3.2</b>
9th pillar: Economic impacts.....	103.....	2.9
10th pillar: Social impacts.....	95.....	3.5



## The Networked Readiness Index in detail

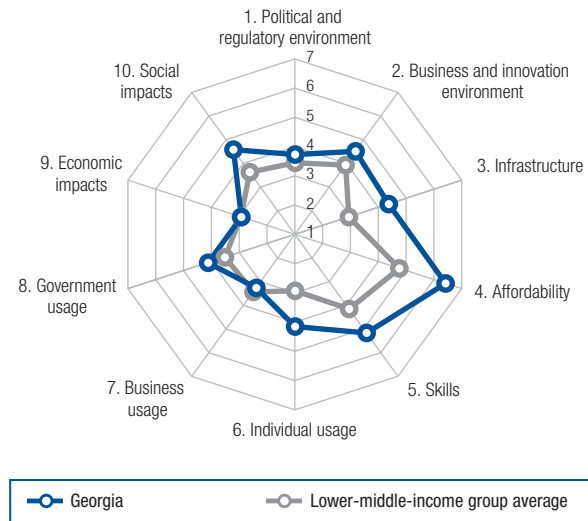
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	31.....	4.4
1.02 Laws relating to ICTs*.....	88.....	3.6
1.03 Judicial independence*.....	75.....	3.7
1.04 Efficiency of legal system in settling disputes*.....	35.....	4.4
1.05 Efficiency of legal system in challenging regs*.....	54.....	3.7
1.06 Intellectual property protection*.....	66.....	3.9
1.07 Software piracy rate, % software installed.....	n/a.....	n/a
1.08 No. procedures to enforce a contract.....	34.....	3.3
1.09 No. days to enforce a contract.....	28.....	4.0
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	81.....	4.5
2.02 Venture capital availability*.....	97.....	2.4
2.03 Total tax rate, % profits.....	125.....	63.3
2.04 No. days to start a business.....	106.....	2.5
2.05 No. procedures to start a business.....	74.....	7
2.06 Intensity of local competition*.....	93.....	4.7
2.07 Tertiary education gross enrollment rate, %.....	136.....	3.4
2.08 Quality of management schools*.....	64.....	4.3
2.09 Gov't procurement of advanced tech*.....	30.....	3.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	126.....	130.0
3.02 Mobile network coverage, % pop.....	110.....	94.0
3.03 Int'l Internet bandwidth, kb/s per user.....	100.....	10.9
3.04 Secure Internet servers/million pop.....	104.....	5.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	80.....	0.28
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	130.....	141.78
4.03 Internet & telephony competition, 0–2 (best).....	119.....	1.13
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	39.....	4.3
5.02 Quality of math & science education*.....	93.....	3.6
5.03 Secondary education gross enrollment rate, %.....	113.....	57.5
5.04 Adult literacy rate, %.....	108.....	55.5

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	58.....	119.6
6.02 Individuals using Internet, %.....	114.....	15.6
6.03 Households w/ personal computer, %.....	118.....	8.3
6.04 Households w/ Internet access, %.....	113.....	8.5
6.05 Fixed broadband Internet subs/100 pop.....	124.....	0.1
6.06 Mobile broadband subs/100 pop.....	117.....	8.0
6.07 Use of virtual social networks*.....	101.....	5.1
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	74.....	4.5
7.02 Capacity for innovation*.....	67.....	4.0
7.03 PCT patents, applications/million pop.....	80.....	0.4
7.04 ICT use for business-to-business transactions*.....	105.....	4.2
7.05 Business-to-consumer Internet use*.....	114.....	3.6
7.06 Extent of staff training*.....	69.....	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	37.....	4.5
8.02 Government Online Service Index, 0–1 (best).....	112.....	0.20
8.03 Gov't success in ICT promotion*.....	43.....	4.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	96.....	4.0
9.02 ICT PCT patents, applications/million pop.....	62.....	0.4
9.03 Impact of ICTs on organizational models*.....	111.....	3.5
9.04 Knowledge-intensive jobs, % workforce.....	n/a.....	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	77.....	4.0
10.02 Internet access in schools*.....	93.....	3.8
10.03 ICT use & gov't efficiency*.....	64.....	4.0
10.04 E-Participation Index, 0–1 (best).....	112.....	0.22

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Georgia

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>58..</b>	<b>4.3</b>
Networked Readiness Index (out of 143).....	60.....	4.2
Networked Readiness Index 2014 (out of 148).....	60.....	4.1
Networked Readiness Index 2013 (out of 144).....	65.....	3.9
<b>A. Environment subindex.....</b>	<b>56.....</b>	<b>4.1</b>
1st pillar: Political and regulatory environment.....	73.....	3.7
2nd pillar: Business and innovation environment.....	55.....	4.5
<b>B. Readiness subindex.....</b>	<b>46.....</b>	<b>5.3</b>
3rd pillar: Infrastructure.....	65.....	4.4
4th pillar: Affordability.....	15.....	6.4
5th pillar: Skills.....	64.....	5.1
<b>C. Usage subindex.....</b>	<b>72.....</b>	<b>3.8</b>
6th pillar: Individual usage.....	68.....	4.1
7th pillar: Business usage.....	108.....	3.2
8th pillar: Government usage.....	54.....	4.1
<b>D. Impact subindex.....</b>	<b>63.....</b>	<b>3.8</b>
9th pillar: Economic impacts.....	91.....	2.9
10th pillar: Social impacts.....	44.....	4.6



## The Networked Readiness Index in detail

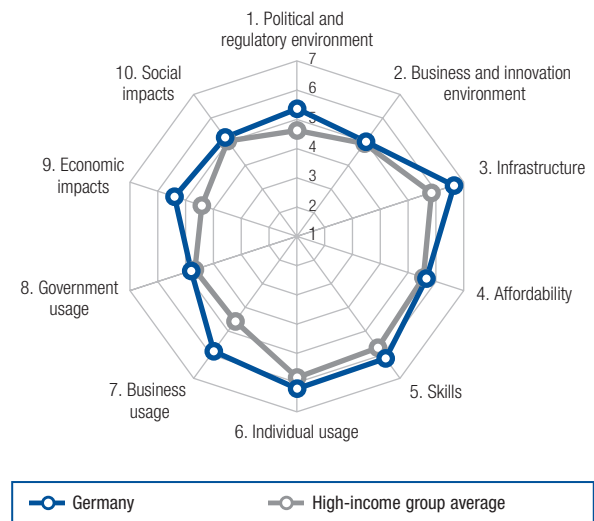
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	56	3.9
1.02 Laws relating to ICTs*	76	3.8
1.03 Judicial independence*	56	4.1
1.04 Efficiency of legal system in settling disputes*	54	3.9
1.05 Efficiency of legal system in challenging regs*	55	3.7
1.06 Intellectual property protection*	101	3.3
1.07 Software piracy rate, % software installed.....	102	90
1.08 No. procedures to enforce a contract.....	34	33
1.09 No. days to enforce a contract.....	8	285
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	97	4.3
2.02 Venture capital availability*.....	119	2.2
2.03 Total tax rate, % profits.....	8	16.4
2.04 No. days to start a business.....	5	2
2.05 No. procedures to start a business.....	3	2
2.06 Intensity of local competition*.....	91	4.7
2.07 Tertiary education gross enrollment rate, %.....	67	39.2
2.08 Quality of management schools*.....	97	3.8
2.09 Gov't procurement of advanced tech*.....	95	3.0
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	78	2241.7
3.02 Mobile network coverage, % pop.....	66	99.1
3.03 Int'l Internet bandwidth, kb/s per user.....	43	71.0
3.04 Secure Internet servers/million pop.....	71	37.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	18	0.09
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	53	29.25
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	101	3.1
5.02 Quality of math & science education*.....	97	3.5
5.03 Secondary education gross enrollment rate, %.....	46	99.4
5.04 Adult literacy rate, %.....	10	99.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	51	124.9
6.02 Individuals using Internet, %.....	72	48.9
6.03 Households w/ personal computer, %.....	72	45.8
6.04 Households w/ Internet access, %.....	74	41.0
6.05 Fixed broadband Internet subs/100 pop.....	61	12.2
6.06 Mobile broadband subs/100 pop.....	97	21.8
6.07 Use of virtual social networks*.....	34	6.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	103	4.2
7.02 Capacity for innovation*.....	121	3.4
7.03 PCT patents, applications/million pop.....	61	1.7
7.04 ICT use for business-to-business transactions*.....	79	4.6
7.05 Business-to-consumer Internet use*.....	94	4.0
7.06 Extent of staff training*.....	118	3.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	81	3.7
8.02 Government Online Service Index, 0-1 (best).....	49	0.60
8.03 Gov't success in ICT promotion*.....	62	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	102	4.0
9.02 ICT PCT patents, applications/million pop.....	55	0.7
9.03 Impact of ICTs on organizational models*.....	116	3.4
9.04 Knowledge-intensive jobs, % workforce.....	63	22.2
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	51	4.5
10.02 Internet access in schools*.....	61	4.5
10.03 ICT use & gov't efficiency*.....	26	4.8
10.04 E-Participation Index, 0-1 (best).....	49	0.59

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Germany

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>15</b>	<b>5.6</b>
Networked Readiness Index 2015 (out of 143).....	13	5.5
Networked Readiness Index 2014 (out of 148).....	12	5.5
Networked Readiness Index 2013 (out of 144).....	13	5.4
<b>A. Environment subindex</b> .....	<b>20</b>	<b>5.2</b>
1st pillar: Political and regulatory environment.....	16	5.4
2nd pillar: Business and innovation environment.....	28	5.0
<b>B. Readiness subindex</b> .....	<b>13</b>	<b>6.1</b>
3rd pillar: Infrastructure.....	12	6.6
4th pillar: Affordability.....	55	5.6
5th pillar: Skills.....	8	6.1
<b>C. Usage subindex</b> .....	<b>14</b>	<b>5.6</b>
6th pillar: Individual usage.....	18	6.2
7th pillar: Business usage.....	6	5.8
8th pillar: Government usage.....	30	4.8
<b>D. Impact subindex</b> .....	<b>15</b>	<b>5.3</b>
9th pillar: Economic impacts.....	10	5.4
10th pillar: Social impacts.....	30	5.2



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	17	5.0
1.02 Laws relating to ICTs*	26	4.8
1.03 Judicial independence*	17	5.8
1.04 Efficiency of legal system in settling disputes*	16	5.3
1.05 Efficiency of legal system in challenging regs*	11	5.2
1.06 Intellectual property protection*	20	5.7
1.07 Software piracy rate, % software installed	9	24
1.08 No. procedures to enforce a contract	22	31
1.09 No. days to enforce a contract	38	429
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	12	6.2
2.02 Venture capital availability*	25	3.5
2.03 Total tax rate, % profits	105	48.8
2.04 No. days to start a business	65	11
2.05 No. procedures to start a business	105	9
2.06 Intensity of local competition*	7	6.0
2.07 Tertiary education gross enrollment rate, %	43	61.1
2.08 Quality of management schools*	25	5.2
2.09 Gov't procurement of advanced tech*	10	4.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	24	7779.4
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	19	146.0
3.04 Secure Internet servers/million pop.	13	1420.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	27	0.11
4.02 Fixed broadband Internet tariffs, PPP \$/month	97	44.40
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	10	5.4
5.02 Quality of math & science education*	16	5.2
5.03 Secondary education gross enrollment rate, %	33	102.5
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	56	120.4
6.02 Individuals using Internet, %	16	86.2
6.03 Households w/ personal computer, %	11	90.6
6.04 Households w/ Internet access, %	15	89.5
6.05 Fixed broadband Internet subs/100 pop.	10	35.8
6.06 Mobile broadband subs/100 pop.	39	63.6
6.07 Use of virtual social networks*	54	5.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	13	5.7
7.02 Capacity for innovation*	5	5.6
7.03 PCT patents, applications/million pop.	7	217.6
7.04 ICT use for business-to-business transactions*	19	5.7
7.05 Business-to-consumer Internet use*	12	5.8
7.06 Extent of staff training*	13	5.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	24	4.7
8.02 Government Online Service Index, 0–1 (best)	34	0.67
8.03 Gov't success in ICT promotion*	32	4.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	21	5.4
9.02 ICT PCT patents, applications/million pop.	10	52.3
9.03 Impact of ICTs on organizational models*	18	5.2
9.04 Knowledge-intensive jobs, % workforce	17	43.5
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	14	5.8
10.02 Internet access in schools*	39	5.0
10.03 ICT use & gov't efficiency*	33	4.8
10.04 E-Participation Index, 0–1 (best)	24	0.71

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

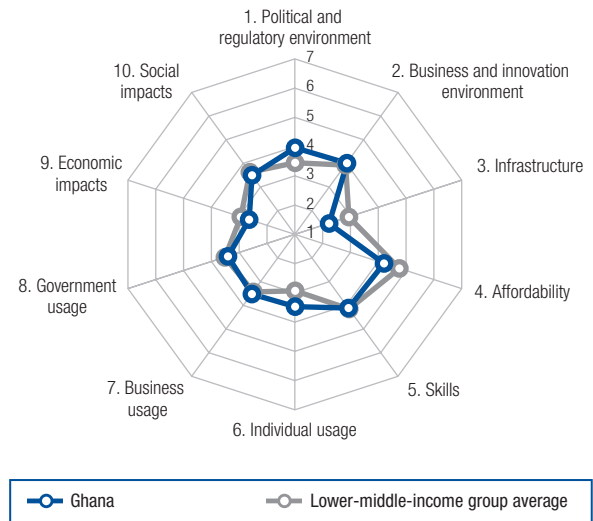
# Ghana

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 102.. 3.5

Networked Readiness Index (out of 143)..... 101 ..... 3.5  
 Networked Readiness Index 2014 (out of 148)..... 96 ..... 3.6  
 Networked Readiness Index 2013 (out of 144)..... 95 ..... 3.5

- A. Environment subindex..... 71 ..... 4.0**
  - 1st pillar: Political and regulatory environment..... 54 ..... 4.0
  - 2nd pillar: Business and innovation environment..... 92 ..... 4.0
- B. Readiness subindex ..... 113 ..... 3.5**
  - 3rd pillar: Infrastructure ..... 125 ..... 2.2
  - 4th pillar: Affordability ..... 105 ..... 4.2
  - 5th pillar: Skills ..... 102 ..... 4.1
- C. Usage subindex..... 91 ..... 3.5**
  - 6th pillar: Individual usage..... 89 ..... 3.5
  - 7th pillar: Business usage ..... 80 ..... 3.5
  - 8th pillar: Government usage ..... 98 ..... 3.4
- D. Impact subindex..... 111 ..... 3.1**
  - 9th pillar: Economic impacts..... 117 ..... 2.7
  - 10th pillar: Social impacts..... 99 ..... 3.5



## The Networked Readiness Index in detail

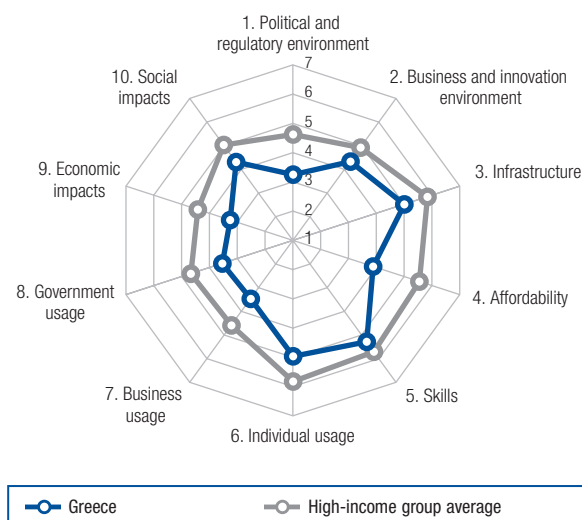
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	47	4.1
1.02 Laws relating to ICTs*	101	3.4
1.03 Judicial independence*	49	4.3
1.04 Efficiency of legal system in settling disputes*	43	4.2
1.05 Efficiency of legal system in challenging regs*	47	3.8
1.06 Intellectual property protection*	74	3.9
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract	76	3.8
1.09 No. days to enforce a contract	106	7.10
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	121	3.9
2.02 Venture capital availability*	81	2.6
2.03 Total tax rate, % profits	50	32.7
2.04 No. days to start a business	81	14
2.05 No. procedures to start a business	92	8
2.06 Intensity of local competition*	86	4.8
2.07 Tertiary education gross enrollment rate, %.....	104	15.6
2.08 Quality of management schools*	48	4.5
2.09 Gov't procurement of advanced tech*	56	3.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	112	491.9
3.02 Mobile network coverage, % pop.	122	87.0
3.03 Int'l Internet bandwidth, kb/s per user.....	126	3.6
3.04 Secure Internet servers/million pop.	110	3.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	28	0.12
4.02 Fixed broadband Internet tariffs, PPP \$/month	111	65.43
4.03 Internet & telephony competition, 0-2 (best)....	114	1.20
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	76	3.6
5.02 Quality of math & science education*.....	72	4.0
5.03 Secondary education gross enrollment rate, %	101	71.0
5.04 Adult literacy rate, %.....	90	76.6

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	66	114.8
6.02 Individuals using Internet, %.....	104	18.9
6.03 Households w/ personal computer, %	77	39.9
6.04 Households w/ Internet access, %	83	29.0
6.05 Fixed broadband Internet subs/100 pop.....	119	0.3
6.06 Mobile broadband subs/100 pop.....	44	59.8
6.07 Use of virtual social networks*.....	120	4.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	95	4.3
7.02 Capacity for innovation*.....	56	4.1
7.03 PCT patents, applications/million pop.	106	0.0
7.04 ICT use for business-to-business transactions*..	99	4.3
7.05 Business-to-consumer Internet use*.....	89	4.1
7.06 Extent of staff training*.....	64	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	86	3.6
8.02 Government Online Service Index, 0-1 (best)....	95	0.31
8.03 Gov't success in ICT promotion*.....	92	3.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	87	4.1
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*.....	103	3.6
9.04 Knowledge-intensive jobs, % workforce.....	96	9.6
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*....	105	3.6
10.02 Internet access in schools*.....	105	3.5
10.03 ICT use & gov't efficiency*.....	94	3.6
10.04 E-Participation Index, 0-1 (best).....	81	0.39

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Greece

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>70</b>	<b>4.1</b>
Networked Readiness Index 2015 (out of 143).....	66	4.1
Networked Readiness Index 2014 (out of 148).....	74	3.9
Networked Readiness Index 2013 (out of 144).....	64	3.9
<b>A. Environment subindex</b> .....	<b>92</b>	<b>3.8</b>
1st pillar: Political and regulatory environment.....	108	3.3
2nd pillar: Business and innovation environment.....	66	4.3
<b>B. Readiness subindex</b> .....	<b>77</b>	<b>4.7</b>
3rd pillar: Infrastructure.....	42	5.0
4th pillar: Affordability.....	110	3.9
5th pillar: Skills.....	58	5.3
<b>C. Usage subindex</b> .....	<b>62</b>	<b>4.0</b>
6th pillar: Individual usage.....	50	4.9
7th pillar: Business usage.....	87	3.5
8th pillar: Government usage.....	91	3.5
<b>D. Impact subindex</b> .....	<b>61</b>	<b>3.8</b>
9th pillar: Economic impacts.....	65	3.3
10th pillar: Social impacts.....	58	4.3



## The Networked Readiness Index in detail

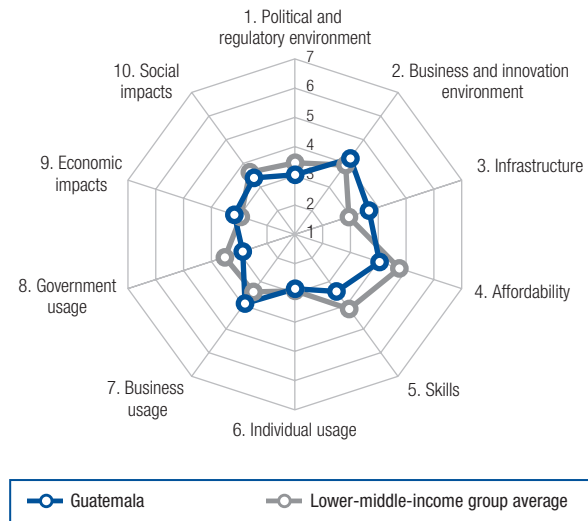
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	112	3.0
1.02 Laws relating to ICTs*	94	3.5
1.03 Judicial independence*	70	3.8
1.04 Efficiency of legal system in settling disputes*	131	2.6
1.05 Efficiency of legal system in challenging regs*	86	3.3
1.06 Intellectual property protection*	60	4.1
1.07 Software piracy rate, % software installed	56	62
1.08 No. procedures to enforce a contract	76	38
1.09 No. days to enforce a contract	139	1580
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	56	5.0
2.02 Venture capital availability*	135	1.9
2.03 Total tax rate, % profits	110	49.6
2.04 No. days to start a business	76	13
2.05 No. procedures to start a business	41	5
2.06 Intensity of local competition*	68	5.1
2.07 Tertiary education gross enrollment rate, %	1	110.2
2.08 Quality of management schools*	88	3.9
2.09 Gov't procurement of advanced tech*	132	2.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	44	5179.2
3.02 Mobile network coverage, % pop.	37	99.9
3.03 Int'l Internet bandwidth, kb/s per user	28	99.5
3.04 Secure Internet servers/million pop.	46	147.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	135	0.77
4.02 Fixed broadband Internet tariffs, PPP \$/month	47	28.03
4.03 Internet & telephony competition, 0–2 (best)	85	1.79
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	114	2.9
5.02 Quality of math & science education*	61	4.3
5.03 Secondary education gross enrollment rate, %	26	108.2
5.04 Adult literacy rate, %	34	97.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	78	110.3
6.02 Individuals using Internet, %	51	63.2
6.03 Households w/ personal computer, %	54	62.7
6.04 Households w/ Internet access, %	47	65.6
6.05 Fixed broadband Internet subs/100 pop.	22	28.4
6.06 Mobile broadband subs/100 pop.	73	41.0
6.07 Use of virtual social networks*	92	5.3
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	72	4.5
7.02 Capacity for innovation*	111	3.5
7.03 PCT patents, applications/million pop.	37	10.2
7.04 ICT use for business-to-business transactions*	96	4.3
7.05 Business-to-consumer Internet use*	79	4.2
7.06 Extent of staff training*	91	3.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	129	2.9
8.02 Government Online Service Index, 0–1 (best)	47	0.61
8.03 Gov't success in ICT promotion*	128	3.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	95	4.0
9.02 ICT PCT patents, applications/million pop.	39	2.6
9.03 Impact of ICTs on organizational models*	100	3.6
9.04 Knowledge-intensive jobs, % workforce	45	30.6
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	82	4.0
10.02 Internet access in schools*	86	3.9
10.03 ICT use & gov't efficiency*	100	3.5
10.04 E-Participation Index, 0–1 (best)	17	0.80

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Guatemala

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>103..</b>	<b>3.5</b>
Networked Readiness Index (out of 143).....	107.....	3.3
Networked Readiness Index 2014 (out of 148).....	101.....	3.5
Networked Readiness Index 2013 (out of 144).....	102.....	3.4
<b>A. Environment subindex.....</b>	<b>107.....</b>	<b>3.6</b>
1st pillar: Political and regulatory environment.....	122.....	3.0
2nd pillar: Business and innovation environment.....	73.....	4.2
<b>B. Readiness subindex.....</b>	<b>109.....</b>	<b>3.7</b>
3rd pillar: Infrastructure.....	86.....	3.6
4th pillar: Affordability.....	108.....	4.0
5th pillar: Skills.....	118.....	3.4
<b>C. Usage subindex.....</b>	<b>106.....</b>	<b>3.2</b>
6th pillar: Individual usage.....	100.....	2.8
7th pillar: Business usage.....	45.....	3.9
8th pillar: Government usage.....	122.....	2.9
<b>D. Impact subindex.....</b>	<b>96.....</b>	<b>3.3</b>
9th pillar: Economic impacts.....	71.....	3.2
10th pillar: Social impacts.....	107.....	3.4



## The Networked Readiness Index in detail

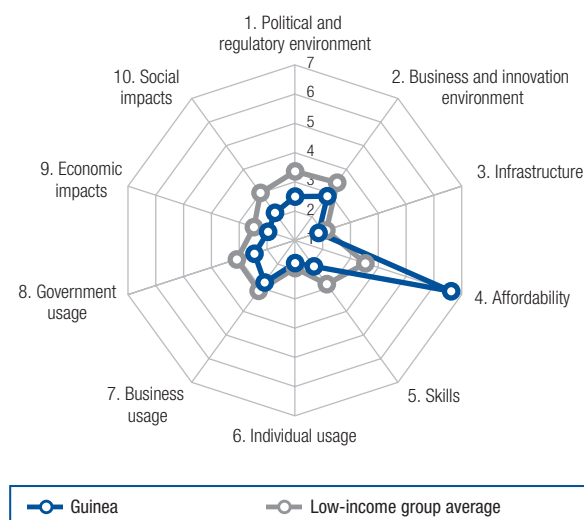
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	136	2.2
1.02 Laws relating to ICTs*.....	79	3.7
1.03 Judicial independence*.....	105	3.0
1.04 Efficiency of legal system in settling disputes*..	109	3.0
1.05 Efficiency of legal system in challenging regs*.....	82	3.3
1.06 Intellectual property protection*.....	91	3.5
1.07 Software piracy rate, % software installed.....	82	79
1.08 No. procedures to enforce a contract.....	22	31
1.09 No. days to enforce a contract.....	136	1402
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	42	5.3
2.02 Venture capital availability*.....	56	2.9
2.03 Total tax rate, % profits.....	71	37.5
2.04 No. days to start a business.....	95	19
2.05 No. procedures to start a business.....	54	6
2.06 Intensity of local competition*.....	28	5.5
2.07 Tertiary education gross enrollment rate, %.....	98	18.3
2.08 Quality of management schools*.....	41	4.6
2.09 Gov't procurement of advanced tech*.....	130	2.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	106	632.2
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	80	27.5
3.04 Secure Internet servers/million pop.....	85	17.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	130	0.62
4.02 Fixed broadband Internet tariffs, PPP \$/month ..	84	39.11
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	122	2.7
5.02 Quality of math & science education*.....	134	2.4
5.03 Secondary education gross enrollment rate, %	110	63.5
5.04 Adult literacy rate, %.....	87	79.3

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	83	106.6
6.02 Individuals using Internet, %.....	101	23.4
6.03 Households w/ personal computer, %.....	97	20.9
6.04 Households w/ Internet access, %.....	105	15.0
6.05 Fixed broadband Internet subs/100 pop.....	95	2.7
6.06 Mobile broadband subs/100 pop.....	115	9.4
6.07 Use of virtual social networks*.....	71	5.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	45	5.0
7.02 Capacity for innovation*.....	43	4.3
7.03 PCT patents, applications/million pop.....	104	0.1
7.04 ICT use for business-to-business transactions*..	56	4.9
7.05 Business-to-consumer Internet use*.....	60	4.6
7.06 Extent of staff training*.....	34	4.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	110	3.3
8.02 Government Online Service Index, 0-1 (best)...	120	0.15
8.03 Gov't success in ICT promotion*.....	106	3.5
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	36	5.0
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	34	4.7
9.04 Knowledge-intensive jobs, % workforce.....	94	10.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	61	4.3
10.02 Internet access in schools*.....	98	3.6
10.03 ICT use & gov't efficiency*.....	104	3.5
10.04 E-Participation Index, 0-1 (best).....	115	0.20

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Guinea

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>134</b> .....	<b>2.6</b>
Networked Readiness Index 2015 (out of 143).....	142.....	2.4
Networked Readiness Index 2014 (out of 148).....	145.....	2.5
Networked Readiness Index 2013 (out of 144).....	140.....	2.6
<b>A. Environment subindex</b> .....	<b>137</b> .....	<b>2.7</b>
1st pillar: Political and regulatory environment.....	138.....	2.5
2nd pillar: Business and innovation environment.....	137.....	2.9
<b>B. Readiness subindex</b> .....	<b>112</b> .....	<b>3.5</b>
3rd pillar: Infrastructure.....	132.....	1.8
4th pillar: Affordability.....	9.....	6.6
5th pillar: Skills.....	137.....	2.1
<b>C. Usage subindex</b> .....	<b>135</b> .....	<b>2.3</b>
6th pillar: Individual usage.....	133.....	1.8
7th pillar: Business usage.....	136.....	2.8
8th pillar: Government usage.....	135.....	2.5
<b>D. Impact subindex</b> .....	<b>138</b> .....	<b>2.1</b>
9th pillar: Economic impacts.....	139.....	2.0
10th pillar: Social impacts.....	137.....	2.2



## The Networked Readiness Index in detail

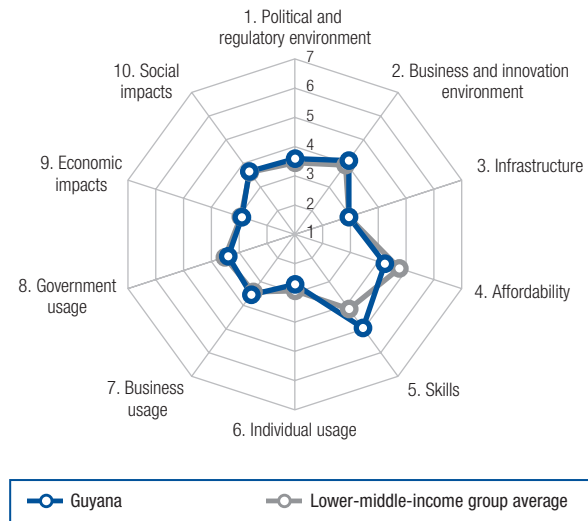
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	133	2.3
1.02 Laws relating to ICTs*	137	2.2
1.03 Judicial independence*	135	2.0
1.04 Efficiency of legal system in settling disputes*	135	2.3
1.05 Efficiency of legal system in challenging regs*	130	2.4
1.06 Intellectual property protection*	137	2.2
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	134	4.9
1.09 No. days to enforce a contract.....	11	3.11
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	135	3.3
2.02 Venture capital availability*	131	1.9
2.03 Total tax rate, % profits.....	132	68.3
2.04 No. days to start a business.....	48	8
2.05 No. procedures to start a business.....	54	6
2.06 Intensity of local competition*.....	129	4.2
2.07 Tertiary education gross enrollment rate, %.....	113	10.8
2.08 Quality of management schools*.....	139	2.3
2.09 Gov't procurement of advanced tech*.....	127	2.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	133	83.5
3.02 Mobile network coverage, % pop.....	126	80.0
3.03 Int'l Internet bandwidth, kb/s per user.....	132	2.4
3.04 Secure Internet servers/million pop.....	137	0.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	43	0.15
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	n/a	n/a
4.03 Internet & telephony competition, 0–2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	132	2.4
5.02 Quality of math & science education*.....	115	3.1
5.03 Secondary education gross enrollment rate, %.....	129	38.8
5.04 Adult literacy rate, %.....	116	30.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	125	72.1
6.02 Individuals using Internet, %.....	138	1.7
6.03 Households w/ personal computer, %.....	137	2.3
6.04 Households w/ Internet access, %.....	138	1.5
6.05 Fixed broadband Internet subs/100 pop.....	138	0.0
6.06 Mobile broadband subs/100 pop.....	131	2.2
6.07 Use of virtual social networks*.....	136	4.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	133	3.7
7.02 Capacity for innovation*.....	138	2.7
7.03 PCT patents, applications/million pop.....	121	0.0
7.04 ICT use for business-to-business transactions*.....	133	3.5
7.05 Business-to-consumer Internet use*.....	136	3.0
7.06 Extent of staff training*.....	127	3.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	128	3.0
8.02 Government Online Service Index, 0–1 (best).....	137	0.00
8.03 Gov't success in ICT promotion*.....	109	3.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	136	3.2
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	137	2.7
9.04 Knowledge-intensive jobs, % workforce.....	110	0.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	135	3.0
10.02 Internet access in schools*.....	137	1.8
10.03 ICT use & gov't efficiency*.....	132	2.8
10.04 E-Participation Index, 0–1 (best).....	137	0.02

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Guyana

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>100</b>	<b>3.6</b>
Networked Readiness Index (out of 143).....	93	3.7
Networked Readiness Index 2014 (out of 148).....	88	3.8
Networked Readiness Index 2013 (out of 144).....	100	3.4
<b>A. Environment subindex.....</b>	<b>84</b>	<b>3.9</b>
1st pillar: Political and regulatory environment.....	86	3.6
2nd pillar: Business and innovation environment.....	79	4.1
<b>B. Readiness subindex.....</b>	<b>101</b>	<b>4.0</b>
3rd pillar: Infrastructure.....	104	2.9
4th pillar: Affordability.....	104	4.2
5th pillar: Skills.....	78	4.9
<b>C. Usage subindex.....</b>	<b>105</b>	<b>3.2</b>
6th pillar: Individual usage.....	105	2.7
7th pillar: Business usage.....	76	3.5
8th pillar: Government usage.....	99	3.4
<b>D. Impact subindex.....</b>	<b>95</b>	<b>3.3</b>
9th pillar: Economic impacts.....	94	2.9
10th pillar: Social impacts.....	91	3.7



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	84	3.5
1.02 Laws relating to ICTs*.....	97	3.4
1.03 Judicial independence*.....	97	3.3
1.04 Efficiency of legal system in settling disputes*.....	77	3.5
1.05 Efficiency of legal system in challenging regs*.....	69	3.4
1.06 Intellectual property protection*.....	106	3.3
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	58	3.6
1.09 No. days to enforce a contract.....	81	5.81
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	86	4.5
2.02 Venture capital availability*.....	34	3.3
2.03 Total tax rate, % profits.....	48	32.3
2.04 No. days to start a business.....	93	1.8
2.05 No. procedures to start a business.....	74	7
2.06 Intensity of local competition*.....	110	4.5
2.07 Tertiary education gross enrollment rate, %.....	108	12.5
2.08 Quality of management schools*.....	44	4.6
2.09 Gov't procurement of advanced tech*.....	62	3.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	95	1054.8
3.02 Mobile network coverage, % pop.....	96	97.1
3.03 Int'l Internet bandwidth, kb/s per user.....	102	10.0
3.04 Secure Internet servers/million pop.....	98	10.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	71	0.26
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	90	42.72
4.03 Internet & telephony competition, 0-2 (best).....	131	0.50
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	59	3.9
5.02 Quality of math & science education*.....	70	4.1
5.03 Secondary education gross enrollment rate, %.....	75	89.3
5.04 Adult literacy rate, %.....	70	88.5

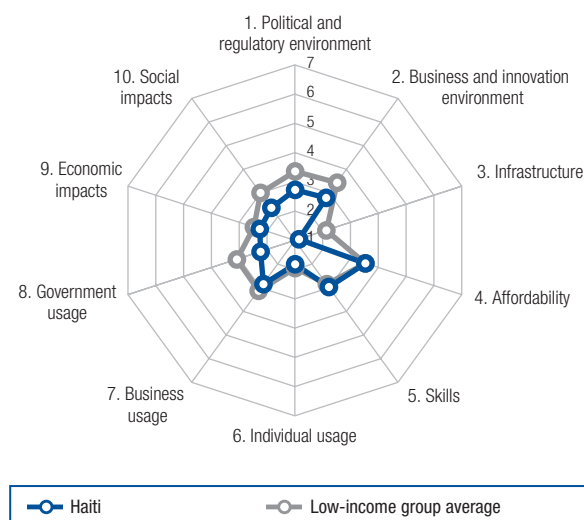
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	126	70.5
6.02 Individuals using Internet, %.....	92	37.4
6.03 Households w/ personal computer, %.....	91	26.9
6.04 Households w/ Internet access, %.....	93	24.2
6.05 Fixed broadband Internet subs/100 pop.....	82	5.6
6.06 Mobile broadband subs/100 pop.....	135	0.2
6.07 Use of virtual social networks*.....	94	5.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	79	4.4
7.02 Capacity for innovation*.....	76	3.9
7.03 PCT patents, applications/million pop.....	121	0.0
7.04 ICT use for business-to-business transactions*.....	106	4.2
7.05 Business-to-consumer Internet use*.....	75	4.3
7.06 Extent of staff training*.....	49	4.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	77	3.8
8.02 Government Online Service Index, 0-1 (best).....	106	0.24
8.03 Gov't success in ICT promotion*.....	76	3.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	105	3.9
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	87	3.8
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	93	3.9
10.02 Internet access in schools*.....	78	4.1
10.03 ICT use & gov't efficiency*.....	91	3.7
10.04 E-Participation Index, 0-1 (best).....	89	0.33

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Haiti

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>137</b> .....	<b>2.5</b>
Networked Readiness Index 2015 (out of 143).....	137.....	2.5
Networked Readiness Index 2014 (out of 148).....	143.....	2.5
Networked Readiness Index 2013 (out of 144).....	141.....	2.6
<b>A. Environment subindex</b> .....	<b>136</b> .....	<b>2.8</b>
1st pillar: Political and regulatory environment.....	131.....	2.7
2nd pillar: Business and innovation environment.....	138.....	2.8
<b>B. Readiness subindex</b> .....	<b>132</b> .....	<b>2.5</b>
3rd pillar: Infrastructure.....	137.....	1.1
4th pillar: Affordability.....	115.....	3.5
5th pillar: Skills.....	124.....	3.0
<b>C. Usage subindex</b> .....	<b>136</b> .....	<b>2.3</b>
6th pillar: Individual usage.....	132.....	1.8
7th pillar: Business usage.....	134.....	2.8
8th pillar: Government usage.....	139.....	2.2
<b>D. Impact subindex</b> .....	<b>136</b> .....	<b>2.3</b>
9th pillar: Economic impacts.....	135.....	2.3
10th pillar: Social impacts.....	136.....	2.4



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	137	2.1
1.02 Laws relating to ICTs*	139	2.0
1.03 Judicial independence*	117	2.7
1.04 Efficiency of legal system in settling disputes*	126	2.7
1.05 Efficiency of legal system in challenging regs*	136	2.2
1.06 Intellectual property protection*	136	2.3
1.07 Software piracy rate, % software installed	n/a	n/a
1.08 No. procedures to enforce a contract	48	35
1.09 No. days to enforce a contract	68	530
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	133	3.4
2.02 Venture capital availability*	134	1.9
2.03 Total tax rate, % profits	81	40.3
2.04 No. days to start a business	138	97
2.05 No. procedures to start a business	125	12
2.06 Intensity of local competition*	136	3.9
2.07 Tertiary education gross enrollment rate, %	123	6.5
2.08 Quality of management schools*	134	2.9
2.09 Gov't procurement of advanced tech*	135	2.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	129	105.9
3.02 Mobile network coverage, % pop.	132	63.3
3.03 Int'l Internet bandwidth, kb/s per user	139	0.1
3.04 Secure Internet servers/million pop.	125	1.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	62	0.23
4.02 Fixed broadband Internet tariffs, PPP \$/month	122	89.97
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	133	2.4
5.02 Quality of math & science education*	124	2.8
5.03 Secondary education gross enrollment rate, %	106	68.1
5.04 Adult literacy rate, %	103	60.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	130	64.7
6.02 Individuals using Internet, %	120	11.4
6.03 Households w/ personal computer, %	117	8.7
6.04 Households w/ Internet access, %	131	4.0
6.05 Fixed broadband Internet subs/100 pop.	139	0.0
6.06 Mobile broadband subs/100 pop.	136	0.2
6.07 Use of virtual social networks*	124	4.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	134	3.5
7.02 Capacity for innovation*	127	3.2
7.03 PCT patents, applications/million pop.	121	0.0
7.04 ICT use for business-to-business transactions*	136	3.3
7.05 Business-to-consumer Internet use*	120	3.5
7.06 Extent of staff training*	132	3.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	139	2.3
8.02 Government Online Service Index, 0–1 (best)	126	0.11
8.03 Gov't success in ICT promotion*	135	2.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	137	2.9
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	135	2.9
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	138	2.5
10.02 Internet access in schools*	130	2.7
10.03 ICT use & gov't efficiency*	139	2.3
10.04 E-Participation Index, 0–1 (best)	119	0.18

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

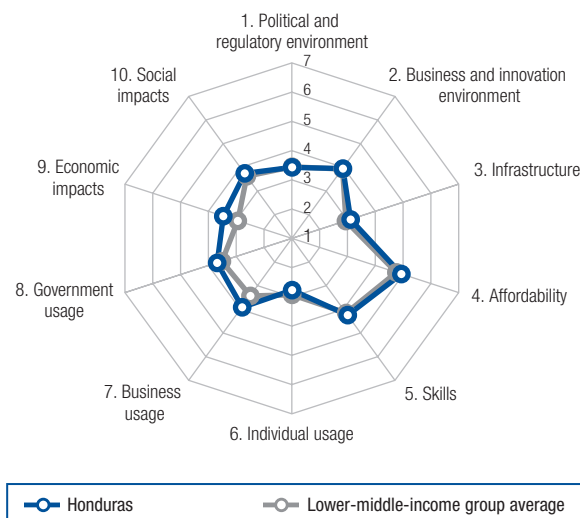
# Honduras

Rank (out of 139) Value (1-7)

## Networked Readiness Index.....94...3.7

Networked Readiness Index (out of 143)..... 100..... 3.5  
 Networked Readiness Index 2014 (out of 148)..... 116..... 3.2  
 Networked Readiness Index 2013 (out of 144)..... 109..... 3.3

- A. Environment subindex.....98.... 3.7**
  - 1st pillar: Political and regulatory environment.....95.... 3.4
  - 2nd pillar: Business and innovation environment.....95.... 3.9
- B. Readiness subindex .....99.... 4.1**
  - 3rd pillar: Infrastructure .....96.... 3.1
  - 4th pillar: Affordability .....85.... 4.9
  - 5th pillar: Skills.....97.... 4.2
- C. Usage subindex.....93.... 3.4**
  - 6th pillar: Individual usage..... 104..... 2.8
  - 7th pillar: Business usage.....46.... 3.9
  - 8th pillar: Government usage.....78.... 3.7
- D. Impact subindex.....74.... 3.6**
  - 9th pillar: Economic impacts.....53.... 3.5
  - 10th pillar: Social impacts.....87.... 3.8



## The Networked Readiness Index in detail

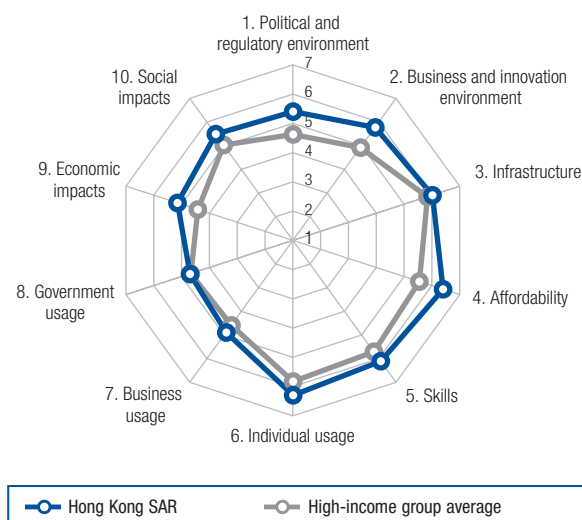
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	73	3.7
1.02 Laws relating to ICTs*	77	3.8
1.03 Judicial independence*	94	3.3
1.04 Efficiency of legal system in settling disputes*	64	3.7
1.05 Efficiency of legal system in challenging regs*	57	3.7
1.06 Intellectual property protection*	51	4.2
1.07 Software piracy rate, % software installed.....	73	74
1.08 No. procedures to enforce a contract.....	131	47
1.09 No. days to enforce a contract.....	121	920
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	62	4.9
2.02 Venture capital availability*	53	2.9
2.03 Total tax rate, % profits.....	96	44.3
2.04 No. days to start a business.....	81	14
2.05 No. procedures to start a business.....	125	12
2.06 Intensity of local competition*.....	74	5.0
2.07 Tertiary education gross enrollment rate, %.....	94	21.2
2.08 Quality of management schools*.....	82	4.0
2.09 Gov't procurement of advanced tech*.....	47	3.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	96	1028.7
3.02 Mobile network coverage, % pop.....	118	89.9
3.03 Int'l Internet bandwidth, kb/s per user.....	87	21.8
3.04 Secure Internet servers/million pop.....	93	11.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	86	0.30
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	96	44.35
4.03 Internet & telephony competition, 0-2 (best).....	65	1.94
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	79	3.5
5.02 Quality of math & science education*.....	101	3.4
5.03 Secondary education gross enrollment rate, %.....	104	68.4
5.04 Adult literacy rate, %.....	71	88.5

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	104	93.5
6.02 Individuals using Internet, %.....	103	19.1
6.03 Households w/ personal computer, %.....	96	21.6
6.04 Households w/ Internet access, %.....	97	19.6
6.05 Fixed broadband Internet subs/100 pop.....	103	1.4
6.06 Mobile broadband subs/100 pop.....	102	16.3
6.07 Use of virtual social networks*.....	65	5.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	58	4.8
7.02 Capacity for innovation*.....	39	4.4
7.03 PCT patents, applications/million pop.....	121	0.0
7.04 ICT use for business-to-business transactions*.....	48	5.0
7.05 Business-to-consumer Internet use*.....	62	4.6
7.06 Extent of staff training*.....	29	4.5
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	70	3.9
8.02 Government Online Service Index, 0-1 (best).....	79	0.40
8.03 Gov't success in ICT promotion*.....	89	3.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	48	4.8
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	35	4.6
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	66	4.2
10.02 Internet access in schools*.....	82	3.9
10.03 ICT use & gov't efficiency*.....	77	3.8
10.04 E-Participation Index, 0-1 (best).....	89	0.33

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Hong Kong SAR

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>12</b>	<b>5.6</b>
Networked Readiness Index 2015 (out of 143).....	14	5.5
Networked Readiness Index 2014 (out of 148).....	8	5.6
Networked Readiness Index 2013 (out of 144).....	14	5.4
<b>A. Environment subindex</b> .....	<b>4</b>	<b>5.6</b>
1st pillar: Political and regulatory environment.....	14	5.4
2nd pillar: Business and innovation environment.....	2	5.8
<b>B. Readiness subindex</b> .....	<b>11</b>	<b>6.2</b>
3rd pillar: Infrastructure.....	25	6.0
4th pillar: Affordability.....	16	6.4
5th pillar: Skills.....	10	6.1
<b>C. Usage subindex</b> .....	<b>25</b>	<b>5.3</b>
6th pillar: Individual usage.....	16	6.3
7th pillar: Business usage.....	21	4.9
8th pillar: Government usage.....	37	4.7
<b>D. Impact subindex</b> .....	<b>13</b>	<b>5.3</b>
9th pillar: Economic impacts.....	13	5.2
10th pillar: Social impacts.....	14	5.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	41	4.2
1.02 Laws relating to ICTs*	18	5.1
1.03 Judicial independence*	4	6.3
1.04 Efficiency of legal system in settling disputes*	2	6.0
1.05 Efficiency of legal system in challenging regs*	4	5.6
1.06 Intellectual property protection*	9	6.0
1.07 Software piracy rate, % software installed	29	4.3
1.08 No. procedures to enforce a contract	5	26
1.09 No. days to enforce a contract	14	360
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	22	6.0
2.02 Venture capital availability*	9	4.3
2.03 Total tax rate, % profits	19	22.8
2.04 No. days to start a business	3	2
2.05 No. procedures to start a business	3	2
2.06 Intensity of local competition*	2	6.2
2.07 Tertiary education gross enrollment rate, %	28	68.8
2.08 Quality of management schools*	10	5.6
2.09 Gov't procurement of advanced tech*	38	3.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	41	5447.7
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	2	3721.8
3.04 Secure Internet servers/million pop.	23	790.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	1	0.02
4.02 Fixed broadband Internet tariffs, PPP \$/month	54	29.71
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	20	4.8
5.02 Quality of math & science education*	8	5.5
5.03 Secondary education gross enrollment rate, %	39	100.6
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	1	233.6
6.02 Individuals using Internet, %	34	74.6
6.03 Households w/ personal computer, %	22	83.7
6.04 Households w/ Internet access, %	23	82.4
6.05 Fixed broadband Internet subs/100 pop.	17	31.4
6.06 Mobile broadband subs/100 pop.	13	104.5
6.07 Use of virtual social networks*	16	6.3
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	18	5.6
7.02 Capacity for innovation*	29	4.7
7.03 PCT patents, applications/million pop.	n/a	n/a
7.04 ICT use for business-to-business transactions*	20	5.7
7.05 Business-to-consumer Internet use*	27	5.4
7.06 Extent of staff training*	23	4.8
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	28	4.7
8.02 Government Online Service Index, 0–1 (best)	n/a	n/a
8.03 Gov't success in ICT promotion*	29	4.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	26	5.2
9.02 ICT PCT patents, applications/million pop.	n/a	n/a
9.03 Impact of ICTs on organizational models*	16	5.3
9.04 Knowledge-intensive jobs, % workforce	27	37.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	22	5.6
10.02 Internet access in schools*	10	6.0
10.03 ICT use & gov't efficiency*	23	4.9
10.04 E-Participation Index, 0–1 (best)	n/a	n/a

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Hungary

Rank (out of 139)    Value (1-7)

## Networked Readiness Index..... 50.. 4.4

Networked Readiness Index (out of 143)..... 53..... 4.3  
 Networked Readiness Index 2014 (out of 148)..... 47..... 4.3  
 Networked Readiness Index 2013 (out of 144)..... 44..... 4.3

### A. Environment subindex..... 51..... 4.2

1st pillar: Political and regulatory environment..... 50..... 4.0  
 2nd pillar: Business and innovation environment..... 59..... 4.4

### B. Readiness subindex ..... 58..... 5.0

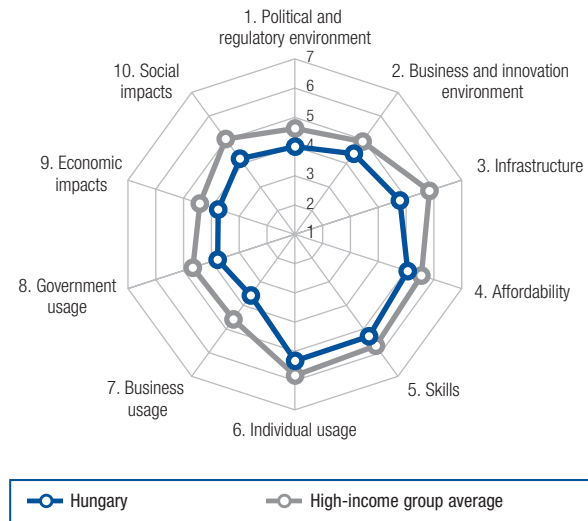
3rd pillar: Infrastructure ..... 48..... 4.8  
 4th pillar: Affordability ..... 80..... 5.0  
 5th pillar: Skills..... 56..... 5.3

### C. Usage subindex..... 48..... 4.2

6th pillar: Individual usage..... 41..... 5.3  
 7th pillar: Business usage..... 73..... 3.6  
 8th pillar: Government usage..... 70..... 3.8

### D. Impact subindex..... 47..... 4.0

9th pillar: Economic impacts..... 36..... 3.8  
 10th pillar: Social impacts..... 64..... 4.2



## The Networked Readiness Index in detail

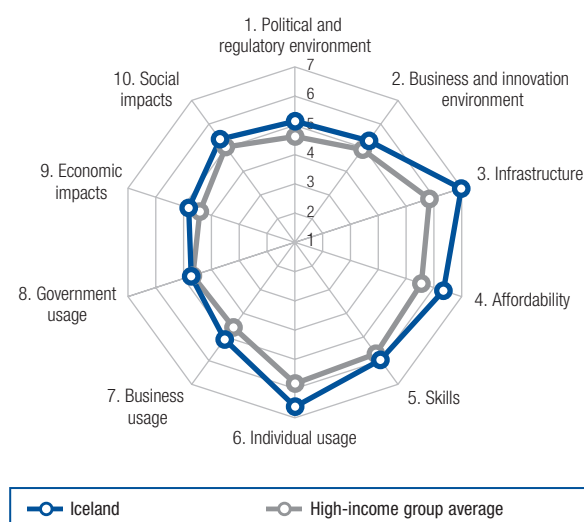
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	78	3.7
1.02 Laws relating to ICTs*	51	4.2
1.03 Judicial independence*	79	3.6
1.04 Efficiency of legal system in settling disputes*	96	3.2
1.05 Efficiency of legal system in challenging regs*	120	2.7
1.06 Intellectual property protection*	80	3.7
1.07 Software piracy rate, % software installed	27	3.9
1.08 No. procedures to enforce a contract	42	3.4
1.09 No. days to enforce a contract	23	3.95
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	46	5.1
2.02 Venture capital availability*	101	2.4
2.03 Total tax rate, % profits	104	48.4
2.04 No. days to start a business	26	5
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	63	5.1
2.07 Tertiary education gross enrollment rate, %	45	57.0
2.08 Quality of management schools*	73	4.1
2.09 Gov't procurement of advanced tech*	103	2.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	65	3060.0
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	64	37.0
3.04 Secure Internet servers/million pop.	34	300.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	75	0.27
4.02 Fixed broadband Internet tariffs, PPP \$/month	93	43.18
4.03 Internet & telephony competition, 0-2 (best)	75	1.87
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	99	3.2
5.02 Quality of math & science education*	75	4.0
5.03 Secondary education gross enrollment rate, %	25	108.2
5.04 Adult literacy rate, %	19	99.1

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	59	118.1
6.02 Individuals using Internet, %	31	76.1
6.03 Households w/ personal computer, %	38	76.8
6.04 Households w/ Internet access, %	35	75.1
6.05 Fixed broadband Internet subs/100 pop.	26	27.3
6.06 Mobile broadband subs/100 pop.	79	34.0
6.07 Use of virtual social networks*	90	5.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	63	4.7
7.02 Capacity for innovation*	130	3.1
7.03 PCT patents, applications/million pop.	26	23.5
7.04 ICT use for business-to-business transactions*	44	5.1
7.05 Business-to-consumer Internet use*	52	4.8
7.06 Extent of staff training*	113	3.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	98	3.5
8.02 Government Online Service Index, 0-1 (best)	53	0.56
8.03 Gov't success in ICT promotion*	104	3.5
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	59	4.6
9.02 ICT PCT patents, applications/million pop.	29	8.2
9.03 Impact of ICTs on organizational models*	73	4.1
9.04 Knowledge-intensive jobs, % workforce	36	35.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	57	4.3
10.02 Internet access in schools*	42	4.9
10.03 ICT use & gov't efficiency*	74	3.9
10.04 E-Participation Index, 0-1 (best)	73	0.45

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

## Iceland

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>16..</b>	<b>5.5</b>
Networked Readiness Index 2015 (out of 143).....	19.....	5.4
Networked Readiness Index 2014 (out of 148).....	19.....	5.3
Networked Readiness Index 2013 (out of 144).....	17.....	5.3
<b>A. Environment subindex.....</b>	<b>18.....</b>	<b>5.2</b>
1st pillar: Political and regulatory environment.....	22.....	5.1
2nd pillar: Business and innovation environment.....	17.....	5.3
<b>B. Readiness subindex.....</b>	<b>3.....</b>	<b>6.4</b>
3rd pillar: Infrastructure.....	7.....	7.0
4th pillar: Affordability.....	19.....	6.3
5th pillar: Skills.....	15.....	6.0
<b>C. Usage subindex.....</b>	<b>18.....</b>	<b>5.5</b>
6th pillar: Individual usage.....	7.....	6.6
7th pillar: Business usage.....	18.....	5.1
8th pillar: Government usage.....	36.....	4.7
<b>D. Impact subindex.....</b>	<b>22.....</b>	<b>5.1</b>
9th pillar: Economic impacts.....	22.....	4.8
10th pillar: Social impacts.....	21.....	5.4



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	26	4.6
1.02 Laws relating to ICTs*	9	5.3
1.03 Judicial independence*	19	5.7
1.04 Efficiency of legal system in settling disputes*	20	5.0
1.05 Efficiency of legal system in challenging regs*	13	5.1
1.06 Intellectual property protection*	25	5.3
1.07 Software piracy rate, % software installed	36	4.8
1.08 No. procedures to enforce a contract	9	2.7
1.09 No. days to enforce a contract	32	4.17
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	6	6.4
2.02 Venture capital availability*	38	3.1
2.03 Total tax rate, % profits	37	29.6
2.04 No. days to start a business	15	4
2.05 No. procedures to start a business	41	5
2.06 Intensity of local competition*	84	4.8
2.07 Tertiary education gross enrollment rate, %	12	82.2
2.08 Quality of management schools*	18	5.3
2.09 Gov't procurement of advanced tech*	46	3.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	1	55954.3
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	6	519.9
3.04 Secure Internet servers/million pop.	1	3214.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	40	0.15
4.02 Fixed broadband Internet tariffs, PPP \$/month	44	27.03
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	15	5.0
5.02 Quality of math & science education*	33	4.8
5.03 Secondary education gross enrollment rate, %	15	111.2
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	76	111.1
6.02 Individuals using Internet, %	1	98.2
6.03 Households w/ personal computer, %	1	98.1
6.04 Households w/ Internet access, %	4	96.5
6.05 Fixed broadband Internet subs/100 pop.	9	35.9
6.06 Mobile broadband subs/100 pop.	21	85.3
6.07 Use of virtual social networks*	1	6.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	1	6.2
7.02 Capacity for innovation*	34	4.5
7.03 PCT patents, applications/million pop.	17	103.6
7.04 ICT use for business-to-business transactions*	10	5.9
7.05 Business-to-consumer Internet use*	20	5.6
7.06 Extent of staff training*	17	4.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	32	4.6
8.02 Government Online Service Index, 0–1 (best)	43	0.61
8.03 Gov't success in ICT promotion*	18	4.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	22	5.4
9.02 ICT PCT patents, applications/million pop.	22	16.7
9.03 Impact of ICTs on organizational models*	13	5.4
9.04 Knowledge-intensive jobs, % workforce	6	48.2
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	7	6.0
10.02 Internet access in schools*	1	6.5
10.03 ICT use & gov't efficiency*	17	5.1
10.04 E-Participation Index, 0–1 (best)	64	0.49

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

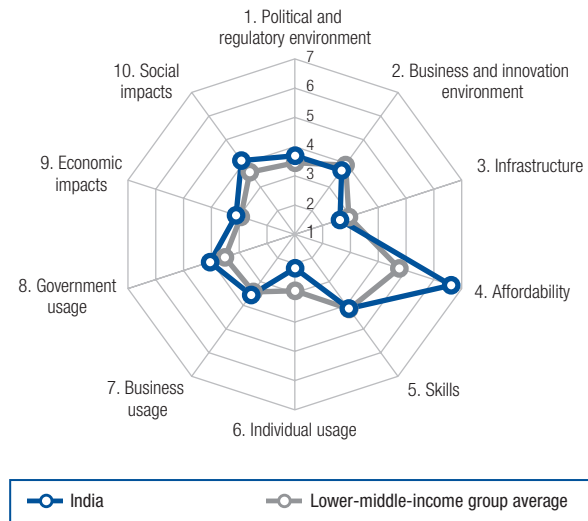
# India

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 91 .. 3.8

Networked Readiness Index (out of 143)..... 89..... 3.7  
 Networked Readiness Index 2014 (out of 148)..... 83..... 3.8  
 Networked Readiness Index 2013 (out of 144)..... 68..... 3.9

- A. Environment subindex..... 99..... 3.7**
  - 1st pillar: Political and regulatory environment..... 78..... 3.7
  - 2nd pillar: Business and innovation environment..... 110..... 3.7
- B. Readiness subindex ..... 88..... 4.4**
  - 3rd pillar: Infrastructure ..... 114..... 2.6
  - 4th pillar: Affordability ..... 8..... 6.6
  - 5th pillar: Skills..... 101..... 4.1
- C. Usage subindex..... 103..... 3.3**
  - 6th pillar: Individual usage..... 120..... 2.1
  - 7th pillar: Business usage..... 75..... 3.6
  - 8th pillar: Government usage..... 59..... 4.1
- D. Impact subindex..... 73..... 3.6**
  - 9th pillar: Economic impacts..... 80..... 3.1
  - 10th pillar: Social impacts..... 69..... 4.1



## The Networked Readiness Index in detail

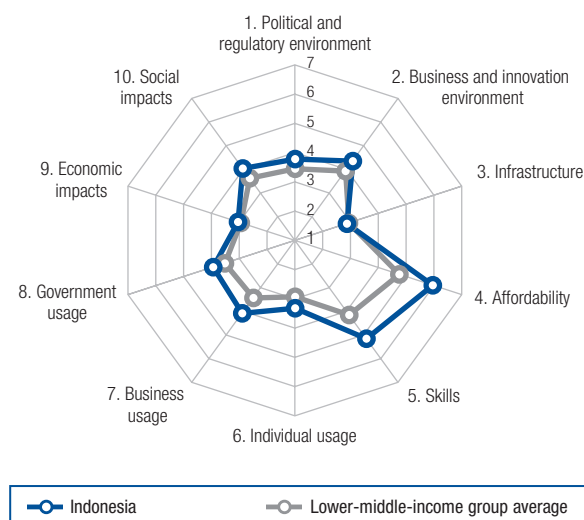
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	50	4.0
1.02 Laws relating to ICTs*	53	4.2
1.03 Judicial independence*	64	4.0
1.04 Efficiency of legal system in settling disputes*	42	4.2
1.05 Efficiency of legal system in challenging regs*	39	4.1
1.06 Intellectual property protection*	50	4.2
1.07 Software piracy rate, % software installed.....	53	60
1.08 No. procedures to enforce a contract.....	128	46
1.09 No. days to enforce a contract.....	137	1420
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	108	4.0
2.02 Venture capital availability*.....	13	4.0
2.03 Total tax rate, % profits.....	123	60.6
2.04 No. days to start a business.....	114	29
2.05 No. procedures to start a business.....	133	13
2.06 Intensity of local competition*.....	101	4.6
2.07 Tertiary education gross enrollment rate, %.....	89	23.9
2.08 Quality of management schools*.....	55	4.4
2.09 Gov't procurement of advanced tech*.....	26	3.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	98	932.8
3.02 Mobile network coverage, % pop. ....	111	93.5
3.03 Int'l Internet bandwidth, kb/s per user.....	116	5.7
3.04 Secure Internet servers/million pop. ....	105	5.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	5	0.05
4.02 Fixed broadband Internet tariffs, PPP \$/month ..	36	24.89
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	43	4.2
5.02 Quality of math & science education*.....	63	4.2
5.03 Secondary education gross enrollment rate, %	103	68.9
5.04 Adult literacy rate, %.....	95	72.1

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	120	74.5
6.02 Individuals using Internet, %.....	107	18.0
6.03 Households w/ personal computer, %.....	107	13.0
6.04 Households w/ Internet access, %.....	103	15.3
6.05 Fixed broadband Internet subs/100 pop.....	105	1.2
6.06 Mobile broadband subs/100 pop.....	124	5.5
6.07 Use of virtual social networks*.....	130	4.3
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	102	4.2
7.02 Capacity for innovation*.....	50	4.2
7.03 PCT patents, applications/million pop. ....	64	1.5
7.04 ICT use for business-to-business transactions*.....	108	4.1
7.05 Business-to-consumer Internet use*.....	77	4.2
7.06 Extent of staff training*.....	48	4.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	62	4.0
8.02 Government Online Service Index, 0-1 (best).....	57	0.54
8.03 Gov't success in ICT promotion*.....	75	3.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	89	4.1
9.02 ICT PCT patents, applications/million pop. ....	59	0.5
9.03 Impact of ICTs on organizational models*.....	65	4.2
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	70	4.2
10.02 Internet access in schools*.....	100	3.6
10.03 ICT use & gov't efficiency*.....	68	4.0
10.04 E-Participation Index, 0-1 (best).....	40	0.63

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Indonesia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>73..</b>	<b>4.0</b>
Networked Readiness Index 2015 (out of 143).....	79.....	3.9
Networked Readiness Index 2014 (out of 148).....	64.....	4.0
Networked Readiness Index 2013 (out of 144).....	76.....	3.8
<b>A. Environment subindex.....</b>	<b>62.....</b>	<b>4.1</b>
1st pillar: Political and regulatory environment.....	65.....	3.8
2nd pillar: Business and innovation environment.....	64.....	4.4
<b>B. Readiness subindex.....</b>	<b>81.....</b>	<b>4.6</b>
3rd pillar: Infrastructure.....	105.....	2.9
4th pillar: Affordability.....	38.....	5.9
5th pillar: Skills.....	65.....	5.1
<b>C. Usage subindex.....</b>	<b>78.....</b>	<b>3.8</b>
6th pillar: Individual usage.....	92.....	3.3
7th pillar: Business usage.....	34.....	4.1
8th pillar: Government usage.....	65.....	3.9
<b>D. Impact subindex.....</b>	<b>78.....</b>	<b>3.5</b>
9th pillar: Economic impacts.....	85.....	3.1
10th pillar: Social impacts.....	73.....	4.0



## The Networked Readiness Index in detail

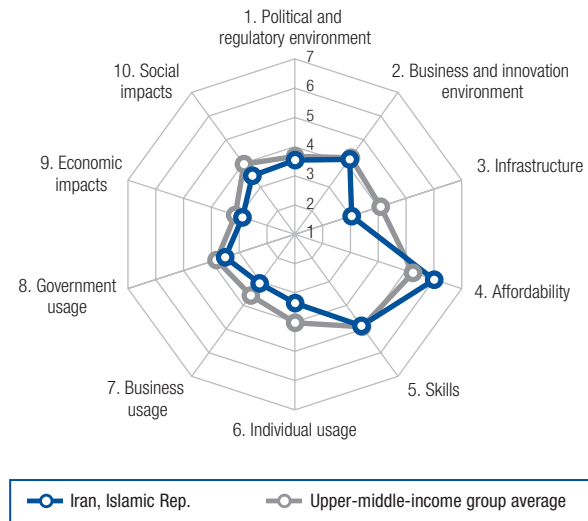
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	69	3.8
1.02 Laws relating to ICTs*	56	4.1
1.03 Judicial independence*	63	4.0
1.04 Efficiency of legal system in settling disputes*	53	3.9
1.05 Efficiency of legal system in challenging regs*	46	3.9
1.06 Intellectual property protection*	48	4.3
1.07 Software piracy rate, % software installed.....	94	84
1.08 No. procedures to enforce a contract.....	94	40
1.09 No. days to enforce a contract.....	49	471
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	68	4.8
2.02 Venture capital availability*.....	17	3.8
2.03 Total tax rate, % profits.....	38	29.7
2.04 No. days to start a business.....	126	48
2.05 No. procedures to start a business.....	134	13
2.06 Intensity of local competition*.....	65	5.1
2.07 Tertiary education gross enrollment rate, %.....	77	31.3
2.08 Quality of management schools*.....	49	4.4
2.09 Gov't procurement of advanced tech*.....	13	4.2
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	100	858.0
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	112	6.2
3.04 Secure Internet servers/million pop.....	103	6.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	52	0.19
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	46	27.92
4.03 Internet & telephony competition, 0–2 (best).....	87	1.76
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	41	4.3
5.02 Quality of math & science education*.....	52	4.4
5.03 Secondary education gross enrollment rate, %.....	91	82.5
5.04 Adult literacy rate, %.....	62	93.9

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	46	128.8
6.02 Individuals using Internet, %.....	113	17.1
6.03 Households w/ personal computer, %.....	101	17.8
6.04 Households w/ Internet access, %.....	82	29.1
6.05 Fixed broadband Internet subs/100 pop.....	106	1.2
6.06 Mobile broadband subs/100 pop.....	76	34.7
6.07 Use of virtual social networks*.....	36	5.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	41	5.1
7.02 Capacity for innovation*.....	30	4.7
7.03 PCT patents, applications/million pop.....	98	0.1
7.04 ICT use for business-to-business transactions*.....	53	4.9
7.05 Business-to-consumer Internet use*.....	28	5.4
7.06 Extent of staff training*.....	33	4.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	43	4.4
8.02 Government Online Service Index, 0–1 (best).....	88	0.36
8.03 Gov't success in ICT promotion*.....	51	4.3
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	47	4.8
9.02 ICT PCT patents, applications/million pop.....	91	0.0
9.03 Impact of ICTs on organizational models*.....	39	4.6
9.04 Knowledge-intensive jobs, % workforce.....	98	8.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	54	4.4
10.02 Internet access in schools*.....	43	4.8
10.03 ICT use & gov't efficiency*.....	57	4.2
10.04 E-Participation Index, 0–1 (best).....	101	0.29

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Iran, Islamic Rep.

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>92</b>	<b>3.7</b>
Networked Readiness Index (out of 143).....	96	3.6
Networked Readiness Index 2014 (out of 148).....	104	3.4
Networked Readiness Index 2013 (out of 144).....	101	3.4
<b>A. Environment subindex.....</b>	<b>82</b>	<b>3.9</b>
1st pillar: Political and regulatory environment.....	91	3.5
2nd pillar: Business and innovation environment.....	76	4.2
<b>B. Readiness subindex.....</b>	<b>83</b>	<b>4.6</b>
3rd pillar: Infrastructure.....	101	3.0
4th pillar: Affordability.....	37	6.0
5th pillar: Skills.....	80	4.8
<b>C. Usage subindex.....</b>	<b>99</b>	<b>3.3</b>
6th pillar: Individual usage.....	90	3.3
7th pillar: Business usage.....	126	3.1
8th pillar: Government usage.....	93	3.5
<b>D. Impact subindex.....</b>	<b>102</b>	<b>3.2</b>
9th pillar: Economic impacts.....	100	2.9
10th pillar: Social impacts.....	101	3.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	67	3.8
1.02 Laws relating to ICTs*	96	3.4
1.03 Judicial independence*	80	3.6
1.04 Efficiency of legal system in settling disputes*	81	3.5
1.05 Efficiency of legal system in challenging regs*	112	2.9
1.06 Intellectual property protection*	129	2.9
1.07 Software piracy rate, % software installed	n/a	n/a
1.08 No. procedures to enforce a contract	94	4.0
1.09 No. days to enforce a contract	54	505
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	111	4.0
2.02 Venture capital availability*	125	2.0
2.03 Total tax rate, % profits	95	44.1
2.04 No. days to start a business	86	15
2.05 No. procedures to start a business	92	8
2.06 Intensity of local competition*	121	4.3
2.07 Tertiary education gross enrollment rate, %	32	66.0
2.08 Quality of management schools*	91	3.9
2.09 Gov't procurement of advanced tech*	82	3.2
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	58	3504.4
3.02 Mobile network coverage, % pop.	108	94.2
3.03 Int'l Internet bandwidth, kb/s per user	114	6.1
3.04 Secure Internet servers/million pop.	120	2.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	20	0.10
4.02 Fixed broadband Internet tariffs, PPP \$/month	5	13.48
4.03 Internet & telephony competition, 0-2 (best)	129	0.85
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	95	3.2
5.02 Quality of math & science education*	36	4.6
5.03 Secondary education gross enrollment rate, %	77	88.4
5.04 Adult literacy rate, %	76	86.8

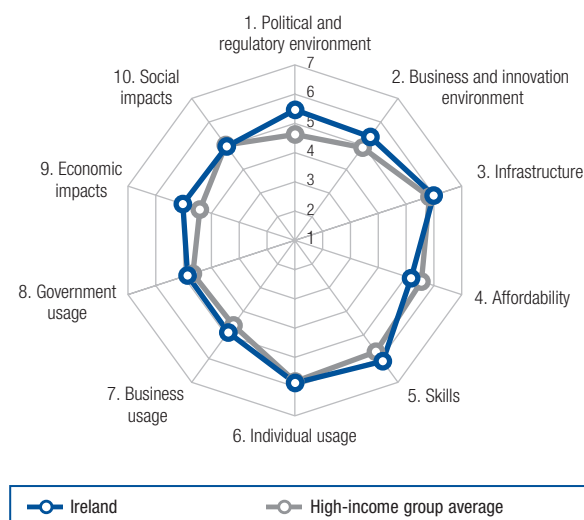
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	109	87.8
6.02 Individuals using Internet, %	90	39.4
6.03 Households w/ personal computer, %	62	52.5
6.04 Households w/ Internet access, %	71	44.7
6.05 Fixed broadband Internet subs/100 pop.	70	9.5
6.06 Mobile broadband subs/100 pop.	113	10.7
6.07 Use of virtual social networks*	134	4.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	132	3.7
7.02 Capacity for innovation*	104	3.6
7.03 PCT patents, applications/million pop.	99	0.1
7.04 ICT use for business-to-business transactions*	121	3.9
7.05 Business-to-consumer Internet use*	113	3.7
7.06 Extent of staff training*	128	3.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	91	3.6
8.02 Government Online Service Index, 0-1 (best)	85	0.37
8.03 Gov't success in ICT promotion*	90	3.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	79	4.3
9.02 ICT PCT patents, applications/million pop.	90	0.0
9.03 Impact of ICTs on organizational models*	108	3.5
9.04 Knowledge-intensive jobs, % workforce	83	17.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	91	3.9
10.02 Internet access in schools*	120	3.2
10.03 ICT use & gov't efficiency*	63	4.1
10.04 E-Participation Index, 0-1 (best)	101	0.29

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



## Ireland

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>25</b>	<b>5.3</b>
Networked Readiness Index 2015 (out of 143).....	25	5.2
Networked Readiness Index 2014 (out of 148).....	26	5.1
Networked Readiness Index 2013 (out of 144).....	27	5.1
<b>A. Environment subindex</b> .....	<b>11</b>	<b>5.4</b>
1st pillar: Political and regulatory environment.....	11	5.5
2nd pillar: Business and innovation environment.....	11	5.4
<b>B. Readiness subindex</b> .....	<b>29</b>	<b>5.7</b>
3rd pillar: Infrastructure.....	27	6.0
4th pillar: Affordability.....	77	5.2
5th pillar: Skills.....	9	6.1
<b>C. Usage subindex</b> .....	<b>28</b>	<b>5.2</b>
6th pillar: Individual usage.....	28	5.9
7th pillar: Business usage.....	23	4.9
8th pillar: Government usage.....	25	4.9
<b>D. Impact subindex</b> .....	<b>26</b>	<b>5.0</b>
9th pillar: Economic impacts.....	17	5.0
10th pillar: Social impacts.....	34	5.0



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	16	5.1
1.02 Laws relating to ICTs*	22	5.0
1.03 Judicial independence*	8	6.3
1.04 Efficiency of legal system in settling disputes*	24	4.9
1.05 Efficiency of legal system in challenging regs*	16	5.0
1.06 Intellectual property protection*	10	5.9
1.07 Software piracy rate, % software installed	19	33
1.08 No. procedures to enforce a contract	1	21
1.09 No. days to enforce a contract	100	650
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	17	6.1
2.02 Venture capital availability*	37	3.2
2.03 Total tax rate, % profits	27	25.9
2.04 No. days to start a business	34	6
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	67	5.1
2.07 Tertiary education gross enrollment rate, %	22	73.2
2.08 Quality of management schools*	14	5.4
2.09 Gov't procurement of advanced tech*	51	3.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	37	5605.8
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	16	161.0
3.04 Secure Internet servers/million pop.	24	775.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	125	0.54
4.02 Fixed broadband Internet tariffs, PPP \$/month	26	21.41
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	9	5.4
5.02 Quality of math & science education*	21	5.0
5.03 Secondary education gross enrollment rate, %	8	126.5
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

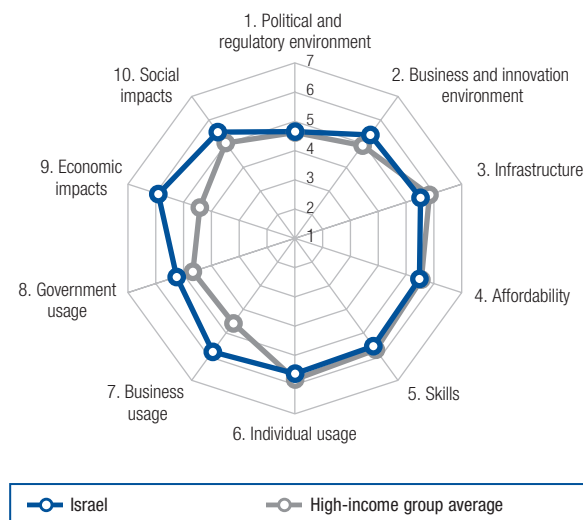
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	89	105.1
6.02 Individuals using Internet, %	28	79.7
6.03 Households w/ personal computer, %	18	84.0
6.04 Households w/ Internet access, %	24	82.2
6.05 Fixed broadband Internet subs/100 pop.	29	26.9
6.06 Mobile broadband subs/100 pop.	22	81.0
6.07 Use of virtual social networks*	17	6.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	24	5.6
7.02 Capacity for innovation*	17	5.2
7.03 PCT patents, applications/million pop.	20	82.1
7.04 ICT use for business-to-business transactions*	30	5.4
7.05 Business-to-consumer Internet use*	34	5.2
7.06 Extent of staff training*	20	4.8
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	21	4.8
8.02 Government Online Service Index, 0–1 (best)	31	0.68
8.03 Gov't success in ICT promotion*	27	4.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	12	5.6
9.02 ICT PCT patents, applications/million pop.	15	34.1
9.03 Impact of ICTs on organizational models*	14	5.4
9.04 Knowledge-intensive jobs, % workforce	23	40.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	40	4.9
10.02 Internet access in schools*	31	5.3
10.03 ICT use & gov't efficiency*	34	4.7
10.04 E-Participation Index, 0–1 (best)	33	0.65

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Israel

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>21</b>	<b>5.4</b>
Networked Readiness Index (out of 143).....	21	5.4
Networked Readiness Index 2014 (out of 148).....	15	5.4
Networked Readiness Index 2013 (out of 144).....	15	5.4
<b>A. Environment subindex.....</b>	<b>24</b>	<b>5.0</b>
1st pillar: Political and regulatory environment.....	28	4.7
2nd pillar: Business and innovation environment.....	12	5.4
<b>B. Readiness subindex.....</b>	<b>37</b>	<b>5.5</b>
3rd pillar: Infrastructure.....	32	5.5
4th pillar: Affordability.....	68	5.5
5th pillar: Skills.....	38	5.5
<b>C. Usage subindex.....</b>	<b>15</b>	<b>5.5</b>
6th pillar: Individual usage.....	31	5.6
7th pillar: Business usage.....	8	5.8
8th pillar: Government usage.....	17	5.3
<b>D. Impact subindex.....</b>	<b>6</b>	<b>5.7</b>
9th pillar: Economic impacts.....	4	5.9
10th pillar: Social impacts.....	15	5.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	62	3.8
1.02 Laws relating to ICTs*	31	4.7
1.03 Judicial independence*	18	5.8
1.04 Efficiency of legal system in settling disputes*	44	4.1
1.05 Efficiency of legal system in challenging regs*	34	4.2
1.06 Intellectual property protection*	29	5.0
1.07 Software piracy rate, % software installed.....	17	30
1.08 No. procedures to enforce a contract.....	48	35
1.09 No. days to enforce a contract.....	124	975
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	8	6.4
2.02 Venture capital availability*	4	4.5
2.03 Total tax rate, % profits.....	41	30.6
2.04 No. days to start a business.....	76	13
2.05 No. procedures to start a business.....	41	5
2.06 Intensity of local competition*.....	116	4.4
2.07 Tertiary education gross enrollment rate, %.....	30	66.3
2.08 Quality of management schools*.....	29	5.0
2.09 Gov't procurement of advanced tech*.....	8	4.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	27	7437.3
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	29	98.4
3.04 Secure Internet servers/million pop.....	37	254.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	83	0.29
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	60	30.45
4.03 Internet & telephony competition, 0-2 (best).....	87	1.76
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	52	4.0
5.02 Quality of math & science education*.....	68	4.1
5.03 Secondary education gross enrollment rate, %.....	37	101.5
5.04 Adult literacy rate, %.....	n/a	n/a <sup>1</sup>

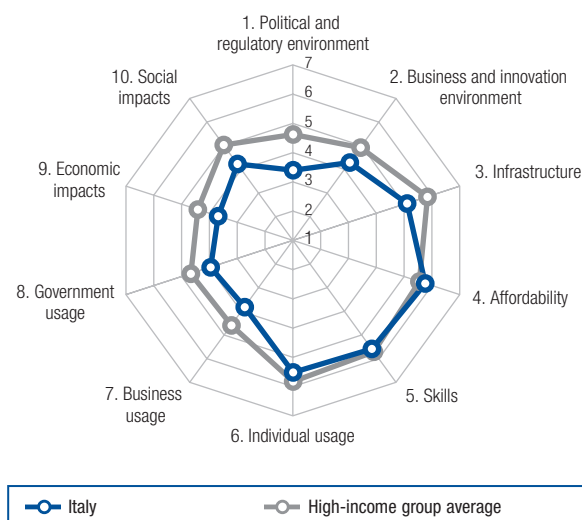
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	55	121.5
6.02 Individuals using Internet, %.....	39	71.5
6.03 Households w/ personal computer, %.....	26	82.4
6.04 Households w/ Internet access, %.....	40	71.5
6.05 Fixed broadband Internet subs/100 pop.....	28	27.2
6.06 Mobile broadband subs/100 pop.....	55	52.2
6.07 Use of virtual social networks*.....	11	6.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	5	6.0
7.02 Capacity for innovation*.....	3	5.9
7.03 PCT patents, applications/million pop.....	5	242.5
7.04 ICT use for business-to-business transactions*.....	16	5.7
7.05 Business-to-consumer Internet use*.....	19	5.6
7.06 Extent of staff training*.....	43	4.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	26	4.7
8.02 Government Online Service Index, 0-1 (best).....	13	0.87
8.03 Gov't success in ICT promotion*.....	22	4.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	15	5.5
9.02 ICT PCT patents, applications/million pop.....	4	117.5
9.03 Impact of ICTs on organizational models*.....	20	5.1
9.04 Knowledge-intensive jobs, % workforce.....	7	47.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	21	5.6
10.02 Internet access in schools*.....	28	5.4
10.03 ICT use & gov't efficiency*.....	32	4.8
10.04 E-Participation Index, 0-1 (best).....	12	0.86

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Italy

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>45</b>	<b>4.4</b>
Networked Readiness Index 2015 (out of 143).....	55	4.3
Networked Readiness Index 2014 (out of 148).....	58	4.2
Networked Readiness Index 2013 (out of 144).....	50	4.2
<b>A. Environment subindex</b> .....	<b>85</b>	<b>3.8</b>
1st pillar: Political and regulatory environment.....	96	3.4
2nd pillar: Business and innovation environment.....	68	4.3
<b>B. Readiness subindex</b> .....	<b>41</b>	<b>5.5</b>
3rd pillar: Infrastructure.....	39	5.1
4th pillar: Affordability.....	52	5.7
5th pillar: Skills.....	37	5.6
<b>C. Usage subindex</b> .....	<b>43</b>	<b>4.4</b>
6th pillar: Individual usage.....	37	5.5
7th pillar: Business usage.....	52	3.8
8th pillar: Government usage.....	62	4.0
<b>D. Impact subindex</b> .....	<b>48</b>	<b>4.0</b>
9th pillar: Economic impacts.....	39	3.7
10th pillar: Social impacts.....	62	4.2



## The Networked Readiness Index in detail

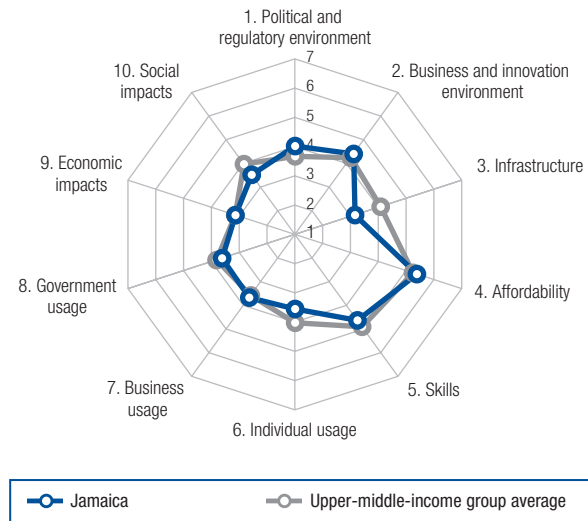
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	128	2.5
1.02 Laws relating to ICTs*	71	3.9
1.03 Judicial independence*	81	3.6
1.04 Efficiency of legal system in settling disputes*	138	2.1
1.05 Efficiency of legal system in challenging regs*	129	2.4
1.06 Intellectual property protection*	58	4.1
1.07 Software piracy rate, % software installed	33	4.7
1.08 No. procedures to enforce a contract	69	3.7
1.09 No. days to enforce a contract	129	1120
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	49	5.1
2.02 Venture capital availability*	124	2.1
2.03 Total tax rate, % profits	129	64.8
2.04 No. days to start a business	28	6
2.05 No. procedures to start a business	41	5
2.06 Intensity of local competition*	53	5.3
2.07 Tertiary education gross enrollment rate, %	35	63.5
2.08 Quality of management schools*	28	5.1
2.09 Gov't procurement of advanced tech*	113	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	46	4779.8
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	32	92.5
3.04 Secure Internet servers/million pop.	38	249.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	73	0.26
4.02 Fixed broadband Internet tariffs, PPP \$/month	52	28.88
4.03 Internet & telephony competition, 0–2 (best)	69	1.90
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	65	3.7
5.02 Quality of math & science education*	41	4.6
5.03 Secondary education gross enrollment rate, %	35	102.4
5.04 Adult literacy rate, %	17	99.2

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	17	154.2
6.02 Individuals using Internet, %	52	62.0
6.03 Households w/ personal computer, %	40	74.0
6.04 Households w/ Internet access, %	39	72.6
6.05 Fixed broadband Internet subs/100 pop.	36	23.5
6.06 Mobile broadband subs/100 pop.	28	70.9
6.07 Use of virtual social networks*	35	6.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	106	4.2
7.02 Capacity for innovation*	37	4.5
7.03 PCT patents, applications/million pop.	24	55.4
7.04 ICT use for business-to-business transactions*	80	4.5
7.05 Business-to-consumer Internet use*	59	4.7
7.06 Extent of staff training*	131	3.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	108	3.3
8.02 Government Online Service Index, 0–1 (best)	23	0.75
8.03 Gov't success in ICT promotion*	126	3.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	72	4.4
9.02 ICT PCT patents, applications/million pop.	27	9.4
9.03 Impact of ICTs on organizational models*	84	3.8
9.04 Knowledge-intensive jobs, % workforce	35	35.6
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	89	3.9
10.02 Internet access in schools*	88	3.9
10.03 ICT use & gov't efficiency*	107	3.4
10.04 E-Participation Index, 0–1 (best)	19	0.78

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Jamaica

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>83</b>	<b>3.9</b>
Networked Readiness Index (out of 143).....	82	3.9
Networked Readiness Index 2014 (out of 148).....	86	3.8
Networked Readiness Index 2013 (out of 144).....	85	3.7
<b>A. Environment subindex.....</b>	<b>50</b>	<b>4.2</b>
1st pillar: Political and regulatory environment.....	49	4.0
2nd pillar: Business and innovation environment.....	62	4.4
<b>B. Readiness subindex.....</b>	<b>90</b>	<b>4.4</b>
3rd pillar: Infrastructure.....	93	3.2
4th pillar: Affordability.....	69	5.4
5th pillar: Skills.....	86	4.6
<b>C. Usage subindex.....</b>	<b>85</b>	<b>3.6</b>
6th pillar: Individual usage.....	86	3.5
7th pillar: Business usage.....	62	3.7
8th pillar: Government usage.....	87	3.6
<b>D. Impact subindex.....</b>	<b>94</b>	<b>3.3</b>
9th pillar: Economic impacts.....	76	3.1
10th pillar: Social impacts.....	97	3.5



## The Networked Readiness Index in detail

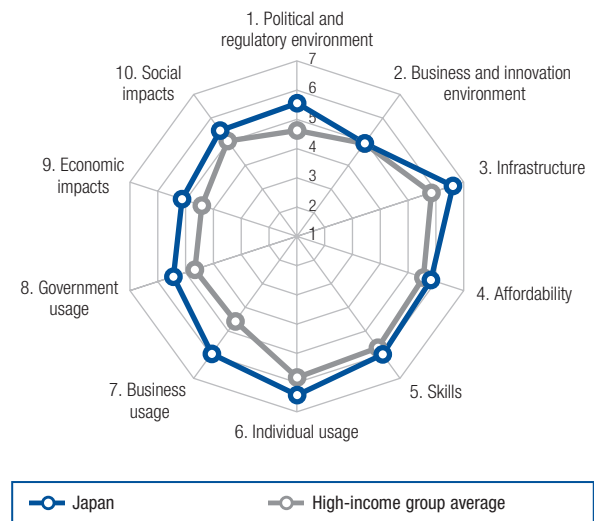
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	68	3.8
1.02 Laws relating to ICTs*.....	93	3.5
1.03 Judicial independence*.....	40	4.8
1.04 Efficiency of legal system in settling disputes*.....	84	3.4
1.05 Efficiency of legal system in challenging regs*.....	67	3.5
1.06 Intellectual property protection*.....	53	4.2
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	48	3.5
1.09 No. days to enforce a contract.....	101	6.55
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	43	5.2
2.02 Venture capital availability*.....	121	2.1
2.03 Total tax rate, % profits.....	61	35.2
2.04 No. days to start a business.....	9	3
2.05 No. procedures to start a business.....	3	2
2.06 Intensity of local competition*.....	39	5.4
2.07 Tertiary education gross enrollment rate, %.....	85	27.4
2.08 Quality of management schools*.....	46	4.5
2.09 Gov't procurement of advanced tech*.....	106	2.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	87	1530.5
3.02 Mobile network coverage, % pop.....	104	95.0
3.03 Int'l Internet bandwidth, kb/s per user.....	95	14.2
3.04 Secure Internet servers/million pop.....	60	57.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	53	0.20
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	91	42.91
4.03 Internet & telephony competition, 0-2 (best).....	65	1.94
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	70	3.7
5.02 Quality of math & science education*.....	96	3.5
5.03 Secondary education gross enrollment rate, %.....	90	83.0
5.04 Adult literacy rate, %.....	69	88.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	82	107.4
6.02 Individuals using Internet, %.....	86	40.5
6.03 Households w/ personal computer, %.....	85	32.5
6.04 Households w/ Internet access, %.....	90	25.7
6.05 Fixed broadband Internet subs/100 pop.....	83	5.4
6.06 Mobile broadband subs/100 pop.....	75	38.8
6.07 Use of virtual social networks*.....	75	5.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	59	4.7
7.02 Capacity for innovation*.....	51	4.2
7.03 PCT patents, applications/million pop.....	77	0.6
7.04 ICT use for business-to-business transactions*.....	66	4.7
7.05 Business-to-consumer Internet use*.....	93	4.0
7.06 Extent of staff training*.....	67	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	65	3.9
8.02 Government Online Service Index, 0-1 (best).....	95	0.31
8.03 Gov't success in ICT promotion*.....	69	4.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	69	4.5
9.02 ICT PCT patents, applications/million pop.....	65	0.4
9.03 Impact of ICTs on organizational models*.....	77	4.0
9.04 Knowledge-intensive jobs, % workforce.....	70	20.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	75	4.0
10.02 Internet access in schools*.....	73	4.2
10.03 ICT use & gov't efficiency*.....	90	3.7
10.04 E-Participation Index, 0-1 (best).....	115	0.20

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Japan

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>10</b>	<b>5.6</b>
Networked Readiness Index 2015 (out of 143).....	10	5.6
Networked Readiness Index 2014 (out of 148).....	16	5.4
Networked Readiness Index 2013 (out of 144).....	21	5.2
<b>A. Environment subindex</b> .....	<b>17</b>	<b>5.2</b>
1st pillar: Political and regulatory environment.....	9	5.5
2nd pillar: Business and innovation environment.....	33	4.9
<b>B. Readiness subindex</b> .....	<b>15</b>	<b>6.1</b>
3rd pillar: Infrastructure.....	14	6.6
4th pillar: Affordability.....	49	5.8
5th pillar: Skills.....	14	6.0
<b>C. Usage subindex</b> .....	<b>2</b>	<b>5.9</b>
6th pillar: Individual usage.....	11	6.4
7th pillar: Business usage.....	3	5.9
8th pillar: Government usage.....	7	5.4
<b>D. Impact subindex</b> .....	<b>14</b>	<b>5.3</b>
9th pillar: Economic impacts.....	15	5.1
10th pillar: Social impacts.....	16	5.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	10	5.4
1.02 Laws relating to ICTs*	27	4.8
1.03 Judicial independence*	12	6.2
1.04 Efficiency of legal system in settling disputes*	13	5.4
1.05 Efficiency of legal system in challenging regs*	24	4.6
1.06 Intellectual property protection*	6	6.1
1.07 Software piracy rate, % software installed	2	19
1.08 No. procedures to enforce a contract	27	32
1.09 No. days to enforce a contract	14	360
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	16	6.2
2.02 Venture capital availability*	21	3.6
2.03 Total tax rate, % profits	114	51.3
2.04 No. days to start a business	64	10
2.05 No. procedures to start a business	92	8
2.06 Intensity of local competition*	1	6.3
2.07 Tertiary education gross enrollment rate, %	39	62.4
2.08 Quality of management schools*	51	4.4
2.09 Gov't procurement of advanced tech*	14	4.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	23	8155.2
3.02 Mobile network coverage, % pop.	37	99.9
3.03 Int'l Internet bandwidth, kb/s per user	54	48.6
3.04 Secure Internet servers/million pop.	20	911.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	106	0.37
4.02 Fixed broadband Internet tariffs, PPP \$/month	21	20.72
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	27	4.5
5.02 Quality of math & science education*	9	5.3
5.03 Secondary education gross enrollment rate, %	36	101.9
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

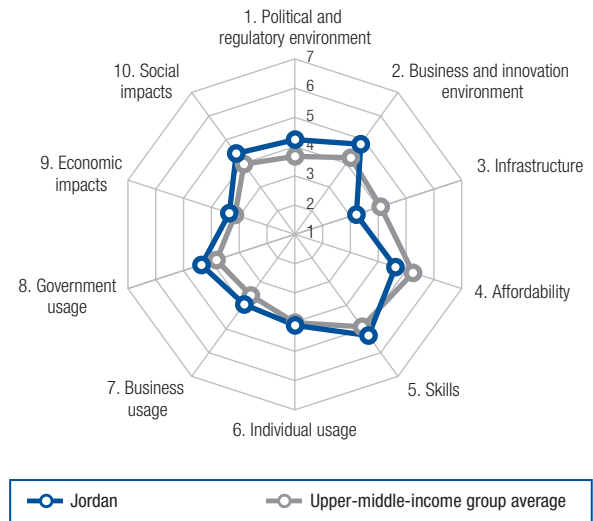
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	57	120.2
6.02 Individuals using Internet, %	11	90.6
6.03 Households w/ personal computer, %	23	83.3
6.04 Households w/ Internet access, %	3	97.5
6.05 Fixed broadband Internet subs/100 pop.	20	29.3
6.06 Mobile broadband subs/100 pop.	5	121.4
6.07 Use of virtual social networks*	43	5.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	2	6.1
7.02 Capacity for innovation*	14	5.3
7.03 PCT patents, applications/million pop.	1	335.2
7.04 ICT use for business-to-business transactions*	1	6.1
7.05 Business-to-consumer Internet use*	5	6.0
7.06 Extent of staff training*	6	5.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	14	4.9
8.02 Government Online Service Index, 0–1 (best)	4	0.94
8.03 Gov't success in ICT promotion*	30	4.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	24	5.3
9.02 ICT PCT patents, applications/million pop.	3	137.5
9.03 Impact of ICTs on organizational models*	33	4.7
9.04 Knowledge-intensive jobs, % workforce	58	24.4
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	28	5.4
10.02 Internet access in schools*	37	5.0
10.03 ICT use & gov't efficiency*	37	4.7
10.04 E-Participation Index, 0–1 (best)	4	0.96

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Jordan

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index</b> .....	<b>60</b>	<b>4.2</b>
Networked Readiness Index (out of 143).....	52	4.3
Networked Readiness Index 2014 (out of 148).....	44	4.4
Networked Readiness Index 2013 (out of 144).....	47	4.2
<b>A. Environment subindex</b> .....	<b>38</b>	<b>4.5</b>
1st pillar: Political and regulatory environment.....	39	4.2
2nd pillar: Business and innovation environment.....	38	4.8
<b>B. Readiness subindex</b> .....	<b>93</b>	<b>4.3</b>
3rd pillar: Infrastructure.....	92	3.2
4th pillar: Affordability.....	94	4.6
5th pillar: Skills.....	59	5.3
<b>C. Usage subindex</b> .....	<b>53</b>	<b>4.1</b>
6th pillar: Individual usage.....	70	4.1
7th pillar: Business usage.....	41	3.9
8th pillar: Government usage.....	47	4.4
<b>D. Impact subindex</b> .....	<b>51</b>	<b>3.9</b>
9th pillar: Economic impacts.....	61	3.4
10th pillar: Social impacts.....	53	4.4



## The Networked Readiness Index in detail

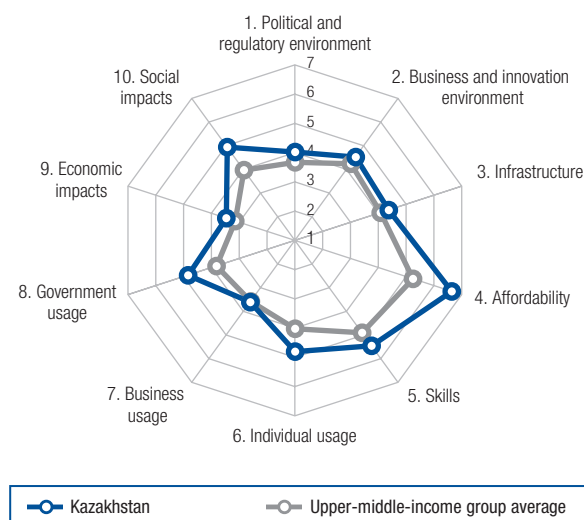
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	45	4.1
1.02 Laws relating to ICTs*	44	4.3
1.03 Judicial independence*	44	4.6
1.04 Efficiency of legal system in settling disputes*	36	4.4
1.05 Efficiency of legal system in challenging regs*	30	4.3
1.06 Intellectual property protection*	35	4.6
1.07 Software piracy rate, % software installed.....	49	5.7
1.08 No. procedures to enforce a contract.....	89	3.9
1.09 No. days to enforce a contract.....	104	6.89
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	47	5.1
2.02 Venture capital availability*	19	3.7
2.03 Total tax rate, % profits.....	35	29.5
2.04 No. days to start a business.....	72	12
2.05 No. procedures to start a business.....	74	7
2.06 Intensity of local competition*.....	57	5.2
2.07 Tertiary education gross enrollment rate, %.....	55	47.6
2.08 Quality of management schools*.....	50	4.4
2.09 Gov't procurement of advanced tech*.....	42	3.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	69	2672.3
3.02 Mobile network coverage, % pop.....	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user.....	108	7.9
3.04 Secure Internet servers/million pop.....	75	30.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	7	0.06
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	112	67.29
4.03 Internet & telephony competition, 0-2 (best).....	67	1.94
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	32	4.4
5.02 Quality of math & science education*.....	64	4.2
5.03 Secondary education gross enrollment rate, %.....	87	84.3
5.04 Adult literacy rate, %.....	38	96.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	24	147.8
6.02 Individuals using Internet, %.....	79	44.0
6.03 Households w/ personal computer, %.....	70	51.1
6.04 Households w/ Internet access, %.....	52	60.0
6.05 Fixed broadband Internet subs/100 pop.....	85	4.7
6.06 Mobile broadband subs/100 pop.....	99	19.1
6.07 Use of virtual social networks*.....	57	5.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	35	5.3
7.02 Capacity for innovation*.....	47	4.3
7.03 PCT patents, applications/million pop.....	72	0.8
7.04 ICT use for business-to-business transactions*.....	51	5.0
7.05 Business-to-consumer Internet use*.....	58	4.7
7.06 Extent of staff training*.....	38	4.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	35	4.5
8.02 Government Online Service Index, 0-1 (best).....	62	0.52
8.03 Gov't success in ICT promotion*.....	40	4.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	50	4.7
9.02 ICT PCT patents, applications/million pop.....	64	0.4
9.03 Impact of ICTs on organizational models*.....	56	4.4
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	43	4.8
10.02 Internet access in schools*.....	56	4.6
10.03 ICT use & gov't efficiency*.....	47	4.4
10.04 E-Participation Index, 0-1 (best).....	70	0.47

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Kazakhstan

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>39</b>	<b>4.6</b>
Networked Readiness Index 2015 (out of 143).....	40	4.5
Networked Readiness Index 2014 (out of 148).....	38	4.6
Networked Readiness Index 2013 (out of 144).....	43	4.3
<b>A. Environment subindex</b> .....	<b>47</b>	<b>4.3</b>
1st pillar: Political and regulatory environment.....	48	4.0
2nd pillar: Business and innovation environment.....	54	4.5
<b>B. Readiness subindex</b> .....	<b>39</b>	<b>5.5</b>
3rd pillar: Infrastructure.....	64	4.4
4th pillar: Affordability.....	7	6.6
5th pillar: Skills.....	45	5.4
<b>C. Usage subindex</b> .....	<b>44</b>	<b>4.4</b>
6th pillar: Individual usage.....	58	4.8
7th pillar: Business usage.....	69	3.6
8th pillar: Government usage.....	26	4.8
<b>D. Impact subindex</b> .....	<b>40</b>	<b>4.2</b>
9th pillar: Economic impacts.....	51	3.5
10th pillar: Social impacts.....	35	4.9



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	30	4.5
1.02 Laws relating to ICTs*	38	4.6
1.03 Judicial independence*	72	3.8
1.04 Efficiency of legal system in settling disputes*	48	4.0
1.05 Efficiency of legal system in challenging regs*	52	3.7
1.06 Intellectual property protection*	70	3.9
1.07 Software piracy rate, % software installed	73	74
1.08 No. procedures to enforce a contract	58	36
1.09 No. days to enforce a contract	16	370
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	89	4.4
2.02 Venture capital availability*	59	2.9
2.03 Total tax rate, % profits	34	29.2
2.04 No. days to start a business	26	5
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	94	4.7
2.07 Tertiary education gross enrollment rate, %	59	46.0
2.08 Quality of management schools*	101	3.7
2.09 Gov't procurement of advanced tech*	63	3.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	38	5598.3
3.02 Mobile network coverage, % pop.	123	86.6
3.03 Int'l Internet bandwidth, kb/s per user	49	51.5
3.04 Secure Internet servers/million pop.	86	14.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	29	0.12
4.02 Fixed broadband Internet tariffs, PPP \$/month	20	20.71
4.03 Internet & telephony competition, 0–2 (best)	75	1.87
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	67	3.7
5.02 Quality of math & science education*	71	4.1
5.03 Secondary education gross enrollment rate, %	21	109.1
5.04 Adult literacy rate, %	6	99.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	6	172.2
6.02 Individuals using Internet, %	62	54.9
6.03 Households w/ personal computer, %	51	64.7
6.04 Households w/ Internet access, %	53	58.8
6.05 Fixed broadband Internet subs/100 pop.	59	12.9
6.06 Mobile broadband subs/100 pop.	46	59.4
6.07 Use of virtual social networks*	93	5.3
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	90	4.4
7.02 Capacity for innovation*	68	4.0
7.03 PCT patents, applications/million pop.	68	1.4
7.04 ICT use for business-to-business transactions*	63	4.8
7.05 Business-to-consumer Internet use*	55	4.7
7.06 Extent of staff training*	76	3.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	44	4.4
8.02 Government Online Service Index, 0–1 (best)	23	0.75
8.03 Gov't success in ICT promotion*	33	4.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	73	4.4
9.02 ICT PCT patents, applications/million pop.	70	0.2
9.03 Impact of ICTs on organizational models*	70	4.1
9.04 Knowledge-intensive jobs, % workforce	41	32.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	53	4.5
10.02 Internet access in schools*	41	4.9
10.03 ICT use & gov't efficiency*	31	4.8
10.04 E-Participation Index, 0–1 (best)	22	0.76

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

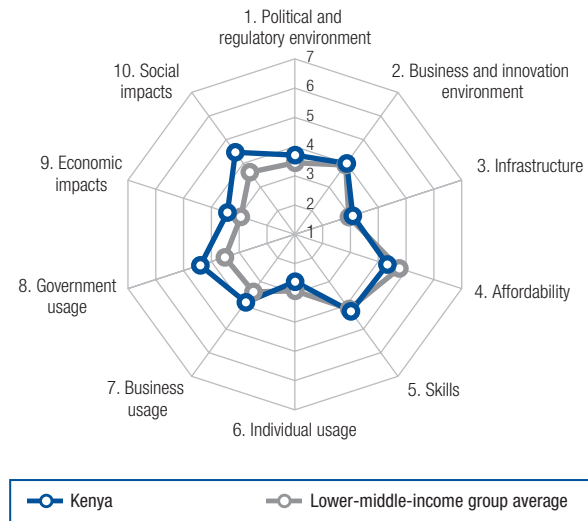
# Kenya

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 86.. 3.8

Networked Readiness Index 2015 (out of 143)..... 86..... 3.8  
 Networked Readiness Index 2014 (out of 148)..... 92..... 3.7  
 Networked Readiness Index 2013 (out of 144)..... 92..... 3.5

- A. Environment subindex..... 81..... 3.9**
  - 1st pillar: Political and regulatory environment..... 75..... 3.7
  - 2nd pillar: Business and innovation environment..... 93..... 4.0
- B. Readiness subindex ..... 105..... 3.9**
  - 3rd pillar: Infrastructure ..... 99..... 3.1
  - 4th pillar: Affordability ..... 102..... 4.3
  - 5th pillar: Skills..... 96..... 4.2
- C. Usage subindex..... 84..... 3.6**
  - 6th pillar: Individual usage..... 107..... 2.6
  - 7th pillar: Business usage..... 50..... 3.9
  - 8th pillar: Government usage..... 45..... 4.4
- D. Impact subindex..... 50..... 3.9**
  - 9th pillar: Economic impacts..... 54..... 3.4
  - 10th pillar: Social impacts..... 52..... 4.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	60	3.9
1.02 Laws relating to ICTs*	63	4.0
1.03 Judicial independence*	61	4.1
1.04 Efficiency of legal system in settling disputes*	52	4.0
1.05 Efficiency of legal system in challenging regs*	44	4.0
1.06 Intellectual property protection*	81	3.7
1.07 Software piracy rate, % software installed.....	80	78
1.08 No. procedures to enforce a contract.....	122	44
1.09 No. days to enforce a contract.....	47	465
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	50	5.1
2.02 Venture capital availability*.....	54	2.9
2.03 Total tax rate, % profits.....	69	37.1
2.04 No. days to start a business.....	108	26
2.05 No. procedures to start a business.....	120	11
2.06 Intensity of local competition*.....	23	5.6
2.07 Tertiary education gross enrollment rate, %.....	133	4.0
2.08 Quality of management schools*.....	56	4.4
2.09 Gov't procurement of advanced tech*.....	37	3.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	122	203.1
3.02 Mobile network coverage, % pop.....	119	89.1
3.03 Int'l Internet bandwidth, kb/s per user.....	83	25.2
3.04 Secure Internet servers/million pop.....	101	7.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	21	0.10
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	116	74.19
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	36	4.3
5.02 Quality of math & science education*.....	78	3.9
5.03 Secondary education gross enrollment rate, %.....	107	67.6
5.04 Adult literacy rate, %.....	88	78.0

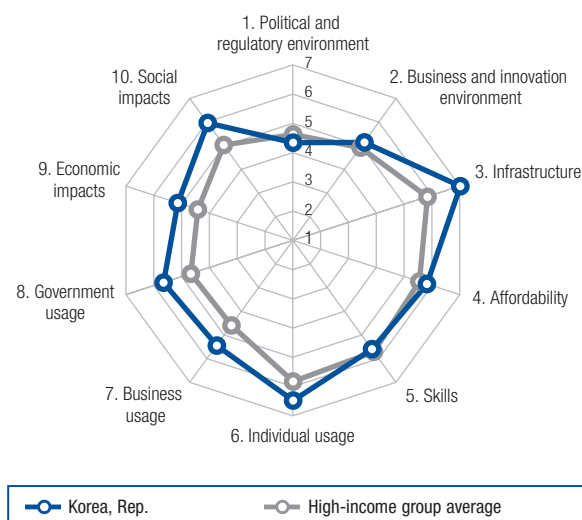
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	121	73.8
6.02 Individuals using Internet, %.....	80	43.4
6.03 Households w/ personal computer, %.....	109	12.3
6.04 Households w/ Internet access, %.....	102	16.9
6.05 Fixed broadband Internet subs/100 pop.....	121	0.2
6.06 Mobile broadband subs/100 pop.....	116	9.1
6.07 Use of virtual social networks*.....	60	5.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	54	4.8
7.02 Capacity for innovation*.....	42	4.3
7.03 PCT patents, applications/million pop.....	90	0.2
7.04 ICT use for business-to-business transactions*.....	41	5.1
7.05 Business-to-consumer Internet use*.....	54	4.7
7.06 Extent of staff training*.....	46	4.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	18	4.8
8.02 Government Online Service Index, 0-1 (best).....	76	0.43
8.03 Gov't success in ICT promotion*.....	21	4.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	40	4.9
9.02 ICT PCT patents, applications/million pop.....	82	0.1
9.03 Impact of ICTs on organizational models*.....	52	4.4
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	52	4.5
10.02 Internet access in schools*.....	91	3.9
10.03 ICT use & gov't efficiency*.....	39	4.6
10.04 E-Participation Index, 0-1 (best).....	33	0.65

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Korea, Rep.

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>13</b>	<b>5.6</b>
Networked Readiness Index 2015 (out of 143).....	12	5.5
Networked Readiness Index 2014 (out of 148).....	10	5.5
Networked Readiness Index 2013 (out of 144).....	11	5.5
<b>A. Environment subindex</b> .....	<b>31</b>	<b>4.7</b>
1st pillar: Political and regulatory environment.....	34	4.3
2nd pillar: Business and innovation environment.....	21	5.1
<b>B. Readiness subindex</b> .....	<b>14</b>	<b>6.1</b>
3rd pillar: Infrastructure.....	5	7.0
4th pillar: Affordability.....	48	5.8
5th pillar: Skills.....	35	5.6
<b>C. Usage subindex</b> .....	<b>6</b>	<b>5.8</b>
6th pillar: Individual usage.....	10	6.5
7th pillar: Business usage.....	13	5.4
8th pillar: Government usage.....	4	5.6
<b>D. Impact subindex</b> .....	<b>10</b>	<b>5.6</b>
9th pillar: Economic impacts.....	14	5.1
10th pillar: Social impacts.....	4	6.0



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	99	3.2
1.02 Laws relating to ICTs*	21	5.1
1.03 Judicial independence*	69	3.8
1.04 Efficiency of legal system in settling disputes*	57	3.9
1.05 Efficiency of legal system in challenging regs*	74	3.4
1.06 Intellectual property protection*	52	4.2
1.07 Software piracy rate, % software installed	25	38
1.08 No. procedures to enforce a contract	27	32
1.09 No. days to enforce a contract	4	230
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	31	5.6
2.02 Venture capital availability*	86	2.6
2.03 Total tax rate, % profits	54	33.2
2.04 No. days to start a business	15	4
2.05 No. procedures to start a business	11	3
2.06 Intensity of local competition*	13	5.8
2.07 Tertiary education gross enrollment rate, %	2	95.3
2.08 Quality of management schools*	59	4.3
2.09 Gov't procurement of advanced tech*	24	3.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	12	10710.8
3.02 Mobile network coverage, % pop.	37	99.9
3.03 Int'l Internet bandwidth, kb/s per user	57	45.2
3.04 Secure Internet servers/million pop.	5	2178.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	35	0.14
4.02 Fixed broadband Internet tariffs, PPP \$/month	73	35.00
4.03 Internet & telephony competition, 0–2 (best)	89	1.75
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	66	3.7
5.02 Quality of math & science education*	30	4.8
5.03 Secondary education gross enrollment rate, %	57	97.7
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	65	115.7
6.02 Individuals using Internet, %	20	84.3
6.03 Households w/ personal computer, %	35	78.3
6.04 Households w/ Internet access, %	1	98.5
6.05 Fixed broadband Internet subs/100 pop.	6	38.8
6.06 Mobile broadband subs/100 pop.	12	108.6
6.07 Use of virtual social networks*	40	5.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	27	5.4
7.02 Capacity for innovation*	24	4.8
7.03 PCT patents, applications/million pop.	6	231.7
7.04 ICT use for business-to-business transactions*	34	5.3
7.05 Business-to-consumer Internet use*	10	5.8
7.06 Extent of staff training*	36	4.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	17	4.9
8.02 Government Online Service Index, 0–1 (best)	3	0.98
8.03 Gov't success in ICT promotion*	11	5.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	17	5.5
9.02 ICT PCT patents, applications/million pop.	5	107.8
9.03 Impact of ICTs on organizational models*	28	4.9
9.04 Knowledge-intensive jobs, % workforce	65	21.6
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	17	5.7
10.02 Internet access in schools*	19	5.8
10.03 ICT use & gov't efficiency*	13	5.3
10.04 E-Participation Index, 0–1 (best)	1	1.00

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

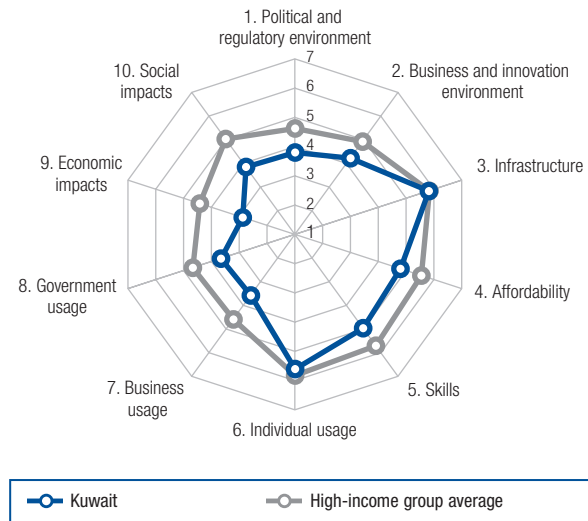
# Kuwait

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 61 .. 4.2

Networked Readiness Index (out of 143)..... 72 ..... 4.0  
 Networked Readiness Index 2014 (out of 148)..... 72 ..... 4.0  
 Networked Readiness Index 2013 (out of 144)..... 62 ..... 3.9

<b>A. Environment subindex..... 68 ..... 4.0</b>	
1st pillar: Political and regulatory environment..... 63 ..... 3.8	
2nd pillar: Business and innovation environment..... 72 ..... 4.2	
<b>B. Readiness subindex ..... 51 ..... 5.2</b>	
3rd pillar: Infrastructure ..... 30 ..... 5.8	
4th pillar: Affordability ..... 89 ..... 4.8	
5th pillar: Skills ..... 77 ..... 4.9	
<b>C. Usage subindex..... 47 ..... 4.3</b>	
6th pillar: Individual usage..... 32 ..... 5.6	
7th pillar: Business usage ..... 72 ..... 3.6	
8th pillar: Government usage ..... 81 ..... 3.7	
<b>D. Impact subindex..... 90 ..... 3.4</b>	
9th pillar: Economic impacts..... 102 ..... 2.9	
10th pillar: Social impacts..... 84 ..... 3.9	



## The Networked Readiness Index in detail

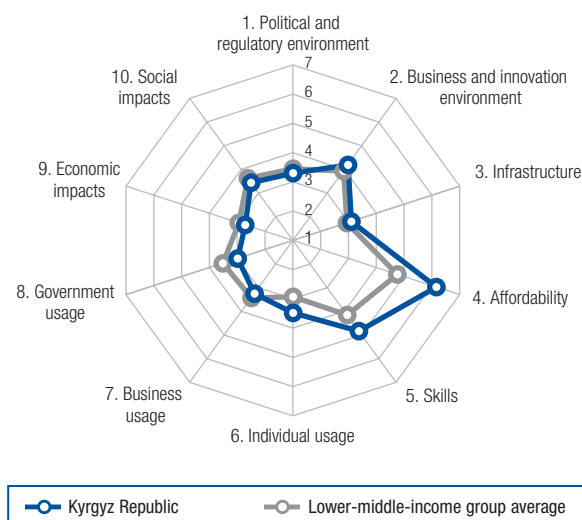
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies* ..... 57 ..... 3.9		
1.02 Laws relating to ICTs* ..... 104 ..... 3.2		
1.03 Judicial independence* ..... 34 ..... 4.9		
1.04 Efficiency of legal system in settling disputes* ..... 45 ..... 4.1		
1.05 Efficiency of legal system in challenging regs* ..... 36 ..... 4.1		
1.06 Intellectual property protection* ..... 84 ..... 3.7		
1.07 Software piracy rate, % software installed..... 50 ..... 5.8		
1.08 No. procedures to enforce a contract ..... 138 ..... 5.0		
1.09 No. days to enforce a contract ..... 74 ..... 5.66		
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies* ..... 67 ..... 4.8		
2.02 Venture capital availability* ..... 51 ..... 2.9		
2.03 Total tax rate, % profits ..... 3 ..... 13.0		
2.04 No. days to start a business ..... 120 ..... 31		
2.05 No. procedures to start a business ..... 125 ..... 12		
2.06 Intensity of local competition* ..... 69 ..... 5.0		
2.07 Tertiary education gross enrollment rate, %..... 86 ..... 27.0		
2.08 Quality of management schools* ..... 86 ..... 3.9		
2.09 Gov't procurement of advanced tech* ..... 101 ..... 2.9		
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita ..... 5 ..... 16969.2		
3.02 Mobile network coverage, % pop. .... 1 ..... 100.0		
3.03 Int'l Internet bandwidth, kb/s per user..... 51 ..... 50.1		
3.04 Secure Internet servers/million pop. .... 42 ..... 198.8		
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min..... 74 ..... 0.26		
4.02 Fixed broadband Internet tariffs, PPP \$/month .. 28 ..... 22.27		
4.03 Internet & telephony competition, 0-2 (best) .... 133 ..... 0.25		
<b>5th pillar: Skills</b>		
5.01 Quality of education system* ..... 88 ..... 3.4		
5.02 Quality of math & science education* ..... 99 ..... 3.4		
5.03 Secondary education gross enrollment rate, % .. 66 ..... 92.5		
5.04 Adult literacy rate, % ..... 42 ..... 96.2		

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop..... 2 ..... 218.4		
6.02 Individuals using Internet, %..... 29 ..... 78.7		
6.03 Households w/ personal computer, % ..... 14 ..... 87.8		
6.04 Households w/ Internet access, % ..... 34 ..... 75.4		
6.05 Fixed broadband Internet subs/100 pop..... 104 ..... 1.4		
6.06 Mobile broadband subs/100 pop..... 2 ..... 139.8		
6.07 Use of virtual social networks* ..... 42 ..... 5.9		
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption* ..... 60 ..... 4.7		
7.02 Capacity for innovation* ..... 101 ..... 3.6		
7.03 PCT patents, applications/million pop. .... 84 ..... 0.3		
7.04 ICT use for business-to-business transactions* .. 68 ..... 4.7		
7.05 Business-to-consumer Internet use* ..... 57 ..... 4.7		
7.06 Extent of staff training* ..... 84 ..... 3.8		
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision* ..... 113 ..... 3.2		
8.02 Government Online Service Index, 0-1 (best)..... 52 ..... 0.57		
8.03 Gov't success in ICT promotion* ..... 116 ..... 3.3		
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models* ..... 100 ..... 4.0		
9.02 ICT PCT patents, applications/million pop. .... 77 ..... 0.1		
9.03 Impact of ICTs on organizational models* ..... 98 ..... 3.6		
9.04 Knowledge-intensive jobs, % workforce..... n/a ..... n/a		
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services* ..... 71 ..... 4.1		
10.02 Internet access in schools* ..... 81 ..... 4.0		
10.03 ICT use & gov't efficiency* ..... 89 ..... 3.7		
10.04 E-Participation Index, 0-1 (best)..... 75 ..... 0.43		

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Kyrgyz Republic

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>95</b>	<b>3.7</b>
Networked Readiness Index 2015 (out of 143).....	98	3.5
Networked Readiness Index 2014 (out of 148).....	118	3.2
Networked Readiness Index 2013 (out of 144).....	118	3.1
<b>A. Environment subindex</b> .....	<b>95</b>	<b>3.7</b>
1st pillar: Political and regulatory environment.....	103	3.3
2nd pillar: Business and innovation environment.....	75	4.2
<b>B. Readiness subindex</b> .....	<b>79</b>	<b>4.7</b>
3rd pillar: Infrastructure.....	97	3.1
4th pillar: Affordability.....	27	6.1
5th pillar: Skills.....	81	4.8
<b>C. Usage subindex</b> .....	<b>104</b>	<b>3.2</b>
6th pillar: Individual usage.....	88	3.5
7th pillar: Business usage.....	109	3.2
8th pillar: Government usage.....	117	3.0
<b>D. Impact subindex</b> .....	<b>110</b>	<b>3.1</b>
9th pillar: Economic impacts.....	114	2.7
10th pillar: Social impacts.....	104	3.4



## The Networked Readiness Index in detail

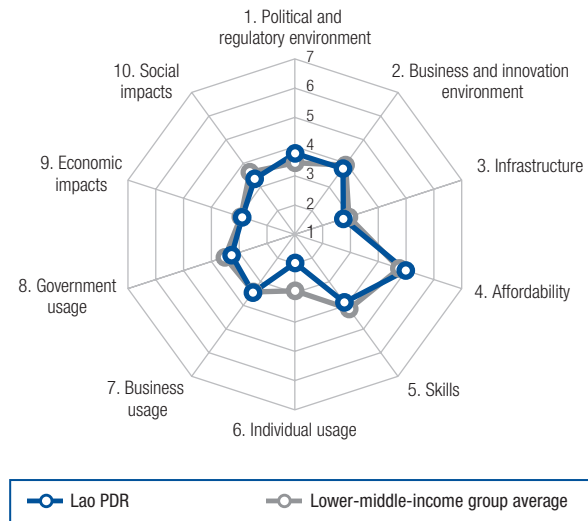
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	108	3.0
1.02 Laws relating to ICTs*	115	3.0
1.03 Judicial independence*	109	2.9
1.04 Efficiency of legal system in settling disputes*	112	3.0
1.05 Efficiency of legal system in challenging regs*	99	3.0
1.06 Intellectual property protection*	114	3.1
1.07 Software piracy rate, % software installed	n/a	n/a
1.08 No. procedures to enforce a contract	76	3.8
1.09 No. days to enforce a contract	29	4.10
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	130	3.6
2.02 Venture capital availability*	84	2.6
2.03 Total tax rate, % profits	33	29.0
2.04 No. days to start a business	57	10
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	115	4.4
2.07 Tertiary education gross enrollment rate, %	57	47.3
2.08 Quality of management schools*	131	3.1
2.09 Gov't procurement of advanced tech*	115	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	73	2449.6
3.02 Mobile network coverage, % pop.	95	97.7
3.03 Int'l Internet bandwidth, kb/s per user	107	8.2
3.04 Secure Internet servers/million pop.	100	9.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	44	0.16
4.02 Fixed broadband Internet tariffs, PPP \$/month	48	28.10
4.03 Internet & telephony competition, 0–2 (best)	75	1.87
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	112	3.0
5.02 Quality of math & science education*	118	3.0
5.03 Secondary education gross enrollment rate, %	70	90.8
5.04 Adult literacy rate, %	14	99.5

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	38	134.5
6.02 Individuals using Internet, %	97	28.3
6.03 Households w/ personal computer, %	102	17.6
6.04 Households w/ Internet access, %	110	12.0
6.05 Fixed broadband Internet subs/100 pop.	88	4.2
6.06 Mobile broadband subs/100 pop.	31	68.5
6.07 Use of virtual social networks*	105	5.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	118	3.9
7.02 Capacity for innovation*	98	3.6
7.03 PCT patents, applications/million pop.	97	0.1
7.04 ICT use for business-to-business transactions*	119	3.9
7.05 Business-to-consumer Internet use*	83	4.1
7.06 Extent of staff training*	101	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	123	3.1
8.02 Government Online Service Index, 0–1 (best)	104	0.28
8.03 Gov't success in ICT promotion*	120	3.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	129	3.5
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	109	3.5
9.04 Knowledge-intensive jobs, % workforce	79	17.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	122	3.2
10.02 Internet access in schools*	87	3.9
10.03 ICT use & gov't efficiency*	119	3.2
10.04 E-Participation Index, 0–1 (best)	78	0.41

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Lao PDR

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>104..</b>	<b>3.4</b>
Networked Readiness Index (out of 143).....	97.....	3.6
Networked Readiness Index 2014 (out of 148).....	109.....	3.3
Networked Readiness Index 2013 (out of 144).....	n/a.....	n/a
<b>A. Environment subindex.....</b>	<b>93.....</b>	<b>3.8</b>
1st pillar: Political and regulatory environment.....	68.....	3.8
2nd pillar: Business and innovation environment.....	106.....	3.8
<b>B. Readiness subindex.....</b>	<b>107.....</b>	<b>3.9</b>
3rd pillar: Infrastructure.....	108.....	2.7
4th pillar: Affordability.....	82.....	5.0
5th pillar: Skills.....	106.....	3.9
<b>C. Usage subindex.....</b>	<b>117.....</b>	<b>2.9</b>
6th pillar: Individual usage.....	124.....	2.0
7th pillar: Business usage.....	89.....	3.4
8th pillar: Government usage.....	110.....	3.3
<b>D. Impact subindex.....</b>	<b>104.....</b>	<b>3.1</b>
9th pillar: Economic impacts.....	97.....	2.9
10th pillar: Social impacts.....	110.....	3.4



## The Networked Readiness Index in detail

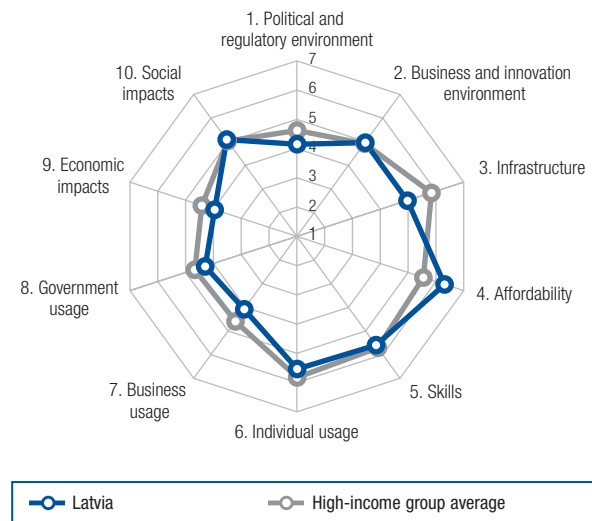
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	44	4.2
1.02 Laws relating to ICTs*.....	99	3.4
1.03 Judicial independence*.....	78	3.7
1.04 Efficiency of legal system in settling disputes*.....	46	4.1
1.05 Efficiency of legal system in challenging regs*.....	68	3.4
1.06 Intellectual property protection*.....	100	3.4
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	113	4.2
1.09 No. days to enforce a contract.....	43	4.43
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	117	3.9
2.02 Venture capital availability*.....	87	2.6
2.03 Total tax rate, % profits.....	26	25.3
2.04 No. days to start a business.....	134	73
2.05 No. procedures to start a business.....	54	6
2.06 Intensity of local competition*.....	122	4.3
2.07 Tertiary education gross enrollment rate, %.....	99	17.3
2.08 Quality of management schools*.....	92	3.9
2.09 Gov't procurement of advanced tech*.....	85	3.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	82	1869.3
3.02 Mobile network coverage, % pop.....	101	96.0
3.03 Int'l Internet bandwidth, kb/s per user.....	129	2.8
3.04 Secure Internet servers/million pop.....	121	2.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	25	0.11
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	88	42.39
4.03 Internet & telephony competition, 0-2 (best).....	126	0.91
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	62	3.8
5.02 Quality of math & science education*.....	90	3.6
5.03 Secondary education gross enrollment rate, %.....	114	57.2
5.04 Adult literacy rate, %.....	85	79.9

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	129	67.0
6.02 Individuals using Internet, %.....	118	14.3
6.03 Households w/ personal computer, %.....	113	10.5
6.04 Households w/ Internet access, %.....	128	5.2
6.05 Fixed broadband Internet subs/100 pop.....	123	0.2
6.06 Mobile broadband subs/100 pop.....	122	6.5
6.07 Use of virtual social networks*.....	115	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	96	4.3
7.02 Capacity for innovation*.....	89	3.7
7.03 PCT patents, applications/million pop.....	95	0.2
7.04 ICT use for business-to-business transactions*.....	97	4.3
7.05 Business-to-consumer Internet use*.....	95	4.0
7.06 Extent of staff training*.....	59	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	64	3.9
8.02 Government Online Service Index, 0-1 (best).....	122	0.14
8.03 Gov't success in ICT promotion*.....	67	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	101	4.0
9.02 ICT PCT patents, applications/million pop.....	92	0.0
9.03 Impact of ICTs on organizational models*.....	95	3.7
9.04 Knowledge-intensive jobs, % workforce.....	101	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	90	3.9
10.02 Internet access in schools*.....	101	3.6
10.03 ICT use & gov't efficiency*.....	86	3.8
10.04 E-Participation Index, 0-1 (best).....	115	0.20

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Latvia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>32</b>	<b>4.8</b>
Networked Readiness Index 2015 (out of 143).....	33	4.7
Networked Readiness Index 2014 (out of 148).....	39	4.6
Networked Readiness Index 2013 (out of 144).....	41	4.4
<b>A. Environment subindex</b> .....	<b>37</b>	<b>4.6</b>
1st pillar: Political and regulatory environment.....	45	4.2
2nd pillar: Business and innovation environment.....	30	5.0
<b>B. Readiness subindex</b> .....	<b>31</b>	<b>5.6</b>
3rd pillar: Infrastructure.....	43	5.0
4th pillar: Affordability.....	23	6.3
5th pillar: Skills.....	36	5.6
<b>C. Usage subindex</b> .....	<b>35</b>	<b>4.6</b>
6th pillar: Individual usage.....	36	5.5
7th pillar: Business usage.....	35	4.1
8th pillar: Government usage.....	50	4.3
<b>D. Impact subindex</b> .....	<b>31</b>	<b>4.5</b>
9th pillar: Economic impacts.....	34	4.0
10th pillar: Social impacts.....	32	5.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	85	3.5
1.02 Laws relating to ICTs*	41	4.4
1.03 Judicial independence*	55	4.2
1.04 Efficiency of legal system in settling disputes*	111	3.0
1.05 Efficiency of legal system in challenging regs*	81	3.3
1.06 Intellectual property protection*	45	4.3
1.07 Software piracy rate, % software installed	43	5.3
1.08 No. procedures to enforce a contract	9	2.7
1.09 No. days to enforce a contract	48	4.69
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	27	5.8
2.02 Venture capital availability*	52	2.9
2.03 Total tax rate, % profits	63	35.9
2.04 No. days to start a business	28	6
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	38	5.4
2.07 Tertiary education gross enrollment rate, %	29	67.0
2.08 Quality of management schools*	45	4.5
2.09 Gov't procurement of advanced tech*	100	3.0
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	64	3085.0
3.02 Mobile network coverage, % pop.	87	98.8
3.03 Int'l Internet bandwidth, kb/s per user	31	93.7
3.04 Secure Internet servers/million pop.	31	360.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	50	0.18
4.02 Fixed broadband Internet tariffs, PPP \$/month	23	21.04
4.03 Internet & telephony competition, 0–2 (best)	89	1.75
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	64	3.7
5.02 Quality of math & science education*	40	4.6
5.03 Secondary education gross enrollment rate, %	18	110.5
5.04 Adult literacy rate, %	1	99.9

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	61	116.8
6.02 Individuals using Internet, %	32	75.8
6.03 Households w/ personal computer, %	42	73.5
6.04 Households w/ Internet access, %	38	73.4
6.05 Fixed broadband Internet subs/100 pop.	34	24.7
6.06 Mobile broadband subs/100 pop.	42	61.2
6.07 Use of virtual social networks*	28	6.1
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	46	5.0
7.02 Capacity for innovation*	61	4.0
7.03 PCT patents, applications/million pop.	31	16.5
7.04 ICT use for business-to-business transactions*	32	5.4
7.05 Business-to-consumer Internet use*	15	5.7
7.06 Extent of staff training*	42	4.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	87	3.6
8.02 Government Online Service Index, 0–1 (best)	28	0.70
8.03 Gov't success in ICT promotion*	66	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	46	4.8
9.02 ICT PCT patents, applications/million pop.	36	3.5
9.03 Impact of ICTs on organizational models*	36	4.6
9.04 Knowledge-intensive jobs, % workforce	24	39.6
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	35	5.0
10.02 Internet access in schools*	20	5.7
10.03 ICT use & gov't efficiency*	49	4.4
10.04 E-Participation Index, 0–1 (best)	24	0.71

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Lebanon

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 88.. 3.8

Networked Readiness Index (out of 143)..... 99..... 3.5  
 Networked Readiness Index 2014 (out of 148)..... 97..... 3.6  
 Networked Readiness Index 2013 (out of 144)..... 94..... 3.5

### A. Environment subindex..... 91..... 3.8

1st pillar: Political and regulatory environment..... 126..... 3.0  
 2nd pillar: Business and innovation environment..... 49..... 4.6

### B. Readiness subindex ..... 87..... 4.5

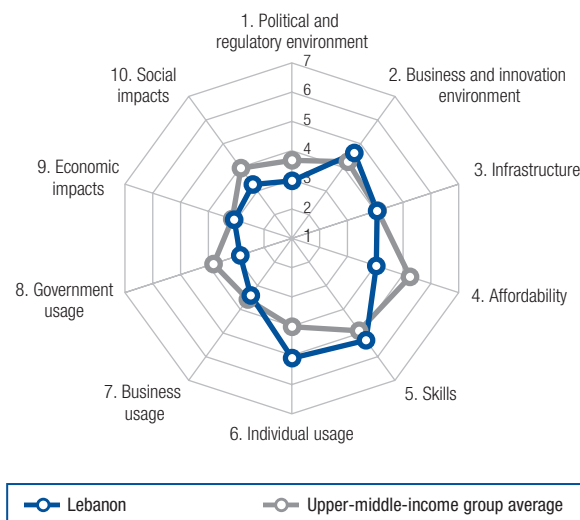
3rd pillar: Infrastructure ..... 77..... 4.0  
 4th pillar: Affordability ..... 109..... 4.0  
 5th pillar: Skills..... 55..... 5.3

### C. Usage subindex..... 77..... 3.8

6th pillar: Individual usage..... 46..... 5.1  
 7th pillar: Business usage..... 97..... 3.4  
 8th pillar: Government usage..... 124..... 2.9

### D. Impact subindex..... 103..... 3.2

9th pillar: Economic impacts..... 83..... 3.1  
 10th pillar: Social impacts..... 114..... 3.3



## The Networked Readiness Index in detail

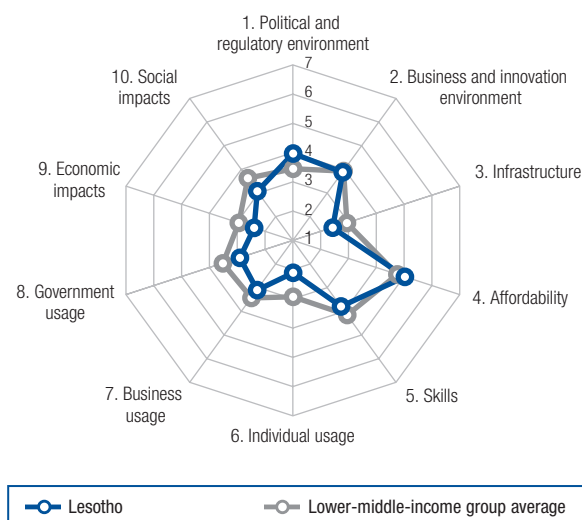
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	122	2.8
1.02 Laws relating to ICTs*	135	2.4
1.03 Judicial independence*	113	2.7
1.04 Efficiency of legal system in settling disputes*	103	3.1
1.05 Efficiency of legal system in challenging regs*	113	2.8
1.06 Intellectual property protection*	121	3.1
1.07 Software piracy rate, % software installed	70	7.1
1.08 No. procedures to enforce a contract	69	3.7
1.09 No. days to enforce a contract	107	7.21
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	90	4.4
2.02 Venture capital availability*	42	3.1
2.03 Total tax rate, % profits	40	30.3
2.04 No. days to start a business	86	15
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	34	5.4
2.07 Tertiary education gross enrollment rate, %	62	42.8
2.08 Quality of management schools*	12	5.5
2.09 Gov't procurement of advanced tech*	131	2.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	54	4039.9
3.02 Mobile network coverage, % pop.	65	99.1
3.03 Int'l Internet bandwidth, kb/s per user	85	24.0
3.04 Secure Internet servers/million pop.	62	54.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	120	0.48
4.02 Fixed broadband Internet tariffs, PPP \$/month	58	30.40
4.03 Internet & telephony competition, 0-2 (best)	131	0.50
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	19	4.9
5.02 Quality of math & science education*	6	5.6
5.03 Secondary education gross enrollment rate, %	105	68.2
5.04 Adult literacy rate, %	61	93.9

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	108	88.3
6.02 Individuals using Internet, %	33	74.7
6.03 Households w/ personal computer, %	29	81.0
6.04 Households w/ Internet access, %	43	68.4
6.05 Fixed broadband Internet subs/100 pop.	40	22.8
6.06 Mobile broadband subs/100 pop.	54	53.5
6.07 Use of virtual social networks*	63	5.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	94	4.3
7.02 Capacity for innovation*	45	4.3
7.03 PCT patents, applications/million pop.	66	1.5
7.04 ICT use for business-to-business transactions*	114	4.0
7.05 Business-to-consumer Internet use*	119	3.5
7.06 Extent of staff training*	108	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	134	2.7
8.02 Government Online Service Index, 0-1 (best)	89	0.35
8.03 Gov't success in ICT promotion*	137	2.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	117	3.7
9.02 ICT PCT patents, applications/million pop.	61	0.4
9.03 Impact of ICTs on organizational models*	122	3.3
9.04 Knowledge-intensive jobs, % workforce	44	31.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	117	3.4
10.02 Internet access in schools*	85	3.9
10.03 ICT use & gov't efficiency*	125	3.0
10.04 E-Participation Index, 0-1 (best)	101	0.29

Note: Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Lesotho

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>115..</b>	<b>3.3</b>
Networked Readiness Index 2015 (out of 143).....	124.....	3.0
Networked Readiness Index 2014 (out of 148).....	133.....	2.9
Networked Readiness Index 2013 (out of 144).....	138.....	2.7
<b>A. Environment subindex.....</b>	<b>75.....</b>	<b>3.9</b>
1st pillar: Political and regulatory environment.....	52.....	4.0
2nd pillar: Business and innovation environment.....	100.....	3.9
<b>B. Readiness subindex.....</b>	<b>108.....</b>	<b>3.7</b>
3rd pillar: Infrastructure.....	120.....	2.4
4th pillar: Affordability.....	81.....	5.0
5th pillar: Skills.....	108.....	3.8
<b>C. Usage subindex.....</b>	<b>128.....</b>	<b>2.7</b>
6th pillar: Individual usage.....	122.....	2.1
7th pillar: Business usage.....	120.....	3.1
8th pillar: Government usage.....	121.....	2.9
<b>D. Impact subindex.....</b>	<b>125.....</b>	<b>2.7</b>
9th pillar: Economic impacts.....	130.....	2.4
10th pillar: Social impacts.....	121.....	3.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	71.....	3.7
1.02 Laws relating to ICTs*.....	91.....	3.5
1.03 Judicial independence*.....	38.....	4.8
1.04 Efficiency of legal system in settling disputes*.....	71.....	3.7
1.05 Efficiency of legal system in challenging regs*.....	60.....	3.6
1.06 Intellectual property protection*.....	57.....	4.1
1.07 Software piracy rate, % software installed.....	n/a.....	n/a
1.08 No. procedures to enforce a contract.....	108.....	4.1
1.09 No. days to enforce a contract.....	94.....	6.15
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	128.....	3.6
2.02 Venture capital availability*.....	98.....	2.4
2.03 Total tax rate, % profits.....	5.....	13.6
2.04 No. days to start a business.....	114.....	29
2.05 No. procedures to start a business.....	74.....	7
2.06 Intensity of local competition*.....	119.....	4.4
2.07 Tertiary education gross enrollment rate, %.....	116.....	9.8
2.08 Quality of management schools*.....	108.....	3.6
2.09 Gov't procurement of advanced tech*.....	61.....	3.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	120.....	236.2
3.02 Mobile network coverage, % pop.....	112.....	92.7
3.03 Int'l Internet bandwidth, kb/s per user.....	120.....	4.3
3.04 Secure Internet servers/million pop.....	130.....	1.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	126.....	0.55
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	31.....	23.27
4.03 Internet & telephony competition, 0–2 (best).....	1.....	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	44.....	4.2
5.02 Quality of math & science education*.....	100.....	3.4
5.03 Secondary education gross enrollment rate, %.....	118.....	52.2
5.04 Adult literacy rate, %.....	86.....	79.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	110.....	85.0
6.02 Individuals using Internet, %.....	121.....	11.0
6.03 Households w/ personal computer, %.....	124.....	6.9
6.04 Households w/ Internet access, %.....	119.....	6.5
6.05 Fixed broadband Internet subs/100 pop.....	131.....	0.1
6.06 Mobile broadband subs/100 pop.....	94.....	25.5
6.07 Use of virtual social networks*.....	137.....	3.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	135.....	3.5
7.02 Capacity for innovation*.....	94.....	3.7
7.03 PCT patents, applications/million pop.....	121.....	0.0
7.04 ICT use for business-to-business transactions*.....	135.....	3.4
7.05 Business-to-consumer Internet use*.....	129.....	3.3
7.06 Extent of staff training*.....	75.....	3.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	107.....	3.3
8.02 Government Online Service Index, 0–1 (best).....	118.....	0.16
8.03 Gov't success in ICT promotion*.....	105.....	3.5
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	127.....	3.6
9.02 ICT PCT patents, applications/million pop.....	103.....	0.0
9.03 Impact of ICTs on organizational models*.....	115.....	3.4
9.04 Knowledge-intensive jobs, % workforce.....	101.....	6.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	104.....	3.7
10.02 Internet access in schools*.....	113.....	3.4
10.03 ICT use & gov't efficiency*.....	106.....	3.4
10.04 E-Participation Index, 0–1 (best).....	126.....	0.14

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

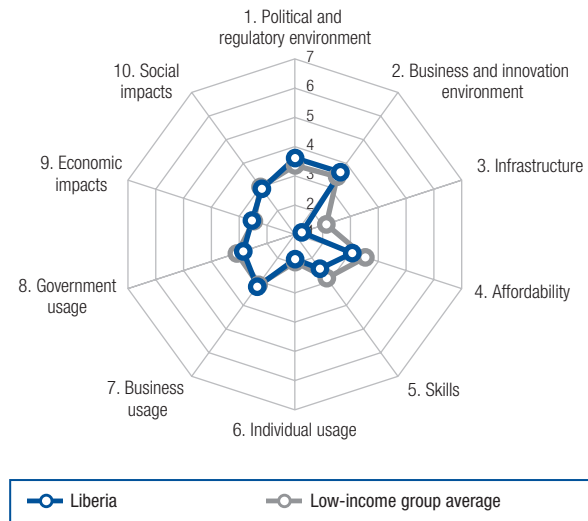
# Liberia

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 130..2.8

Networked Readiness Index (out of 143)..... n/a..... n/a  
 Networked Readiness Index 2014 (out of 148)..... 121..... 3.2  
 Networked Readiness Index 2013 (out of 144)..... 97..... 3.5

<b>A. Environment subindex..... 108..... 3.6</b>	
1st pillar: Political and regulatory environment..... 84..... 3.6	
2nd pillar: Business and innovation environment..... 117..... 3.6	
<b>B. Readiness subindex..... 135..... 2.2</b>	
3rd pillar: Infrastructure..... 135..... 1.2	
4th pillar: Affordability..... 121..... 3.1	
5th pillar: Skills..... 132..... 2.4	
<b>C. Usage subindex..... 130..... 2.6</b>	
6th pillar: Individual usage..... 130..... 1.8	
7th pillar: Business usage..... 113..... 3.2	
8th pillar: Government usage..... 123..... 2.9	
<b>D. Impact subindex..... 126..... 2.7</b>	
9th pillar: Economic impacts..... 125..... 2.5	
10th pillar: Social impacts..... 127..... 2.9	



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	77	3.7
1.02 Laws relating to ICTs*	105	3.2
1.03 Judicial independence*	53	4.2
1.04 Efficiency of legal system in settling disputes*	59	3.8
1.05 Efficiency of legal system in challenging regs*	41	4.0
1.06 Intellectual property protection*	73	3.9
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	94	4.0
1.09 No. days to enforce a contract.....	132	1280
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	136	3.2
2.02 Venture capital availability*	45	3.0
2.03 Total tax rate, % profits.....	102	47.8
2.04 No. days to start a business.....	24	5
2.05 No. procedures to start a business.....	22	4
2.06 Intensity of local competition*.....	131	4.1
2.07 Tertiary education gross enrollment rate, %.....	111	11.6
2.08 Quality of management schools*.....	126	3.2
2.09 Gov't procurement of advanced tech*.....	36	3.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	134	71.6
3.02 Mobile network coverage, % pop.....	134	60.0
3.03 Int'l Internet bandwidth, kb/s per user.....	111	6.3
3.04 Secure Internet servers/million pop.....	117	2.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	94	0.33
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	132	186.23
4.03 Internet & telephony competition, 0-2 (best).....	89	1.75
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	83	3.5
5.02 Quality of math & science education*.....	94	3.5
5.03 Secondary education gross enrollment rate, %.....	132	37.9
5.04 Adult literacy rate, %.....	111	47.6

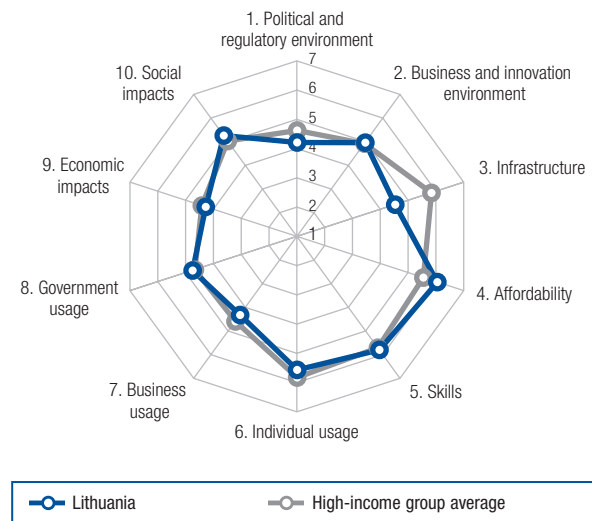
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	122	73.4
6.02 Individuals using Internet, %.....	131	5.4
6.03 Households w/ personal computer, %.....	138	2.2
6.04 Households w/ Internet access, %.....	137	2.5
6.05 Fixed broadband Internet subs/100 pop.....	126	0.1
6.06 Mobile broadband subs/100 pop.....	119	7.6
6.07 Use of virtual social networks*.....	135	4.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	130	3.8
7.02 Capacity for innovation*.....	96	3.7
7.03 PCT patents, applications/million pop.....	121	0.0
7.04 ICT use for business-to-business transactions*.....	123	3.9
7.05 Business-to-consumer Internet use*.....	118	3.5
7.06 Extent of staff training*.....	78	3.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	109	3.3
8.02 Government Online Service Index, 0-1 (best).....	130	0.08
8.03 Gov't success in ICT promotion*.....	86	3.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	128	3.5
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	92	3.7
9.04 Knowledge-intensive jobs, % workforce.....	97	9.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	103	3.7
10.02 Internet access in schools*.....	123	3.0
10.03 ICT use & gov't efficiency*.....	115	3.3
10.04 E-Participation Index, 0-1 (best).....	128	0.12

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Lithuania

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>29</b>	<b>4.9</b>
Networked Readiness Index 2015 (out of 143).....	31	4.9
Networked Readiness Index 2014 (out of 148).....	31	4.8
Networked Readiness Index 2013 (out of 144).....	32	4.7
<b>A. Environment subindex</b> .....	<b>36</b>	<b>4.6</b>
1st pillar: Political and regulatory environment.....	41	4.2
2nd pillar: Business and innovation environment.....	31	5.0
<b>B. Readiness subindex</b> .....	<b>42</b>	<b>5.4</b>
3rd pillar: Infrastructure.....	57	4.5
4th pillar: Affordability.....	34	6.0
5th pillar: Skills.....	26	5.8
<b>C. Usage subindex</b> .....	<b>31</b>	<b>4.9</b>
6th pillar: Individual usage.....	35	5.5
7th pillar: Business usage.....	29	4.3
8th pillar: Government usage.....	33	4.7
<b>D. Impact subindex</b> .....	<b>28</b>	<b>4.8</b>
9th pillar: Economic impacts.....	27	4.3
10th pillar: Social impacts.....	25	5.3



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	80	3.6
1.02 Laws relating to ICTs*	25	4.9
1.03 Judicial independence*	68	3.9
1.04 Efficiency of legal system in settling disputes*	67	3.7
1.05 Efficiency of legal system in challenging regs*	93	3.1
1.06 Intellectual property protection*	55	4.1
1.07 Software piracy rate, % software installed	43	5.3
1.08 No. procedures to enforce a contract	22	3.1
1.09 No. days to enforce a contract	9	3.0
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	28	5.8
2.02 Venture capital availability*	48	3.0
2.03 Total tax rate, % profits	91	42.6
2.04 No. days to start a business	13	4
2.05 No. procedures to start a business	3	2
2.06 Intensity of local competition*	18	5.6
2.07 Tertiary education gross enrollment rate, %	25	72.0
2.08 Quality of management schools*	53	4.4
2.09 Gov't procurement of advanced tech*	93	3.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	90	1424.8
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	22	125.5
3.04 Secure Internet servers/million pop.	41	206.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	68	0.25
4.02 Fixed broadband Internet tariffs, PPP \$/month	35	24.86
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	53	4.0
5.02 Quality of math & science education*	20	5.1
5.03 Secondary education gross enrollment rate, %	29	105.4
5.04 Adult literacy rate, %	3	99.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	27	147.0
6.02 Individuals using Internet, %	37	72.1
6.03 Households w/ personal computer, %	47	68.1
6.04 Households w/ Internet access, %	46	66.0
6.05 Fixed broadband Internet subs/100 pop.	31	26.7
6.06 Mobile broadband subs/100 pop.	40	63.4
6.07 Use of virtual social networks*	9	6.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	32	5.4
7.02 Capacity for innovation*	31	4.6
7.03 PCT patents, applications/million pop.	33	14.6
7.04 ICT use for business-to-business transactions*	11	5.8
7.05 Business-to-consumer Internet use*	7	5.8
7.06 Extent of staff training*	35	4.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	53	4.2
8.02 Government Online Service Index, 0–1 (best)	21	0.76
8.03 Gov't success in ICT promotion*	36	4.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	27	5.2
9.02 ICT PCT patents, applications/million pop.	34	3.8
9.03 Impact of ICTs on organizational models*	19	5.2
9.04 Knowledge-intensive jobs, % workforce	20	42.6
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	29	5.3
10.02 Internet access in schools*	11	6.0
10.03 ICT use & gov't efficiency*	24	4.9
10.04 E-Participation Index, 0–1 (best)	33	0.65

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

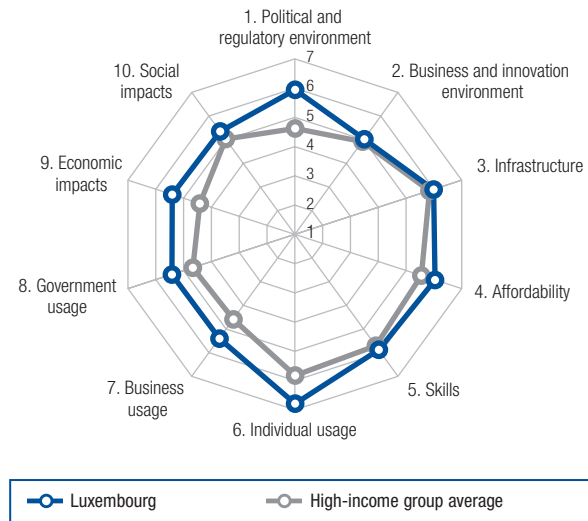
# Luxembourg

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 9..5.7

Networked Readiness Index (out of 143)..... 9..... 5.6  
 Networked Readiness Index 2014 (out of 148)..... 11..... 5.5  
 Networked Readiness Index 2013 (out of 144)..... 16..... 5.4

<b>A. Environment subindex</b> .....	<b>9</b> .....	<b>5.5</b>
1st pillar: Political and regulatory environment.....	1	5.9
2nd pillar: Business and innovation environment.....	27	5.0
<b>B. Readiness subindex</b> .....	<b>19</b> .....	<b>5.9</b>
3rd pillar: Infrastructure.....	26	6.0
4th pillar: Affordability.....	36	6.0
5th pillar: Skills.....	20	5.9
<b>C. Usage subindex</b> .....	<b>5</b> .....	<b>5.9</b>
6th pillar: Individual usage.....	2	6.8
7th pillar: Business usage.....	15	5.4
8th pillar: Government usage.....	9	5.4
<b>D. Impact subindex</b> .....	<b>12</b> .....	<b>5.4</b>
9th pillar: Economic impacts.....	9	5.4
10th pillar: Social impacts.....	23	5.3



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	4	5.7
1.02 Laws relating to ICTs*	1	5.9
1.03 Judicial independence*	9	6.2
1.04 Efficiency of legal system in settling disputes*	9	5.5
1.05 Efficiency of legal system in challenging regs*	8	5.4
1.06 Intellectual property protection*	2	6.3
1.07 Software piracy rate, % software installed.....	3	20
1.08 No. procedures to enforce a contract.....	5	26
1.09 No. days to enforce a contract.....	12	321
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	14	6.2
2.02 Venture capital availability*	8	4.3
2.03 Total tax rate, % profits.....	13	20.1
2.04 No. days to start a business.....	95	19
2.05 No. procedures to start a business.....	54	6
2.06 Intensity of local competition*.....	61	5.1
2.07 Tertiary education gross enrollment rate, %.....	97	19.4
2.08 Quality of management schools*.....	34	4.9
2.09 Gov't procurement of advanced tech*.....	5	4.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	60	3402.9
3.02 Mobile network coverage, % pop.....	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user.....	1	6887.7
3.04 Secure Internet servers/million pop.....	3	2645.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	47	0.17
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	65	32.20
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	23	4.7
5.02 Quality of math & science education*.....	32	4.8
5.03 Secondary education gross enrollment rate, %.....	34	102.4
5.04 Adult literacy rate, %.....	n/a	n/a <sup>1</sup>

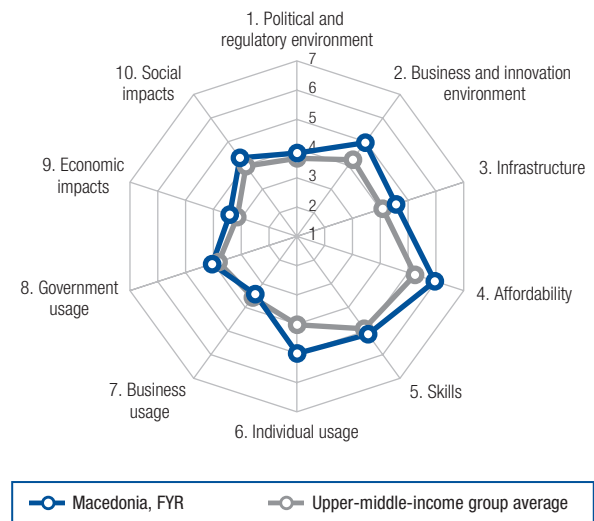
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	19	149.5
6.02 Individuals using Internet, %.....	4	94.7
6.03 Households w/ personal computer, %.....	4	96.3
6.04 Households w/ Internet access, %.....	6	95.6
6.05 Fixed broadband Internet subs/100 pop.....	13	34.8
6.06 Mobile broadband subs/100 pop.....	11	111.3
6.07 Use of virtual social networks*.....	19	6.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	8	6.0
7.02 Capacity for innovation*.....	9	5.4
7.03 PCT patents, applications/million pop.....	15	113.0
7.04 ICT use for business-to-business transactions*.....	14	5.8
7.05 Business-to-consumer Internet use*.....	17	5.6
7.06 Extent of staff training*.....	2	5.5
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	5	5.7
8.02 Government Online Service Index, 0-1 (best).....	42	0.62
8.03 Gov't success in ICT promotion*.....	6	5.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	5	5.8
9.02 ICT PCT patents, applications/million pop.....	18	29.6
9.03 Impact of ICTs on organizational models*.....	15	5.3
9.04 Knowledge-intensive jobs, % workforce.....	1	62.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	10	5.9
10.02 Internet access in schools*.....	24	5.6
10.03 ICT use & gov't efficiency*.....	7	5.5
10.04 E-Participation Index, 0-1 (best).....	54	0.55

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Macedonia, FYR

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>46</b>	<b>4.4</b>
Networked Readiness Index 2015 (out of 143).....	47	4.4
Networked Readiness Index 2014 (out of 148).....	57	4.2
Networked Readiness Index 2013 (out of 144).....	67	3.9
<b>A. Environment subindex</b> .....	<b>42</b>	<b>4.4</b>
1st pillar: Political and regulatory environment.....	62	3.9
2nd pillar: Business and innovation environment.....	32	5.0
<b>B. Readiness subindex</b> .....	<b>49</b>	<b>5.2</b>
3rd pillar: Infrastructure.....	56	4.6
4th pillar: Affordability.....	39	5.9
5th pillar: Skills.....	66	5.1
<b>C. Usage subindex</b> .....	<b>50</b>	<b>4.2</b>
6th pillar: Individual usage.....	49	5.0
7th pillar: Business usage.....	92	3.4
8th pillar: Government usage.....	58	4.1
<b>D. Impact subindex</b> .....	<b>53</b>	<b>3.9</b>
9th pillar: Economic impacts.....	55	3.4
10th pillar: Social impacts.....	55	4.3



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	38	4.2
1.02 Laws relating to ICTs*	37	4.6
1.03 Judicial independence*	98	3.3
1.04 Efficiency of legal system in settling disputes*	58	3.9
1.05 Efficiency of legal system in challenging regs*	88	3.2
1.06 Intellectual property protection*	64	4.0
1.07 Software piracy rate, % software installed	61	65
1.08 No. procedures to enforce a contract	76	38
1.09 No. days to enforce a contract	90	604
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	52	5.0
2.02 Venture capital availability*	49	2.9
2.03 Total tax rate, % profits	2	12.9
2.04 No. days to start a business	2	1
2.05 No. procedures to start a business	1	1
2.06 Intensity of local competition*	31	5.5
2.07 Tertiary education gross enrollment rate, %	66	39.4
2.08 Quality of management schools*	81	4.0
2.09 Gov't procurement of advanced tech*	22	3.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	66	2940.3
3.02 Mobile network coverage, % pop.	37	99.9
3.03 Int'l Internet bandwidth, kb/s per user	62	41.8
3.04 Secure Internet servers/million pop.	57	76.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	54	0.20
4.02 Fixed broadband Internet tariffs, PPP \$/month	62	31.07
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	61	3.8
5.02 Quality of math & science education*	60	4.3
5.03 Secondary education gross enrollment rate, %	92	82.0
5.04 Adult literacy rate, %	31	97.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	87	105.5
6.02 Individuals using Internet, %	44	68.1
6.03 Households w/ personal computer, %	44	70.1
6.04 Households w/ Internet access, %	45	68.3
6.05 Fixed broadband Internet subs/100 pop.	50	16.8
6.06 Mobile broadband subs/100 pop.	59	49.5
6.07 Use of virtual social networks*	23	6.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	105	4.2
7.02 Capacity for innovation*	91	3.7
7.03 PCT patents, applications/million pop.	67	1.4
7.04 ICT use for business-to-business transactions*	64	4.7
7.05 Business-to-consumer Internet use*	72	4.3
7.06 Extent of staff training*	96	3.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	19	4.8
8.02 Government Online Service Index, 0–1 (best)	106	0.24
8.03 Gov't success in ICT promotion*	20	4.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	51	4.7
9.02 ICT PCT patents, applications/million pop.	79	0.1
9.03 Impact of ICTs on organizational models*	62	4.3
9.04 Knowledge-intensive jobs, % workforce	51	26.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	34	5.0
10.02 Internet access in schools*	35	5.2
10.03 ICT use & gov't efficiency*	29	4.8
10.04 E-Participation Index, 0–1 (best)	112	0.22

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

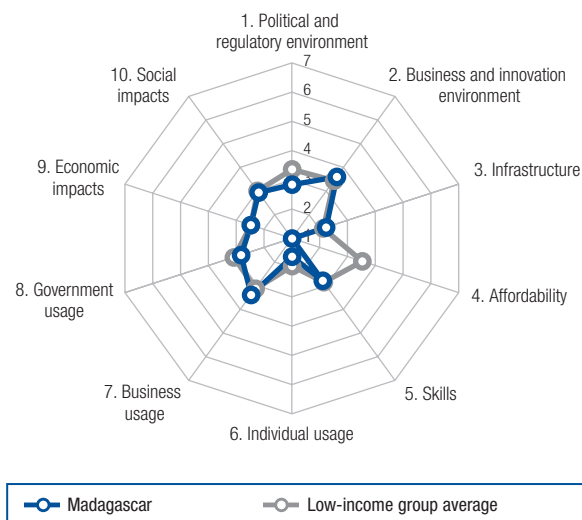
# Madagascar

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 135.. 2.6

Networked Readiness Index (out of 143)..... 135..... 2.7  
 Networked Readiness Index 2014 (out of 148)..... 139..... 2.7  
 Networked Readiness Index 2013 (out of 144)..... 137..... 2.7

- A. Environment subindex..... 127..... 3.2**
  - 1st pillar: Political and regulatory environment..... 129..... 2.8
  - 2nd pillar: Business and innovation environment..... 119..... 3.6
- B. Readiness subindex ..... 137..... 2.0**
  - 3rd pillar: Infrastructure ..... 124..... 2.2
  - 4th pillar: Affordability ..... 138..... 1.0
  - 5th pillar: Skills..... 129..... 2.8
- C. Usage subindex..... 132..... 2.6**
  - 6th pillar: Individual usage..... 135..... 1.6
  - 7th pillar: Business usage..... 100..... 3.4
  - 8th pillar: Government usage..... 125..... 2.8
- D. Impact subindex..... 127..... 2.7**
  - 9th pillar: Economic impacts..... 126..... 2.5
  - 10th pillar: Social impacts..... 126..... 2.9



## The Networked Readiness Index in detail

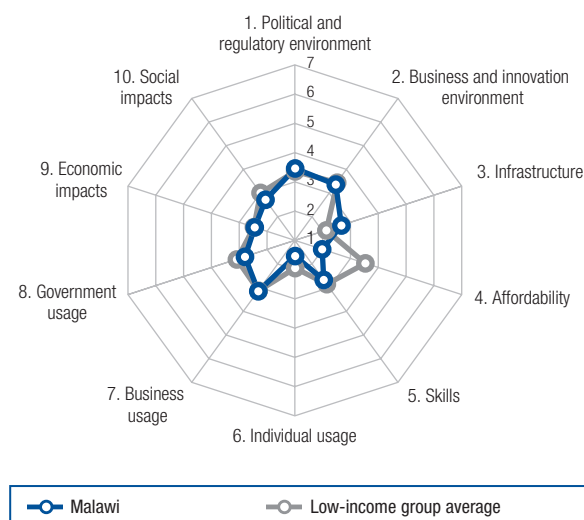
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	127	2.6
1.02 Laws relating to ICTs*	129	2.6
1.03 Judicial independence*	126	2.5
1.04 Efficiency of legal system in settling disputes*	122	2.8
1.05 Efficiency of legal system in challenging regs*	128	2.4
1.06 Intellectual property protection*	126	3.0
1.07 Software piracy rate, % software installed	n/a	n/a
1.08 No. procedures to enforce a contract	76	38
1.09 No. days to enforce a contract	118	871
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	114	4.0
2.02 Venture capital availability*	85	2.6
2.03 Total tax rate, % profits	73	38.1
2.04 No. days to start a business	76	13
2.05 No. procedures to start a business	105	9
2.06 Intensity of local competition*	109	4.6
2.07 Tertiary education gross enrollment rate, %	132	4.2
2.08 Quality of management schools*	96	3.8
2.09 Gov't procurement of advanced tech*	110	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	131	90.8
3.02 Mobile network coverage, % pop.	113	92.2
3.03 Int'l Internet bandwidth, kb/s per user	138	0.3
3.04 Secure Internet servers/million pop.	133	0.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	137	0.95
4.02 Fixed broadband Internet tariffs, PPP \$/month	133	197.62
4.03 Internet & telephony competition, 0-2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	115	2.9
5.02 Quality of math & science education*	91	3.6
5.03 Secondary education gross enrollment rate, %	130	38.4
5.04 Adult literacy rate, %	100	64.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	135	41.2
6.02 Individuals using Internet, %	134	3.7
6.03 Households w/ personal computer, %	130	4.5
6.04 Households w/ Internet access, %	129	4.7
6.05 Fixed broadband Internet subs/100 pop.	127	0.1
6.06 Mobile broadband subs/100 pop.	123	6.1
6.07 Use of virtual social networks*	108	4.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	87	4.4
7.02 Capacity for innovation*	78	3.8
7.03 PCT patents, applications/million pop.	107	0.0
7.04 ICT use for business-to-business transactions*	102	4.2
7.05 Business-to-consumer Internet use*	100	4.0
7.06 Extent of staff training*	105	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	130	2.9
8.02 Government Online Service Index, 0-1 (best)	106	0.24
8.03 Gov't success in ICT promotion*	124	3.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	108	3.9
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	93	3.7
9.04 Knowledge-intensive jobs, % workforce	108	3.5
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	133	3.0
10.02 Internet access in schools*	126	2.8
10.03 ICT use & gov't efficiency*	129	2.9
10.04 E-Participation Index, 0-1 (best)	86	0.35

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Malawi

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>132..</b>	<b>2.7</b>
Networked Readiness Index 2015 (out of 143).....	133.....	2.8
Networked Readiness Index 2014 (out of 148).....	132.....	2.9
Networked Readiness Index 2013 (out of 144).....	129.....	2.8
<b>A. Environment subindex.....</b>	<b>117.....</b>	<b>3.4</b>
1st pillar: Political and regulatory environment.....	93.....	3.5
2nd pillar: Business and innovation environment.....	126.....	3.4
<b>B. Readiness subindex.....</b>	<b>134.....</b>	<b>2.4</b>
3rd pillar: Infrastructure.....	111.....	2.7
4th pillar: Affordability.....	135.....	2.0
5th pillar: Skills.....	130.....	2.7
<b>C. Usage subindex.....</b>	<b>134.....</b>	<b>2.5</b>
6th pillar: Individual usage.....	137.....	1.5
7th pillar: Business usage.....	118.....	3.1
8th pillar: Government usage.....	126.....	2.8
<b>D. Impact subindex.....</b>	<b>131.....</b>	<b>2.6</b>
9th pillar: Economic impacts.....	128.....	2.5
10th pillar: Social impacts.....	130.....	2.7



## The Networked Readiness Index in detail

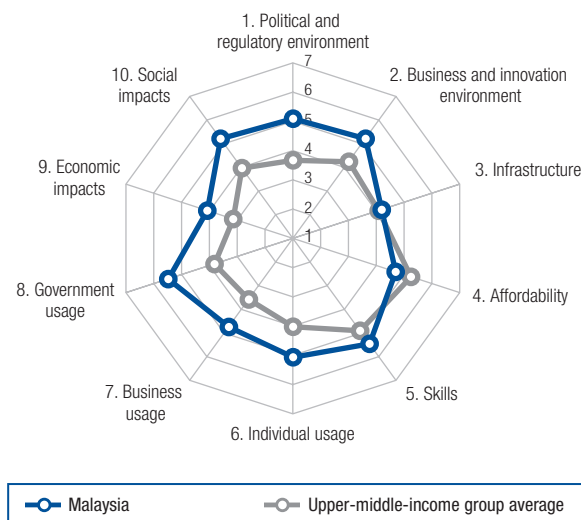
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	82	3.5
1.02 Laws relating to ICTs*	134	2.5
1.03 Judicial independence*	60	4.1
1.04 Efficiency of legal system in settling disputes*	98	3.2
1.05 Efficiency of legal system in challenging regs*	77	3.4
1.06 Intellectual property protection*	118	3.1
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	113	4.2
1.09 No. days to enforce a contract.....	40	4.32
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	131	3.6
2.02 Venture capital availability*	137	1.8
2.03 Total tax rate, % profits.....	57	34.5
2.04 No. days to start a business.....	124	3.8
2.05 No. procedures to start a business.....	92	8
2.06 Intensity of local competition*.....	66	5.1
2.07 Tertiary education gross enrollment rate, %.....	137	0.8
2.08 Quality of management schools*.....	130	3.1
2.09 Gov't procurement of advanced tech*.....	120	2.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	124	138.8
3.02 Mobile network coverage, % pop.....	58	99.6
3.03 Int'l Internet bandwidth, kb/s per user.....	121	4.2
3.04 Secure Internet servers/million pop.....	132	1.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	129	0.59
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	119	80.54
4.03 Internet & telephony competition, 0–2 (best).....	119	1.13
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	104	3.1
5.02 Quality of math & science education*.....	128	2.7
5.03 Secondary education gross enrollment rate, %.....	128	39.5
5.04 Adult literacy rate, %.....	97	65.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	137	33.5
6.02 Individuals using Internet, %.....	130	5.8
6.03 Households w/ personal computer, %.....	128	5.2
6.04 Households w/ Internet access, %.....	122	6.2
6.05 Fixed broadband Internet subs/100 pop.....	133	0.1
6.06 Mobile broadband subs/100 pop.....	127	4.1
6.07 Use of virtual social networks*.....	129	4.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	125	3.8
7.02 Capacity for innovation*.....	114	3.4
7.03 PCT patents, applications/million pop.....	118	0.0
7.04 ICT use for business-to-business transactions*.....	127	3.8
7.05 Business-to-consumer Internet use*.....	134	3.1
7.06 Extent of staff training*.....	66	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	118	3.2
8.02 Government Online Service Index, 0–1 (best).....	114	0.17
8.03 Gov't success in ICT promotion*.....	121	3.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	131	3.4
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	132	3.0
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	130	3.0
10.02 Internet access in schools*.....	133	2.5
10.03 ICT use & gov't efficiency*.....	127	2.9
10.04 E-Participation Index, 0–1 (best).....	110	0.24

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Malaysia

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index</b> .....	<b>31</b>	<b>4.9</b>
Networked Readiness Index 2015 (out of 143).....	32	4.9
Networked Readiness Index 2014 (out of 148).....	30	4.8
Networked Readiness Index 2013 (out of 144).....	30	4.8
<b>A. Environment subindex</b> .....	<b>21</b>	<b>5.1</b>
1st pillar: Political and regulatory environment.....	24	5.1
2nd pillar: Business and innovation environment.....	18	5.2
<b>B. Readiness subindex</b> .....	<b>73</b>	<b>4.8</b>
3rd pillar: Infrastructure.....	71	4.2
4th pillar: Affordability.....	91	4.7
5th pillar: Skills.....	46	5.4
<b>C. Usage subindex</b> .....	<b>30</b>	<b>5.1</b>
6th pillar: Individual usage.....	47	5.1
7th pillar: Business usage.....	26	4.7
8th pillar: Government usage.....	6	5.5
<b>D. Impact subindex</b> .....	<b>30</b>	<b>4.6</b>
9th pillar: Economic impacts.....	30	4.1
10th pillar: Social impacts.....	28	5.2



## The Networked Readiness Index in detail

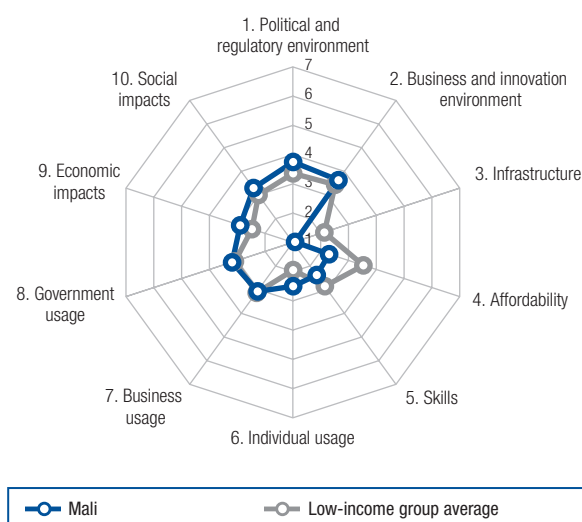
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	12	5.3
1.02 Laws relating to ICTs*	8	5.4
1.03 Judicial independence*	33	5.0
1.04 Efficiency of legal system in settling disputes*	15	5.3
1.05 Efficiency of legal system in challenging regs*	15	5.0
1.06 Intellectual property protection*	23	5.4
1.07 Software piracy rate, % software installed	46	5.4
1.08 No. procedures to enforce a contract	14	29
1.09 No. days to enforce a contract	34	425
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	30	5.7
2.02 Venture capital availability*	2	4.8
2.03 Total tax rate, % profits	79	40.0
2.04 No. days to start a business	15	4
2.05 No. procedures to start a business	11	3
2.06 Intensity of local competition*	37	5.4
2.07 Tertiary education gross enrollment rate, %	70	38.5
2.08 Quality of management schools*	22	5.2
2.09 Gov't procurement of advanced tech*	3	5.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	48	4695.3
3.02 Mobile network coverage, % pop.	103	95.4
3.03 Int'l Internet bandwidth, kb/s per user	81	27.2
3.04 Secure Internet servers/million pop.	54	88.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	46	0.17
4.02 Fixed broadband Internet tariffs, PPP \$/month	110	60.97
4.03 Internet & telephony competition, 0-2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	6	5.4
5.02 Quality of math & science education*	12	5.3
5.03 Secondary education gross enrollment rate, % 100	71.1	
5.04 Adult literacy rate, %	54	94.6

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	23	148.8
6.02 Individuals using Internet, %	45	67.5
6.03 Households w/ personal computer, %	49	66.5
6.04 Households w/ Internet access, %	48	65.5
6.05 Fixed broadband Internet subs/100 pop.	68	10.1
6.06 Mobile broadband subs/100 pop.	47	58.3
6.07 Use of virtual social networks*	22	6.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	23	5.6
7.02 Capacity for innovation*	7	5.5
7.03 PCT patents, applications/million pop.	35	11.3
7.04 ICT use for business-to-business transactions*	21	5.7
7.05 Business-to-consumer Internet use*	6	5.9
7.06 Extent of staff training*	3	5.5
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	6	5.6
8.02 Government Online Service Index, 0-1 (best)	31	0.68
8.03 Gov't success in ICT promotion*	5	5.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	10	5.6
9.02 ICT PCT patents, applications/million pop.	31	6.0
9.03 Impact of ICTs on organizational models*	8	5.6
9.04 Knowledge-intensive jobs, % workforce	53	25.2
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	24	5.5
10.02 Internet access in schools*	26	5.5
10.03 ICT use & gov't efficiency*	6	5.6
10.04 E-Participation Index, 0-1 (best)	59	0.53

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Mali

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>127..</b>	<b>2.9</b>
Networked Readiness Index 2015 (out of 143).....	127.....	3.0
Networked Readiness Index 2014 (out of 148).....	127.....	3.0
Networked Readiness Index 2013 (out of 144).....	122.....	3.0
<b>A. Environment subindex.....</b>	<b>100.....</b>	<b>3.7</b>
1st pillar: Political and regulatory environment.....	71.....	3.7
2nd pillar: Business and innovation environment.....	116.....	3.6
<b>B. Readiness subindex.....</b>	<b>139.....</b>	<b>1.9</b>
3rd pillar: Infrastructure.....	139.....	1.1
4th pillar: Affordability.....	132.....	2.3
5th pillar: Skills.....	135.....	2.4
<b>C. Usage subindex.....</b>	<b>115.....</b>	<b>2.9</b>
6th pillar: Individual usage.....	113.....	2.5
7th pillar: Business usage.....	124.....	3.1
8th pillar: Government usage.....	113.....	3.2
<b>D. Impact subindex.....</b>	<b>109.....</b>	<b>3.1</b>
9th pillar: Economic impacts.....	96.....	2.9
10th pillar: Social impacts.....	113.....	3.3



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	74.....	3.7
1.02 Laws relating to ICTs*.....	106.....	3.2
1.03 Judicial independence*.....	73.....	3.8
1.04 Efficiency of legal system in settling disputes*.....	61.....	3.8
1.05 Efficiency of legal system in challenging regs*.....	58.....	3.7
1.06 Intellectual property protection*.....	89.....	3.6
1.07 Software piracy rate, % software installed.....	n/a.....	n/a
1.08 No. procedures to enforce a contract.....	58.....	3.6
1.09 No. days to enforce a contract.....	95.....	6.20
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	113.....	4.0
2.02 Venture capital availability*.....	77.....	2.6
2.03 Total tax rate, % profits.....	103.....	48.3
2.04 No. days to start a business.....	54.....	9
2.05 No. procedures to start a business.....	41.....	5
2.06 Intensity of local competition*.....	113.....	4.5
2.07 Tertiary education gross enrollment rate, %.....	122.....	6.9
2.08 Quality of management schools*.....	109.....	3.6
2.09 Gov't procurement of advanced tech*.....	57.....	3.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	135.....	58.9
3.02 Mobile network coverage, % pop.....	137.....	20.0
3.03 Int'l Internet bandwidth, kb/s per user.....	133.....	1.9
3.04 Secure Internet servers/million pop.....	131.....	1.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	123.....	0.50
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	124.....	108.35
4.03 Internet & telephony competition, 0–2 (best).....	114.....	1.20
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	109.....	3.1
5.02 Quality of math & science education*.....	110.....	3.2
5.03 Secondary education gross enrollment rate, %.....	123.....	43.5
5.04 Adult literacy rate, %.....	114.....	38.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	21.....	149.1
6.02 Individuals using Internet, %.....	128.....	7.0
6.03 Households w/ personal computer, %.....	119.....	8.2
6.04 Households w/ Internet access, %.....	118.....	6.7
6.05 Fixed broadband Internet subs/100 pop.....	135.....	0.0
6.06 Mobile broadband subs/100 pop.....	111.....	11.3
6.07 Use of virtual social networks*.....	127.....	4.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	107.....	4.1
7.02 Capacity for innovation*.....	123.....	3.3
7.03 PCT patents, applications/million pop.....	121.....	0.0
7.04 ICT use for business-to-business transactions*.....	107.....	4.1
7.05 Business-to-consumer Internet use*.....	131.....	3.3
7.06 Extent of staff training*.....	130.....	3.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	82.....	3.7
8.02 Government Online Service Index, 0–1 (best).....	124.....	0.13
8.03 Gov't success in ICT promotion*.....	64.....	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	92.....	4.1
9.02 ICT PCT patents, applications/million pop.....	103.....	0.0
9.03 Impact of ICTs on organizational models*.....	97.....	3.6
9.04 Knowledge-intensive jobs, % workforce.....	n/a.....	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	87.....	3.9
10.02 Internet access in schools*.....	104.....	3.5
10.03 ICT use & gov't efficiency*.....	79.....	3.8
10.04 E-Participation Index, 0–1 (best).....	123.....	0.16

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

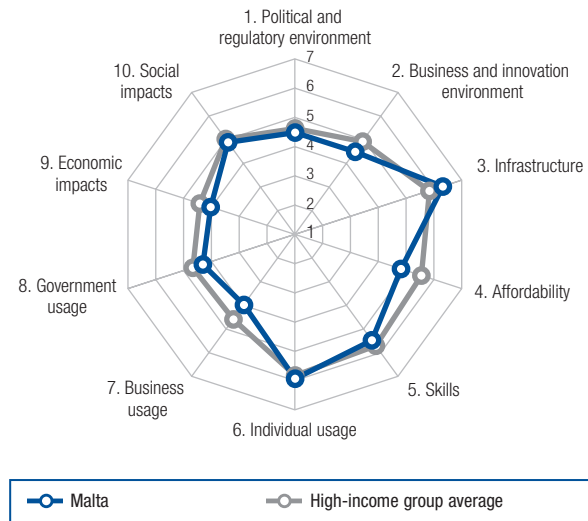
# Malta

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 34.. 4.8

Networked Readiness Index (out of 143).....29..... 4.9  
 Networked Readiness Index 2014 (out of 148).....28..... 5.0  
 Networked Readiness Index 2013 (out of 144).....28..... 4.9

<b>A. Environment subindex..... 39..... 4.5</b>	
1st pillar: Political and regulatory environment.....32..... 4.5	
2nd pillar: Business and innovation environment.....56..... 4.5	
<b>B. Readiness subindex ..... 36..... 5.5</b>	
3rd pillar: Infrastructure .....21..... 6.3	
4th pillar: Affordability .....88..... 4.8	
5th pillar: Skills.....44..... 5.5	
<b>C. Usage subindex..... 33..... 4.7</b>	
6th pillar: Individual usage.....26..... 5.9	
7th pillar: Business usage.....40..... 4.0	
8th pillar: Government usage.....49..... 4.3	
<b>D. Impact subindex..... 33..... 4.5</b>	
9th pillar: Economic impacts.....33..... 4.0	
10th pillar: Social impacts.....37..... 4.9	



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies* .....25..... 4.7		
1.02 Laws relating to ICTs* .....33..... 4.7		
1.03 Judicial independence* .....37..... 4.8		
1.04 Efficiency of legal system in settling disputes* .....60..... 3.8		
1.05 Efficiency of legal system in challenging regs* .....49..... 3.8		
1.06 Intellectual property protection* .....33..... 4.6		
1.07 Software piracy rate, % software installed.....30..... 4.4		
1.08 No. procedures to enforce a contract .....94..... 4.0		
1.09 No. days to enforce a contract .....54..... 5.05		
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies* .....40..... 5.4		
2.02 Venture capital availability* .....55..... 2.9		
2.03 Total tax rate, % profits .....87..... 41.3		
2.04 No. days to start a business .....113..... 28		
2.05 No. procedures to start a business .....114..... 10		
2.06 Intensity of local competition* .....12..... 5.8		
2.07 Tertiary education gross enrollment rate, %.....61..... 45.1		
2.08 Quality of management schools* .....39..... 4.7		
2.09 Gov't procurement of advanced tech* .....50..... 3.6		
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita .....42 ... 5323.9		
3.02 Mobile network coverage, % pop. ....1 ..... 100.0		
3.03 Int'l Internet bandwidth, kb/s per user.....3 ... 1178.8		
3.04 Secure Internet servers/million pop. ....10 ... 1691.6		
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....112 ..... 0.41		
4.02 Fixed broadband Internet tariffs, PPP \$/month ..83 ..... 38.80		
4.03 Internet & telephony competition, 0-2 (best) .....1 ..... 2.00		
<b>5th pillar: Skills</b>		
5.01 Quality of education system* .....22 ..... 4.7		
5.02 Quality of math & science education* .....23 ..... 5.0		
5.03 Secondary education gross enrollment rate, % ..85 ..... 85.5		
5.04 Adult literacy rate, % .....60 ..... 94.1		

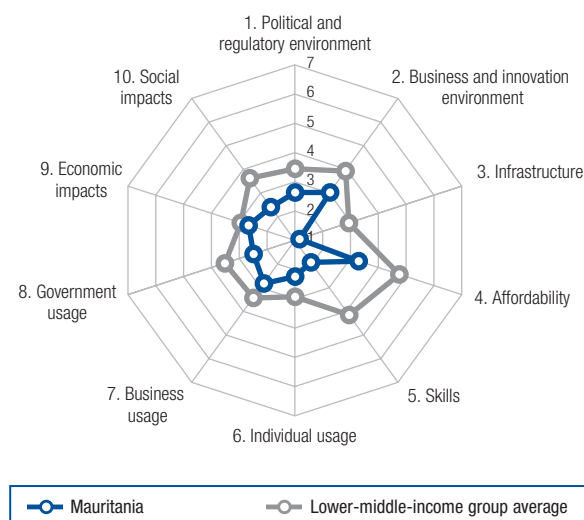
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....49 ..... 127.0		
6.02 Individuals using Internet, %.....35 ..... 73.2		
6.03 Households w/ personal computer, % .....27 ..... 82.2		
6.04 Households w/ Internet access, % .....27 ..... 80.7		
6.05 Fixed broadband Internet subs/100 pop.....12 ..... 35.2		
6.06 Mobile broadband subs/100 pop.....50 ..... 56.6		
6.07 Use of virtual social networks* .....29 ..... 6.1		
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption* .....37 ..... 5.2		
7.02 Capacity for innovation* .....73 ..... 3.9		
7.03 PCT patents, applications/million pop. ....30 ..... 18.1		
7.04 ICT use for business-to-business transactions* ..39 ..... 5.2		
7.05 Business-to-consumer Internet use* .....61 ..... 4.6		
7.06 Extent of staff training* .....44 ..... 4.2		
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision* .....23 ..... 4.8		
8.02 Government Online Service Index, 0-1 (best).....79 ..... 0.40		
8.03 Gov't success in ICT promotion* .....26 ..... 4.8		
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models* .....37 ..... 4.9		
9.02 ICT PCT patents, applications/million pop. ....30 ..... 6.2		
9.03 Impact of ICTs on organizational models* .....42 ..... 4.6		
9.04 Knowledge-intensive jobs, % workforce.....25 ..... 39.3		
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services* .....32 ..... 5.3		
10.02 Internet access in schools* .....23 ..... 5.6		
10.03 ICT use & gov't efficiency* .....25 ..... 4.8		
10.04 E-Participation Index, 0-1 (best).....70 ..... 0.47		

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Mauritania

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>136</b> .....	<b>2.5</b>
Networked Readiness Index 2015 (out of 143).....	138.....	2.5
Networked Readiness Index 2014 (out of 148).....	142.....	2.6
Networked Readiness Index 2013 (out of 144).....	135.....	2.7
<b>A. Environment subindex</b> .....	<b>135</b> .....	<b>2.8</b>
1st pillar: Political and regulatory environment.....	135.....	2.6
2nd pillar: Business and innovation environment.....	135.....	3.0
<b>B. Readiness subindex</b> .....	<b>136</b> .....	<b>2.1</b>
3rd pillar: Infrastructure.....	136.....	1.2
4th pillar: Affordability.....	118.....	3.3
5th pillar: Skills.....	138.....	1.9
<b>C. Usage subindex</b> .....	<b>133</b> .....	<b>2.5</b>
6th pillar: Individual usage.....	118.....	2.2
7th pillar: Business usage.....	135.....	2.8
8th pillar: Government usage.....	134.....	2.5
<b>D. Impact subindex</b> .....	<b>133</b> .....	<b>2.5</b>
9th pillar: Economic impacts.....	116.....	2.7
10th pillar: Social impacts.....	134.....	2.4



## The Networked Readiness Index in detail

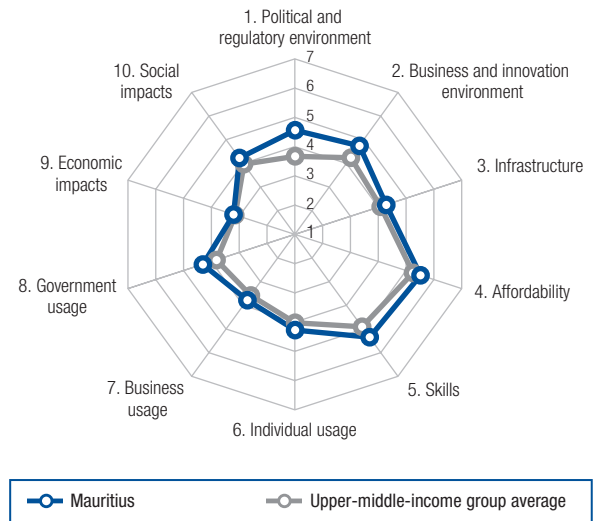
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	131	2.4
1.02 Laws relating to ICTs*.....	120	2.9
1.03 Judicial independence*.....	134	2.0
1.04 Efficiency of legal system in settling disputes*.....	132	2.5
1.05 Efficiency of legal system in challenging regs*.....	134	2.3
1.06 Intellectual property protection*.....	138	2.1
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	128	4.6
1.09 No. days to enforce a contract.....	16	370
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	91	4.4
2.02 Venture capital availability*.....	133	1.9
2.03 Total tax rate, % profits.....	135	71.3
2.04 No. days to start a business.....	48	8
2.05 No. procedures to start a business.....	54	6
2.06 Intensity of local competition*.....	134	4.0
2.07 Tertiary education gross enrollment rate, %.....	128	5.5
2.08 Quality of management schools*.....	125	3.2
2.09 Gov't procurement of advanced tech*.....	123	2.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	118	274.0
3.02 Mobile network coverage, % pop.....	133	62.0
3.03 Int'l Internet bandwidth, kb/s per user.....	136	1.5
3.04 Secure Internet servers/million pop.....	116	2.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	127	0.57
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	108	59.29
4.03 Internet & telephony competition, 0–2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	130	2.5
5.02 Quality of math & science education*.....	123	2.9
5.03 Secondary education gross enrollment rate, %.....	135	29.9
5.04 Adult literacy rate, %.....	109	52.1

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	103	94.2
6.02 Individuals using Internet, %.....	123	10.7
6.03 Households w/ personal computer, %.....	131	4.4
6.04 Households w/ Internet access, %.....	124	6.2
6.05 Fixed broadband Internet subs/100 pop.....	120	0.2
6.06 Mobile broadband subs/100 pop.....	105	14.4
6.07 Use of virtual social networks*.....	116	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	104	4.2
7.02 Capacity for innovation*.....	139	2.6
7.03 PCT patents, applications/million pop.....	121	0.0
7.04 ICT use for business-to-business transactions*.....	72	4.6
7.05 Business-to-consumer Internet use*.....	137	2.8
7.06 Extent of staff training*.....	139	2.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	124	3.1
8.02 Government Online Service Index, 0–1 (best).....	133	0.05
8.03 Gov't success in ICT promotion*.....	123	3.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	123	3.6
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	118	3.4
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	129	3.0
10.02 Internet access in schools*.....	136	2.1
10.03 ICT use & gov't efficiency*.....	123	3.0
10.04 E-Participation Index, 0–1 (best).....	132	0.08

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Mauritius

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>49..</b>	<b>4.4</b>
Networked Readiness Index (out of 143).....	45.....	4.5
Networked Readiness Index 2014 (out of 148).....	48.....	4.3
Networked Readiness Index 2013 (out of 144).....	55.....	4.1
<b>A. Environment subindex.....</b>	<b>34.....</b>	<b>4.7</b>
1st pillar: Political and regulatory environment.....	30.....	4.6
2nd pillar: Business and innovation environment.....	41.....	4.7
<b>B. Readiness subindex.....</b>	<b>57.....</b>	<b>5.0</b>
3rd pillar: Infrastructure.....	68.....	4.3
4th pillar: Affordability.....	65.....	5.5
5th pillar: Skills.....	53.....	5.3
<b>C. Usage subindex.....</b>	<b>55.....</b>	<b>4.1</b>
6th pillar: Individual usage.....	66.....	4.3
7th pillar: Business usage.....	55.....	3.8
8th pillar: Government usage.....	48.....	4.3
<b>D. Impact subindex.....</b>	<b>67.....</b>	<b>3.7</b>
9th pillar: Economic impacts.....	69.....	3.2
10th pillar: Social impacts.....	61.....	4.2



## The Networked Readiness Index in detail

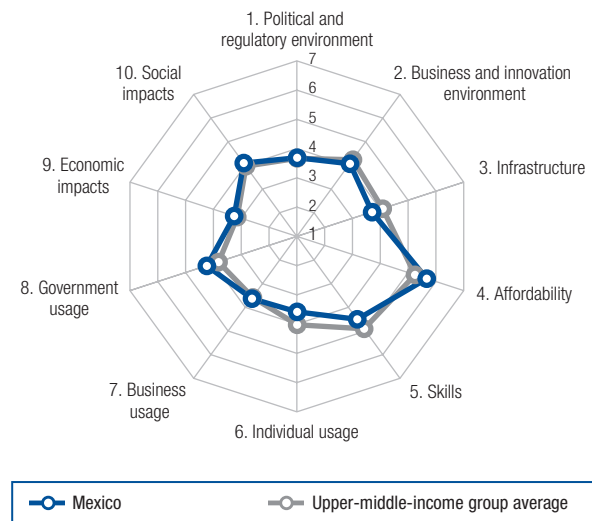
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	19	5.0
1.02 Laws relating to ICTs*	47	4.3
1.03 Judicial independence*	32	5.0
1.04 Efficiency of legal system in settling disputes*	23	4.9
1.05 Efficiency of legal system in challenging regs*	31	4.3
1.06 Intellectual property protection*	41	4.4
1.07 Software piracy rate, % software installed.....	48	5.5
1.08 No. procedures to enforce a contract.....	42	3.4
1.09 No. days to enforce a contract.....	64	5.19
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	53	5.0
2.02 Venture capital availability*	63	2.8
2.03 Total tax rate, % profits.....	18	22.4
2.04 No. days to start a business.....	34	6
2.05 No. procedures to start a business.....	41	5
2.06 Intensity of local competition*.....	32	5.5
2.07 Tertiary education gross enrollment rate, %.....	69	38.7
2.08 Quality of management schools*.....	66	4.3
2.09 Gov't procurement of advanced tech*.....	60	3.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	77	2294.5
3.02 Mobile network coverage, % pop.....	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user.....	71	33.0
3.04 Secure Internet servers/million pop.....	45	154.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	49	0.18
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	87	42.35
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	49	4.1
5.02 Quality of math & science education*.....	50	4.4
5.03 Secondary education gross enrollment rate, %.....	55	97.9
5.04 Adult literacy rate, %.....	68	90.6

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	41	132.2
6.02 Individuals using Internet, %.....	85	41.4
6.03 Households w/ personal computer, %.....	69	51.3
6.04 Households w/ Internet access, %.....	67	47.5
6.05 Fixed broadband Internet subs/100 pop.....	55	14.6
6.06 Mobile broadband subs/100 pop.....	80	31.7
6.07 Use of virtual social networks*.....	70	5.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	43	5.0
7.02 Capacity for innovation*.....	58	4.1
7.03 PCT patents, applications/million pop.....	63	1.6
7.04 ICT use for business-to-business transactions*.....	74	4.6
7.05 Business-to-consumer Internet use*.....	108	3.8
7.06 Extent of staff training*.....	30	4.5
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	40	4.4
8.02 Government Online Service Index, 0-1 (best).....	68	0.47
8.03 Gov't success in ICT promotion*.....	31	4.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	66	4.5
9.02 ICT PCT patents, applications/million pop.....	54	0.8
9.03 Impact of ICTs on organizational models*.....	68	4.2
9.04 Knowledge-intensive jobs, % workforce.....	69	20.4
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	60	4.3
10.02 Internet access in schools*.....	71	4.2
10.03 ICT use & gov't efficiency*.....	55	4.2
10.04 E-Participation Index, 0-1 (best).....	59	0.53

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Mexico

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>76</b>	<b>4.0</b>
Networked Readiness Index 2015 (out of 143).....	69	4.0
Networked Readiness Index 2014 (out of 148).....	79	3.9
Networked Readiness Index 2013 (out of 144).....	63	3.9
<b>A. Environment subindex</b> .....	<b>79</b>	<b>3.9</b>
1st pillar: Political and regulatory environment.....	77	3.7
2nd pillar: Business and innovation environment.....	83	4.1
<b>B. Readiness subindex</b> .....	<b>84</b>	<b>4.6</b>
3rd pillar: Infrastructure.....	84	3.7
4th pillar: Affordability.....	54	5.7
5th pillar: Skills.....	92	4.5
<b>C. Usage subindex</b> .....	<b>74</b>	<b>3.8</b>
6th pillar: Individual usage.....	84	3.6
7th pillar: Business usage.....	66	3.6
8th pillar: Government usage.....	52	4.2
<b>D. Impact subindex</b> .....	<b>70</b>	<b>3.7</b>
9th pillar: Economic impacts.....	64	3.3
10th pillar: Social impacts.....	71	4.1



## The Networked Readiness Index in detail

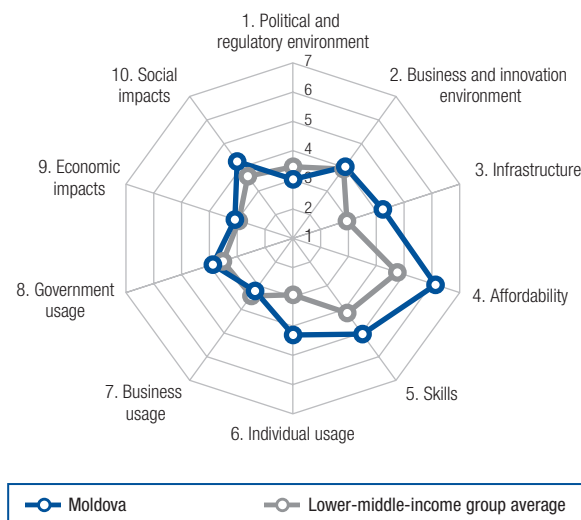
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	101	3.2
1.02 Laws relating to ICTs*	65	3.9
1.03 Judicial independence*	100	3.2
1.04 Efficiency of legal system in settling disputes*	104	3.1
1.05 Efficiency of legal system in challenging regs*	102	3.0
1.06 Intellectual property protection*	76	3.8
1.07 Software piracy rate, % software installed	46	5.4
1.08 No. procedures to enforce a contract	68	3.7
1.09 No. days to enforce a contract	21	3.89
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	58	5.0
2.02 Venture capital availability*	65	2.8
2.03 Total tax rate, % profits	115	51.7
2.04 No. days to start a business	40	6
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	59	5.2
2.07 Tertiary education gross enrollment rate, %	81	29.2
2.08 Quality of management schools*	68	4.2
2.09 Gov't procurement of advanced tech*	88	3.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	75	2400.8
3.02 Mobile network coverage, % pop.	37	99.9
3.03 Int'l Internet bandwidth, kb/s per user	88	20.9
3.04 Secure Internet servers/million pop.	74	34.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	30	0.12
4.02 Fixed broadband Internet tariffs, PPP \$/month	94	43.50
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	117	2.8
5.02 Quality of math & science education*	126	2.8
5.03 Secondary education gross enrollment rate, %	81	87.0
5.04 Adult literacy rate, %	58	94.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	111	82.2
6.02 Individuals using Internet, %	78	44.4
6.03 Households w/ personal computer, %	78	38.3
6.04 Households w/ Internet access, %	78	34.4
6.05 Fixed broadband Internet subs/100 pop.	66	10.5
6.06 Mobile broadband subs/100 pop.	72	41.1
6.07 Use of virtual social networks*	91	5.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	68	4.6
7.02 Capacity for innovation*	66	4.0
7.03 PCT patents, applications/million pop.	58	2.0
7.04 ICT use for business-to-business transactions*	61	4.8
7.05 Business-to-consumer Internet use*	73	4.3
7.06 Extent of staff training*	79	3.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	71	3.9
8.02 Government Online Service Index, 0–1 (best)	35	0.66
8.03 Gov't success in ICT promotion*	82	3.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	54	4.7
9.02 ICT PCT patents, applications/million pop.	67	0.3
9.03 Impact of ICTs on organizational models*	55	4.4
9.04 Knowledge-intensive jobs, % workforce	74	19.5
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	81	4.0
10.02 Internet access in schools*	90	3.9
10.03 ICT use & gov't efficiency*	76	3.9
10.04 E-Participation Index, 0–1 (best)	45	0.61

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Moldova

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>71</b>	<b>4.0</b>
Networked Readiness Index 2015 (out of 143).....	68	4.0
Networked Readiness Index 2014 (out of 148).....	77	3.9
Networked Readiness Index 2013 (out of 144).....	77	3.8
<b>A. Environment subindex.....</b>	<b>111</b>	<b>3.5</b>
1st pillar: Political and regulatory environment.....	125	3.0
2nd pillar: Business and innovation environment.....	89	4.0
<b>B. Readiness subindex.....</b>	<b>52</b>	<b>5.1</b>
3rd pillar: Infrastructure.....	69	4.2
4th pillar: Affordability.....	29	6.1
5th pillar: Skills.....	70	5.0
<b>C. Usage subindex.....</b>	<b>76</b>	<b>3.8</b>
6th pillar: Individual usage.....	63	4.3
7th pillar: Business usage.....	112	3.2
8th pillar: Government usage.....	66	3.9
<b>D. Impact subindex.....</b>	<b>71</b>	<b>3.7</b>
9th pillar: Economic impacts.....	81	3.1
10th pillar: Social impacts.....	60	4.2



## The Networked Readiness Index in detail

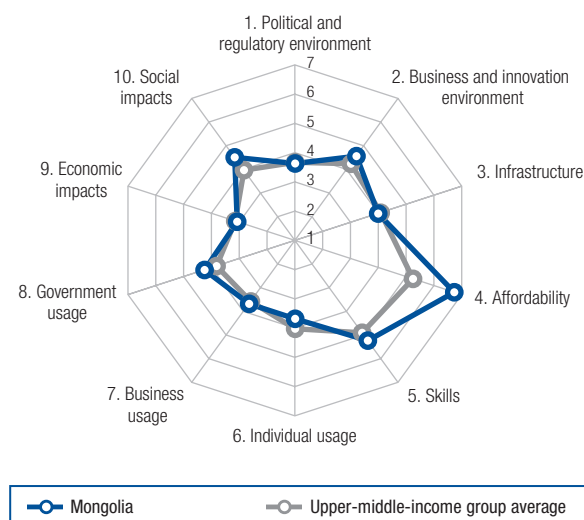
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	113	2.9
1.02 Laws relating to ICTs*	70	3.9
1.03 Judicial independence*	133	2.1
1.04 Efficiency of legal system in settling disputes*	133	2.5
1.05 Efficiency of legal system in challenging regs*	135	2.3
1.06 Intellectual property protection*	116	3.1
1.07 Software piracy rate, % software installed	102	90
1.08 No. procedures to enforce a contract	22	31
1.09 No. days to enforce a contract	82	585
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	92	4.4
2.02 Venture capital availability*	123	2.1
2.03 Total tax rate, % profits	80	40.2
2.04 No. days to start a business	15	4
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	103	4.6
2.07 Tertiary education gross enrollment rate, %	63	41.3
2.08 Quality of management schools*	118	3.3
2.09 Gov't procurement of advanced tech*	133	2.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	94	1262.0
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	17	152.4
3.04 Secure Internet servers/million pop.	65	48.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	61	0.23
4.02 Fixed broadband Internet tariffs, PPP \$/month	38	25.37
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	97	3.2
5.02 Quality of math & science education*	80	3.9
5.03 Secondary education gross enrollment rate, %	79	88.3
5.04 Adult literacy rate, %	15	99.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	80	108.0
6.02 Individuals using Internet, %	74	46.6
6.03 Households w/ personal computer, %	63	52.4
6.04 Households w/ Internet access, %	68	47.5
6.05 Fixed broadband Internet subs/100 pop.	54	14.7
6.06 Mobile broadband subs/100 pop.	61	49.4
6.07 Use of virtual social networks*	80	5.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	109	4.1
7.02 Capacity for innovation*	115	3.4
7.03 PCT patents, applications/million pop.	76	0.7
7.04 ICT use for business-to-business transactions*	101	4.2
7.05 Business-to-consumer Internet use*	82	4.1
7.06 Extent of staff training*	120	3.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	88	3.6
8.02 Government Online Service Index, 0–1 (best)	60	0.53
8.03 Gov't success in ICT promotion*	79	3.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	112	3.8
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	104	3.6
9.04 Knowledge-intensive jobs, % workforce	47	28.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	85	3.9
10.02 Internet access in schools*	59	4.5
10.03 ICT use & gov't efficiency*	82	3.8
10.04 E-Participation Index, 0–1 (best)	40	0.63

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Mongolia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>57</b>	<b>4.3</b>
Networked Readiness Index 2015 (out of 143).....	61	4.2
Networked Readiness Index 2014 (out of 148).....	61	4.1
Networked Readiness Index 2013 (out of 144).....	59	4.0
<b>A. Environment subindex</b> .....	<b>58</b>	<b>4.1</b>
1st pillar: Political and regulatory environment.....	81	3.6
2nd pillar: Business and innovation environment.....	52	4.6
<b>B. Readiness subindex</b> .....	<b>44</b>	<b>5.3</b>
3rd pillar: Infrastructure.....	79	4.0
4th pillar: Affordability.....	4	6.7
5th pillar: Skills.....	62	5.2
<b>C. Usage subindex</b> .....	<b>71</b>	<b>3.9</b>
6th pillar: Individual usage.....	82	3.7
7th pillar: Business usage.....	61	3.7
8th pillar: Government usage.....	51	4.2
<b>D. Impact subindex</b> .....	<b>60</b>	<b>3.8</b>
9th pillar: Economic impacts.....	82	3.1
10th pillar: Social impacts.....	49	4.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	97	3.3
1.02 Laws relating to ICTs*	90	3.6
1.03 Judicial independence*	102	3.1
1.04 Efficiency of legal system in settling disputes*	86	3.4
1.05 Efficiency of legal system in challenging regs*	98	3.0
1.06 Intellectual property protection*	109	3.2
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	27	3.2
1.09 No. days to enforce a contract.....	18	3.74
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	88	4.4
2.02 Venture capital availability*.....	136	1.8
2.03 Total tax rate, % profits.....	22	24.4
2.04 No. days to start a business.....	34	6
2.05 No. procedures to start a business.....	41	5
2.06 Intensity of local competition*.....	78	5.0
2.07 Tertiary education gross enrollment rate, %.....	34	64.3
2.08 Quality of management schools*.....	132	3.0
2.09 Gov't procurement of advanced tech*.....	79	3.2
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	83	1755.8
3.02 Mobile network coverage, % pop.....	115	91.3
3.03 Int'l Internet bandwidth, kb/s per user.....	34	90.0
3.04 Secure Internet servers/million pop.....	76	28.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	31	0.12
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	19	20.69
4.03 Internet & telephony competition, 0–2 (best).....	n/a	n/a
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	111	3.0
5.02 Quality of math & science education*.....	34	4.7
5.03 Secondary education gross enrollment rate, %.....	71	90.7
5.04 Adult literacy rate, %.....	27	98.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	90	105.1
6.02 Individuals using Internet, %.....	99	27.0
6.03 Households w/ personal computer, %.....	81	35.8
6.04 Households w/ Internet access, %.....	83	29.0
6.05 Fixed broadband Internet subs/100 pop.....	77	6.8
6.06 Mobile broadband subs/100 pop.....	49	57.6
6.07 Use of virtual social networks*.....	56	5.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	64	4.7
7.02 Capacity for innovation*.....	64	4.0
7.03 PCT patents, applications/million pop.....	73	0.7
7.04 ICT use for business-to-business transactions*.....	43	5.1
7.05 Business-to-consumer Internet use*.....	69	4.5
7.06 Extent of staff training*.....	80	3.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	74	3.9
8.02 Government Online Service Index, 0–1 (best).....	43	0.61
8.03 Gov't success in ICT promotion*.....	56	4.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	85	4.2
9.02 ICT PCT patents, applications/million pop.....	57	0.5
9.03 Impact of ICTs on organizational models*.....	105	3.5
9.04 Knowledge-intensive jobs, % workforce.....	55	25.0
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	65	4.3
10.02 Internet access in schools*.....	51	4.7
10.03 ICT use & gov't efficiency*.....	72	4.0
10.04 E-Participation Index, 0–1 (best).....	30	0.69

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

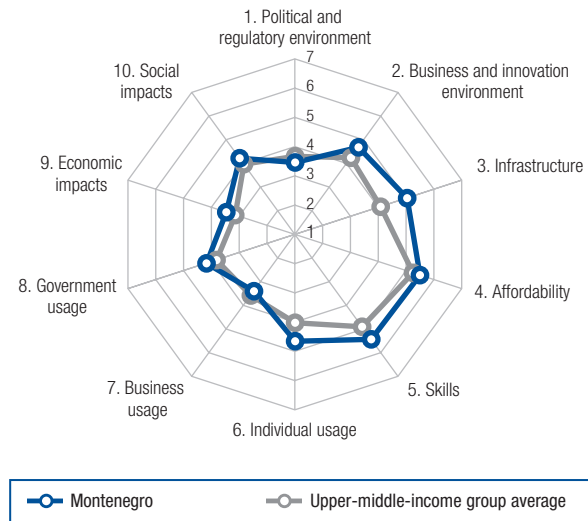
# Montenegro

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 51 .. 4.3

Networked Readiness Index (out of 143)..... 56 ..... 4.3  
 Networked Readiness Index 2014 (out of 148)..... 52 ..... 4.3  
 Networked Readiness Index 2013 (out of 144)..... 48 ..... 4.2

- A. Environment subindex..... 60 ..... 4.1**
  - 1st pillar: Political and regulatory environment..... 94 ..... 3.5
  - 2nd pillar: Business and innovation environment..... 46 ..... 4.7
- B. Readiness subindex ..... 45 ..... 5.3**
  - 3rd pillar: Infrastructure ..... 41 ..... 5.0
  - 4th pillar: Affordability ..... 67 ..... 5.5
  - 5th pillar: Skills ..... 50 ..... 5.4
- C. Usage subindex..... 56 ..... 4.1**
  - 6th pillar: Individual usage..... 61 ..... 4.6
  - 7th pillar: Business usage ..... 99 ..... 3.4
  - 8th pillar: Government usage ..... 53 ..... 4.2
- D. Impact subindex..... 57 ..... 3.8**
  - 9th pillar: Economic impacts..... 52 ..... 3.5
  - 10th pillar: Social impacts..... 63 ..... 4.2



## The Networked Readiness Index in detail

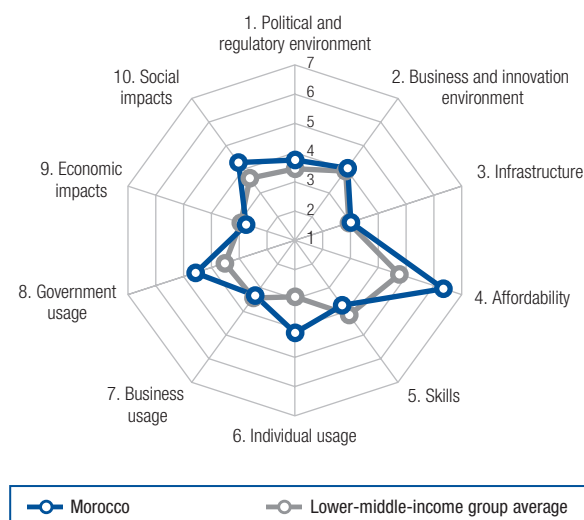
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	59	3.9
1.02 Laws relating to ICTs*	55	4.1
1.03 Judicial independence*	88	3.4
1.04 Efficiency of legal system in settling disputes*	75	3.5
1.05 Efficiency of legal system in challenging regs*	84	3.3
1.06 Intellectual property protection*	85	3.7
1.07 Software piracy rate, % software installed.....	80	78
1.08 No. procedures to enforce a contract .....	134	49
1.09 No. days to enforce a contract .....	70	545
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies* .....	74	4.6
2.02 Venture capital availability* .....	64	2.8
2.03 Total tax rate, % profits .....	17	21.6
2.04 No. days to start a business .....	57	10
2.05 No. procedures to start a business .....	54	6
2.06 Intensity of local competition* .....	130	4.2
2.07 Tertiary education gross enrollment rate, %.....	48	55.3
2.08 Quality of management schools*.....	54	4.4
2.09 Gov't procurement of advanced tech* .....	77	3.2
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita .....	32	6350.5
3.02 Mobile network coverage, % pop. ....	59	99.5
3.03 Int'l Internet bandwidth, kb/s per user.....	37	77.0
3.04 Secure Internet servers/million pop. ....	61	56.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	70	0.26
4.02 Fixed broadband Internet tariffs, PPP \$/month ..	79	36.60
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	58	3.9
5.02 Quality of math & science education*.....	39	4.6
5.03 Secondary education gross enrollment rate, % ..	72	90.3
5.04 Adult literacy rate, %.....	22	98.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	9	163.0
6.02 Individuals using Internet, %.....	54	61.0
6.03 Households w/ personal computer, % .....	60	54.7
6.04 Households w/ Internet access, % .....	56	56.6
6.05 Fixed broadband Internet subs/100 pop.....	51	16.7
6.06 Mobile broadband subs/100 pop.....	83	31.0
6.07 Use of virtual social networks* .....	51	5.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption* .....	88	4.4
7.02 Capacity for innovation* .....	100	3.6
7.03 PCT patents, applications/million pop. ....	53	3.2
7.04 ICT use for business-to-business transactions* ..	90	4.4
7.05 Business-to-consumer Internet use* .....	84	4.1
7.06 Extent of staff training* .....	98	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	51	4.3
8.02 Government Online Service Index, 0-1 (best)....	60	0.53
8.03 Gov't success in ICT promotion*.....	58	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models* .....	80	4.3
9.02 ICT PCT patents, applications/million pop. ....	53	0.8
9.03 Impact of ICTs on organizational models* .....	96	3.7
9.04 Knowledge-intensive jobs, % workforce.....	29	37.2
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services* .....	94	3.9
10.02 Internet access in schools* .....	69	4.3
10.03 ICT use & gov't efficiency* .....	54	4.2
10.04 E-Participation Index, 0-1 (best).....	49	0.59

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Morocco

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>78</b>	<b>3.9</b>
Networked Readiness Index 2015 (out of 143).....	78	3.9
Networked Readiness Index 2014 (out of 148).....	99	3.6
Networked Readiness Index 2013 (out of 144).....	89	3.6
<b>A. Environment subindex</b> .....	<b>77</b>	<b>3.9</b>
1st pillar: Political and regulatory environment.....	70	3.8
2nd pillar: Business and innovation environment.....	87	4.1
<b>B. Readiness subindex</b> .....	<b>94</b>	<b>4.3</b>
3rd pillar: Infrastructure.....	102	3.0
4th pillar: Affordability.....	20	6.3
5th pillar: Skills.....	110	3.7
<b>C. Usage subindex</b> .....	<b>60</b>	<b>4.0</b>
6th pillar: Individual usage.....	67	4.2
7th pillar: Business usage.....	105	3.3
8th pillar: Government usage.....	41	4.6
<b>D. Impact subindex</b> .....	<b>80</b>	<b>3.5</b>
9th pillar: Economic impacts.....	110	2.8
10th pillar: Social impacts.....	59	4.3



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	52	4.0
1.02 Laws relating to ICTs*	78	3.7
1.03 Judicial independence*	83	3.5
1.04 Efficiency of legal system in settling disputes*	72	3.6
1.05 Efficiency of legal system in challenging regs*	64	3.5
1.06 Intellectual property protection*	61	4.0
1.07 Software piracy rate, % software installed	64	66
1.08 No. procedures to enforce a contract	94	40
1.09 No. days to enforce a contract	58	510
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	51	5.1
2.02 Venture capital availability*	68	2.7
2.03 Total tax rate, % profits	107	49.1
2.04 No. days to start a business	57	10
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	73	5.0
2.07 Tertiary education gross enrollment rate, %	88	24.6
2.08 Quality of management schools*	72	4.1
2.09 Gov't procurement of advanced tech*	96	3.0
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	101	834.9
3.02 Mobile network coverage, % pop.	64	99.2
3.03 Int'l Internet bandwidth, kb/s per user	101	10.8
3.04 Secure Internet servers/million pop.	106	4.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	37	0.14
4.02 Fixed broadband Internet tariffs, PPP \$/month	45	27.65
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	121	2.8
5.02 Quality of math & science education*	74	4.0
5.03 Secondary education gross enrollment rate, %	102	69.1
5.04 Adult literacy rate, %	94	72.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	42	131.7
6.02 Individuals using Internet, %	60	56.8
6.03 Households w/ personal computer, %	61	52.5
6.04 Households w/ Internet access, %	63	50.4
6.05 Fixed broadband Internet subs/100 pop.	94	3.0
6.06 Mobile broadband subs/100 pop.	93	26.8
6.07 Use of virtual social networks*	77	5.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	73	4.5
7.02 Capacity for innovation*	108	3.5
7.03 PCT patents, applications/million pop.	65	1.5
7.04 ICT use for business-to-business transactions* <sup>104</sup>	104	4.2
7.05 Business-to-consumer Internet use*	86	4.1
7.06 Extent of staff training*	119	3.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	50	4.3
8.02 Government Online Service Index, 0–1 (best)	30	0.69
8.03 Gov't success in ICT promotion*	49	4.3
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	63	4.5
9.02 ICT PCT patents, applications/million pop.	63	0.4
9.03 Impact of ICTs on organizational models*	86	3.8
9.04 Knowledge-intensive jobs, % workforce	100	6.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	95	3.8
10.02 Internet access in schools*	110	3.5
10.03 ICT use & gov't efficiency*	65	4.0
10.04 E-Participation Index, 0–1 (best)	17	0.80

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Mozambique

Rank Value  
(out of 139) (1–7)

## Networked Readiness Index..... 123.. 3.0

Networked Readiness Index (out of 143)..... 129..... 2.9  
Networked Readiness Index 2014 (out of 148)..... 137..... 2.8  
Networked Readiness Index 2013 (out of 144)..... 133..... 2.8

### A. Environment subindex..... 120..... 3.3

1st pillar: Political and regulatory environment..... 112..... 3.2  
2nd pillar: Business and innovation environment..... 121..... 3.5

### B. Readiness subindex ..... 125..... 2.9

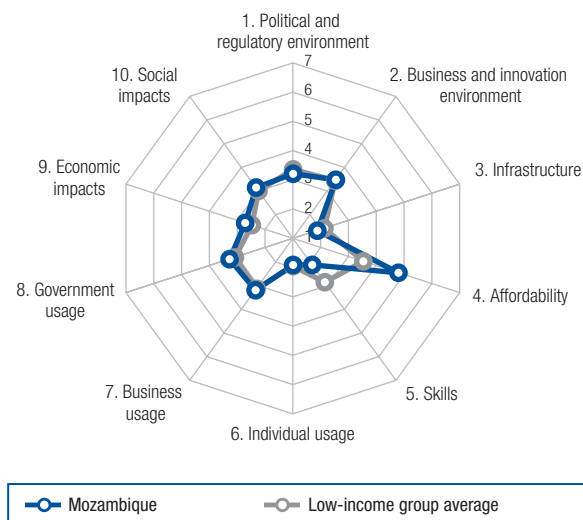
3rd pillar: Infrastructure ..... 131..... 1.9  
4th pillar: Affordability ..... 90..... 4.8  
5th pillar: Skills..... 136..... 2.1

### C. Usage subindex..... 124..... 2.8

6th pillar: Individual usage..... 128..... 1.9  
7th pillar: Business usage..... 114..... 3.2  
8th pillar: Government usage..... 109..... 3.3

### D. Impact subindex..... 116..... 2.9

9th pillar: Economic impacts..... 112..... 2.7  
10th pillar: Social impacts..... 117..... 3.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	100	3.2
1.02 Laws relating to ICTs*	119	3.0
1.03 Judicial independence*	121	2.6
1.04 Efficiency of legal system in settling disputes*	94	3.3
1.05 Efficiency of legal system in challenging regs*	111	2.9
1.06 Intellectual property protection*	125	3.0
1.07 Software piracy rate, % software installed	n/a	n/a
1.08 No. procedures to enforce a contract	18	3.0
1.09 No. days to enforce a contract	122	9.50
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	118	3.9
2.02 Venture capital availability*	116	2.2
2.03 Total tax rate, % profits	65	36.1
2.04 No. days to start a business	97	19
2.05 No. procedures to start a business	114	10
2.06 Intensity of local competition*	108	4.6
2.07 Tertiary education gross enrollment rate, %	126	6.0
2.08 Quality of management schools*	135	2.8
2.09 Gov't procurement of advanced tech*	73	3.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	110	562.8
3.02 Mobile network coverage, % pop.	130	72.0
3.03 Int'l Internet bandwidth, kb/s per user	104	9.2
3.04 Secure Internet servers/million pop.	124	1.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	67	0.25
4.02 Fixed broadband Internet tariffs, PPP \$/month	86	39.98
4.03 Internet & telephony competition, 0–2 (best)	116	1.17
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	118	2.8
5.02 Quality of math & science education*	132	2.5
5.03 Secondary education gross enrollment rate, %	137	24.5
5.04 Adult literacy rate, %	105	58.8

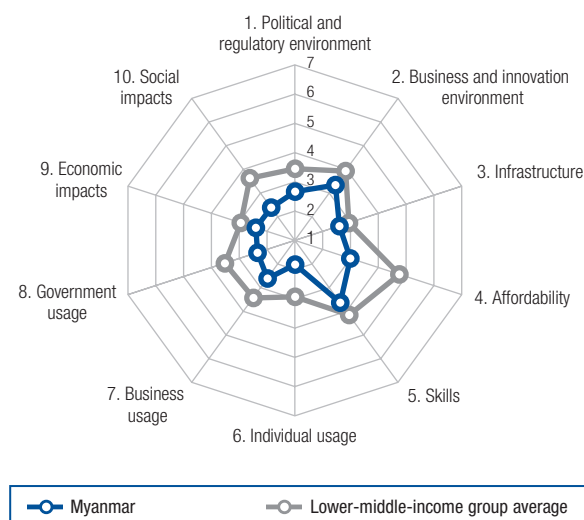
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	127	69.8
6.02 Individuals using Internet, %	129	5.9
6.03 Households w/ personal computer, %	122	7.3
6.04 Households w/ Internet access, %	123	6.2
6.05 Fixed broadband Internet subs/100 pop.	129	0.1
6.06 Mobile broadband subs/100 pop.	129	3.0
6.07 Use of virtual social networks*	113	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	99	4.2
7.02 Capacity for innovation*	110	3.5
7.03 PCT patents, applications/million pop.	121	0.0
7.04 ICT use for business-to-business transactions*	110	4.1
7.05 Business-to-consumer Internet use*	111	3.7
7.06 Extent of staff training*	124	3.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	93	3.6
8.02 Government Online Service Index, 0–1 (best)	95	0.31
8.03 Gov't success in ICT promotion*	114	3.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	104	3.9
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	125	3.2
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	131	3.0
10.02 Internet access in schools*	122	3.1
10.03 ICT use & gov't efficiency*	102	3.5
10.04 E-Participation Index, 0–1 (best)	89	0.33

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Myanmar

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>133</b> .....	<b>2.7</b>
Networked Readiness Index 2015 (out of 143).....	139.....	2.5
Networked Readiness Index 2014 (out of 148).....	146.....	2.3
Networked Readiness Index 2013 (out of 144).....	n/a.....	n/a
<b>A. Environment subindex</b> .....	<b>133</b> .....	<b>3.0</b>
1st pillar: Political and regulatory environment.....	134.....	2.7
2nd pillar: Business and innovation environment.....	127.....	3.3
<b>B. Readiness subindex</b> .....	<b>118</b> .....	<b>3.1</b>
3rd pillar: Infrastructure.....	115.....	2.6
4th pillar: Affordability.....	122.....	3.0
5th pillar: Skills.....	113.....	3.6
<b>C. Usage subindex</b> .....	<b>137</b> .....	<b>2.3</b>
6th pillar: Individual usage.....	131.....	1.8
7th pillar: Business usage.....	138.....	2.6
8th pillar: Government usage.....	137.....	2.3
<b>D. Impact subindex</b> .....	<b>135</b> .....	<b>2.4</b>
9th pillar: Economic impacts.....	129.....	2.4
10th pillar: Social impacts.....	135.....	2.4



## The Networked Readiness Index in detail

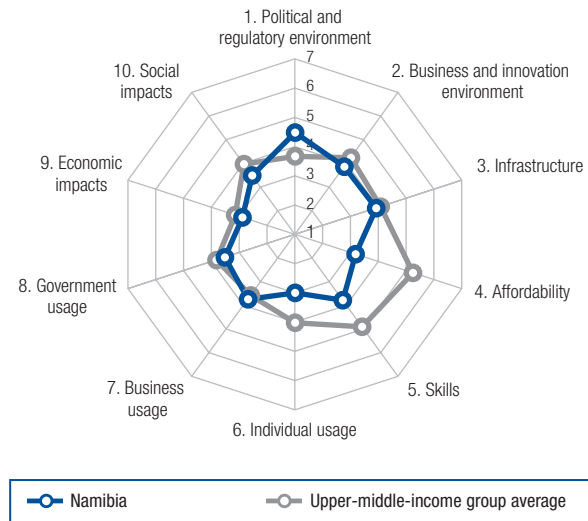
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	109.....	3.0
1.02 Laws relating to ICTs*.....	133.....	2.5
1.03 Judicial independence*.....	120.....	2.6
1.04 Efficiency of legal system in settling disputes*.....	125.....	2.7
1.05 Efficiency of legal system in challenging regs*.....	126.....	2.6
1.06 Intellectual property protection*.....	133.....	2.8
1.07 Software piracy rate, % software installed.....	n/a.....	n/a
1.08 No. procedures to enforce a contract.....	125.....	4.5
1.09 No. days to enforce a contract.....	130.....	116.0
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	139.....	2.7
2.02 Venture capital availability*.....	138.....	1.8
2.03 Total tax rate, % profits.....	43.....	31.4
2.04 No. days to start a business.....	76.....	13
2.05 No. procedures to start a business.....	120.....	11
2.06 Intensity of local competition*.....	118.....	4.4
2.07 Tertiary education gross enrollment rate, %.....	106.....	13.5
2.08 Quality of management schools*.....	136.....	2.8
2.09 Gov't procurement of advanced tech*.....	117.....	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	121.....	224.4
3.02 Mobile network coverage, % pop.....	129.....	73.0
3.03 Int'l Internet bandwidth, kb/s per user.....	77.....	28.7
3.04 Secure Internet servers/million pop.....	136.....	0.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	24.....	0.11
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	127.....	136.43
4.03 Internet & telephony competition, 0–2 (best).....	135.....	0.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	127.....	2.5
5.02 Quality of math & science education*.....	127.....	2.8
5.03 Secondary education gross enrollment rate, %.....	119.....	51.3
5.04 Adult literacy rate, %.....	64.....	93.1

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	133.....	54.0
6.02 Individuals using Internet, %.....	137.....	2.1
6.03 Households w/ personal computer, %.....	133.....	3.4
6.04 Households w/ Internet access, %.....	134.....	3.0
6.05 Fixed broadband Internet subs/100 pop.....	118.....	0.3
6.06 Mobile broadband subs/100 pop.....	103.....	14.9
6.07 Use of virtual social networks*.....	111.....	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	139.....	2.9
7.02 Capacity for innovation*.....	136.....	2.9
7.03 PCT patents, applications/million pop.....	119.....	0.0
7.04 ICT use for business-to-business transactions*.....	137.....	3.3
7.05 Business-to-consumer Internet use*.....	127.....	3.3
7.06 Extent of staff training*.....	135.....	2.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	131.....	2.9
8.02 Government Online Service Index, 0–1 (best).....	135.....	0.02
8.03 Gov't success in ICT promotion*.....	131.....	3.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	133.....	3.2
9.02 ICT PCT patents, applications/million pop.....	102.....	0.0
9.03 Impact of ICTs on organizational models*.....	130.....	3.0
9.04 Knowledge-intensive jobs, % workforce.....	n/a.....	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	132.....	3.0
10.02 Internet access in schools*.....	135.....	2.3
10.03 ICT use & gov't efficiency*.....	133.....	2.8
10.04 E-Participation Index, 0–1 (best).....	132.....	0.08

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Namibia

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>99</b>	<b>3.6</b>
Networked Readiness Index (out of 143).....	102	3.5
Networked Readiness Index 2014 (out of 148).....	105	3.4
Networked Readiness Index 2013 (out of 144).....	111	3.3
<b>A. Environment subindex.....</b>	<b>53</b>	<b>4.2</b>
1st pillar: Political and regulatory environment.....	31	4.5
2nd pillar: Business and innovation environment.....	103	3.9
<b>B. Readiness subindex.....</b>	<b>110</b>	<b>3.6</b>
3rd pillar: Infrastructure.....	81	3.9
4th pillar: Affordability.....	119	3.2
5th pillar: Skills.....	109	3.8
<b>C. Usage subindex.....</b>	<b>94</b>	<b>3.4</b>
6th pillar: Individual usage.....	98	3.0
7th pillar: Business usage.....	57	3.7
8th pillar: Government usage.....	92	3.5
<b>D. Impact subindex.....</b>	<b>101</b>	<b>3.2</b>
9th pillar: Economic impacts.....	98	2.9
10th pillar: Social impacts.....	100	3.5



## The Networked Readiness Index in detail

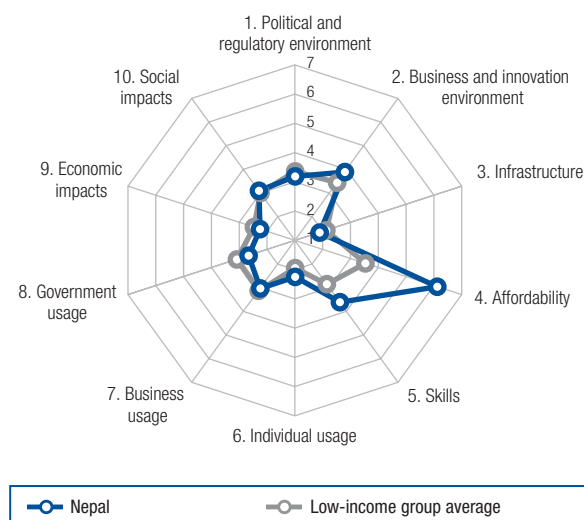
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	34	4.3
1.02 Laws relating to ICTs*	86	3.6
1.03 Judicial independence*	39	4.8
1.04 Efficiency of legal system in settling disputes*	31	4.5
1.05 Efficiency of legal system in challenging regs*	29	4.4
1.06 Intellectual property protection*	36	4.6
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	34	3.3
1.09 No. days to enforce a contract.....	45	4.6
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	48	5.1
2.02 Venture capital availability*	82	2.6
2.03 Total tax rate, % profits.....	16	21.3
2.04 No. days to start a business.....	132	6.6
2.05 No. procedures to start a business.....	114	1.0
2.06 Intensity of local competition*.....	100	4.6
2.07 Tertiary education gross enrollment rate, %.....	117	9.3
2.08 Quality of management schools*.....	114	3.5
2.09 Gov't procurement of advanced tech*.....	64	3.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	109	567.2
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	68	34.5
3.04 Secure Internet servers/million pop.....	82	22.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	69	0.25
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	121	84.64
4.03 Internet & telephony competition, 0-2 (best).....	104	1.38
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	96	3.2
5.02 Quality of math & science education*.....	121	2.9
5.03 Secondary education gross enrollment rate, %.....	109	64.8
5.04 Adult literacy rate, %.....	81	81.9

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	70	113.8
6.02 Individuals using Internet, %.....	116	14.8
6.03 Households w/ personal computer, %.....	104	16.5
6.04 Households w/ Internet access, %.....	100	17.3
6.05 Fixed broadband Internet subs/100 pop.....	100	1.8
6.06 Mobile broadband subs/100 pop.....	78	34.2
6.07 Use of virtual social networks*.....	82	5.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	52	4.9
7.02 Capacity for innovation*.....	71	3.9
7.03 PCT patents, applications/million pop.....	91	0.2
7.04 ICT use for business-to-business transactions*.....	49	5.0
7.05 Business-to-consumer Internet use*.....	87	4.1
7.06 Extent of staff training*.....	40	4.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	69	3.9
8.02 Government Online Service Index, 0-1 (best).....	93	0.32
8.03 Gov't success in ICT promotion*.....	93	3.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	84	4.2
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	81	3.9
9.04 Knowledge-intensive jobs, % workforce.....	89	14.6
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	92	3.9
10.02 Internet access in schools*.....	102	3.5
10.03 ICT use & gov't efficiency*.....	97	3.5
10.04 E-Participation Index, 0-1 (best).....	89	0.33

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Nepal

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>118..</b>	<b>3.2</b>
Networked Readiness Index 2015 (out of 143).....	118.....	3.2
Networked Readiness Index 2014 (out of 148).....	123.....	3.1
Networked Readiness Index 2013 (out of 144).....	126.....	2.9
<b>A. Environment subindex.....</b>	<b>110.....</b>	<b>3.5</b>
1st pillar: Political and regulatory environment.....	114.....	3.2
2nd pillar: Business and innovation environment.....	99.....	3.9
<b>B. Readiness subindex.....</b>	<b>106.....</b>	<b>3.9</b>
3rd pillar: Infrastructure.....	130.....	1.9
4th pillar: Affordability.....	30.....	6.1
5th pillar: Skills.....	115.....	3.6
<b>C. Usage subindex.....</b>	<b>129.....</b>	<b>2.6</b>
6th pillar: Individual usage.....	117.....	2.2
7th pillar: Business usage.....	128.....	3.0
8th pillar: Government usage.....	129.....	2.7
<b>D. Impact subindex.....</b>	<b>128.....</b>	<b>2.7</b>
9th pillar: Economic impacts.....	136.....	2.3
10th pillar: Social impacts.....	120.....	3.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	111	3.0
1.02 Laws relating to ICTs*	127	2.6
1.03 Judicial independence*	77	3.7
1.04 Efficiency of legal system in settling disputes*	106	3.1
1.05 Efficiency of legal system in challenging regs*	95	3.1
1.06 Intellectual property protection*	115	3.1
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	89	3.9
1.09 No. days to enforce a contract.....	119	9.10
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	125	3.7
2.02 Venture capital availability*	88	2.6
2.03 Total tax rate, % profits.....	35	29.5
2.04 No. days to start a business.....	92	17
2.05 No. procedures to start a business.....	74	7
2.06 Intensity of local competition*.....	82	4.9
2.07 Tertiary education gross enrollment rate, %.....	102	15.8
2.08 Quality of management schools*.....	107	3.6
2.09 Gov't procurement of advanced tech*.....	107	2.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	125	131.0
3.02 Mobile network coverage, % pop.....	126	80.0
3.03 Int'l Internet bandwidth, kb/s per user.....	128	3.1
3.04 Secure Internet servers/million pop.....	114	3.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	15	0.08
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	29	22.80
4.03 Internet & telephony competition, 0–2 (best).....	109	1.29
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	69	3.7
5.02 Quality of math & science education*.....	88	3.7
5.03 Secondary education gross enrollment rate, %.....	108	67.2
5.04 Adult literacy rate, %.....	99	64.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	113	81.9
6.02 Individuals using Internet, %.....	115	15.4
6.03 Households w/ personal computer, %.....	119	8.2
6.04 Households w/ Internet access, %.....	127	5.6
6.05 Fixed broadband Internet subs/100 pop.....	109	0.9
6.06 Mobile broadband subs/100 pop.....	101	17.4
6.07 Use of virtual social networks*.....	106	4.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	123	3.9
7.02 Capacity for innovation*.....	125	3.3
7.03 PCT patents, applications/million pop.....	117	0.0
7.04 ICT use for business-to-business transactions*.....	125	3.8
7.05 Business-to-consumer Internet use*.....	115	3.6
7.06 Extent of staff training*.....	125	3.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	126	3.0
8.02 Government Online Service Index, 0–1 (best).....	118	0.16
8.03 Gov't success in ICT promotion*.....	130	3.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	132	3.4
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	121	3.3
9.04 Knowledge-intensive jobs, % workforce.....	103	4.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	116	3.4
10.02 Internet access in schools*.....	109	3.5
10.03 ICT use & gov't efficiency*.....	135	2.7
10.04 E-Participation Index, 0–1 (best).....	101	0.29

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

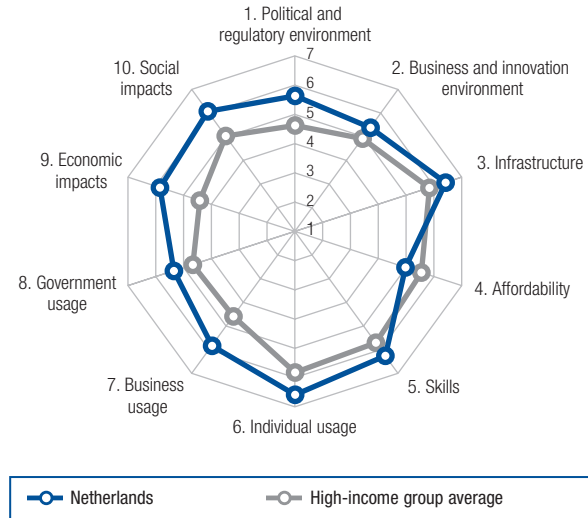
# Netherlands

Rank (out of 139)    Value (1-7)

## Networked Readiness Index..... 6..5.8

Networked Readiness Index (out of 143)..... 4 ..... 5.8  
 Networked Readiness Index 2014 (out of 148)..... 4 ..... 5.8  
 Networked Readiness Index 2013 (out of 144)..... 4 ..... 5.8

<b>A. Environment subindex</b> .....	<b>8</b> .....	<b>5.5</b>
1st pillar: Political and regulatory environment.....	8	5.6
2nd pillar: Business and innovation environment.....	10	5.4
<b>B. Readiness subindex</b> .....	<b>23</b> .....	<b>5.9</b>
3rd pillar: Infrastructure.....	18	6.4
4th pillar: Affordability.....	83	5.0
5th pillar: Skills.....	6	6.2
<b>C. Usage subindex</b> .....	<b>3</b> .....	<b>5.9</b>
6th pillar: Individual usage.....	8	6.6
7th pillar: Business usage.....	7	5.8
8th pillar: Government usage.....	14	5.4
<b>D. Impact subindex</b> .....	<b>2</b> .....	<b>6.0</b>
9th pillar: Economic impacts.....	6	5.8
10th pillar: Social impacts.....	3	6.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	14	5.3
1.02 Laws relating to ICTs*	12	5.2
1.03 Judicial independence*	7	6.3
1.04 Efficiency of legal system in settling disputes*	10	5.5
1.05 Efficiency of legal system in challenging regs*	6	5.5
1.06 Intellectual property protection*	8	6.0
1.07 Software piracy rate, % software installed.....	14	25
1.08 No. procedures to enforce a contract.....	5	26
1.09 No. days to enforce a contract.....	62	514
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	10	6.3
2.02 Venture capital availability*	24	3.5
2.03 Total tax rate, % profits.....	85	41.0
2.04 No. days to start a business.....	15	4
2.05 No. procedures to start a business.....	22	4
2.06 Intensity of local competition*.....	11	5.9
2.07 Tertiary education gross enrollment rate, %.....	18	78.5
2.08 Quality of management schools*.....	8	5.7
2.09 Gov't procurement of advanced tech*.....	21	3.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	34	6002.9
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	10	281.1
3.04 Secure Internet servers/million pop.....	4	2635.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	105	0.36
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	85	39.38
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	8	5.4
5.02 Quality of math & science education*.....	7	5.5
5.03 Secondary education gross enrollment rate, %.....	5	130.7
5.04 Adult literacy rate, %.....	n/a	n/a <sup>1</sup>

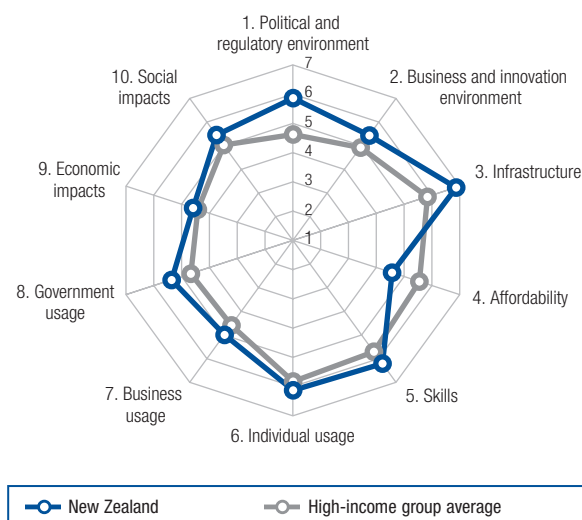
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	62	116.4
6.02 Individuals using Internet, %.....	5	93.2
6.03 Households w/ personal computer, %.....	2	97.6
6.04 Households w/ Internet access, %.....	5	95.8
6.05 Fixed broadband Internet subs/100 pop.....	3	40.8
6.06 Mobile broadband subs/100 pop.....	29	69.2
6.07 Use of virtual social networks*.....	4	6.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	20	5.6
7.02 Capacity for innovation*.....	16	5.2
7.03 PCT patents, applications/million pop.....	9	207.2
7.04 ICT use for business-to-business transactions*.....	6	6.0
7.05 Business-to-consumer Internet use*.....	3	6.0
7.06 Extent of staff training*.....	9	5.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	31	4.6
8.02 Government Online Service Index, 0-1 (best).....	8	0.93
8.03 Gov't success in ICT promotion*.....	19	4.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	4	5.8
9.02 ICT PCT patents, applications/million pop.....	8	59.1
9.03 Impact of ICTs on organizational models*.....	4	5.7
9.04 Knowledge-intensive jobs, % workforce.....	9	46.4
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	2	6.2
10.02 Internet access in schools*.....	5	6.1
10.03 ICT use & gov't efficiency*.....	20	5.0
10.04 E-Participation Index, 0-1 (best).....	1	1.00

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# New Zealand

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>17</b>	<b>5.5</b>
Networked Readiness Index 2015 (out of 143).....	17	5.5
Networked Readiness Index 2014 (out of 148).....	20	5.3
Networked Readiness Index 2013 (out of 144).....	20	5.2
<b>A. Environment subindex</b> .....	<b>2</b>	<b>5.6</b>
1st pillar: Political and regulatory environment.....	3	5.9
2nd pillar: Business and innovation environment.....	6	5.4
<b>B. Readiness subindex</b> .....	<b>24</b>	<b>5.9</b>
3rd pillar: Infrastructure.....	10	6.8
4th pillar: Affordability.....	97	4.6
5th pillar: Skills.....	7	6.2
<b>C. Usage subindex</b> .....	<b>17</b>	<b>5.5</b>
6th pillar: Individual usage.....	20	6.1
7th pillar: Business usage.....	20	5.0
8th pillar: Government usage.....	13	5.4
<b>D. Impact subindex</b> .....	<b>25</b>	<b>5.0</b>
9th pillar: Economic impacts.....	25	4.6
10th pillar: Social impacts.....	19	5.4



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	2	5.8
1.02 Laws relating to ICTs*	15	5.1
1.03 Judicial independence*	1	6.7
1.04 Efficiency of legal system in settling disputes*	5	5.7
1.05 Efficiency of legal system in challenging regs*	5	5.5
1.06 Intellectual property protection*	5	6.1
1.07 Software piracy rate, % software installed	3	20
1.08 No. procedures to enforce a contract	18	30
1.09 No. days to enforce a contract	2	216
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	25	5.9
2.02 Venture capital availability*	11	4.1
2.03 Total tax rate, % profits	56	34.3
2.04 No. days to start a business	1	1
2.05 No. procedures to start a business	1	1
2.06 Intensity of local competition*	16	5.7
2.07 Tertiary education gross enrollment rate, %	16	79.7
2.08 Quality of management schools*	23	5.2
2.09 Gov't procurement of advanced tech*	69	3.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	16	9737.7
3.02 Mobile network coverage, % pop.	97	97.0
3.03 Int'l Internet bandwidth, kb/s per user	30	95.1
3.04 Secure Internet servers/million pop.	17	1211.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	96	0.33
4.02 Fixed broadband Internet tariffs, PPP \$/month	95	44.27
4.03 Internet & telephony competition, 0–2 (best)	100	1.53
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	7	5.4
5.02 Quality of math & science education*	10	5.3
5.03 Secondary education gross enrollment rate, %	12	117.2
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

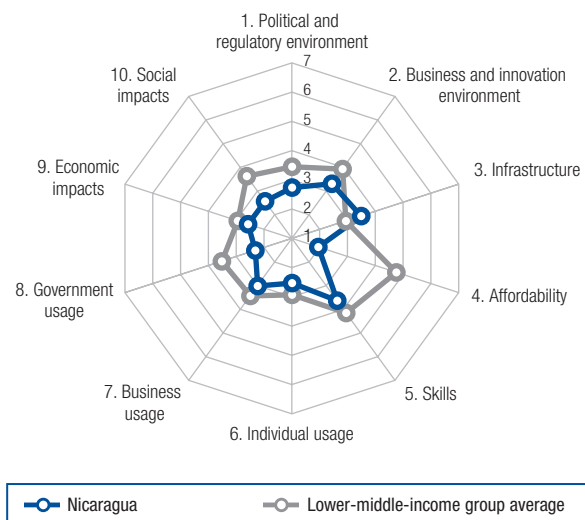
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	74	112.1
6.02 Individuals using Internet, %	17	85.5
6.03 Households w/ personal computer, %	32	79.8
6.04 Households w/ Internet access, %	28	79.8
6.05 Fixed broadband Internet subs/100 pop.	19	31.0
6.06 Mobile broadband subs/100 pop.	16	92.7
6.07 Use of virtual social networks*	20	6.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	11	5.8
7.02 Capacity for innovation*	15	5.3
7.03 PCT patents, applications/million pop.	21	78.3
7.04 ICT use for business-to-business transactions*	24	5.6
7.05 Business-to-consumer Internet use*	18	5.6
7.06 Extent of staff training*	18	4.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	10	5.2
8.02 Government Online Service Index, 0–1 (best)	15	0.84
8.03 Gov't success in ICT promotion*	24	4.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	19	5.4
9.02 ICT PCT patents, applications/million pop.	23	16.1
9.03 Impact of ICTs on organizational models*	23	5.1
9.04 Knowledge-intensive jobs, % workforce	18	42.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	30	5.3
10.02 Internet access in schools*	14	5.9
10.03 ICT use & gov't efficiency*	27	4.8
10.04 E-Participation Index, 0–1 (best)	19	0.78

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Nicaragua

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>131</b>	<b>2.8</b>
Networked Readiness Index (out of 143).....	128	2.9
Networked Readiness Index 2014 (out of 148).....	124	3.1
Networked Readiness Index 2013 (out of 144).....	125	2.9
<b>A. Environment subindex.....</b>	<b>132</b>	<b>3.0</b>
1st pillar: Political and regulatory environment.....	130	2.7
2nd pillar: Business and innovation environment.....	128	3.3
<b>B. Readiness subindex.....</b>	<b>120</b>	<b>3.0</b>
3rd pillar: Infrastructure.....	88	3.5
4th pillar: Affordability.....	136	1.9
5th pillar: Skills.....	112	3.6
<b>C. Usage subindex.....</b>	<b>131</b>	<b>2.6</b>
6th pillar: Individual usage.....	111	2.5
7th pillar: Business usage.....	130	3.0
8th pillar: Government usage.....	138	2.3
<b>D. Impact subindex.....</b>	<b>132</b>	<b>2.6</b>
9th pillar: Economic impacts.....	122	2.6
10th pillar: Social impacts.....	133	2.6



## The Networked Readiness Index in detail

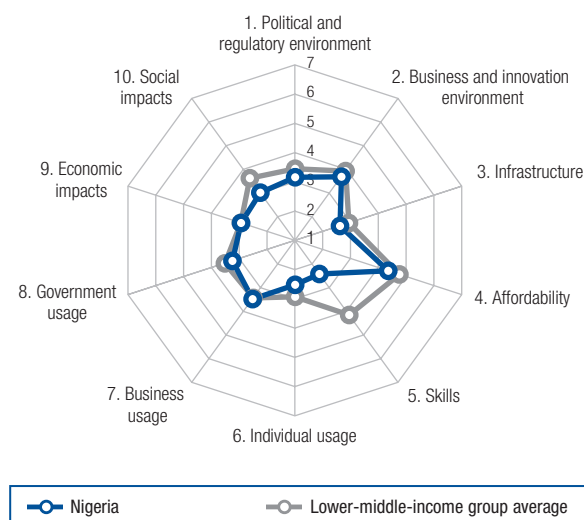
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	126	2.7
1.02 Laws relating to ICTs*	124	2.7
1.03 Judicial independence*	137	1.7
1.04 Efficiency of legal system in settling disputes*	117	2.9
1.05 Efficiency of legal system in challenging regs*	137	2.1
1.06 Intellectual property protection*	127	3.0
1.07 Software piracy rate, % software installed	90	82
1.08 No. procedures to enforce a contract	69	37
1.09 No. days to enforce a contract	64	519
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	110	4.0
2.02 Venture capital availability*	120	2.1
2.03 Total tax rate, % profits	128	63.9
2.04 No. days to start a business	76	13
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	96	4.7
2.07 Tertiary education gross enrollment rate, %	100	17.2
2.08 Quality of management schools*	104	3.7
2.09 Gov't procurement of advanced tech*	136	2.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	104	700.2
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	86	23.0
3.04 Secure Internet servers/million pop.	94	11.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	138	1.16
4.02 Fixed broadband Internet tariffs, PPP \$/month	109	60.11
4.03 Internet & telephony competition, 0-2 (best)	71	1.88
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	136	2.3
5.02 Quality of math & science education*	135	2.3
5.03 Secondary education gross enrollment rate, %	99	74.2
5.04 Adult literacy rate, %	80	82.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	67	114.6
6.02 Individuals using Internet, %	110	17.6
6.03 Households w/ personal computer, %	111	11.1
6.04 Households w/ Internet access, %	111	11.6
6.05 Fixed broadband Internet subs/100 pop.	97	2.5
6.06 Mobile broadband subs/100 pop.	132	1.4
6.07 Use of virtual social networks*	125	4.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	124	3.8
7.02 Capacity for innovation*	134	3.0
7.03 PCT patents, applications/million pop.	103	0.1
7.04 ICT use for business-to-business transactions*	117	4.0
7.05 Business-to-consumer Internet use*	124	3.4
7.06 Extent of staff training*	109	3.5
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	135	2.7
8.02 Government Online Service Index, 0-1 (best)	128	0.09
8.03 Gov't success in ICT promotion*	136	2.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	124	3.6
9.02 ICT PCT patents, applications/million pop.	84	0.1
9.03 Impact of ICTs on organizational models*	127	3.2
9.04 Knowledge-intensive jobs, % workforce	87	14.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	126	3.2
10.02 Internet access in schools*	129	2.7
10.03 ICT use & gov't efficiency*	130	2.8
10.04 E-Participation Index, 0-1 (best)	130	0.10

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Nigeria

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>119</b> .....	<b>3.2</b>
Networked Readiness Index 2015 (out of 143).....	119.....	3.2
Networked Readiness Index 2014 (out of 148).....	112.....	3.3
Networked Readiness Index 2013 (out of 144).....	113.....	3.3
<b>A. Environment subindex</b> .....	<b>116</b> .....	<b>3.4</b>
1st pillar: Political and regulatory environment.....	117.....	3.2
2nd pillar: Business and innovation environment.....	111.....	3.7
<b>B. Readiness subindex</b> .....	<b>117</b> .....	<b>3.1</b>
3rd pillar: Infrastructure.....	113.....	2.6
4th pillar: Affordability.....	100.....	4.3
5th pillar: Skills.....	134.....	2.4
<b>C. Usage subindex</b> .....	<b>109</b> .....	<b>3.1</b>
6th pillar: Individual usage.....	112.....	2.5
7th pillar: Business usage.....	86.....	3.5
8th pillar: Government usage.....	112.....	3.3
<b>D. Impact subindex</b> .....	<b>114</b> .....	<b>3.0</b>
9th pillar: Economic impacts.....	90.....	2.9
10th pillar: Social impacts.....	123.....	3.0



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	103	3.1
1.02 Laws relating to ICTs*	121	2.9
1.03 Judicial independence*	96	3.3
1.04 Efficiency of legal system in settling disputes*	83	3.4
1.05 Efficiency of legal system in challenging regs*	91	3.2
1.06 Intellectual property protection*	119	3.1
1.07 Software piracy rate, % software installed	87	81
1.08 No. procedures to enforce a contract	107	40
1.09 No. days to enforce a contract	57	510
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	99	4.2
2.02 Venture capital availability*	128	2.0
2.03 Total tax rate, % profits	55	33.3
2.04 No. days to start a business	119	31
2.05 No. procedures to start a business	104	9
2.06 Intensity of local competition*	60	5.2
2.07 Tertiary education gross enrollment rate, %	114	10.4
2.08 Quality of management schools*	102	3.7
2.09 Gov't procurement of advanced tech*	116	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	123	167.6
3.02 Mobile network coverage, % pop.	63	99.4
3.03 Int'l Internet bandwidth, kb/s per user	127	3.1
3.04 Secure Internet servers/million pop.	118	2.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	33	0.13
4.02 Fixed broadband Internet tariffs, PPP \$/month	113	70.87
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	124	2.7
5.02 Quality of math & science education*	131	2.6
5.03 Secondary education gross enrollment rate, %	122	43.8
5.04 Adult literacy rate, %	104	59.6

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	118	77.8
6.02 Individuals using Internet, %	84	42.7
6.03 Households w/ personal computer, %	116	9.1
6.04 Households w/ Internet access, %	114	8.5
6.05 Fixed broadband Internet subs/100 pop.	137	0.0
6.06 Mobile broadband subs/100 pop.	110	11.7
6.07 Use of virtual social networks*	85	5.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	91	4.3
7.02 Capacity for innovation*	82	3.8
7.03 PCT patents, applications/million pop.	111	0.0
7.04 ICT use for business-to-business transactions*	91	4.4
7.05 Business-to-consumer Internet use*	92	4.0
7.06 Extent of staff training*	62	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	104	3.4
8.02 Government Online Service Index, 0–1 (best)	98	0.31
8.03 Gov't success in ICT promotion*	103	3.5
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	82	4.2
9.02 ICT PCT patents, applications/million pop.	98	0.0
9.03 Impact of ICTs on organizational models*	101	3.6
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	123	3.2
10.02 Internet access in schools*	124	3.0
10.03 ICT use & gov't efficiency*	128	2.9
10.04 E-Participation Index, 0–1 (best)	89	0.33

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

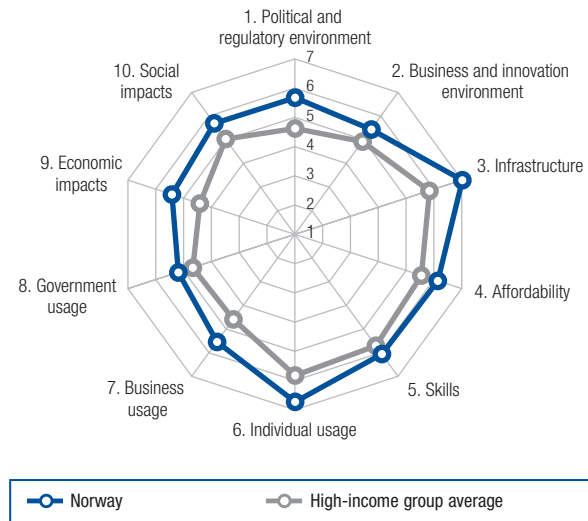
# Norway

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 4.. 5.8

Networked Readiness Index (out of 143)..... 5..... 5.8  
 Networked Readiness Index 2014 (out of 148)..... 5..... 5.7  
 Networked Readiness Index 2013 (out of 144)..... 5..... 5.7

<b>A. Environment subindex</b> .....	<b>6</b> .....	<b>5.5</b>
1st pillar: Political and regulatory environment.....	6	5.7
2nd pillar: Business and innovation environment.....	7	5.4
<b>B. Readiness subindex</b> .....	<b>4</b> .....	<b>6.4</b>
3rd pillar: Infrastructure.....	1	7.0
4th pillar: Affordability.....	28	6.1
5th pillar: Skills.....	12	6.0
<b>C. Usage subindex</b> .....	<b>9</b> .....	<b>5.8</b>
6th pillar: Individual usage.....	3	6.7
7th pillar: Business usage.....	11	5.5
8th pillar: Government usage.....	18	5.2
<b>D. Impact subindex</b> .....	<b>9</b> .....	<b>5.6</b>
9th pillar: Economic impacts.....	8	5.4
10th pillar: Social impacts.....	8	5.7



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	7	5.5
1.02 Laws relating to ICTs*	7	5.5
1.03 Judicial independence*	3	6.5
1.04 Efficiency of legal system in settling disputes*	7	5.6
1.05 Efficiency of legal system in challenging regs*	7	5.4
1.06 Intellectual property protection*	17	5.8
1.07 Software piracy rate, % software installed.....	14	25
1.08 No. procedures to enforce a contract.....	42	34
1.09 No. days to enforce a contract.....	7	280
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	3	6.5
2.02 Venture capital availability*.....	10	4.2
2.03 Total tax rate, % profits.....	76	39.5
2.04 No. days to start a business.....	15	4
2.05 No. procedures to start a business.....	22	4
2.06 Intensity of local competition*.....	50	5.3
2.07 Tertiary education gross enrollment rate, %.....	21	76.1
2.08 Quality of management schools*.....	15	5.4
2.09 Gov't procurement of advanced tech*.....	16	4.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	2	26319.9
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	15	203.9
3.04 Secure Internet servers/million pop.....	7	1942.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	23	0.10
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	71	34.80
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	11	5.3
5.02 Quality of math & science education*.....	24	4.9
5.03 Secondary education gross enrollment rate, %.....	14	113.0
5.04 Adult literacy rate, %.....	n/a	n/a <sup>1</sup>

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	63	116.1
6.02 Individuals using Internet, %.....	2	96.3
6.03 Households w/ personal computer, %.....	5	95.4
6.04 Households w/ Internet access, %.....	9	93.1
6.05 Fixed broadband Internet subs/100 pop.....	5	38.8
6.06 Mobile broadband subs/100 pop.....	18	88.8
6.07 Use of virtual social networks*.....	2	6.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	4	6.1
7.02 Capacity for innovation*.....	18	5.2
7.03 PCT patents, applications/million pop.....	12	139.4
7.04 ICT use for business-to-business transactions*.....	7	5.9
7.05 Business-to-consumer Internet use*.....	8	5.8
7.06 Extent of staff training*.....	7	5.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	15	4.9
8.02 Government Online Service Index, 0-1 (best).....	21	0.76
8.03 Gov't success in ICT promotion*.....	13	5.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	13	5.6
9.02 ICT PCT patents, applications/million pop.....	14	36.8
9.03 Impact of ICTs on organizational models*.....	6	5.6
9.04 Knowledge-intensive jobs, % workforce.....	4	50.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	6	6.0
10.02 Internet access in schools*.....	3	6.3
10.03 ICT use & gov't efficiency*.....	9	5.4
10.04 E-Participation Index, 0-1 (best).....	30	0.69

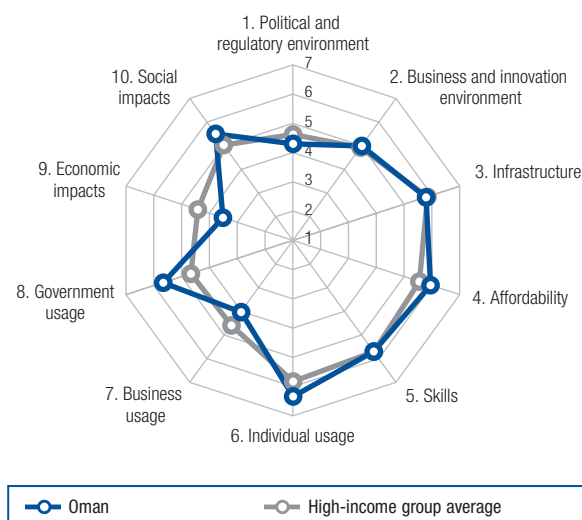
**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.



# Oman

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>52</b>	<b>4.3</b>
Networked Readiness Index 2015 (out of 143).....	42	4.5
Networked Readiness Index 2014 (out of 148).....	40	4.6
Networked Readiness Index 2013 (out of 144).....	40	4.5
<b>A. Environment subindex</b> .....	<b>52</b>	<b>4.2</b>
1st pillar: Political and regulatory environment.....	53	4.0
2nd pillar: Business and innovation environment.....	58	4.4
<b>B. Readiness subindex</b> .....	<b>70</b>	<b>4.8</b>
3rd pillar: Infrastructure.....	46	4.9
4th pillar: Affordability.....	96	4.6
5th pillar: Skills.....	76	5.0
<b>C. Usage subindex</b> .....	<b>36</b>	<b>4.5</b>
6th pillar: Individual usage.....	39	5.3
7th pillar: Business usage.....	94	3.4
8th pillar: Government usage.....	34	4.7
<b>D. Impact subindex</b> .....	<b>66</b>	<b>3.7</b>
9th pillar: Economic impacts.....	95	2.9
10th pillar: Social impacts.....	46	4.6



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	43	4.2
1.02 Laws relating to ICTs*	54	4.1
1.03 Judicial independence*	46	4.5
1.04 Efficiency of legal system in settling disputes*	40	4.3
1.05 Efficiency of legal system in challenging regs*	53	3.7
1.06 Intellectual property protection*	40	4.4
1.07 Software piracy rate, % software installed	53	60
1.08 No. procedures to enforce a contract	139	51
1.09 No. days to enforce a contract	88	598
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	65	4.8
2.02 Venture capital availability*	36	3.3
2.03 Total tax rate, % profits	20	22.9
2.04 No. days to start a business	42	7
2.05 No. procedures to start a business	41	5
2.06 Intensity of local competition*	95	4.7
2.07 Tertiary education gross enrollment rate, %	83	28.6
2.08 Quality of management schools*	128	3.1
2.09 Gov't procurement of advanced tech*	43	3.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	31	6716.3
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	70	33.7
3.04 Secure Internet servers/million pop.	56	79.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	81	0.29
4.02 Fixed broadband Internet tariffs, PPP \$/month	103	51.96
4.03 Internet & telephony competition, 0–2 (best)	80	1.86
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	106	3.1
5.02 Quality of math & science education*	102	3.3
5.03 Secondary education gross enrollment rate, %	45	99.6
5.04 Adult literacy rate, %	51	94.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	15	157.8
6.02 Individuals using Internet, %	41	70.2
6.03 Households w/ personal computer, %	18	84.0
6.04 Households w/ Internet access, %	19	86.2
6.05 Fixed broadband Internet subs/100 pop.	86	4.5
6.06 Mobile broadband subs/100 pop.	26	73.7
6.07 Use of virtual social networks*	88	5.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	56	4.8
7.02 Capacity for innovation*	119	3.4
7.03 PCT patents, applications/million pop.	82	0.4
7.04 ICT use for business-to-business transactions* <sup>103</sup>	103	4.2
7.05 Business-to-consumer Internet use*	109	3.7
7.06 Extent of staff training*	68	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	39	4.5
8.02 Government Online Service Index, 0–1 (best)	26	0.73
8.03 Gov't success in ICT promotion*	44	4.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	88	4.1
9.02 ICT PCT patents, applications/million pop.	78	0.1
9.03 Impact of ICTs on organizational models*	99	3.6
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	50	4.6
10.02 Internet access in schools*	84	3.9
10.03 ICT use & gov't efficiency*	46	4.5
10.04 E-Participation Index, 0–1 (best)	24	0.71

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Pakistan

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 110..3.4

Networked Readiness Index (out of 143)..... 112..... 3.3  
 Networked Readiness Index 2014 (out of 148)..... 111..... 3.3  
 Networked Readiness Index 2013 (out of 144)..... 105..... 3.3

### A. Environment subindex..... 115..... 3.4

1st pillar: Political and regulatory environment..... 128..... 3.0  
 2nd pillar: Business and innovation environment..... 98..... 3.9

### B. Readiness subindex ..... 104..... 4.0

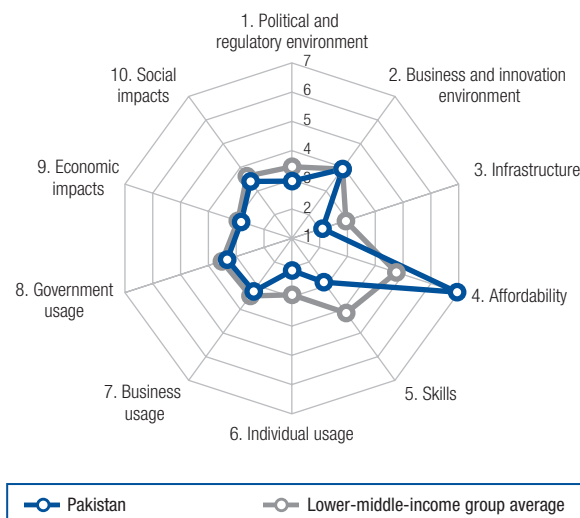
3rd pillar: Infrastructure ..... 126..... 2.1  
 4th pillar: Affordability ..... 1..... 6.9  
 5th pillar: Skills ..... 127..... 2.8

### C. Usage subindex..... 118..... 2.9

6th pillar: Individual usage..... 123..... 2.1  
 7th pillar: Business usage..... 110..... 3.2  
 8th pillar: Government usage..... 103..... 3.3

### D. Impact subindex..... 105..... 3.1

9th pillar: Economic impacts..... 105..... 2.8  
 10th pillar: Social impacts..... 106..... 3.4



## The Networked Readiness Index in detail

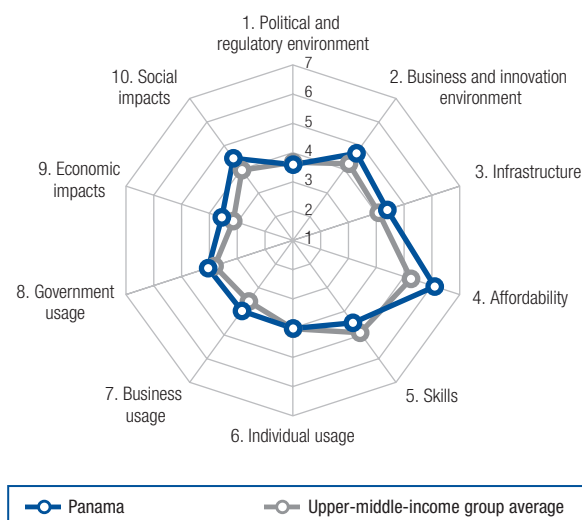
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	95	3.3
1.02 Laws relating to ICTs*	117	3.0
1.03 Judicial independence*	82	3.6
1.04 Efficiency of legal system in settling disputes*	107	3.1
1.05 Efficiency of legal system in challenging regs*	101	3.0
1.06 Intellectual property protection*	112	3.2
1.07 Software piracy rate, % software installed	96	85
1.08 No. procedures to enforce a contract	128	46
1.09 No. days to enforce a contract	125	993
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	79	4.6
2.02 Venture capital availability*	78	2.6
2.03 Total tax rate, % profits	49	32.6
2.04 No. days to start a business	97	19
2.05 No. procedures to start a business	114	10
2.06 Intensity of local competition*	98	4.7
2.07 Tertiary education gross enrollment rate, %	115	10.4
2.08 Quality of management schools*	70	4.1
2.09 Gov't procurement of advanced tech*	52	3.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	111	539.7
3.02 Mobile network coverage, % pop.	125	81.5
3.03 Int'l Internet bandwidth, kb/s per user	115	5.7
3.04 Secure Internet servers/million pop.	123	1.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	10	0.06
4.02 Fixed broadband Internet tariffs, PPP \$/month	15	18.04
4.03 Internet & telephony competition, 0-2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	75	3.6
5.02 Quality of math & science education*	89	3.6
5.03 Secondary education gross enrollment rate, %	124	41.6
5.04 Adult literacy rate, %	106	58.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	123	73.3
6.02 Individuals using Internet, %	119	13.8
6.03 Households w/ personal computer, %	105	15.9
6.04 Households w/ Internet access, %	106	13.2
6.05 Fixed broadband Internet subs/100 pop.	107	1.1
6.06 Mobile broadband subs/100 pop.	125	5.1
6.07 Use of virtual social networks*	131	4.3
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	82	4.4
7.02 Capacity for innovation*	95	3.7
7.03 PCT patents, applications/million pop.	110	0.0
7.04 ICT use for business-to-business transactions*	126	3.8
7.05 Business-to-consumer Internet use*	112	3.7
7.06 Extent of staff training*	121	3.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	99	3.5
8.02 Government Online Service Index, 0-1 (best)	93	0.32
8.03 Gov't success in ICT promotion*	100	3.6
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	90	4.1
9.02 ICT PCT patents, applications/million pop.	94	0.0
9.03 Impact of ICTs on organizational models*	124	3.3
9.04 Knowledge-intensive jobs, % workforce	73	19.5
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	102	3.7
10.02 Internet access in schools*	103	3.5
10.03 ICT use & gov't efficiency*	108	3.4
10.04 E-Participation Index, 0-1 (best)	89	0.33

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Panama

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>55</b>	<b>4.3</b>
Networked Readiness Index 2015 (out of 143).....	51	4.4
Networked Readiness Index 2014 (out of 148).....	43	4.4
Networked Readiness Index 2013 (out of 144).....	46	4.2
<b>A. Environment subindex</b> .....	<b>55</b>	<b>4.1</b>
1st pillar: Political and regulatory environment.....	85	3.6
2nd pillar: Business and innovation environment.....	45	4.7
<b>B. Readiness subindex</b> .....	<b>61</b>	<b>5.0</b>
3rd pillar: Infrastructure.....	63	4.4
4th pillar: Affordability.....	33	6.1
5th pillar: Skills.....	93	4.5
<b>C. Usage subindex</b> .....	<b>61</b>	<b>4.0</b>
6th pillar: Individual usage.....	72	4.0
7th pillar: Business usage.....	39	4.0
8th pillar: Government usage.....	60	4.1
<b>D. Impact subindex</b> .....	<b>45</b>	<b>4.0</b>
9th pillar: Economic impacts.....	45	3.6
10th pillar: Social impacts.....	51	4.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	117	2.9
1.02 Laws relating to ICTs*	42	4.4
1.03 Judicial independence*	118	2.6
1.04 Efficiency of legal system in settling disputes*	95	3.3
1.05 Efficiency of legal system in challenging regs*	87	3.2
1.06 Intellectual property protection*	37	4.5
1.07 Software piracy rate, % software installed	72	72
1.08 No. procedures to enforce a contract	27	32
1.09 No. days to enforce a contract	103	686
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	35	5.5
2.02 Venture capital availability*	22	3.6
2.03 Total tax rate, % profits	70	37.2
2.04 No. days to start a business	34	6
2.05 No. procedures to start a business	41	5
2.06 Intensity of local competition*	52	5.3
2.07 Tertiary education gross enrollment rate, %	68	38.7
2.08 Quality of management schools*	89	3.9
2.09 Gov't procurement of advanced tech*	18	4.0
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	76	2353.8
3.02 Mobile network coverage, % pop.	101	96.0
3.03 Int'l Internet bandwidth, kb/s per user	41	72.7
3.04 Secure Internet servers/million pop.	49	116.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	59	0.23
4.02 Fixed broadband Internet tariffs, PPP \$/month	42	26.21
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	94	3.3
5.02 Quality of math & science education*	114	3.1
5.03 Secondary education gross enrollment rate, %	96	75.5
5.04 Adult literacy rate, %	49	95.0

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	14	158.1
6.02 Individuals using Internet, %	77	44.9
6.03 Households w/ personal computer, %	79	38.2
6.04 Households w/ Internet access, %	73	41.6
6.05 Fixed broadband Internet subs/100 pop.	75	7.9
6.06 Mobile broadband subs/100 pop.	87	29.5
6.07 Use of virtual social networks*	39	5.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	34	5.3
7.02 Capacity for innovation*	48	4.2
7.03 PCT patents, applications/million pop.	62	1.7
7.04 ICT use for business-to-business transactions*	42	5.1
7.05 Business-to-consumer Internet use*	43	4.9
7.06 Extent of staff training*	45	4.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	33	4.5
8.02 Government Online Service Index, 0–1 (best)	85	0.37
8.03 Gov't success in ICT promotion*	42	4.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	34	5.0
9.02 ICT PCT patents, applications/million pop.	50	1.3
9.03 Impact of ICTs on organizational models*	38	4.6
9.04 Knowledge-intensive jobs, % workforce	59	24.0
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	45	4.8
10.02 Internet access in schools*	52	4.7
10.03 ICT use & gov't efficiency*	45	4.5
10.04 E-Participation Index, 0–1 (best)	64	0.49

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

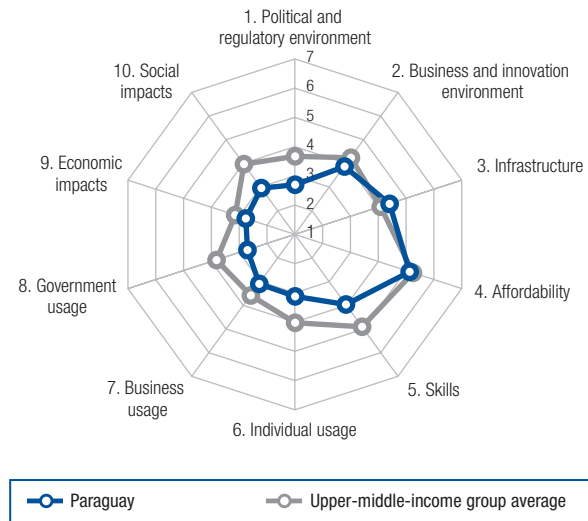
# Paraguay

Rank (out of 139)    Value (1-7)

## Networked Readiness Index..... 105.. 3.4

Networked Readiness Index (out of 143)..... 105..... 3.4  
 Networked Readiness Index 2014 (out of 148)..... 102..... 3.5  
 Networked Readiness Index 2013 (out of 144)..... 104..... 3.4

- A. Environment subindex..... 125..... 3.3**
  - 1st pillar: Political and regulatory environment..... 133..... 2.7
  - 2nd pillar: Business and innovation environment..... 101..... 3.9
- B. Readiness subindex ..... 86..... 4.5**
  - 3rd pillar: Infrastructure ..... 62..... 4.4
  - 4th pillar: Affordability ..... 79..... 5.1
  - 5th pillar: Skills..... 105..... 3.9
- C. Usage subindex..... 112..... 3.0**
  - 6th pillar: Individual usage..... 96..... 3.1
  - 7th pillar: Business usage..... 121..... 3.1
  - 8th pillar: Government usage..... 128..... 2.7
- D. Impact subindex..... 118..... 2.9**
  - 9th pillar: Economic impacts..... 109..... 2.8
  - 10th pillar: Social impacts..... 125..... 3.0



## The Networked Readiness Index in detail

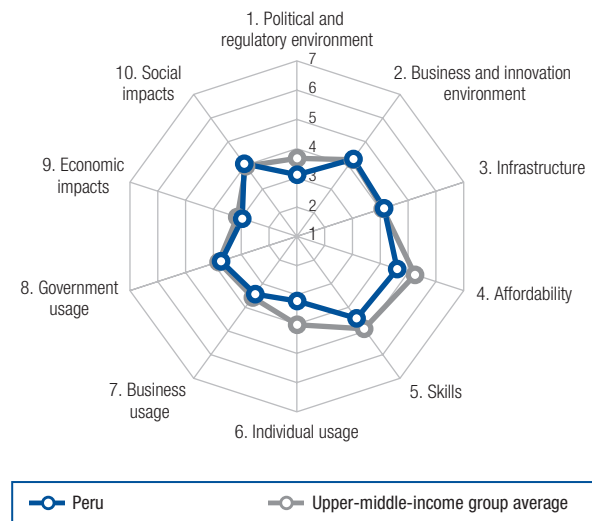
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	135	2.2
1.02 Laws relating to ICTs*	122	2.8
1.03 Judicial independence*	136	2.0
1.04 Efficiency of legal system in settling disputes*	134	2.4
1.05 Efficiency of legal system in challenging regs*	122	2.6
1.06 Intellectual property protection*	122	3.0
1.07 Software piracy rate, % software installed	94	84
1.08 No. procedures to enforce a contract	76	38
1.09 No. days to enforce a contract	85	591
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	109	4.0
2.02 Venture capital availability*	94	2.5
2.03 Total tax rate, % profits	60	35.0
2.04 No. days to start a business	123	35
2.05 No. procedures to start a business	74	7
2.06 Intensity of local competition*	79	5.0
2.07 Tertiary education gross enrollment rate, %	74	35.1
2.08 Quality of management schools*	133	3.0
2.09 Gov't procurement of advanced tech*	121	2.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	18	9338.7
3.02 Mobile network coverage, % pop.	55	99.7
3.03 Int'l Internet bandwidth, kb/s per user	97	12.6
3.04 Secure Internet servers/million pop.	79	24.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	95	0.33
4.02 Fixed broadband Internet tariffs, PPP \$/month	82	38.65
4.03 Internet & telephony competition, 0-2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	139	2.1
5.02 Quality of math & science education*	138	2.1
5.03 Secondary education gross enrollment rate, %	95	76.6
5.04 Adult literacy rate, %	46	95.6

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	86	105.6
6.02 Individuals using Internet, %	82	43.0
6.03 Households w/ personal computer, %	88	31.9
6.04 Households w/ Internet access, %	92	24.6
6.05 Fixed broadband Internet subs/100 pop.	98	2.4
6.06 Mobile broadband subs/100 pop.	126	4.9
6.07 Use of virtual social networks*	102	5.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	114	4.1
7.02 Capacity for innovation*	120	3.4
7.03 PCT patents, applications/million pop.	121	0.0
7.04 ICT use for business-to-business transactions*	131	3.7
7.05 Business-to-consumer Internet use*	116	3.6
7.06 Extent of staff training*	114	3.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	132	2.9
8.02 Government Online Service Index, 0-1 (best)	111	0.23
8.03 Gov't success in ICT promotion*	134	2.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	99	4.0
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	126	3.2
9.04 Knowledge-intensive jobs, % workforce	77	18.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	119	3.4
10.02 Internet access in schools*	125	2.9
10.03 ICT use & gov't efficiency*	122	3.0
10.04 E-Participation Index, 0-1 (best)	105	0.25

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Peru

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>90</b>	<b>3.8</b>
Networked Readiness Index 2015 (out of 143).....	90	3.7
Networked Readiness Index 2014 (out of 148).....	90	3.7
Networked Readiness Index 2013 (out of 144).....	103	3.4
<b>A. Environment subindex</b> .....	<b>97</b>	<b>3.7</b>
1st pillar: Political and regulatory environment.....	118	3.1
2nd pillar: Business and innovation environment.....	70	4.3
<b>B. Readiness subindex</b> .....	<b>89</b>	<b>4.4</b>
3rd pillar: Infrastructure.....	72	4.1
4th pillar: Affordability.....	95	4.6
5th pillar: Skills.....	94	4.5
<b>C. Usage subindex</b> .....	<b>92</b>	<b>3.5</b>
6th pillar: Individual usage.....	93	3.2
7th pillar: Business usage.....	91	3.4
8th pillar: Government usage.....	74	3.7
<b>D. Impact subindex</b> .....	<b>81</b>	<b>3.5</b>
9th pillar: Economic impacts.....	88	3.0
10th pillar: Social impacts.....	72	4.1



## The Networked Readiness Index in detail

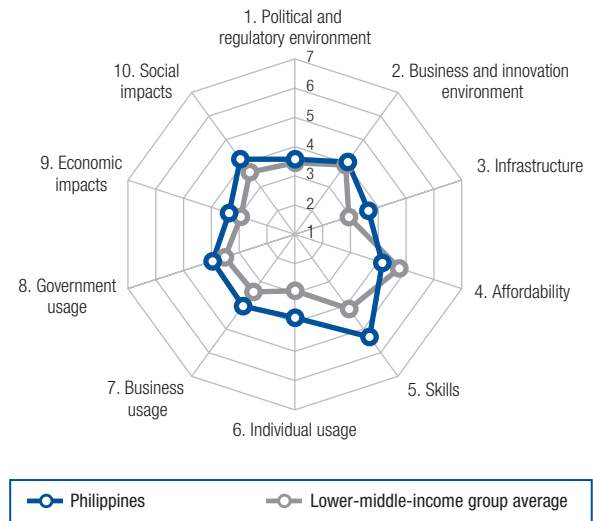
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	138	2.1
1.02 Laws relating to ICTs*	95	3.4
1.03 Judicial independence*	112	2.8
1.04 Efficiency of legal system in settling disputes*	129	2.6
1.05 Efficiency of legal system in challenging regs*	118	2.7
1.06 Intellectual property protection*	104	3.3
1.07 Software piracy rate, % software installed	61	65
1.08 No. procedures to enforce a contract	108	41
1.09 No. days to enforce a contract	37	426
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	84	4.5
2.02 Venture capital availability*	43	3.1
2.03 Total tax rate, % profits	63	35.9
2.04 No. days to start a business	108	26
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	58	5.2
2.07 Tertiary education gross enrollment rate, %	64	40.5
2.08 Quality of management schools*	71	4.1
2.09 Gov't procurement of advanced tech*	122	2.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	91	1419.0
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	66	36.4
3.04 Secure Internet servers/million pop.	78	28.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	90	0.32
4.02 Fixed broadband Internet tariffs, PPP \$/month	102	51.00
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	129	2.5
5.02 Quality of math & science education*	136	2.2
5.03 Secondary education gross enrollment rate, %	63	95.6
5.04 Adult literacy rate, %	56	94.5

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	93	103.6
6.02 Individuals using Internet, %	88	40.2
6.03 Households w/ personal computer, %	86	32.3
6.04 Households w/ Internet access, %	94	23.5
6.05 Fixed broadband Internet subs/100 pop.	80	5.7
6.06 Mobile broadband subs/100 pop.	106	13.7
6.07 Use of virtual social networks*	103	5.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	77	4.5
7.02 Capacity for innovation*	105	3.6
7.03 PCT patents, applications/million pop.	78	0.5
7.04 ICT use for business-to-business transactions*	77	4.6
7.05 Business-to-consumer Internet use*	81	4.2
7.06 Extent of staff training*	92	3.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	120	3.1
8.02 Government Online Service Index, 0–1 (best)	41	0.63
8.03 Gov't success in ICT promotion*	118	3.3
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	67	4.5
9.02 ICT PCT patents, applications/million pop.	83	0.1
9.03 Impact of ICTs on organizational models*	83	3.9
9.04 Knowledge-intensive jobs, % workforce	86	15.0
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	83	4.0
10.02 Internet access in schools*	95	3.7
10.03 ICT use & gov't efficiency*	111	3.4
10.04 E-Participation Index, 0–1 (best)	24	0.71

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Philippines

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>77..</b>	<b>4.0</b>
Networked Readiness Index (out of 143).....	76.....	4.0
Networked Readiness Index 2014 (out of 148).....	78.....	3.9
Networked Readiness Index 2013 (out of 144).....	86.....	3.7
<b>A. Environment subindex.....</b>	<b>89.....</b>	<b>3.8</b>
1st pillar: Political and regulatory environment.....	87.....	3.6
2nd pillar: Business and innovation environment.....	85.....	4.1
<b>B. Readiness subindex.....</b>	<b>92.....</b>	<b>4.4</b>
3rd pillar: Infrastructure.....	87.....	3.6
4th pillar: Affordability.....	107.....	4.1
5th pillar: Skills.....	54.....	5.3
<b>C. Usage subindex.....</b>	<b>66.....</b>	<b>3.9</b>
6th pillar: Individual usage.....	79.....	3.8
7th pillar: Business usage.....	36.....	4.0
8th pillar: Government usage.....	63.....	4.0
<b>D. Impact subindex.....</b>	<b>62.....</b>	<b>3.8</b>
9th pillar: Economic impacts.....	60.....	3.4
10th pillar: Social impacts.....	66.....	4.2



## The Networked Readiness Index in detail

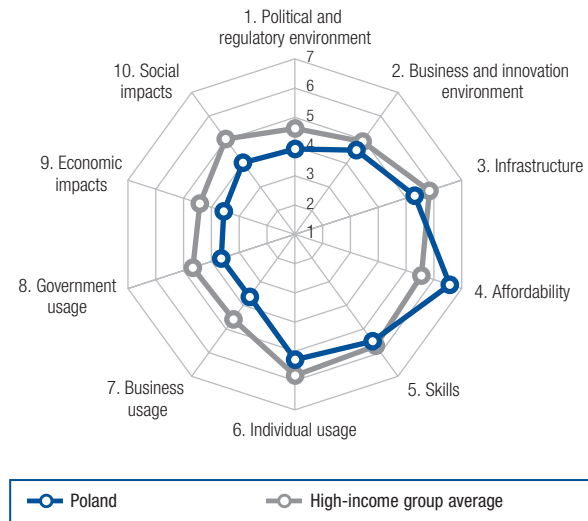
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	83	3.5
1.02 Laws relating to ICTs*	81	3.7
1.03 Judicial independence*	76	3.7
1.04 Efficiency of legal system in settling disputes*	87	3.3
1.05 Efficiency of legal system in challenging regs*	80	3.3
1.06 Intellectual property protection*	71	3.9
1.07 Software piracy rate, % software installed.....	67	69
1.08 No. procedures to enforce a contract.....	69	37
1.09 No. days to enforce a contract.....	116	842
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	78	4.6
2.02 Venture capital availability*	39	3.1
2.03 Total tax rate, % profits.....	92	42.9
2.04 No. days to start a business.....	114	29
2.05 No. procedures to start a business.....	138	16
2.06 Intensity of local competition*.....	56	5.2
2.07 Tertiary education gross enrollment rate, %.....	73	35.8
2.08 Quality of management schools*.....	40	4.7
2.09 Gov't procurement of advanced tech*.....	59	3.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	103	771.4
3.02 Mobile network coverage, % pop.....	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user.....	79	27.7
3.04 Secure Internet servers/million pop.....	96	10.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	110	0.40
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	104	54.59
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	31	4.5
5.02 Quality of math & science education*.....	67	4.1
5.03 Secondary education gross enrollment rate, %.....	78	88.4
5.04 Adult literacy rate, %.....	41	96.3

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	75	111.2
6.02 Individuals using Internet, %.....	89	39.7
6.03 Households w/ personal computer, %.....	99	20.5
6.04 Households w/ Internet access, %.....	86	26.9
6.05 Fixed broadband Internet subs/100 pop.....	38	23.2
6.06 Mobile broadband subs/100 pop.....	91	28.0
6.07 Use of virtual social networks*.....	27	6.1
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	40	5.1
7.02 Capacity for innovation*.....	33	4.6
7.03 PCT patents, applications/million pop.....	83	0.3
7.04 ICT use for business-to-business transactions*.....	58	4.8
7.05 Business-to-consumer Internet use*.....	51	4.8
7.06 Extent of staff training*.....	26	4.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	63	4.0
8.02 Government Online Service Index, 0-1 (best).....	66	0.48
8.03 Gov't success in ICT promotion*.....	70	4.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	58	4.6
9.02 ICT PCT patents, applications/million pop.....	81	0.1
9.03 Impact of ICTs on organizational models*.....	47	4.4
9.04 Knowledge-intensive jobs, % workforce.....	61	23.5
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	84	3.9
10.02 Internet access in schools*.....	58	4.5
10.03 ICT use & gov't efficiency*.....	75	3.9
10.04 E-Participation Index, 0-1 (best).....	51	0.57

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Poland

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index</b> .....	<b>42</b>	<b>4.5</b>
Networked Readiness Index (out of 143).....	50	4.4
Networked Readiness Index 2014 (out of 148).....	54	4.2
Networked Readiness Index 2013 (out of 144).....	49	4.2
<b>A. Environment subindex</b> .....	<b>48</b>	<b>4.2</b>
1st pillar: Political and regulatory environment.....	57	3.9
2nd pillar: Business and innovation environment.....	53	4.6
<b>B. Readiness subindex</b> .....	<b>28</b>	<b>5.8</b>
3rd pillar: Infrastructure.....	35	5.3
4th pillar: Affordability.....	11	6.6
5th pillar: Skills.....	40	5.5
<b>C. Usage subindex</b> .....	<b>49</b>	<b>4.2</b>
6th pillar: Individual usage.....	42	5.3
7th pillar: Business usage.....	64	3.6
8th pillar: Government usage.....	82	3.6
<b>D. Impact subindex</b> .....	<b>59</b>	<b>3.8</b>
9th pillar: Economic impacts.....	44	3.6
10th pillar: Social impacts.....	74	4.0



## The Networked Readiness Index in detail

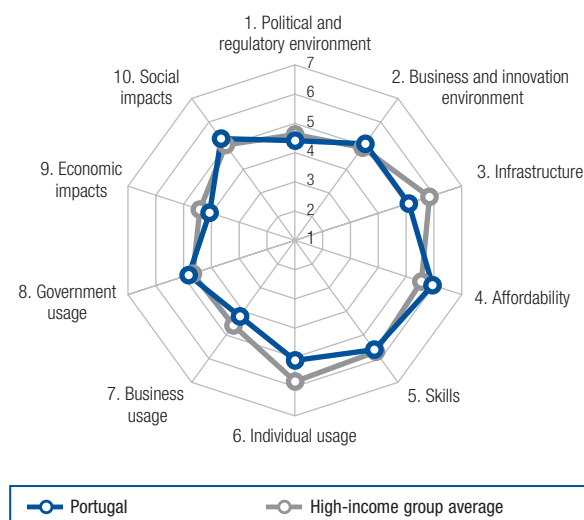
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	92	3.4
1.02 Laws relating to ICTs*	68	3.9
1.03 Judicial independence*	54	4.2
1.04 Efficiency of legal system in settling disputes*	70	3.7
1.05 Efficiency of legal system in challenging regs*	97	3.1
1.06 Intellectual property protection*	65	4.0
1.07 Software piracy rate, % software installed	40	5.1
1.08 No. procedures to enforce a contract	34	3.3
1.09 No. days to enforce a contract	102	6.85
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	72	4.6
2.02 Venture capital availability*	96	2.5
2.03 Total tax rate, % profits	81	40.3
2.04 No. days to start a business	117	30
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	48	5.3
2.07 Tertiary education gross enrollment rate, %	26	71.2
2.08 Quality of management schools*	75	4.1
2.09 Gov't procurement of advanced tech*	91	3.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	50	4311.2
3.02 Mobile network coverage, % pop.	37	99.9
3.03 Int'l Internet bandwidth, kb/s per user	33	90.4
3.04 Secure Internet servers/million pop.	30	429.7
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	45	0.16
4.02 Fixed broadband Internet tariffs, PPP \$/month	25	21.33
4.03 Internet & telephony competition, 0-2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	73	3.6
5.02 Quality of math & science education*	51	4.4
5.03 Secondary education gross enrollment rate, %	22	108.7
5.04 Adult literacy rate, %	5	99.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	22	148.9
6.02 Individuals using Internet, %	46	66.6
6.03 Households w/ personal computer, %	37	77.7
6.04 Households w/ Internet access, %	36	74.8
6.05 Fixed broadband Internet subs/100 pop.	46	18.9
6.06 Mobile broadband subs/100 pop.	51	55.7
6.07 Use of virtual social networks*	96	5.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	101	4.2
7.02 Capacity for innovation*	72	3.9
7.03 PCT patents, applications/million pop.	38	9.6
7.04 ICT use for business-to-business transactions*	83	4.5
7.05 Business-to-consumer Internet use*	41	5.0
7.06 Extent of staff training*	65	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	111	3.3
8.02 Government Online Service Index, 0-1 (best)	57	0.54
8.03 Gov't success in ICT promotion*	110	3.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	83	4.2
9.02 ICT PCT patents, applications/million pop.	45	1.8
9.03 Impact of ICTs on organizational models*	74	4.0
9.04 Knowledge-intensive jobs, % workforce	30	36.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	86	3.9
10.02 Internet access in schools*	46	4.8
10.03 ICT use & gov't efficiency*	101	3.5
10.04 E-Participation Index, 0-1 (best)	64	0.49

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Portugal

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>30</b>	<b>4.9</b>
Networked Readiness Index 2015 (out of 143).....	28	4.9
Networked Readiness Index 2014 (out of 148).....	33	4.7
Networked Readiness Index 2013 (out of 144).....	33	4.7
<b>A. Environment subindex</b> .....	<b>30</b>	<b>4.7</b>
1st pillar: Political and regulatory environment.....	33	4.4
2nd pillar: Business and innovation environment.....	24	5.1
<b>B. Readiness subindex</b> .....	<b>33</b>	<b>5.5</b>
3rd pillar: Infrastructure.....	40	5.1
4th pillar: Affordability.....	41	5.9
5th pillar: Skills.....	34	5.6
<b>C. Usage subindex</b> .....	<b>34</b>	<b>4.7</b>
6th pillar: Individual usage.....	45	5.1
7th pillar: Business usage.....	33	4.2
8th pillar: Government usage.....	29	4.8
<b>D. Impact subindex</b> .....	<b>29</b>	<b>4.7</b>
9th pillar: Economic impacts.....	31	4.1
10th pillar: Social impacts.....	24	5.3



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	61	3.9
1.02 Laws relating to ICTs*	23	5.0
1.03 Judicial independence*	43	4.6
1.04 Efficiency of legal system in settling disputes*	113	3.0
1.05 Efficiency of legal system in challenging regs*	71	3.4
1.06 Intellectual property protection*	32	4.7
1.07 Software piracy rate, % software installed	28	4.0
1.08 No. procedures to enforce a contract	42	3.4
1.09 No. days to enforce a contract	71	5.47
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	18	6.1
2.02 Venture capital availability*	61	2.8
2.03 Total tax rate, % profits	85	41.0
2.04 No. days to start a business	6	3
2.05 No. procedures to start a business	11	3
2.06 Intensity of local competition*	54	5.3
2.07 Tertiary education gross enrollment rate, %	31	66.2
2.08 Quality of management schools*	26	5.2
2.09 Gov't procurement of advanced tech*	48	3.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	45	4832.4
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	13	218.9
3.04 Secure Internet servers/million pop.	36	262.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	34	0.14
4.02 Fixed broadband Internet tariffs, PPP \$/month	78	36.56
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	40	4.3
5.02 Quality of math & science education*	45	4.5
5.03 Secondary education gross enrollment rate, %	11	119.7
5.04 Adult literacy rate, %	44	95.7

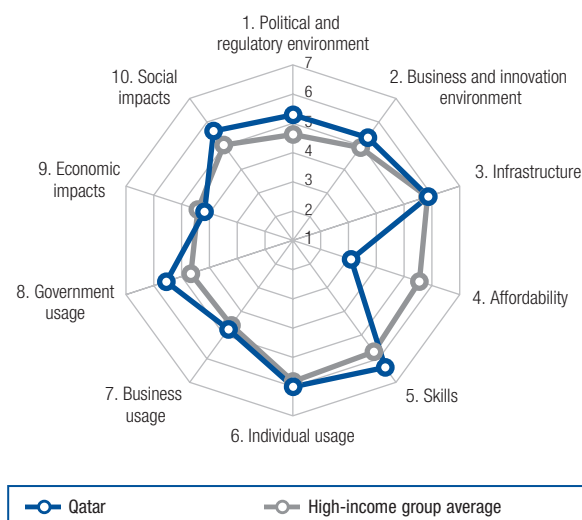
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	72	112.1
6.02 Individuals using Internet, %	49	64.6
6.03 Households w/ personal computer, %	46	69.4
6.04 Households w/ Internet access, %	49	64.9
6.05 Fixed broadband Internet subs/100 pop.	33	25.7
6.06 Mobile broadband subs/100 pop.	66	44.8
6.07 Use of virtual social networks*	44	5.9
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	21	5.6
7.02 Capacity for innovation*	35	4.5
7.03 PCT patents, applications/million pop.	34	13.9
7.04 ICT use for business-to-business transactions*	29	5.5
7.05 Business-to-consumer Internet use*	33	5.2
7.06 Extent of staff training*	54	4.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	25	4.7
8.02 Government Online Service Index, 0–1 (best)	39	0.64
8.03 Gov't success in ICT promotion*	17	4.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	16	5.5
9.02 ICT PCT patents, applications/million pop.	37	3.0
9.03 Impact of ICTs on organizational models*	27	4.9
9.04 Knowledge-intensive jobs, % workforce	37	34.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	23	5.6
10.02 Internet access in schools*	30	5.4
10.03 ICT use & gov't efficiency*	11	5.4
10.04 E-Participation Index, 0–1 (best)	33	0.65

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Qatar

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>27</b>	<b>5.2</b>
Networked Readiness Index 2015 (out of 143).....	27	5.1
Networked Readiness Index 2014 (out of 148).....	23	5.2
Networked Readiness Index 2013 (out of 144).....	23	5.1
<b>A. Environment subindex</b> .....	<b>15</b>	<b>5.3</b>
1st pillar: Political and regulatory environment.....	18	5.3
2nd pillar: Business and innovation environment.....	15	5.3
<b>B. Readiness subindex</b> .....	<b>54</b>	<b>5.1</b>
3rd pillar: Infrastructure.....	29	5.8
4th pillar: Affordability.....	120	3.1
5th pillar: Skills.....	5	6.4
<b>C. Usage subindex</b> .....	<b>19</b>	<b>5.4</b>
6th pillar: Individual usage.....	23	6.0
7th pillar: Business usage.....	25	4.8
8th pillar: Government usage.....	5	5.5
<b>D. Impact subindex</b> .....	<b>27</b>	<b>4.9</b>
9th pillar: Economic impacts.....	28	4.2
10th pillar: Social impacts.....	10	5.6



## The Networked Readiness Index in detail

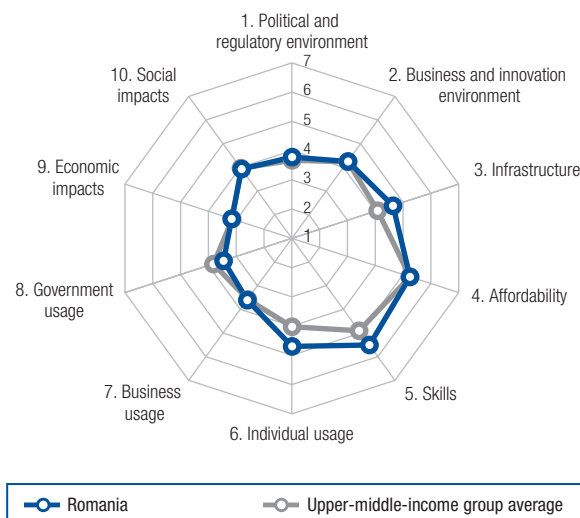
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	3	5.8
1.02 Laws relating to ICTs*	3	5.8
1.03 Judicial independence*	15	5.9
1.04 Efficiency of legal system in settling disputes*	4	5.7
1.05 Efficiency of legal system in challenging regs*	2	5.7
1.06 Intellectual property protection*	11	5.9
1.07 Software piracy rate, % software installed	37	4.9
1.08 No. procedures to enforce a contract	118	4.3
1.09 No. days to enforce a contract	75	5.70
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	20	6.1
2.02 Venture capital availability*	1	5.1
2.03 Total tax rate, % profits	1	11.3
2.04 No. days to start a business	54	9
2.05 No. procedures to start a business	92	8
2.06 Intensity of local competition*	25	5.5
2.07 Tertiary education gross enrollment rate, %	103	15.8
2.08 Quality of management schools*	7	5.7
2.09 Gov't procurement of advanced tech*	1	5.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	6	16498.5
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	44	67.5
3.04 Secure Internet servers/million pop.	39	231.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	57	0.22
4.02 Fixed broadband Internet tariffs, PPP \$/month	123	93.07
4.03 Internet & telephony competition, 0–2 (best)	125	0.93
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	2	5.9
5.02 Quality of math & science education*	5	5.7
5.03 Secondary education gross enrollment rate, %	20	109.4
5.04 Adult literacy rate, %	32	97.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	29	145.8
6.02 Individuals using Internet, %	9	91.5
6.03 Households w/ personal computer, %	3	97.2
6.04 Households w/ Internet access, %	2	98.0
6.05 Fixed broadband Internet subs/100 pop.	69	9.9
6.06 Mobile broadband subs/100 pop.	27	73.0
6.07 Use of virtual social networks*	12	6.3
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	12	5.8
7.02 Capacity for innovation*	12	5.3
7.03 PCT patents, applications/million pop.	27	21.6
7.04 ICT use for business-to-business transactions*	9	5.9
7.05 Business-to-consumer Internet use*	29	5.4
7.06 Extent of staff training*	5	5.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	3	5.9
8.02 Government Online Service Index, 0–1 (best)	37	0.65
8.03 Gov't success in ICT promotion*	4	5.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	3	5.8
9.02 ICT PCT patents, applications/million pop.	21	17.1
9.03 Impact of ICTs on organizational models*	7	5.6
9.04 Knowledge-intensive jobs, % workforce	76	18.2
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	8	6.0
10.02 Internet access in schools*	18	5.9
10.03 ICT use & gov't efficiency*	3	6.0
10.04 E-Participation Index, 0–1 (best)	45	0.61

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Romania

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>66..</b>	<b>4.1</b>
Networked Readiness Index (out of 143).....	63.....	4.2
Networked Readiness Index 2014 (out of 148).....	75.....	3.9
Networked Readiness Index 2013 (out of 144).....	75.....	3.9
<b>A. Environment subindex.....</b>	<b>65.....</b>	<b>4.0</b>
1st pillar: Political and regulatory environment.....	66.....	3.8
2nd pillar: Business and innovation environment.....	71.....	4.2
<b>B. Readiness subindex.....</b>	<b>53.....</b>	<b>5.1</b>
3rd pillar: Infrastructure.....	55.....	4.6
4th pillar: Affordability.....	73.....	5.2
5th pillar: Skills.....	41.....	5.5
<b>C. Usage subindex.....</b>	<b>68.....</b>	<b>3.9</b>
6th pillar: Individual usage.....	60.....	4.7
7th pillar: Business usage.....	68.....	3.6
8th pillar: Government usage.....	96.....	3.5
<b>D. Impact subindex.....</b>	<b>77.....</b>	<b>3.6</b>
9th pillar: Economic impacts.....	72.....	3.2
10th pillar: Social impacts.....	79.....	3.9



## The Networked Readiness Index in detail

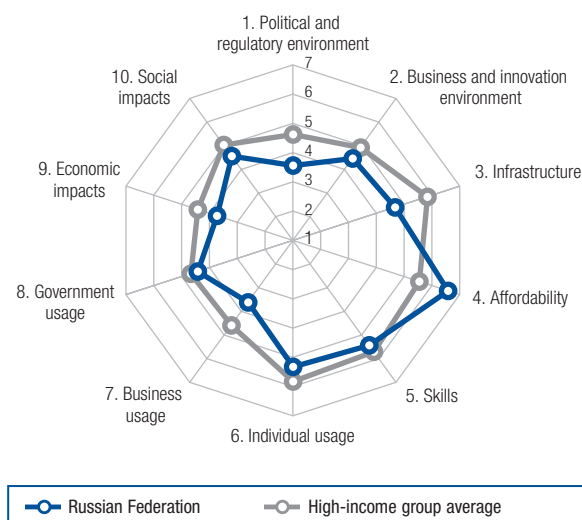
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	106.....	3.1
1.02 Laws relating to ICTs*.....	60.....	4.1
1.03 Judicial independence*.....	66.....	4.0
1.04 Efficiency of legal system in settling disputes*.....	91.....	3.3
1.05 Efficiency of legal system in challenging regs*.....	83.....	3.3
1.06 Intellectual property protection*.....	72.....	3.9
1.07 Software piracy rate, % software installed.....	56.....	62
1.08 No. procedures to enforce a contract.....	42.....	34
1.09 No. days to enforce a contract.....	61.....	512
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	71.....	4.6
2.02 Venture capital availability*.....	103.....	2.4
2.03 Total tax rate, % profits.....	89.....	42.0
2.04 No. days to start a business.....	48.....	8
2.05 No. procedures to start a business.....	41.....	5
2.06 Intensity of local competition*.....	112.....	4.5
2.07 Tertiary education gross enrollment rate, %.....	52.....	52.2
2.08 Quality of management schools*.....	94.....	3.9
2.09 Gov't procurement of advanced tech*.....	104.....	2.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	67.....	2929.2
3.02 Mobile network coverage, % pop.....	37.....	99.9
3.03 Int'l Internet bandwidth, kb/s per user.....	24.....	117.3
3.04 Secure Internet servers/million pop.....	48.....	125.1
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	128.....	0.57
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	13.....	16.81
4.03 Internet & telephony competition, 0-2 (best).....	1.....	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	90.....	3.3
5.02 Quality of math & science education*.....	26.....	4.8
5.03 Secondary education gross enrollment rate, %.....	56.....	97.9
5.04 Adult literacy rate, %.....	21.....	98.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	85.....	105.9
6.02 Individuals using Internet, %.....	64.....	54.1
6.03 Households w/ personal computer, %.....	53.....	63.8
6.04 Households w/ Internet access, %.....	50.....	60.5
6.05 Fixed broadband Internet subs/100 pop.....	47.....	18.5
6.06 Mobile broadband subs/100 pop.....	60.....	49.4
6.07 Use of virtual social networks*.....	67.....	5.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	80.....	4.4
7.02 Capacity for innovation*.....	63.....	4.0
7.03 PCT patents, applications/million pop.....	52.....	3.2
7.04 ICT use for business-to-business transactions*.....	81.....	4.5
7.05 Business-to-consumer Internet use*.....	42.....	4.9
7.06 Extent of staff training*.....	89.....	3.8
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	105.....	3.3
8.02 Government Online Service Index, 0-1 (best).....	73.....	0.44
8.03 Gov't success in ICT promotion*.....	113.....	3.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	81.....	4.2
9.02 ICT PCT patents, applications/million pop.....	49.....	1.4
9.03 Impact of ICTs on organizational models*.....	71.....	4.1
9.04 Knowledge-intensive jobs, % workforce.....	66.....	21.5
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	98.....	3.8
10.02 Internet access in schools*.....	48.....	4.8
10.03 ICT use & gov't efficiency*.....	113.....	3.4
10.04 E-Participation Index, 0-1 (best).....	70.....	0.47

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Russian Federation

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>41</b>	<b>4.5</b>
Networked Readiness Index 2015 (out of 143).....	41	4.5
Networked Readiness Index 2014 (out of 148).....	50	4.3
Networked Readiness Index 2013 (out of 144).....	54	4.1
<b>A. Environment subindex</b> .....	<b>67</b>	<b>4.0</b>
1st pillar: Political and regulatory environment.....	88	3.6
2nd pillar: Business and innovation environment.....	57	4.5
<b>B. Readiness subindex</b> .....	<b>32</b>	<b>5.5</b>
3rd pillar: Infrastructure.....	52	4.7
4th pillar: Affordability.....	10	6.6
5th pillar: Skills.....	48	5.4
<b>C. Usage subindex</b> .....	<b>40</b>	<b>4.5</b>
6th pillar: Individual usage.....	40	5.3
7th pillar: Business usage.....	67	3.6
8th pillar: Government usage.....	44	4.4
<b>D. Impact subindex</b> .....	<b>41</b>	<b>4.1</b>
9th pillar: Economic impacts.....	38	3.7
10th pillar: Social impacts.....	45	4.6



## The Networked Readiness Index in detail

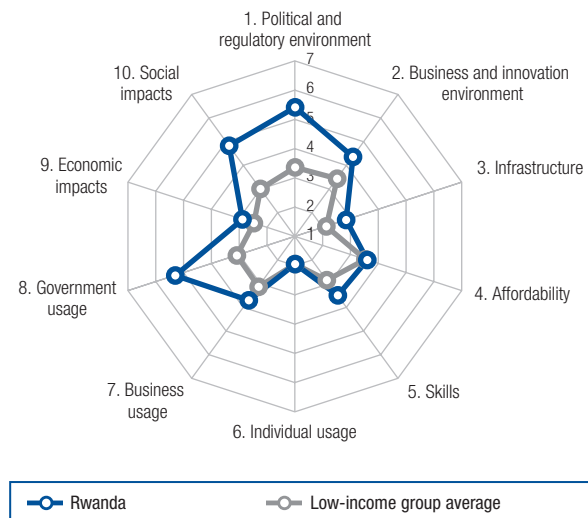
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	81	3.6
1.02 Laws relating to ICTs*	75	3.8
1.03 Judicial independence*	108	2.9
1.04 Efficiency of legal system in settling disputes*	101	3.2
1.05 Efficiency of legal system in challenging regs*	109	2.9
1.06 Intellectual property protection*	123	3.0
1.07 Software piracy rate, % software installed	56	62
1.08 No. procedures to enforce a contract	48	35
1.09 No. days to enforce a contract	10	307
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	100	4.2
2.02 Venture capital availability*	66	2.7
2.03 Total tax rate, % profits	99	47.0
2.04 No. days to start a business	65	11
2.05 No. procedures to start a business	40	4
2.06 Intensity of local competition*	77	5.0
2.07 Tertiary education gross enrollment rate, %	19	78.0
2.08 Quality of management schools*	100	3.7
2.09 Gov't procurement of advanced tech*	67	3.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	28	7369.6
3.02 Mobile network coverage, % pop.	104	95.0
3.03 Int'l Internet bandwidth, kb/s per user	75	29.9
3.04 Secure Internet servers/million pop.	55	84.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	2	0.03
4.02 Fixed broadband Internet tariffs, PPP \$/month	10	15.73
4.03 Internet & telephony competition, 0–2 (best)	101	1.50
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	82	3.5
5.02 Quality of math & science education*	58	4.3
5.03 Secondary education gross enrollment rate, %	53	98.8
5.04 Adult literacy rate, %	11	99.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	16	155.1
6.02 Individuals using Internet, %	40	70.5
6.03 Households w/ personal computer, %	43	71.0
6.04 Households w/ Internet access, %	41	69.9
6.05 Fixed broadband Internet subs/100 pop.	49	17.5
6.06 Mobile broadband subs/100 pop.	38	65.8
6.07 Use of virtual social networks*	66	5.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	98	4.2
7.02 Capacity for innovation*	84	3.8
7.03 PCT patents, applications/million pop.	41	7.9
7.04 ICT use for business-to-business transactions*	60	4.8
7.05 Business-to-consumer Internet use*	35	5.1
7.06 Extent of staff training*	83	3.8
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	76	3.8
8.02 Government Online Service Index, 0–1 (best)	27	0.71
8.03 Gov't success in ICT promotion*	54	4.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	97	4.0
9.02 ICT PCT patents, applications/million pop.	38	2.8
9.03 Impact of ICTs on organizational models*	75	4.0
9.04 Knowledge-intensive jobs, % workforce	14	44.2
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	88	3.9
10.02 Internet access in schools*	36	5.1
10.03 ICT use & gov't efficiency*	61	4.1
10.04 E-Participation Index, 0–1 (best)	30	0.69

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Rwanda

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>80..</b>	<b>3.9</b>
Networked Readiness Index (out of 143).....	83.....	3.9
Networked Readiness Index 2014 (out of 148).....	85.....	3.8
Networked Readiness Index 2013 (out of 144).....	88.....	3.7
<b>A. Environment subindex.....</b>	<b>27.....</b>	<b>4.9</b>
1st pillar: Political and regulatory environment.....	12.....	5.4
2nd pillar: Business and innovation environment.....	63.....	4.4
<b>B. Readiness subindex.....</b>	<b>115.....</b>	<b>3.3</b>
3rd pillar: Infrastructure.....	106.....	2.8
4th pillar: Affordability.....	114.....	3.6
5th pillar: Skills.....	117.....	3.5
<b>C. Usage subindex.....</b>	<b>83.....</b>	<b>3.6</b>
6th pillar: Individual usage.....	127.....	1.9
7th pillar: Business usage.....	60.....	3.7
8th pillar: Government usage.....	16.....	5.3
<b>D. Impact subindex.....</b>	<b>55.....</b>	<b>3.9</b>
9th pillar: Economic impacts.....	99.....	2.9
10th pillar: Social impacts.....	38.....	4.8



## The Networked Readiness Index in detail

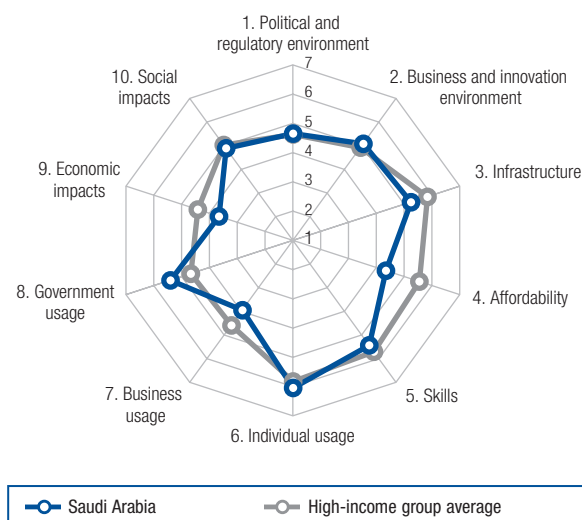
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies* .....	6 .....	5.7
1.02 Laws relating to ICTs* .....	32 .....	4.7
1.03 Judicial independence* .....	26 .....	5.2
1.04 Efficiency of legal system in settling disputes* .....	12 .....	5.4
1.05 Efficiency of legal system in challenging regs* .....	18 .....	5.0
1.06 Intellectual property protection* .....	28 .....	5.1
1.07 Software piracy rate, % software installed.....	n/a .....	n/a
1.08 No. procedures to enforce a contract .....	3 .....	23
1.09 No. days to enforce a contract .....	4 .....	230
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies* .....	45 .....	5.2
2.02 Venture capital availability* .....	30 .....	3.4
2.03 Total tax rate, % profits .....	52 .....	33.0
2.04 No. days to start a business .....	28 .....	6
2.05 No. procedures to start a business .....	74 .....	7
2.06 Intensity of local competition* .....	70 .....	5.0
2.07 Tertiary education gross enrollment rate, %.....	120 .....	7.5
2.08 Quality of management schools* .....	74 .....	4.1
2.09 Gov't procurement of advanced tech* .....	6 .....	4.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita .....	136 .....	28.7
3.02 Mobile network coverage, % pop. ....	37 .....	99.9
3.03 Int'l Internet bandwidth, kb/s per user.....	105 .....	8.9
3.04 Secure Internet servers/million pop. ....	109 .....	3.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	55 .....	0.20
4.02 Fixed broadband Internet tariffs, PPP \$/month	136 .....	1040.24
4.03 Internet & telephony competition, 0-2 (best).....	68 .....	1.93
<b>5th pillar: Skills</b>		
5.01 Quality of education system* .....	45 .....	4.2
5.02 Quality of math & science education*.....	59 .....	4.3
5.03 Secondary education gross enrollment rate, %	125 .....	40.2
5.04 Adult literacy rate, % .....	96 .....	70.5

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	131 .....	64.0
6.02 Individuals using Internet, %.....	124 .....	10.6
6.03 Households w/ personal computer, % .....	134 .....	3.4
6.04 Households w/ Internet access, % .....	132 .....	3.8
6.05 Fixed broadband Internet subs/100 pop.....	134 .....	0.0
6.06 Mobile broadband subs/100 pop.....	112 .....	11.1
6.07 Use of virtual social networks* .....	99 .....	5.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption* .....	47 .....	5.0
7.02 Capacity for innovation* .....	62 .....	4.0
7.03 PCT patents, applications/million pop. ....	115 .....	0.0
7.04 ICT use for business-to-business transactions* ..	59 .....	4.8
7.05 Business-to-consumer Internet use* .....	101 .....	4.0
7.06 Extent of staff training* .....	57 .....	4.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision* .....	4 .....	5.8
8.02 Government Online Service Index, 0-1 (best).....	63 .....	0.51
8.03 Gov't success in ICT promotion* .....	2 .....	6.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models* .....	32 .....	5.1
9.02 ICT PCT patents, applications/million pop. ....	103 .....	0.0
9.03 Impact of ICTs on organizational models* .....	67 .....	4.2
9.04 Knowledge-intensive jobs, % workforce.....	107 .....	3.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services* .....	31 .....	5.3
10.02 Internet access in schools* .....	66 .....	4.4
10.03 ICT use & gov't efficiency* .....	5 .....	5.6
10.04 E-Participation Index, 0-1 (best).....	63 .....	0.51

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Saudi Arabia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>33</b>	<b>4.8</b>
Networked Readiness Index 2015 (out of 143).....	35	4.7
Networked Readiness Index 2014 (out of 148).....	32	4.8
Networked Readiness Index 2013 (out of 144).....	31	4.8
<b>A. Environment subindex</b> .....	<b>28</b>	<b>4.9</b>
1st pillar: Political and regulatory environment.....	29	4.6
2nd pillar: Business and innovation environment.....	25	5.1
<b>B. Readiness subindex</b> .....	<b>60</b>	<b>5.0</b>
3rd pillar: Infrastructure.....	36	5.2
4th pillar: Affordability.....	101	4.3
5th pillar: Skills.....	49	5.4
<b>C. Usage subindex</b> .....	<b>29</b>	<b>5.1</b>
6th pillar: Individual usage.....	21	6.0
7th pillar: Business usage.....	42	3.9
8th pillar: Government usage.....	11	5.4
<b>D. Impact subindex</b> .....	<b>38</b>	<b>4.3</b>
9th pillar: Economic impacts.....	40	3.7
10th pillar: Social impacts.....	36	4.9



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	20	4.8
1.02 Laws relating to ICTs*	30	4.7
1.03 Judicial independence*	25	5.3
1.04 Efficiency of legal system in settling disputes*	27	4.7
1.05 Efficiency of legal system in challenging regs*	26	4.4
1.06 Intellectual property protection*	30	5.0
1.07 Software piracy rate, % software installed	38	5.0
1.08 No. procedures to enforce a contract	94	4.0
1.09 No. days to enforce a contract	79	5.75
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	39	5.4
2.02 Venture capital availability*	27	3.5
2.03 Total tax rate, % profits	6	15.0
2.04 No. days to start a business	97	19
2.05 No. procedures to start a business	125	12
2.06 Intensity of local competition*	40	5.4
2.07 Tertiary education gross enrollment rate, %	42	61.1
2.08 Quality of management schools*	62	4.3
2.09 Gov't procurement of advanced tech*	7	4.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	17	9404.2
3.02 Mobile network coverage, % pop.	62	99.4
3.03 Int'l Internet bandwidth, kb/s per user	69	34.0
3.04 Secure Internet servers/million pop.	67	45.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	89	0.32
4.02 Fixed broadband Internet tariffs, PPP \$/month	106	56.74
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	47	4.1
5.02 Quality of math & science education*	69	4.1
5.03 Secondary education gross enrollment rate, %	24	108.3
5.04 Adult literacy rate, %	53	94.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	3	179.6
6.02 Individuals using Internet, %	50	63.7
6.03 Households w/ personal computer, %	31	80.0
6.04 Households w/ Internet access, %	7	94.0
6.05 Fixed broadband Internet subs/100 pop.	37	23.4
6.06 Mobile broadband subs/100 pop.	15	99.0
6.07 Use of virtual social networks*	31	6.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	30	5.4
7.02 Capacity for innovation*	57	4.1
7.03 PCT patents, applications/million pop.	47	5.9
7.04 ICT use for business-to-business transactions*	36	5.3
7.05 Business-to-consumer Internet use*	66	4.5
7.06 Extent of staff training*	53	4.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	7	5.3
8.02 Government Online Service Index, 0–1 (best)	18	0.77
8.03 Gov't success in ICT promotion*	9	5.3
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	33	5.0
9.02 ICT PCT patents, applications/million pop.	48	1.5
9.03 Impact of ICTs on organizational models*	41	4.6
9.04 Knowledge-intensive jobs, % workforce	48	28.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	33	5.2
10.02 Internet access in schools*	63	4.4
10.03 ICT use & gov't efficiency*	8	5.5
10.04 E-Participation Index, 0–1 (best)	51	0.57

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

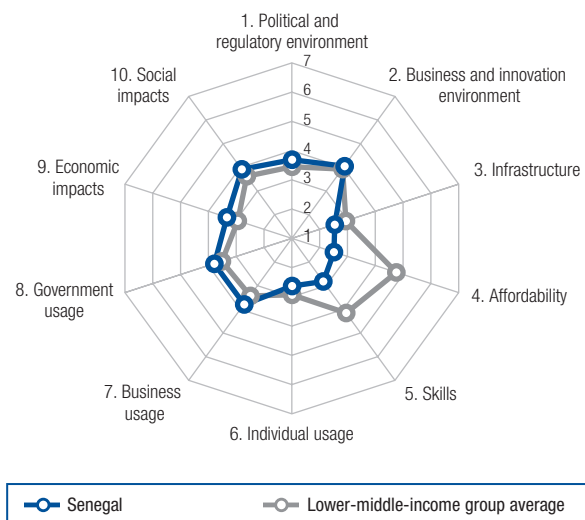
# Senegal

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 107..3.4

Networked Readiness Index (out of 143)..... 106..... 3.3  
 Networked Readiness Index 2014 (out of 148)..... 114..... 3.3  
 Networked Readiness Index 2013 (out of 144)..... 107..... 3.3

- A. Environment subindex..... 80..... 3.9**
  - 1st pillar: Political and regulatory environment..... 76..... 3.7
  - 2nd pillar: Business and innovation environment..... 88..... 4.0
- B. Readiness subindex ..... 129..... 2.6**
  - 3rd pillar: Infrastructure ..... 118..... 2.5
  - 4th pillar: Affordability ..... 130..... 2.5
  - 5th pillar: Skills..... 128..... 2.8
- C. Usage subindex..... 95..... 3.4**
  - 6th pillar: Individual usage..... 106..... 2.6
  - 7th pillar: Business usage..... 53..... 3.8
  - 8th pillar: Government usage..... 68..... 3.8
- D. Impact subindex..... 72..... 3.6**
  - 9th pillar: Economic impacts..... 63..... 3.3
  - 10th pillar: Social impacts..... 81..... 3.9



## The Networked Readiness Index in detail

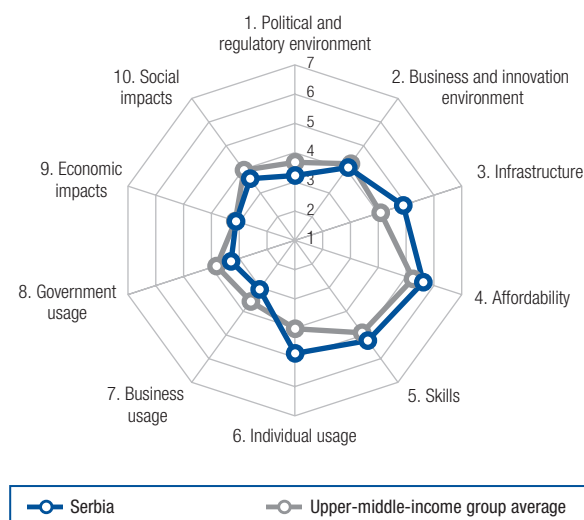
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	39	4.2
1.02 Laws relating to ICTs*	73	3.9
1.03 Judicial independence*	74	3.8
1.04 Efficiency of legal system in settling disputes*	38	4.3
1.05 Efficiency of legal system in challenging regs*	40	4.1
1.06 Intellectual property protection*	68	3.9
1.07 Software piracy rate, % software installed.....	79	77
1.08 No. procedures to enforce a contract.....	118	43
1.09 No. days to enforce a contract.....	110	740
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	77	4.6
2.02 Venture capital availability*.....	50	2.9
2.03 Total tax rate, % profits.....	100	47.3
2.04 No. days to start a business.....	34	6
2.05 No. procedures to start a business.....	22	4
2.06 Intensity of local competition*.....	80	4.9
2.07 Tertiary education gross enrollment rate, %.....	121	7.4
2.08 Quality of management schools*.....	38	4.7
2.09 Gov't procurement of advanced tech*.....	35	3.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	119	261.0
3.02 Mobile network coverage, % pop.....	114	91.6
3.03 Int'l Internet bandwidth, kb/s per user.....	106	8.3
3.04 Secure Internet servers/million pop.....	111	3.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	124	0.50
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	118	79.60
4.03 Internet & telephony competition, 0-2 (best).....	93	1.71
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	63	3.8
5.02 Quality of math & science education*.....	82	3.9
5.03 Secondary education gross enrollment rate, %.....	127	40.1
5.04 Adult literacy rate, %.....	107	55.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	98	98.8
6.02 Individuals using Internet, %.....	109	17.7
6.03 Households w/ personal computer, %.....	110	11.6
6.04 Households w/ Internet access, %.....	107	12.6
6.05 Fixed broadband Internet subs/100 pop.....	110	0.7
6.06 Mobile broadband subs/100 pop.....	96	23.7
6.07 Use of virtual social networks*.....	97	5.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	42	5.0
7.02 Capacity for innovation*.....	38	4.4
7.03 PCT patents, applications/million pop.....	121	0.0
7.04 ICT use for business-to-business transactions*.....	76	4.6
7.05 Business-to-consumer Internet use*.....	67	4.5
7.06 Extent of staff training*.....	77	3.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	58	4.1
8.02 Government Online Service Index, 0-1 (best).....	98	0.31
8.03 Gov't success in ICT promotion*.....	41	4.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	55	4.6
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	53	4.4
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	72	4.1
10.02 Internet access in schools*.....	65	4.4
10.03 ICT use & gov't efficiency*.....	59	4.1
10.04 E-Participation Index, 0-1 (best).....	86	0.35

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Serbia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>75..</b>	<b>4.0</b>
Networked Readiness Index 2015 (out of 143).....	77	4.0
Networked Readiness Index 2014 (out of 148).....	80	3.9
Networked Readiness Index 2013 (out of 144).....	87	3.7
<b>A. Environment subindex.....</b>	<b>103</b>	<b>3.7</b>
1st pillar: Political and regulatory environment.....	110	3.2
2nd pillar: Business and innovation environment.....	82	4.1
<b>B. Readiness subindex.....</b>	<b>48</b>	<b>5.2</b>
3rd pillar: Infrastructure.....	45	4.9
4th pillar: Affordability.....	56	5.6
5th pillar: Skills.....	61	5.2
<b>C. Usage subindex.....</b>	<b>79</b>	<b>3.7</b>
6th pillar: Individual usage.....	54	4.9
7th pillar: Business usage.....	125	3.1
8th pillar: Government usage.....	106	3.3
<b>D. Impact subindex.....</b>	<b>89</b>	<b>3.4</b>
9th pillar: Economic impacts.....	79	3.1
10th pillar: Social impacts.....	93	3.6



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	89	3.4
1.02 Laws relating to ICTs*	89	3.6
1.03 Judicial independence*	122	2.6
1.04 Efficiency of legal system in settling disputes*	127	2.7
1.05 Efficiency of legal system in challenging regs*	124	2.6
1.06 Intellectual property protection*	128	3.0
1.07 Software piracy rate, % software installed	67	69
1.08 No. procedures to enforce a contract	58	36
1.09 No. days to enforce a contract	98	635
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	107	4.0
2.02 Venture capital availability*	129	1.9
2.03 Total tax rate, % profits	77	39.7
2.04 No. days to start a business	72	12
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	124	4.3
2.07 Tertiary education gross enrollment rate, %	44	58.1
2.08 Quality of management schools*	116	3.4
2.09 Gov't procurement of advanced tech*	109	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	40	5475.5
3.02 Mobile network coverage, % pop.	54	99.8
3.03 Int'l Internet bandwidth, kb/s per user	26	112.4
3.04 Secure Internet servers/million pop.	69	43.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	64	0.23
4.02 Fixed broadband Internet tariffs, PPP \$/month	76	36.05
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	110	3.1
5.02 Quality of math & science education*	48	4.4
5.03 Secondary education gross enrollment rate, %	64	94.3
5.04 Adult literacy rate, %	28	98.1

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	53	122.1
6.02 Individuals using Internet, %	65	53.5
6.03 Households w/ personal computer, %	50	65.6
6.04 Households w/ Internet access, %	62	51.8
6.05 Fixed broadband Internet subs/100 pop.	53	15.6
6.06 Mobile broadband subs/100 pop.	36	66.4
6.07 Use of virtual social networks*	68	5.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	127	3.8
7.02 Capacity for innovation*	131	3.1
7.03 PCT patents, applications/million pop.	49	3.8
7.04 ICT use for business-to-business transactions*	86	4.5
7.05 Business-to-consumer Internet use*	97	4.0
7.06 Extent of staff training*	134	3.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	114	3.2
8.02 Government Online Service Index, 0–1 (best)	81	0.39
8.03 Gov't success in ICT promotion*	117	3.3
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	107	3.9
9.02 ICT PCT patents, applications/million pop.	44	1.9
9.03 Impact of ICTs on organizational models*	114	3.4
9.04 Knowledge-intensive jobs, % workforce	46	29.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	107	3.6
10.02 Internet access in schools*	89	3.9
10.03 ICT use & gov't efficiency*	99	3.5
10.04 E-Participation Index, 0–1 (best)	78	0.41

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Seychelles

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 74.. 4.0

Networked Readiness Index (out of 143)..... 74..... 4.0  
 Networked Readiness Index 2014 (out of 148)..... 66..... 4.0  
 Networked Readiness Index 2013 (out of 144)..... 79..... 3.8

### A. Environment subindex..... 76..... 3.9

1st pillar: Political and regulatory environment..... 59..... 3.9  
 2nd pillar: Business and innovation environment..... 97..... 3.9

### B. Readiness subindex ..... 74..... 4.8

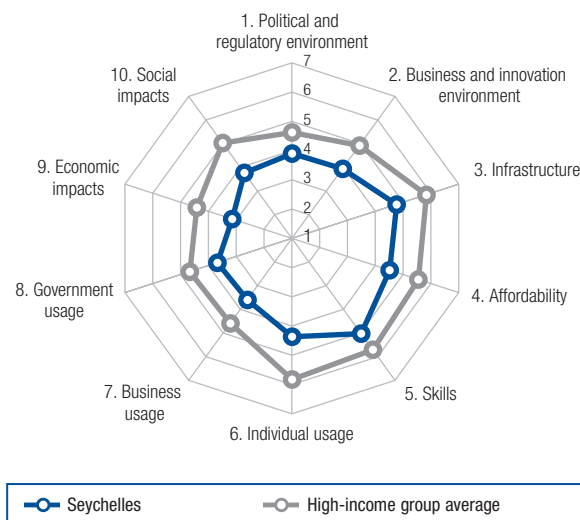
3rd pillar: Infrastructure ..... 49..... 4.7  
 4th pillar: Affordability ..... 98..... 4.5  
 5th pillar: Skills..... 74..... 5.0

### C. Usage subindex..... 70..... 3.9

6th pillar: Individual usage..... 62..... 4.3  
 7th pillar: Business usage..... 70..... 3.6  
 8th pillar: Government usage..... 79..... 3.7

### D. Impact subindex..... 82..... 3.5

9th pillar: Economic impacts..... 73..... 3.2  
 10th pillar: Social impacts..... 86..... 3.8



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	54	4.0
1.02 Laws relating to ICTs*	69	3.9
1.03 Judicial independence*	57	4.1
1.04 Efficiency of legal system in settling disputes*	49	4.0
1.05 Efficiency of legal system in challenging regs*	75	3.4
1.06 Intellectual property protection*	75	3.8
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	58	3.6
1.09 No. days to enforce a contract.....	120	915
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	60	4.9
2.02 Venture capital availability*	67	2.7
2.03 Total tax rate, % profits.....	39	30.1
2.04 No. days to start a business.....	122	32
2.05 No. procedures to start a business.....	105	9
2.06 Intensity of local competition*.....	128	4.2
2.07 Tertiary education gross enrollment rate, %.....	124	6.5
2.08 Quality of management schools*.....	60	4.3
2.09 Gov't procurement of advanced tech*.....	40	3.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	57	3578.6
3.02 Mobile network coverage, % pop.....	90	98.0
3.03 Int'l Internet bandwidth, kb/s per user.....	76	28.9
3.04 Secure Internet servers/million pop.....	29	469.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	122	0.49
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	43	26.80
4.03 Internet & telephony competition, 0-2 (best).....	121	1.08
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	38	4.3
5.02 Quality of math & science education*.....	56	4.3
5.03 Secondary education gross enrollment rate, %.....	98	74.6
5.04 Adult literacy rate, %.....	48	95.2

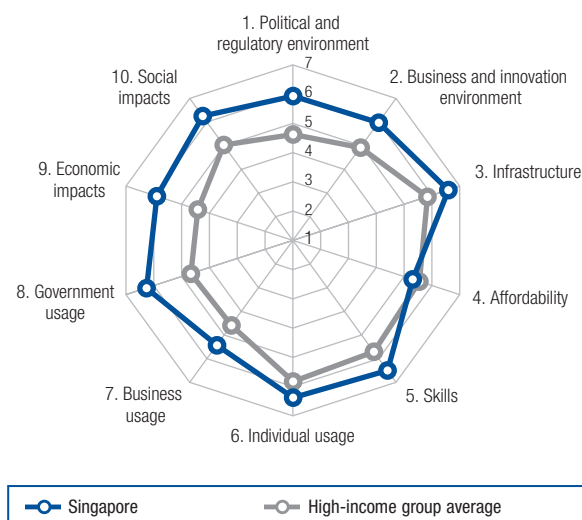
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	10	162.2
6.02 Individuals using Internet, %.....	63	54.3
6.03 Households w/ personal computer, %.....	56	61.8
6.04 Households w/ Internet access, %.....	58	55.0
6.05 Fixed broadband Internet subs/100 pop.....	60	12.7
6.06 Mobile broadband subs/100 pop.....	109	12.7
6.07 Use of virtual social networks*.....	76	5.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	61	4.7
7.02 Capacity for innovation*.....	75	3.9
7.03 PCT patents, applications/million pop.....	48	5.6
7.04 ICT use for business-to-business transactions*.....	98	4.3
7.05 Business-to-consumer Internet use*.....	96	4.0
7.06 Extent of staff training*.....	60	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	60	4.0
8.02 Government Online Service Index, 0-1 (best).....	91	0.33
8.03 Gov't success in ICT promotion*.....	65	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	110	3.9
9.02 ICT PCT patents, applications/million pop.....	32	5.6
9.03 Impact of ICTs on organizational models*.....	102	3.6
9.04 Knowledge-intensive jobs, % workforce.....	52	26.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	80	4.0
10.02 Internet access in schools*.....	72	4.2
10.03 ICT use & gov't efficiency*.....	51	4.3
10.04 E-Participation Index, 0-1 (best).....	105	0.25

Note: Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Singapore

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>1</b>	<b>6.0</b>
Networked Readiness Index 2015 (out of 143).....	1	6.0
Networked Readiness Index 2014 (out of 148).....	2	6.0
Networked Readiness Index 2013 (out of 144).....	2	6.0
<b>A. Environment subindex</b> .....	<b>1</b>	<b>6.0</b>
1st pillar: Political and regulatory environment.....	2	5.9
2nd pillar: Business and innovation environment.....	1	6.0
<b>B. Readiness subindex</b> .....	<b>16</b>	<b>6.1</b>
3rd pillar: Infrastructure.....	15	6.6
4th pillar: Affordability.....	72	5.3
5th pillar: Skills.....	1	6.5
<b>C. Usage subindex</b> .....	<b>1</b>	<b>6.0</b>
6th pillar: Individual usage.....	12	6.4
7th pillar: Business usage.....	14	5.4
8th pillar: Government usage.....	1	6.3
<b>D. Impact subindex</b> .....	<b>1</b>	<b>6.1</b>
9th pillar: Economic impacts.....	5	5.9
10th pillar: Social impacts.....	1	6.2



## The Networked Readiness Index in detail

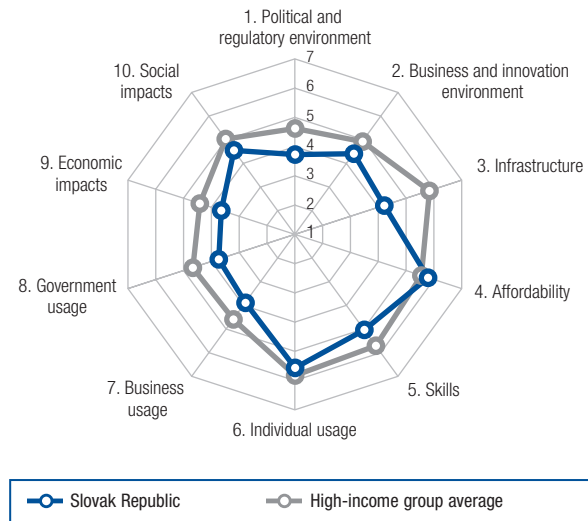
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	1	6.3
1.02 Laws relating to ICTs*	5	5.7
1.03 Judicial independence*	23	5.5
1.04 Efficiency of legal system in settling disputes*	1	6.2
1.05 Efficiency of legal system in challenging regs*	10	5.2
1.06 Intellectual property protection*	4	6.2
1.07 Software piracy rate, % software installed	18	32
1.08 No. procedures to enforce a contract	1	21
1.09 No. days to enforce a contract	1	150
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	13	6.2
2.02 Venture capital availability*	3	4.6
2.03 Total tax rate, % profits	9	18.4
2.04 No. days to start a business	6	3
2.05 No. procedures to start a business	11	3
2.06 Intensity of local competition*	21	5.6
2.07 Tertiary education gross enrollment rate, %	10	82.7
2.08 Quality of management schools*	4	5.9
2.09 Gov't procurement of advanced tech*	4	5.0
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	19	8883.5
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	4	616.5
3.04 Secure Internet servers/million pop.	22	822.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	51	0.19
4.02 Fixed broadband Internet tariffs, PPP \$/month	99	46.31
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	3	5.8
5.02 Quality of math & science education*	1	6.4
5.03 Secondary education gross enrollment rate, %	27	107.6
5.04 Adult literacy rate, %	37	96.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	28	146.9
6.02 Individuals using Internet, %	24	82.0
6.03 Households w/ personal computer, %	12	88.0
6.04 Households w/ Internet access, %	16	88.0
6.05 Fixed broadband Internet subs/100 pop.	30	26.7
6.06 Mobile broadband subs/100 pop.	1	141.7
6.07 Use of virtual social networks*	8	6.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	16	5.7
7.02 Capacity for innovation*	19	5.1
7.03 PCT patents, applications/million pop.	13	138.4
7.04 ICT use for business-to-business transactions*	13	5.8
7.05 Business-to-consumer Internet use*	24	5.5
7.06 Extent of staff training*	4	5.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	2	5.9
8.02 Government Online Service Index, 0–1 (best)	2	0.99
8.03 Gov't success in ICT promotion*	3	5.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	6	5.8
9.02 ICT PCT patents, applications/million pop.	9	55.8
9.03 Impact of ICTs on organizational models*	11	5.5
9.04 Knowledge-intensive jobs, % workforce	2	52.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	1	6.2
10.02 Internet access in schools*	2	6.3
10.03 ICT use & gov't efficiency*	2	6.1
10.04 E-Participation Index, 0–1 (best)	10	0.90

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Slovak Republic

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>47</b>	<b>4.4</b>
Networked Readiness Index (out of 143).....	59	4.2
Networked Readiness Index 2014 (out of 148).....	59	4.1
Networked Readiness Index 2013 (out of 144).....	61	4.0
<b>A. Environment subindex.....</b>	<b>61</b>	<b>4.1</b>
1st pillar: Political and regulatory environment.....	74	3.7
2nd pillar: Business and innovation environment.....	60	4.4
<b>B. Readiness subindex.....</b>	<b>59</b>	<b>5.0</b>
3rd pillar: Infrastructure.....	70	4.2
4th pillar: Affordability.....	51	5.8
5th pillar: Skills.....	72	5.0
<b>C. Usage subindex.....</b>	<b>45</b>	<b>4.4</b>
6th pillar: Individual usage.....	34	5.6
7th pillar: Business usage.....	48	3.9
8th pillar: Government usage.....	73	3.7
<b>D. Impact subindex.....</b>	<b>44</b>	<b>4.1</b>
9th pillar: Economic impacts.....	41	3.6
10th pillar: Social impacts.....	47	4.6



## The Networked Readiness Index in detail

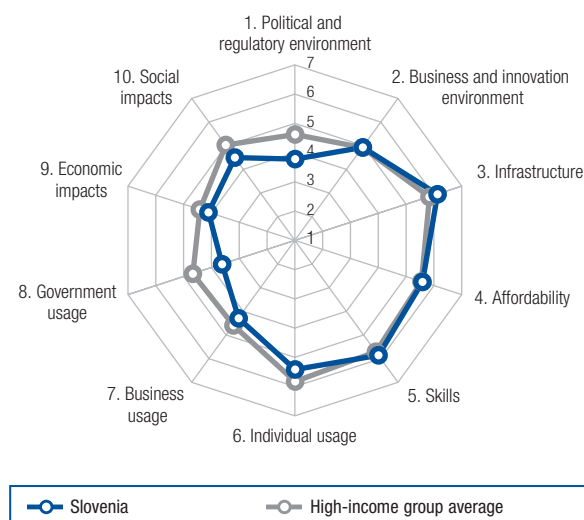
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	94	3.4
1.02 Laws relating to ICTs*	46	4.3
1.03 Judicial independence*	124	2.6
1.04 Efficiency of legal system in settling disputes*	137	2.2
1.05 Efficiency of legal system in challenging regs*	131	2.4
1.06 Intellectual property protection*	56	4.1
1.07 Software piracy rate, % software installed	24	3.7
1.08 No. procedures to enforce a contract	34	3.3
1.09 No. days to enforce a contract	105	7.05
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	37	5.5
2.02 Venture capital availability*	57	2.9
2.03 Total tax rate, % profits	113	51.2
2.04 No. days to start a business	70	12
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	27	5.5
2.07 Tertiary education gross enrollment rate, %	49	54.4
2.08 Quality of management schools*	95	3.8
2.09 Gov't procurement of advanced tech*	87	3.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	43	5267.3
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	99	11.5
3.04 Secure Internet servers/million pop.	32	321.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	66	0.24
4.02 Fixed broadband Internet tariffs, PPP \$/month	55	29.80
4.03 Internet & telephony competition, 0-2 (best)	73	1.88
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	120	2.8
5.02 Quality of math & science education*	76	4.0
5.03 Secondary education gross enrollment rate, %	68	91.8
5.04 Adult literacy rate, %	13	99.6

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	60	116.9
6.02 Individuals using Internet, %	26	80.0
6.03 Households w/ personal computer, %	30	80.5
6.04 Households w/ Internet access, %	30	78.4
6.05 Fixed broadband Internet subs/100 pop.	41	21.8
6.06 Mobile broadband subs/100 pop.	45	59.5
6.07 Use of virtual social networks*	58	5.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	55	4.8
7.02 Capacity for innovation*	77	3.8
7.03 PCT patents, applications/million pop.	36	10.3
7.04 ICT use for business-to-business transactions*	27	5.5
7.05 Business-to-consumer Internet use*	16	5.7
7.06 Extent of staff training*	82	3.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	96	3.5
8.02 Government Online Service Index, 0-1 (best)	65	0.49
8.03 Gov't success in ICT promotion*	88	3.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	57	4.6
9.02 ICT PCT patents, applications/million pop.	42	2.2
9.03 Impact of ICTs on organizational models*	44	4.5
9.04 Knowledge-intensive jobs, % workforce	42	31.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	59	4.3
10.02 Internet access in schools*	32	5.3
10.03 ICT use & gov't efficiency*	80	3.8
10.04 E-Participation Index, 0-1 (best)	40	0.63

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Slovenia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>37</b>	<b>4.7</b>
Networked Readiness Index 2015 (out of 143).....	37	4.6
Networked Readiness Index 2014 (out of 148).....	36	4.6
Networked Readiness Index 2013 (out of 144).....	37	4.5
<b>A. Environment subindex</b> .....	<b>45</b>	<b>4.4</b>
1st pillar: Political and regulatory environment.....	67	3.8
2nd pillar: Business and innovation environment.....	34	4.9
<b>B. Readiness subindex</b> .....	<b>25</b>	<b>5.8</b>
3rd pillar: Infrastructure.....	24	6.1
4th pillar: Affordability.....	60	5.6
5th pillar: Skills.....	21	5.8
<b>C. Usage subindex</b> .....	<b>42</b>	<b>4.4</b>
6th pillar: Individual usage.....	38	5.4
7th pillar: Business usage.....	30	4.3
8th pillar: Government usage.....	86	3.6
<b>D. Impact subindex</b> .....	<b>37</b>	<b>4.3</b>
9th pillar: Economic impacts.....	29	4.1
10th pillar: Social impacts.....	50	4.5



## The Networked Readiness Index in detail

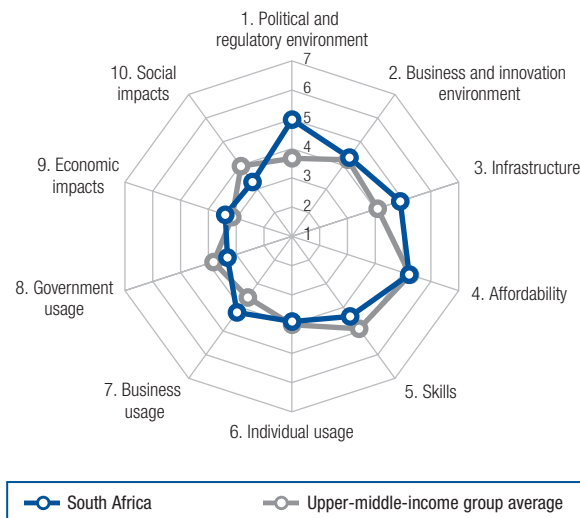
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	116	2.9
1.02 Laws relating to ICTs*	35	4.6
1.03 Judicial independence*	85	3.5
1.04 Efficiency of legal system in settling disputes*	114	2.9
1.05 Efficiency of legal system in challenging regs*	105	3.0
1.06 Intellectual property protection*	39	4.5
1.07 Software piracy rate, % software installed	31	4.5
1.08 No. procedures to enforce a contract	27	3.2
1.09 No. days to enforce a contract	130	1160
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	38	5.5
2.02 Venture capital availability*	104	2.4
2.03 Total tax rate, % profits	42	31.0
2.04 No. days to start a business	34	6
2.05 No. procedures to start a business	3	2
2.06 Intensity of local competition*	64	5.1
2.07 Tertiary education gross enrollment rate, %	7	85.2
2.08 Quality of management schools*	47	4.5
2.09 Gov't procurement of advanced tech*	119	2.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	25	7666.7
3.02 Mobile network coverage, % pop.	55	99.7
3.03 Int'l Internet bandwidth, kb/s per user	23	121.1
3.04 Secure Internet servers/million pop.	27	648.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	85	0.30
4.02 Fixed broadband Internet tariffs, PPP \$/month	64	31.46
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	50	4.1
5.02 Quality of math & science education*	13	5.3
5.03 Secondary education gross enrollment rate, %	16	110.9
5.04 Adult literacy rate, %	12	99.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	73	112.1
6.02 Individuals using Internet, %	38	71.6
6.03 Households w/ personal computer, %	33	79.8
6.04 Households w/ Internet access, %	33	76.8
6.05 Fixed broadband Internet subs/100 pop.	32	26.6
6.06 Mobile broadband subs/100 pop.	64	46.7
6.07 Use of virtual social networks*	48	5.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	49	4.9
7.02 Capacity for innovation*	41	4.4
7.03 PCT patents, applications/million pop.	23	66.7
7.04 ICT use for business-to-business transactions*	40	5.2
7.05 Business-to-consumer Internet use*	48	4.8
7.06 Extent of staff training*	58	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	97	3.5
8.02 Government Online Service Index, 0–1 (best)	76	0.43
8.03 Gov't success in ICT promotion*	84	3.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	61	4.5
9.02 ICT PCT patents, applications/million pop.	24	13.0
9.03 Impact of ICTs on organizational models*	46	4.4
9.04 Knowledge-intensive jobs, % workforce	21	41.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	39	5.0
10.02 Internet access in schools*	21	5.7
10.03 ICT use & gov't efficiency*	66	4.0
10.04 E-Participation Index, 0–1 (best)	81	0.39

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# South Africa

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index</b> .....	<b>65</b>	<b>4.2</b>
Networked Readiness Index 2015 (out of 143).....	75	4.0
Networked Readiness Index 2014 (out of 148).....	70	4.0
Networked Readiness Index 2013 (out of 144).....	70	3.9
<b>A. Environment subindex</b> .....	<b>33</b>	<b>4.7</b>
1st pillar: Political and regulatory environment.....	26	5.0
2nd pillar: Business and innovation environment.....	65	4.3
<b>B. Readiness subindex</b> .....	<b>69</b>	<b>4.8</b>
3rd pillar: Infrastructure.....	44	4.9
4th pillar: Affordability.....	74	5.2
5th pillar: Skills.....	95	4.4
<b>C. Usage subindex</b> .....	<b>75</b>	<b>3.8</b>
6th pillar: Individual usage.....	77	3.9
7th pillar: Business usage.....	32	4.2
8th pillar: Government usage.....	105	3.3
<b>D. Impact subindex</b> .....	<b>93</b>	<b>3.4</b>
9th pillar: Economic impacts.....	57	3.4
10th pillar: Social impacts.....	112	3.3



## The Networked Readiness Index in detail

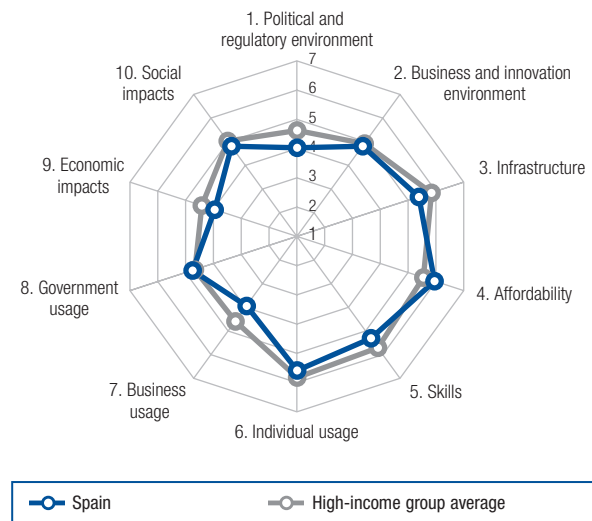
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	32	4.4
1.02 Laws relating to ICTs*.....	43	4.4
1.03 Judicial independence*.....	24	5.4
1.04 Efficiency of legal system in settling disputes*.....	14	5.3
1.05 Efficiency of legal system in challenging regs*.....	17	5.0
1.06 Intellectual property protection*.....	24	5.4
1.07 Software piracy rate, % software installed.....	20	3.4
1.08 No. procedures to enforce a contract.....	14	2.9
1.09 No. days to enforce a contract.....	89	6.00
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	41	5.3
2.02 Venture capital availability*.....	47	3.0
2.03 Total tax rate, % profits.....	30	28.8
2.04 No. days to start a business.....	125	4.6
2.05 No. procedures to start a business.....	54	6
2.06 Intensity of local competition*.....	43	5.4
2.07 Tertiary education gross enrollment rate, %.....	96	19.7
2.08 Quality of management schools*.....	24	5.2
2.09 Gov't procurement of advanced tech*.....	118	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	47	4763.1
3.02 Mobile network coverage, % pop.....	37	99.9
3.03 Int'l Internet bandwidth, kb/s per user.....	18	149.5
3.04 Secure Internet servers/million pop.....	50	115.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	58	0.22
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	61	30.60
4.03 Internet & telephony competition, 0-2 (best).....	122	1.07
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	137	2.2
5.02 Quality of math & science education*.....	139	2.0
5.03 Secondary education gross enrollment rate, %.....	54	98.2
5.04 Adult literacy rate, %.....	59	94.3

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	20	149.2
6.02 Individuals using Internet, %.....	71	49.0
6.03 Households w/ personal computer, %.....	90	28.1
6.04 Households w/ Internet access, %.....	76	37.3
6.05 Fixed broadband Internet subs/100 pop.....	93	3.2
6.06 Mobile broadband subs/100 pop.....	63	46.7
6.07 Use of virtual social networks*.....	73	5.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	28	5.4
7.02 Capacity for innovation*.....	32	4.6
7.03 PCT patents, applications/million pop.....	46	6.3
7.04 ICT use for business-to-business transactions*.....	35	5.3
7.05 Business-to-consumer Internet use*.....	64	4.6
7.06 Extent of staff training*.....	19	4.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	116	3.2
8.02 Government Online Service Index, 0-1 (best).....	83	0.39
8.03 Gov't success in ICT promotion*.....	111	3.4
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	60	4.5
9.02 ICT PCT patents, applications/million pop.....	47	1.7
9.03 Impact of ICTs on organizational models*.....	54	4.4
9.04 Knowledge-intensive jobs, % workforce.....	57	24.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	97	3.8
10.02 Internet access in schools*.....	119	3.2
10.03 ICT use & gov't efficiency*.....	117	3.2
10.04 E-Participation Index, 0-1 (best).....	89	0.33

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Spain

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>35</b>	<b>4.8</b>
Networked Readiness Index 2015 (out of 143).....	34	4.7
Networked Readiness Index 2014 (out of 148).....	34	4.7
Networked Readiness Index 2013 (out of 144).....	38	4.5
<b>A. Environment subindex</b> .....	<b>41</b>	<b>4.4</b>
1st pillar: Political and regulatory environment.....	47	4.0
2nd pillar: Business and innovation environment.....	37	4.8
<b>B. Readiness subindex</b> .....	<b>34</b>	<b>5.5</b>
3rd pillar: Infrastructure.....	34	5.4
4th pillar: Affordability.....	42	5.9
5th pillar: Skills.....	57	5.3
<b>C. Usage subindex</b> .....	<b>32</b>	<b>4.8</b>
6th pillar: Individual usage.....	33	5.6
7th pillar: Business usage.....	43	3.9
8th pillar: Government usage.....	32	4.7
<b>D. Impact subindex</b> .....	<b>34</b>	<b>4.4</b>
9th pillar: Economic impacts.....	35	4.0
10th pillar: Social impacts.....	39	4.8



## The Networked Readiness Index in detail

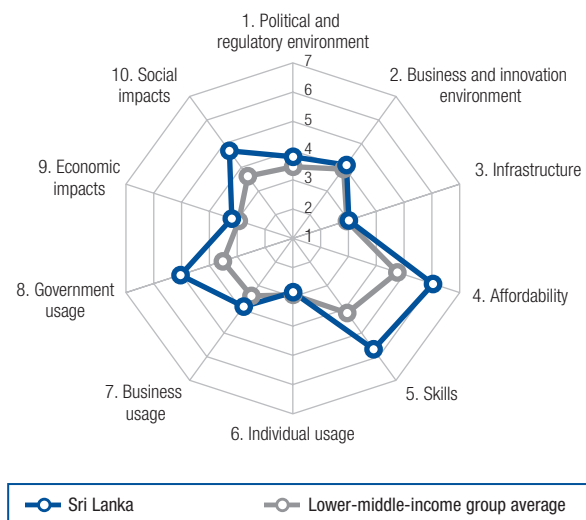
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	48	4.1
1.02 Laws relating to ICTs*	36	4.6
1.03 Judicial independence*	84	3.5
1.04 Efficiency of legal system in settling disputes*	88	3.3
1.05 Efficiency of legal system in challenging regs*	65	3.5
1.06 Intellectual property protection*	62	4.0
1.07 Software piracy rate, % software installed	31	4.5
1.08 No. procedures to enforce a contract	94	4.0
1.09 No. days to enforce a contract	58	5.10
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	34	5.5
2.02 Venture capital availability*	69	2.7
2.03 Total tax rate, % profits	111	50.0
2.04 No. days to start a business	81	14
2.05 No. procedures to start a business	74	7
2.06 Intensity of local competition*	19	5.6
2.07 Tertiary education gross enrollment rate, %	5	87.1
2.08 Quality of management schools*	6	5.8
2.09 Gov't procurement of advanced tech*	84	3.2
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	35	5990.4
3.02 Mobile network coverage, % pop.	49	99.8
3.03 Int'l Internet bandwidth, kb/s per user	27	111.5
3.04 Secure Internet servers/million pop.	33	316.8
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	39	0.15
4.02 Fixed broadband Internet tariffs, PPP \$/month	75	35.63
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	85	3.4
5.02 Quality of math & science education*	84	3.8
5.03 Secondary education gross enrollment rate, %	4	131.1
5.04 Adult literacy rate, %	29	98.1

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	81	107.8
6.02 Individuals using Internet, %	30	76.2
6.03 Households w/ personal computer, %	39	74.0
6.04 Households w/ Internet access, %	37	74.4
6.05 Fixed broadband Internet subs/100 pop.	27	27.3
6.06 Mobile broadband subs/100 pop.	25	77.3
6.07 Use of virtual social networks*	69	5.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	50	4.9
7.02 Capacity for innovation*	55	4.1
7.03 PCT patents, applications/million pop.	25	37.4
7.04 ICT use for business-to-business transactions*	50	5.0
7.05 Business-to-consumer Internet use*	45	4.9
7.06 Extent of staff training*	104	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	80	3.7
8.02 Government Online Service Index, 0–1 (best)	4	0.94
8.03 Gov't success in ICT promotion*	80	3.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	30	5.1
9.02 ICT PCT patents, applications/million pop.	28	9.4
9.03 Impact of ICTs on organizational models*	45	4.5
9.04 Knowledge-intensive jobs, % workforce	40	33.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	36	5.0
10.02 Internet access in schools*	67	4.3
10.03 ICT use & gov't efficiency*	53	4.2
10.04 E-Participation Index, 0–1 (best)	19	0.78

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Sri Lanka

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>63..</b>	<b>4.2</b>
Networked Readiness Index (out of 143).....	65.....	4.1
Networked Readiness Index 2014 (out of 148).....	76.....	3.9
Networked Readiness Index 2013 (out of 144).....	69.....	3.9
<b>A. Environment subindex.....</b>	<b>73.....</b>	<b>3.9</b>
1st pillar: Political and regulatory environment.....	64.....	3.8
2nd pillar: Business and innovation environment.....	81.....	4.1
<b>B. Readiness subindex.....</b>	<b>63.....</b>	<b>4.9</b>
3rd pillar: Infrastructure.....	103.....	3.0
4th pillar: Affordability.....	35.....	6.0
5th pillar: Skills.....	32.....	5.7
<b>C. Usage subindex.....</b>	<b>67.....</b>	<b>3.9</b>
6th pillar: Individual usage.....	102.....	2.8
7th pillar: Business usage.....	49.....	3.9
8th pillar: Government usage.....	20.....	5.0
<b>D. Impact subindex.....</b>	<b>49.....</b>	<b>4.0</b>
9th pillar: Economic impacts.....	70.....	3.2
10th pillar: Social impacts.....	42.....	4.7



## The Networked Readiness Index in detail

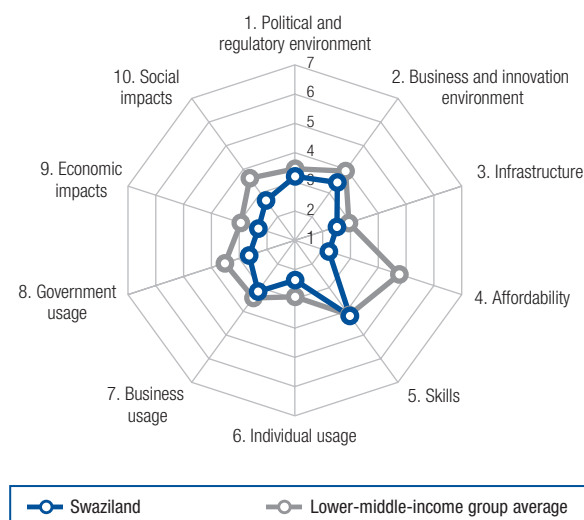
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	23	4.8
1.02 Laws relating to ICTs*	52	4.2
1.03 Judicial independence*	52	4.2
1.04 Efficiency of legal system in settling disputes*	26	4.7
1.05 Efficiency of legal system in challenging regs*	51	3.7
1.06 Intellectual property protection*	42	4.4
1.07 Software piracy rate, % software installed.....	92	83
1.08 No. procedures to enforce a contract.....	94	40
1.09 No. days to enforce a contract.....	134	1318
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	61	4.9
2.02 Venture capital availability*	60	2.8
2.03 Total tax rate, % profits.....	119	55.2
2.04 No. days to start a business.....	57	10
2.05 No. procedures to start a business.....	92	8
2.06 Intensity of local competition*.....	17	5.7
2.07 Tertiary education gross enrollment rate, %.....	95	20.7
2.08 Quality of management schools*.....	31	4.9
2.09 Gov't procurement of advanced tech*.....	32	3.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	108	587.0
3.02 Mobile network coverage, % pop.....	90	98.0
3.03 Int'l Internet bandwidth, kb/s per user.....	96	12.7
3.04 Secure Internet servers/million pop.....	92	11.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	4	0.05
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	3	12.56
4.03 Internet & telephony competition, 0-2 (best).....	128	0.88
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	24	4.7
5.02 Quality of math & science education*.....	25	4.8
5.03 Secondary education gross enrollment rate, %.....	44	99.7
5.04 Adult literacy rate, %.....	65	92.6

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	94	103.2
6.02 Individuals using Internet, %.....	100	25.8
6.03 Households w/ personal computer, %.....	100	17.8
6.04 Households w/ Internet access, %.....	104	15.3
6.05 Fixed broadband Internet subs/100 pop.....	96	2.6
6.06 Mobile broadband subs/100 pop.....	108	13.0
6.07 Use of virtual social networks*.....	74	5.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	51	4.9
7.02 Capacity for innovation*.....	36	4.5
7.03 PCT patents, applications/million pop.....	71	0.8
7.04 ICT use for business-to-business transactions*.....	45	5.1
7.05 Business-to-consumer Internet use*.....	46	4.9
7.06 Extent of staff training*.....	63	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	13	5.0
8.02 Government Online Service Index, 0-1 (best).....	37	0.65
8.03 Gov't success in ICT promotion*.....	10	5.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	53	4.7
9.02 ICT PCT patents, applications/million pop.....	72	0.2
9.03 Impact of ICTs on organizational models*.....	48	4.4
9.04 Knowledge-intensive jobs, % workforce.....	84	16.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	37	5.0
10.02 Internet access in schools*.....	79	4.0
10.03 ICT use & gov't efficiency*.....	21	4.9
10.04 E-Participation Index, 0-1 (best).....	33	0.65

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Swaziland

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>129..</b>	<b>2.9</b>
Networked Readiness Index 2015 (out of 143).....	125.....	3.0
Networked Readiness Index 2014 (out of 148).....	126.....	3.0
Networked Readiness Index 2013 (out of 144).....	136.....	2.7
<b>A. Environment subindex.....</b>	<b>122.....</b>	<b>3.3</b>
1st pillar: Political and regulatory environment.....	115.....	3.2
2nd pillar: Business and innovation environment.....	122.....	3.4
<b>B. Readiness subindex.....</b>	<b>123.....</b>	<b>3.0</b>
3rd pillar: Infrastructure.....	119.....	2.5
4th pillar: Affordability.....	133.....	2.2
5th pillar: Skills.....	99.....	4.2
<b>C. Usage subindex.....</b>	<b>127.....</b>	<b>2.7</b>
6th pillar: Individual usage.....	115.....	2.4
7th pillar: Business usage.....	116.....	3.2
8th pillar: Government usage.....	131.....	2.7
<b>D. Impact subindex.....</b>	<b>134.....</b>	<b>2.5</b>
9th pillar: Economic impacts.....	134.....	2.3
10th pillar: Social impacts.....	131.....	2.7



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	86	3.5
1.02 Laws relating to ICTs*	128	2.6
1.03 Judicial independence*	111	2.9
1.04 Efficiency of legal system in settling disputes*	78	3.5
1.05 Efficiency of legal system in challenging regs*	92	3.1
1.06 Intellectual property protection*	95	3.5
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	94	4.0
1.09 No. days to enforce a contract.....	123	956
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	122	3.9
2.02 Venture capital availability*	113	2.2
2.03 Total tax rate, % profits.....	59	34.7
2.04 No. days to start a business.....	117	30
2.05 No. procedures to start a business.....	125	12
2.06 Intensity of local competition*.....	87	4.8
2.07 Tertiary education gross enrollment rate, %.....	129	5.3
2.08 Quality of management schools*.....	122	3.3
2.09 Gov't procurement of advanced tech*.....	99	3.0
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	115	345.1
3.02 Mobile network coverage, % pop.....	100	96.8
3.03 Int'l Internet bandwidth, kb/s per user.....	135	1.7
3.04 Secure Internet servers/million pop.....	99	10.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	109	0.40
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	128	137.77
4.03 Internet & telephony competition, 0–2 (best).....	134	0.08
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	80	3.5
5.02 Quality of math & science education*.....	86	3.7
5.03 Secondary education gross enrollment rate, %.....	111	63.0
5.04 Adult literacy rate, %.....	75	87.5

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	124	72.3
6.02 Individuals using Internet, %.....	98	27.1
6.03 Households w/ personal computer, %.....	103	17.0
6.04 Households w/ Internet access, %.....	99	18.4
6.05 Fixed broadband Internet subs/100 pop.....	115	0.4
6.06 Mobile broadband subs/100 pop.....	118	8.0
6.07 Use of virtual social networks*.....	119	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	119	3.9
7.02 Capacity for innovation*.....	118	3.4
7.03 PCT patents, applications/million pop.....	93	0.2
7.04 ICT use for business-to-business transactions*.....	118	3.9
7.05 Business-to-consumer Internet use*.....	135	3.0
7.06 Extent of staff training*.....	71	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	117	3.2
8.02 Government Online Service Index, 0–1 (best).....	124	0.13
8.03 Gov't success in ICT promotion*.....	132	2.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	134	3.2
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	136	2.8
9.04 Knowledge-intensive jobs, % workforce.....	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	125	3.2
10.02 Internet access in schools*.....	131	2.6
10.03 ICT use & gov't efficiency*.....	124	3.0
10.04 E-Participation Index, 0–1 (best).....	123	0.16

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

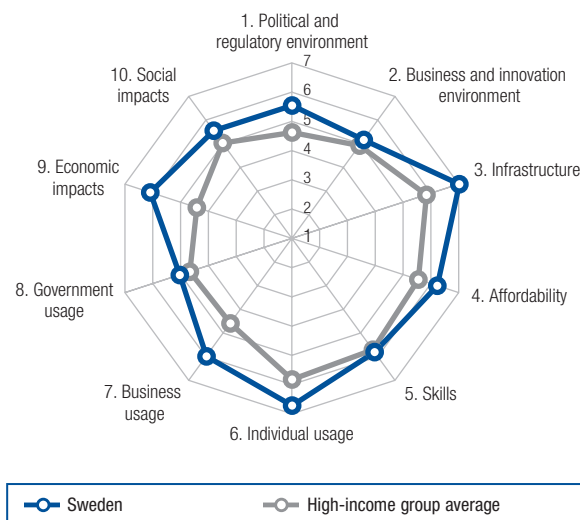
# Sweden

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 3..5.8

Networked Readiness Index (out of 143)..... 3..... 5.8  
 Networked Readiness Index 2014 (out of 148)..... 3..... 5.9  
 Networked Readiness Index 2013 (out of 144)..... 3..... 5.9

<b>A. Environment subindex</b> .....	<b>12</b> .....	<b>5.3</b>
1st pillar: Political and regulatory environment.....	10	5.5
2nd pillar: Business and innovation environment.....	20	5.2
<b>B. Readiness subindex</b> .....	<b>7</b> .....	<b>6.3</b>
3rd pillar: Infrastructure.....	3	7.0
4th pillar: Affordability.....	25	6.2
5th pillar: Skills.....	25	5.8
<b>C. Usage subindex</b> .....	<b>4</b> .....	<b>5.9</b>
6th pillar: Individual usage.....	4	6.7
7th pillar: Business usage.....	2	6.0
8th pillar: Government usage.....	23	5.0
<b>D. Impact subindex</b> .....	<b>3</b> .....	<b>5.8</b>
9th pillar: Economic impacts.....	3	6.1
10th pillar: Social impacts.....	12	5.6



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	9	5.5
1.02 Laws relating to ICTs*	20	5.1
1.03 Judicial independence*	14	5.9
1.04 Efficiency of legal system in settling disputes*	11	5.4
1.05 Efficiency of legal system in challenging regs*	12	5.1
1.06 Intellectual property protection*	16	5.8
1.07 Software piracy rate, % software installed.....	7	23
1.08 No. procedures to enforce a contract.....	22	31
1.09 No. days to enforce a contract.....	12	321
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	4	6.5
2.02 Venture capital availability*.....	15	3.8
2.03 Total tax rate, % profits.....	107	49.1
2.04 No. days to start a business.....	42	7
2.05 No. procedures to start a business.....	11	3
2.06 Intensity of local competition*.....	33	5.5
2.07 Tertiary education gross enrollment rate, %.....	36	63.4
2.08 Quality of management schools*.....	16	5.4
2.09 Gov't procurement of advanced tech*.....	23	3.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	7	15940.1
3.02 Mobile network coverage, % pop.....	32	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	5	527.4
3.04 Secure Internet servers/million pop.....	11	1602.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	13	0.08
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	66	33.41
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	25	4.6
5.02 Quality of math & science education*.....	43	4.5
5.03 Secondary education gross enrollment rate, %.....	7	128.5
5.04 Adult literacy rate, %.....	n/a	n/a <sup>1</sup>

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	48	127.8
6.02 Individuals using Internet, %.....	6	92.5
6.03 Households w/ personal computer, %.....	8	93.4
6.04 Households w/ Internet access, %.....	14	89.6
6.05 Fixed broadband Internet subs/100 pop.....	14	34.1
6.06 Mobile broadband subs/100 pop.....	7	116.3
6.07 Use of virtual social networks*.....	7	6.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	9	6.0
7.02 Capacity for innovation*.....	4	5.7
7.03 PCT patents, applications/million pop.....	2	320.1
7.04 ICT use for business-to-business transactions*.....	12	5.8
7.05 Business-to-consumer Internet use*.....	4	6.0
7.06 Extent of staff training*.....	8	5.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	20	4.8
8.02 Government Online Service Index, 0-1 (best).....	28	0.70
8.03 Gov't success in ICT promotion*.....	14	5.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	9	5.6
9.02 ICT PCT patents, applications/million pop.....	1	153.1
9.03 Impact of ICTs on organizational models*.....	9	5.5
9.04 Knowledge-intensive jobs, % workforce.....	5	49.4
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	5	6.0
10.02 Internet access in schools*.....	4	6.3
10.03 ICT use & gov't efficiency*.....	14	5.3
10.04 E-Participation Index, 0-1 (best).....	45	0.61

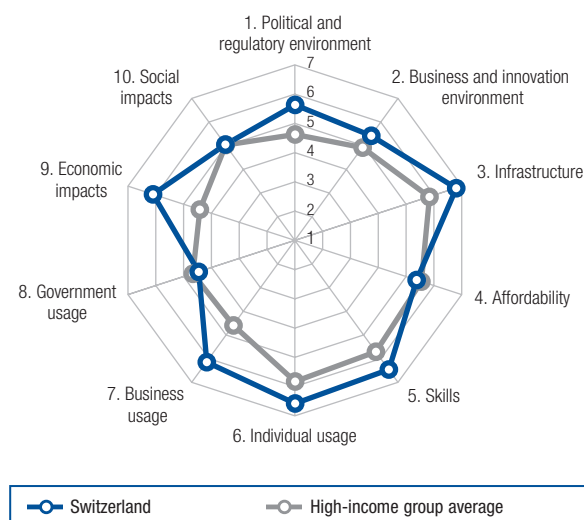
**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.



# Switzerland

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>7</b>	<b>5.8</b>
Networked Readiness Index 2015 (out of 143).....	6	5.7
Networked Readiness Index 2014 (out of 148).....	6	5.6
Networked Readiness Index 2013 (out of 144).....	6	5.7
<b>A. Environment subindex</b> .....	<b>7</b>	<b>5.5</b>
1st pillar: Political and regulatory environment.....	7	5.6
2nd pillar: Business and innovation environment.....	8	5.4
<b>B. Readiness subindex</b> .....	<b>9</b>	<b>6.2</b>
3rd pillar: Infrastructure.....	11	6.8
4th pillar: Affordability.....	70	5.4
5th pillar: Skills.....	3	6.4
<b>C. Usage subindex</b> .....	<b>12</b>	<b>5.7</b>
6th pillar: Individual usage.....	9	6.6
7th pillar: Business usage.....	1	6.1
8th pillar: Government usage.....	43	4.5
<b>D. Impact subindex</b> .....	<b>8</b>	<b>5.6</b>
9th pillar: Economic impacts.....	2	6.1
10th pillar: Social impacts.....	33	5.0



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	15	5.2
1.02 Laws relating to ICTs*	16	5.1
1.03 Judicial independence*	6	6.3
1.04 Efficiency of legal system in settling disputes*	8	5.6
1.05 Efficiency of legal system in challenging regs*	3	5.6
1.06 Intellectual property protection*	3	6.2
1.07 Software piracy rate, % software installed	9	24
1.08 No. procedures to enforce a contract	27	32
1.09 No. days to enforce a contract	22	390
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	7	6.4
2.02 Venture capital availability*	18	3.7
2.03 Total tax rate, % profits	30	28.8
2.04 No. days to start a business	57	10
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	30	5.5
2.07 Tertiary education gross enrollment rate, %	47	56.3
2.08 Quality of management schools*	1	6.3
2.09 Gov't procurement of advanced tech*	17	4.0
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	21	8505.6
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	8	352.2
3.04 Secure Internet servers/million pop.	2	2820.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	116	0.44
4.02 Fixed broadband Internet tariffs, PPP \$/month	34	24.82
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	1	6.1
5.02 Quality of math & science education*	4	5.9
5.03 Secondary education gross enrollment rate, %	61	96.2
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	37	136.7
6.02 Individuals using Internet, %	15	87.0
6.03 Households w/ personal computer, %	16	87.6
6.04 Households w/ Internet access, %	10	90.6
6.05 Fixed broadband Internet subs/100 pop.	1	42.5
6.06 Mobile broadband subs/100 pop.	20	86.8
6.07 Use of virtual social networks*	30	6.1
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	6	6.0
7.02 Capacity for innovation*	1	6.0
7.03 PCT patents, applications/million pop.	3	309.4
7.04 ICT use for business-to-business transactions*	3	6.0
7.05 Business-to-consumer Internet use*	14	5.7
7.06 Extent of staff training*	1	5.7
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	34	4.5
8.02 Government Online Service Index, 0–1 (best)	64	0.50
8.03 Gov't success in ICT promotion*	23	4.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	8	5.7
9.02 ICT PCT patents, applications/million pop.	6	74.6
9.03 Impact of ICTs on organizational models*	17	5.3
9.04 Knowledge-intensive jobs, % workforce	3	52.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	3	6.1
10.02 Internet access in schools*	16	5.9
10.03 ICT use & gov't efficiency*	22	4.9
10.04 E-Participation Index, 0–1 (best)	85	0.37

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

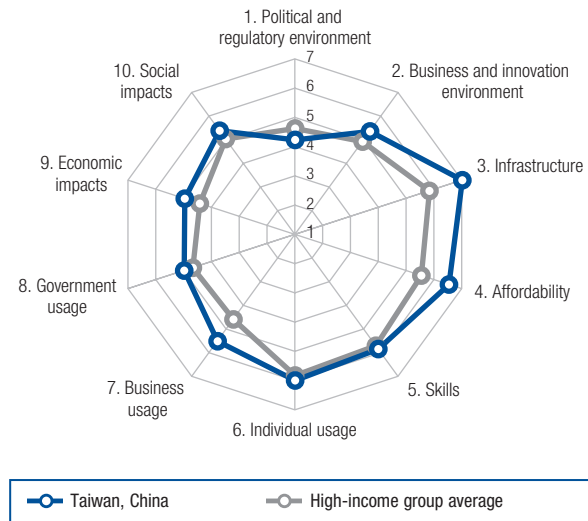
# Taiwan, China

Rank (out of 139)    Value (1-7)

## Networked Readiness Index..... 19..5.5

Networked Readiness Index (out of 143)..... 18..... 5.5  
 Networked Readiness Index 2014 (out of 148)..... 14..... 5.5  
 Networked Readiness Index 2013 (out of 144)..... 10..... 5.5

<b>A. Environment subindex</b> .....	<b>29</b> .....	<b>4.8</b>
1st pillar: Political and regulatory environment.....	40.....	4.2
2nd pillar: Business and innovation environment.....	14.....	5.3
<b>B. Readiness subindex</b> .....	<b>2</b> .....	<b>6.4</b>
3rd pillar: Infrastructure.....	1.....	7.0
4th pillar: Affordability.....	12.....	6.5
5th pillar: Skills.....	23.....	5.8
<b>C. Usage subindex</b> .....	<b>16</b> .....	<b>5.5</b>
6th pillar: Individual usage.....	24.....	6.0
7th pillar: Business usage.....	12.....	5.5
8th pillar: Government usage.....	24.....	5.0
<b>D. Impact subindex</b> .....	<b>20</b> .....	<b>5.2</b>
9th pillar: Economic impacts.....	18.....	5.0
10th pillar: Social impacts.....	20.....	5.4



## The Networked Readiness Index in detail

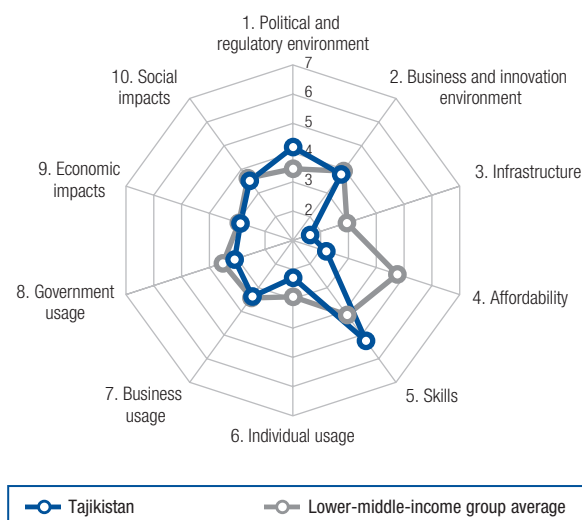
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	104	3.1
1.02 Laws relating to ICTs*	28	4.8
1.03 Judicial independence*	47	4.4
1.04 Efficiency of legal system in settling disputes*	56	3.9
1.05 Efficiency of legal system in challenging regs*	63	3.5
1.06 Intellectual property protection*	27	5.2
1.07 Software piracy rate, % software installed.....	25	38
1.08 No. procedures to enforce a contract.....	125	45
1.09 No. days to enforce a contract.....	58	510
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	36	5.5
2.02 Venture capital availability*	12	4.1
2.03 Total tax rate, % profits.....	57	34.5
2.04 No. days to start a business.....	57	10
2.05 No. procedures to start a business.....	11	3
2.06 Intensity of local competition*.....	5	6.0
2.07 Tertiary education gross enrollment rate, %.....	8	83.9
2.08 Quality of management schools*.....	33	4.9
2.09 Gov't procurement of advanced tech*.....	29	3.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	13	10646.5
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	46	60.4
3.04 Secure Internet servers/million pop.....	9	1752.0
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	63	0.23
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	9	15.65
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	46	4.1
5.02 Quality of math & science education*.....	15	5.2
5.03 Secondary education gross enrollment rate, %.....	41	100.2
5.04 Adult literacy rate, %.....	23	98.5

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	44	130.2
6.02 Individuals using Internet, %.....	22	84.0
6.03 Households w/ personal computer, %.....	36	78.0
6.04 Households w/ Internet access, %.....	32	77.5
6.05 Fixed broadband Internet subs/100 pop.....	16	31.9
6.06 Mobile broadband subs/100 pop.....	33	66.9
6.07 Use of virtual social networks*.....	24	6.1
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	25	5.5
7.02 Capacity for innovation*.....	21	4.9
7.03 PCT patents, applications/million pop.....	n/a	n/a
7.04 ICT use for business-to-business transactions*.....	25	5.5
7.05 Business-to-consumer Internet use*.....	31	5.3
7.06 Extent of staff training*.....	27	4.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	11	5.0
8.02 Government Online Service Index, 0-1 (best).....	n/a	n/a
8.03 Gov't success in ICT promotion*.....	16	4.9
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	23	5.3
9.02 ICT PCT patents, applications/million pop.....	n/a	n/a
9.03 Impact of ICTs on organizational models*.....	21	5.1
9.04 Knowledge-intensive jobs, % workforce.....	39	33.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	13	5.8
10.02 Internet access in schools*.....	27	5.4
10.03 ICT use & gov't efficiency*.....	18	5.0
10.04 E-Participation Index, 0-1 (best).....	n/a	n/a

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Tajikistan

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>114</b> .....	<b>3.3</b>
Networked Readiness Index 2015 (out of 143).....	117.....	3.2
Networked Readiness Index 2014 (out of 148).....	n/a.....	n/a
Networked Readiness Index 2013 (out of 144).....	112.....	3.3
<b>A. Environment subindex</b> .....	<b>70</b> .....	<b>4.0</b>
1st pillar: Political and regulatory environment.....	42.....	4.2
2nd pillar: Business and innovation environment.....	105.....	3.8
<b>B. Readiness subindex</b> .....	<b>121</b> .....	<b>3.0</b>
3rd pillar: Infrastructure.....	133.....	1.6
4th pillar: Affordability.....	134.....	2.2
5th pillar: Skills.....	60.....	5.2
<b>C. Usage subindex</b> .....	<b>116</b> .....	<b>2.9</b>
6th pillar: Individual usage.....	116.....	2.3
7th pillar: Business usage.....	102.....	3.4
8th pillar: Government usage.....	115.....	3.1
<b>D. Impact subindex</b> .....	<b>99</b> .....	<b>3.2</b>
9th pillar: Economic impacts.....	101.....	2.9
10th pillar: Social impacts.....	96.....	3.5



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	33	4.3
1.02 Laws relating to ICTs*	84	3.6
1.03 Judicial independence*	58	4.1
1.04 Efficiency of legal system in settling disputes*	41	4.2
1.05 Efficiency of legal system in challenging regs*	50	3.8
1.06 Intellectual property protection*	59	4.1
1.07 Software piracy rate, % software installed	n/a	n/a
1.08 No. procedures to enforce a contract	48	3.5
1.09 No. days to enforce a contract	39	4.30
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	94	4.3
2.02 Venture capital availability*	35	3.3
2.03 Total tax rate, % profits	137	81.8
2.04 No. days to start a business	67	11
2.05 No. procedures to start a business	22	4
2.06 Intensity of local competition*	107	4.6
2.07 Tertiary education gross enrollment rate, %	87	26.4
2.08 Quality of management schools*	78	4.0
2.09 Gov't procurement of advanced tech*	27	3.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	80	2109.9
3.02 Mobile network coverage, % pop.	n/a	n/a
3.03 Int'l Internet bandwidth, kb/s per user	124	3.9
3.04 Secure Internet servers/million pop.	129	1.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	108	0.39
4.02 Fixed broadband Internet tariffs, PPP \$/month	135	814.09
4.03 Internet & telephony competition, 0–2 (best)	135	0.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	57	3.9
5.02 Quality of math & science education*	73	4.0
5.03 Secondary education gross enrollment rate, %	80	87.9
5.04 Adult literacy rate, %	7	99.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop	101	95.1
6.02 Individuals using Internet, %	111	17.5
6.03 Households w/ personal computer, %	115	9.2
6.04 Households w/ Internet access, %	115	7.2
6.05 Fixed broadband Internet subs/100 pop	130	0.1
6.06 Mobile broadband subs/100 pop	114	9.5
6.07 Use of virtual social networks*	126	4.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	116	4.0
7.02 Capacity for innovation*	60	4.0
7.03 PCT patents, applications/million pop.	121	0.0
7.04 ICT use for business-to-business transactions*	111	4.0
7.05 Business-to-consumer Internet use*	106	3.8
7.06 Extent of staff training*	81	3.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	66	3.9
8.02 Government Online Service Index, 0–1 (best)	132	0.06
8.03 Gov't success in ICT promotion*	72	4.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	103	3.9
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	94	3.7
9.04 Knowledge-intensive jobs, % workforce	n/a	n/a
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	76	4.0
10.02 Internet access in schools*	64	4.4
10.03 ICT use & gov't efficiency*	71	4.0
10.04 E-Participation Index, 0–1 (best)	128	0.12

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

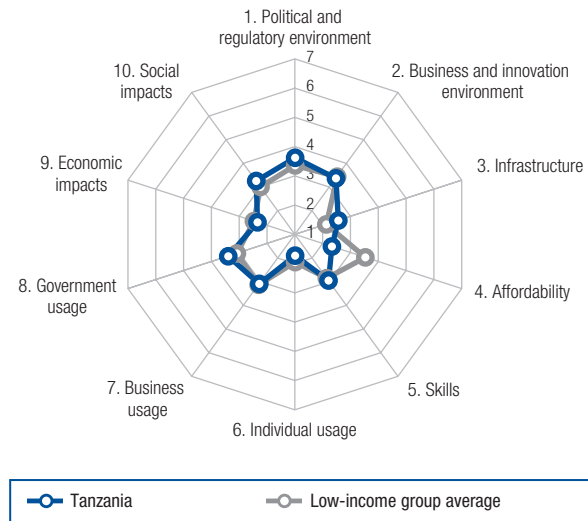
# Tanzania

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 126.. 2.9

Networked Readiness Index (out of 143)..... 123..... 3.0  
 Networked Readiness Index 2014 (out of 148)..... 125..... 3.0  
 Networked Readiness Index 2013 (out of 144)..... 127..... 2.9

- A. Environment subindex..... 112..... 3.5**
  - 1st pillar: Political and regulatory environment..... 83..... 3.6
  - 2nd pillar: Business and innovation environment..... 125..... 3.4
- B. Readiness subindex ..... 130..... 2.6**
  - 3rd pillar: Infrastructure ..... 117..... 2.6
  - 4th pillar: Affordability ..... 131..... 2.3
  - 5th pillar: Skills..... 125..... 2.9
- C. Usage subindex..... 126..... 2.7**
  - 6th pillar: Individual usage..... 134..... 1.7
  - 7th pillar: Business usage..... 122..... 3.1
  - 8th pillar: Government usage..... 100..... 3.4
- D. Impact subindex..... 122..... 2.8**
  - 9th pillar: Economic impacts..... 132..... 2.4
  - 10th pillar: Social impacts..... 115..... 3.3



## The Networked Readiness Index in detail

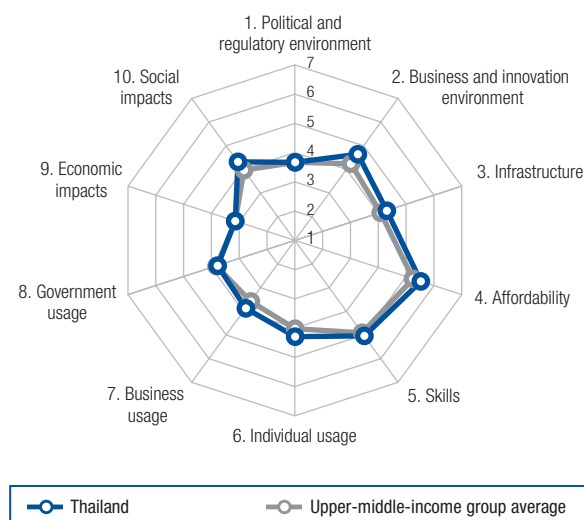
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	63	3.8
1.02 Laws relating to ICTs*	107	3.2
1.03 Judicial independence*	89	3.4
1.04 Efficiency of legal system in settling disputes*	65	3.7
1.05 Efficiency of legal system in challenging regs*	72	3.4
1.06 Intellectual property protection*	111	3.2
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract	76	3.8
1.09 No. days to enforce a contract	63	5.15
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	127	3.7
2.02 Venture capital availability*	99	2.4
2.03 Total tax rate, % profits	93	43.9
2.04 No. days to start a business	108	26
2.05 No. procedures to start a business	105	9
2.06 Intensity of local competition*	111	4.5
2.07 Tertiary education gross enrollment rate, %.....	134	3.6
2.08 Quality of management schools*	123	3.2
2.09 Gov't procurement of advanced tech*	76	3.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	128	111.0
3.02 Mobile network coverage, % pop.	104	95.0
3.03 Int'l Internet bandwidth, kb/s per user.....	113	6.1
3.04 Secure Internet servers/million pop.	128	1.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	133	0.67
4.02 Fixed broadband Internet tariffs, PPP \$/month	114	72.15
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	98	3.2
5.02 Quality of math & science education*.....	129	2.6
5.03 Secondary education gross enrollment rate, %	134	32.3
5.04 Adult literacy rate, %.....	83	80.3

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	132	62.8
6.02 Individuals using Internet, %.....	133	4.9
6.03 Households w/ personal computer, %	132	3.8
6.04 Households w/ Internet access, %	130	4.1
6.05 Fixed broadband Internet subs/100 pop.....	122	0.2
6.06 Mobile broadband subs/100 pop.....	128	3.0
6.07 Use of virtual social networks*.....	133	4.2
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	129	3.8
7.02 Capacity for innovation*.....	107	3.5
7.03 PCT patents, applications/million pop.	120	0.0
7.04 ICT use for business-to-business transactions*.....	112	4.0
7.05 Business-to-consumer Internet use*.....	126	3.3
7.06 Extent of staff training*.....	115	3.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	89	3.6
8.02 Government Online Service Index, 0-1 (best).....	102	0.30
8.03 Gov't success in ICT promotion*.....	87	3.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	111	3.8
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*.....	119	3.4
9.04 Knowledge-intensive jobs, % workforce.....	109	2.6
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	112	3.5
10.02 Internet access in schools*.....	127	2.8
10.03 ICT use & gov't efficiency*.....	109	3.4
10.04 E-Participation Index, 0-1 (best).....	81	0.39

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Thailand

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>62</b>	<b>4.2</b>
Networked Readiness Index 2015 (out of 143).....	67	4.0
Networked Readiness Index 2014 (out of 148).....	67	4.0
Networked Readiness Index 2013 (out of 144).....	74	3.9
<b>A. Environment subindex</b> .....	<b>54</b>	<b>4.2</b>
1st pillar: Political and regulatory environment.....	80	3.7
2nd pillar: Business and innovation environment.....	48	4.6
<b>B. Readiness subindex</b> .....	<b>62</b>	<b>4.9</b>
3rd pillar: Infrastructure.....	67	4.3
4th pillar: Affordability.....	64	5.5
5th pillar: Skills.....	73	5.0
<b>C. Usage subindex</b> .....	<b>63</b>	<b>4.0</b>
6th pillar: Individual usage.....	64	4.3
7th pillar: Business usage.....	51	3.9
8th pillar: Government usage.....	69	3.8
<b>D. Impact subindex</b> .....	<b>65</b>	<b>3.7</b>
9th pillar: Economic impacts.....	74	3.2
10th pillar: Social impacts.....	57	4.3



## The Networked Readiness Index in detail

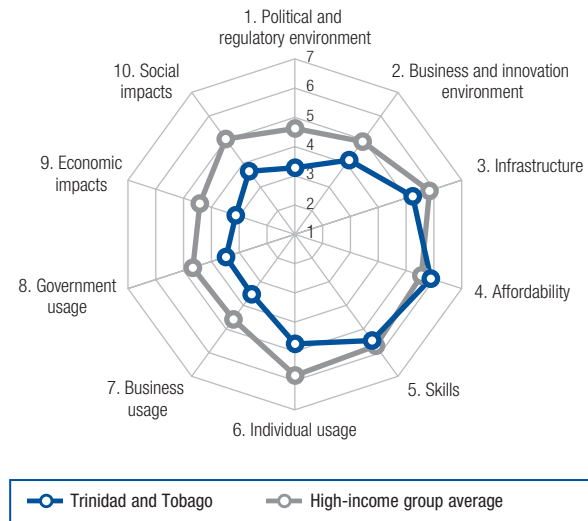
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	93	3.4
1.02 Laws relating to ICTs*	87	3.6
1.03 Judicial independence*	59	4.1
1.04 Efficiency of legal system in settling disputes*	55	3.9
1.05 Efficiency of legal system in challenging regs*	56	3.7
1.06 Intellectual property protection*	113	3.2
1.07 Software piracy rate, % software installed	70	7.1
1.08 No. procedures to enforce a contract	58	3.6
1.09 No. days to enforce a contract	42	4.40
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	70	4.7
2.02 Venture capital availability*	33	3.3
2.03 Total tax rate, % profits	29	27.5
2.04 No. days to start a business	112	2.8
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	42	5.4
2.07 Tertiary education gross enrollment rate, %	53	51.4
2.08 Quality of management schools*	77	4.0
2.09 Gov't procurement of advanced tech*	90	3.1
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	72	2456.7
3.02 Mobile network coverage, % pop.	97	97.0
3.03 Int'l Internet bandwidth, kb/s per user	48	54.8
3.04 Secure Internet servers/million pop.	81	23.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	16	0.09
4.02 Fixed broadband Internet tariffs, PPP \$/month	89	42.47
4.03 Internet & telephony competition, 0–2 (best)	97	1.63
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	74	3.6
5.02 Quality of math & science education*	79	3.9
5.03 Secondary education gross enrollment rate, %	82	86.2
5.04 Adult literacy rate, %	39	96.7

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	30	144.4
6.02 Individuals using Internet, %	93	34.9
6.03 Households w/ personal computer, %	83	33.9
6.04 Households w/ Internet access, %	80	33.8
6.05 Fixed broadband Internet subs/100 pop.	73	8.5
6.06 Mobile broadband subs/100 pop.	23	79.9
6.07 Use of virtual social networks*	13	6.3
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	53	4.9
7.02 Capacity for innovation*	54	4.1
7.03 PCT patents, applications/million pop.	69	1.3
7.04 ICT use for business-to-business transactions*	52	5.0
7.05 Business-to-consumer Internet use*	39	5.1
7.06 Extent of staff training*	41	4.3
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	72	3.9
8.02 Government Online Service Index, 0–1 (best)	73	0.44
8.03 Gov't success in ICT promotion*	85	3.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	42	4.8
9.02 ICT PCT patents, applications/million pop.	75	0.2
9.03 Impact of ICTs on organizational models*	50	4.4
9.04 Knowledge-intensive jobs, % workforce	90	13.8
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	55	4.4
10.02 Internet access in schools*	54	4.6
10.03 ICT use & gov't efficiency*	70	4.0
10.04 E-Participation Index, 0–1 (best)	54	0.55

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Trinidad and Tobago

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>67..</b>	<b>4.1</b>
Networked Readiness Index (out of 143).....	70.....	4.0
Networked Readiness Index 2014 (out of 148).....	71.....	4.0
Networked Readiness Index 2013 (out of 144).....	72.....	3.9
<b>A. Environment subindex.....</b>	<b>96.....</b>	<b>3.7</b>
1st pillar: Political and regulatory environment.....	104.....	3.3
2nd pillar: Business and innovation environment.....	77.....	4.1
<b>B. Readiness subindex.....</b>	<b>35.....</b>	<b>5.5</b>
3rd pillar: Infrastructure.....	37.....	5.2
4th pillar: Affordability.....	44.....	5.9
5th pillar: Skills.....	43.....	5.5
<b>C. Usage subindex.....</b>	<b>69.....</b>	<b>3.9</b>
6th pillar: Individual usage.....	59.....	4.7
7th pillar: Business usage.....	79.....	3.5
8th pillar: Government usage.....	94.....	3.5
<b>D. Impact subindex.....</b>	<b>88.....</b>	<b>3.4</b>
9th pillar: Economic impacts.....	78.....	3.1
10th pillar: Social impacts.....	90.....	3.7



## The Networked Readiness Index in detail

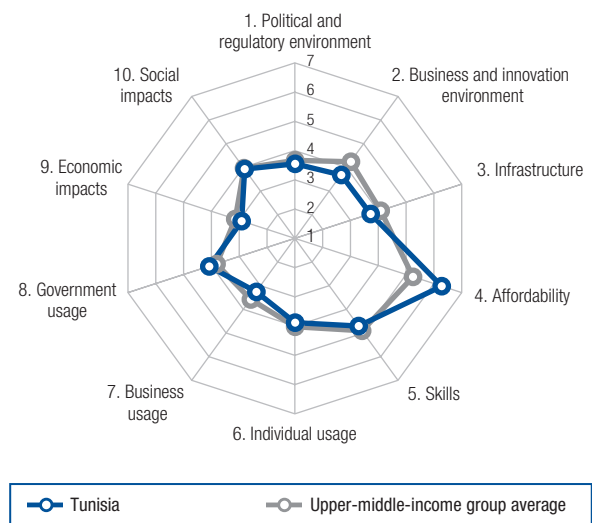
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	88	3.4
1.02 Laws relating to ICTs*.....	116	3.0
1.03 Judicial independence*.....	51	4.3
1.04 Efficiency of legal system in settling disputes*.....	97	3.2
1.05 Efficiency of legal system in challenging regs*.....	94	3.1
1.06 Intellectual property protection*.....	99	3.4
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	113	4.2
1.09 No. days to enforce a contract.....	135	1340
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	59	5.0
2.02 Venture capital availability*.....	118	2.2
2.03 Total tax rate, % profits.....	47	32.2
2.04 No. days to start a business.....	70	12
2.05 No. procedures to start a business.....	74	7
2.06 Intensity of local competition*.....	49	5.3
2.07 Tertiary education gross enrollment rate, %.....	109	12.0
2.08 Quality of management schools*.....	30	4.9
2.09 Gov't procurement of advanced tech*.....	105	2.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	30	7049.9
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	53	48.9
3.04 Secure Internet servers/million pop.....	51	111.5
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	99	0.35
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	16	18.48
4.03 Internet & telephony competition, 0-2 (best).....	84	1.85
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	33	4.4
5.02 Quality of math & science education*.....	35	4.7
5.03 Secondary education gross enrollment rate, %.....	84	85.5
5.04 Adult literacy rate, %.....	20	99.0

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	25	147.3
6.02 Individuals using Internet, %.....	47	65.1
6.03 Households w/ personal computer, %.....	52	64.0
6.04 Households w/ Internet access, %.....	64	50.0
6.05 Fixed broadband Internet subs/100 pop.....	48	17.6
6.06 Mobile broadband subs/100 pop.....	88	28.3
6.07 Use of virtual social networks*.....	33	6.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	69	4.6
7.02 Capacity for innovation*.....	106	3.5
7.03 PCT patents, applications/million pop.....	81	0.4
7.04 ICT use for business-to-business transactions*.....	84	4.5
7.05 Business-to-consumer Internet use*.....	85	4.1
7.06 Extent of staff training*.....	47	4.2
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	79	3.7
8.02 Government Online Service Index, 0-1 (best).....	91	0.33
8.03 Gov't success in ICT promotion*.....	91	3.7
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	109	3.9
9.02 ICT PCT patents, applications/million pop.....	103	0.0
9.03 Impact of ICTs on organizational models*.....	88	3.8
9.04 Knowledge-intensive jobs, % workforce.....	49	27.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	96	3.8
10.02 Internet access in schools*.....	60	4.5
10.03 ICT use & gov't efficiency*.....	95	3.5
10.04 E-Participation Index, 0-1 (best).....	98	0.31

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Tunisia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>81</b>	<b>3.9</b>
Networked Readiness Index 2015 (out of 143).....	81	3.9
Networked Readiness Index 2014 (out of 148).....	87	3.8
Networked Readiness Index 2013 (out of 144).....	n/a	n/a
<b>A. Environment subindex</b> .....	<b>109</b>	<b>3.6</b>
1st pillar: Political and regulatory environment.....	90	3.5
2nd pillar: Business and innovation environment.....	112	3.7
<b>B. Readiness subindex</b> .....	<b>64</b>	<b>4.9</b>
3rd pillar: Infrastructure.....	82	3.7
4th pillar: Affordability.....	24	6.3
5th pillar: Skills.....	85	4.7
<b>C. Usage subindex</b> .....	<b>80</b>	<b>3.7</b>
6th pillar: Individual usage.....	78	3.9
7th pillar: Business usage.....	107	3.3
8th pillar: Government usage.....	55	4.1
<b>D. Impact subindex</b> .....	<b>84</b>	<b>3.4</b>
9th pillar: Economic impacts.....	93	2.9
10th pillar: Social impacts.....	78	3.9



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	72	3.7
1.02 Laws relating to ICTs*	98	3.4
1.03 Judicial independence*	71	3.8
1.04 Efficiency of legal system in settling disputes*	74	3.6
1.05 Efficiency of legal system in challenging regs*	61	3.6
1.06 Intellectual property protection*	90	3.5
1.07 Software piracy rate, % software installed	76	75
1.08 No. procedures to enforce a contract	89	39
1.09 No. days to enforce a contract	73	565
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	83	4.5
2.02 Venture capital availability*	111	2.3
2.03 Total tax rate, % profits	122	59.9
2.04 No. days to start a business	67	11
2.05 No. procedures to start a business	114	10
2.06 Intensity of local competition*	90	4.7
2.07 Tertiary education gross enrollment rate, %	76	34.6
2.08 Quality of management schools*	69	4.2
2.09 Gov't procurement of advanced tech*	112	2.8
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	85	1688.4
3.02 Mobile network coverage, % pop.	67	99.0
3.03 Int'l Internet bandwidth, kb/s per user	82	26.0
3.04 Secure Internet servers/million pop.	84	17.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	8	0.06
4.02 Fixed broadband Internet tariffs, PPP \$/month	8	15.08
4.03 Internet & telephony competition, 0–2 (best)	117	1.15
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	89	3.3
5.02 Quality of math & science education*	53	4.4
5.03 Secondary education gross enrollment rate, %	74	90.1
5.04 Adult literacy rate, %	82	81.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	47	128.5
6.02 Individuals using Internet, %	76	46.2
6.03 Households w/ personal computer, %	84	33.1
6.04 Households w/ Internet access, %	85	28.8
6.05 Fixed broadband Internet subs/100 pop.	87	4.5
6.06 Mobile broadband subs/100 pop.	62	47.6
6.07 Use of virtual social networks*	72	5.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	78	4.5
7.02 Capacity for innovation*	109	3.5
7.03 PCT patents, applications/million pop.	75	0.7
7.04 ICT use for business-to-business transactions*	116	4.0
7.05 Business-to-consumer Internet use*	125	3.4
7.06 Extent of staff training*	106	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	90	3.6
8.02 Government Online Service Index, 0–1 (best)	39	0.64
8.03 Gov't success in ICT promotion*	83	3.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	91	4.1
9.02 ICT PCT patents, applications/million pop.	74	0.2
9.03 Impact of ICTs on organizational models*	113	3.4
9.04 Knowledge-intensive jobs, % workforce	68	20.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	100	3.8
10.02 Internet access in schools*	112	3.4
10.03 ICT use & gov't efficiency*	92	3.6
10.04 E-Participation Index, 0–1 (best)	33	0.65

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Turkey

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 48.. 4.4

Networked Readiness Index (out of 143)..... 48..... 4.4  
 Networked Readiness Index 2014 (out of 148)..... 51..... 4.3  
 Networked Readiness Index 2013 (out of 144)..... 45..... 4.2

### A. Environment subindex..... 49..... 4.2

1st pillar: Political and regulatory environment..... 69..... 3.8  
 2nd pillar: Business and innovation environment..... 43..... 4.7

### B. Readiness subindex ..... 40..... 5.5

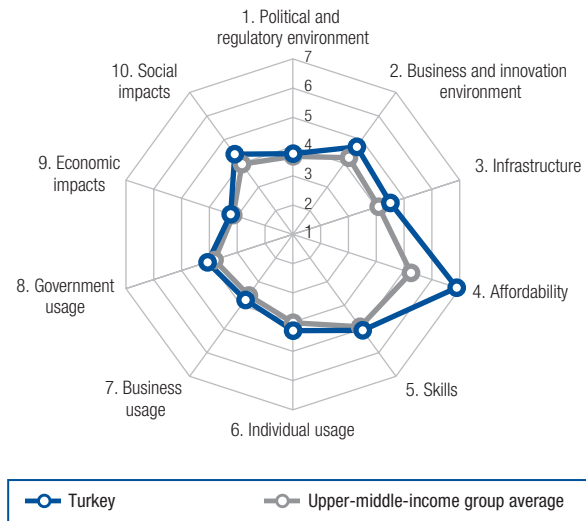
3rd pillar: Infrastructure ..... 59..... 4.5  
 4th pillar: Affordability ..... 2..... 6.9  
 5th pillar: Skills..... 69..... 5.0

### C. Usage subindex..... 59..... 4.0

6th pillar: Individual usage..... 65..... 4.3  
 7th pillar: Business usage..... 56..... 3.8  
 8th pillar: Government usage..... 57..... 4.1

### D. Impact subindex..... 58..... 3.8

9th pillar: Economic impacts..... 67..... 3.2  
 10th pillar: Social impacts..... 54..... 4.4



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	53	4.0
1.02 Laws relating to ICTs*	48	4.3
1.03 Judicial independence*	107	3.0
1.04 Efficiency of legal system in settling disputes*	76	3.5
1.05 Efficiency of legal system in challenging regs*	90	3.2
1.06 Intellectual property protection*	82	3.7
1.07 Software piracy rate, % software installed.....	53	60
1.08 No. procedures to enforce a contract.....	48	35
1.09 No. days to enforce a contract.....	80	580
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	55	5.0
2.02 Venture capital availability*	93	2.5
2.03 Total tax rate, % profits.....	84	40.9
2.04 No. days to start a business.....	46	8
2.05 No. procedures to start a business.....	92	8
2.06 Intensity of local competition*.....	10	5.9
2.07 Tertiary education gross enrollment rate, %.....	17	79.0
2.08 Quality of management schools*.....	106	3.7
2.09 Gov't procurement of advanced tech*.....	39	3.7
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	62	3201.6
3.02 Mobile network coverage, % pop.....	90	98.0
3.03 Int'l Internet bandwidth, kb/s per user.....	61	42.9
3.04 Secure Internet servers/million pop.....	59	57.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	22	0.10
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	17	19.10
4.03 Internet & telephony competition, 0-2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	92	3.3
5.02 Quality of math & science education*.....	103	3.3
5.03 Secondary education gross enrollment rate, %.....	13	114.6
5.04 Adult literacy rate, %.....	50	95.0

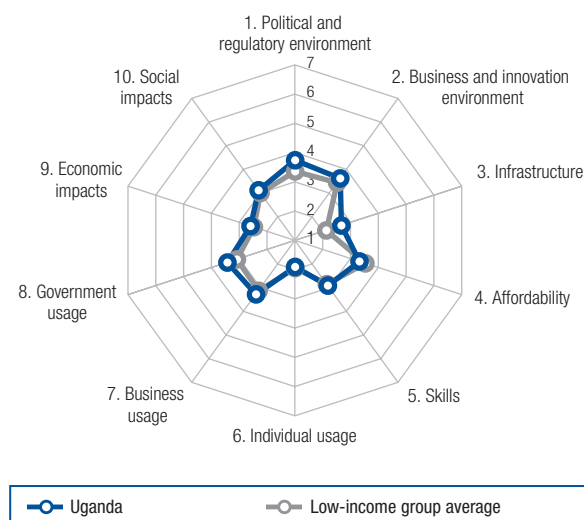
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	102	94.8
6.02 Individuals using Internet, %.....	67	51.0
6.03 Households w/ personal computer, %.....	59	56.0
6.04 Households w/ Internet access, %.....	51	60.2
6.05 Fixed broadband Internet subs/100 pop.....	62	11.7
6.06 Mobile broadband subs/100 pop.....	69	42.7
6.07 Use of virtual social networks*.....	49	5.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	36	5.2
7.02 Capacity for innovation*.....	83	3.8
7.03 PCT patents, applications/million pop.....	40	9.0
7.04 ICT use for business-to-business transactions*.....	47	5.0
7.05 Business-to-consumer Internet use*.....	49	4.8
7.06 Extent of staff training*.....	102	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	73	3.9
8.02 Government Online Service Index, 0-1 (best).....	53	0.56
8.03 Gov't success in ICT promotion*.....	73	4.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	52	4.7
9.02 ICT PCT patents, applications/million pop.....	46	1.7
9.03 Impact of ICTs on organizational models*.....	69	4.1
9.04 Knowledge-intensive jobs, % workforce.....	72	19.7
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	46	4.7
10.02 Internet access in schools*.....	62	4.4
10.03 ICT use & gov't efficiency*.....	43	4.5
10.04 E-Participation Index, 0-1 (best).....	64	0.49

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Uganda

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>121</b>	<b>3.1</b>
Networked Readiness Index 2015 (out of 143).....	116	3.2
Networked Readiness Index 2014 (out of 148).....	115	3.3
Networked Readiness Index 2013 (out of 144).....	110	3.3
<b>A. Environment subindex.....</b>	<b>101</b>	<b>3.7</b>
1st pillar: Political and regulatory environment.....	72	3.7
2nd pillar: Business and innovation environment.....	118	3.6
<b>B. Readiness subindex.....</b>	<b>124</b>	<b>3.0</b>
3rd pillar: Infrastructure.....	112	2.7
4th pillar: Affordability.....	117	3.3
5th pillar: Skills.....	126	2.9
<b>C. Usage subindex.....</b>	<b>120</b>	<b>2.9</b>
6th pillar: Individual usage.....	129	1.9
7th pillar: Business usage.....	106	3.3
8th pillar: Government usage.....	97	3.4
<b>D. Impact subindex.....</b>	<b>120</b>	<b>2.9</b>
9th pillar: Economic impacts.....	120	2.6
10th pillar: Social impacts.....	118	3.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	51	4.0
1.02 Laws relating to ICTs*	100	3.4
1.03 Judicial independence*	91	3.4
1.04 Efficiency of legal system in settling disputes*	62	3.8
1.05 Efficiency of legal system in challenging regs*	59	3.6
1.06 Intellectual property protection*	102	3.3
1.07 Software piracy rate, % software installed.....	n/a	n/a
1.08 No. procedures to enforce a contract.....	76	3.8
1.09 No. days to enforce a contract.....	52	4.90
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	102	4.2
2.02 Venture capital availability*	100	2.4
2.03 Total tax rate, % profits.....	66	36.5
2.04 No. days to start a business.....	111	27
2.05 No. procedures to start a business.....	136	15
2.06 Intensity of local competition*	51	5.3
2.07 Tertiary education gross enrollment rate, %.....	130	4.5
2.08 Quality of management schools*.....	93	3.9
2.09 Gov't procurement of advanced tech*.....	53	3.5
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	132	86.0
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	123	4.0
3.04 Secure Internet servers/million pop.....	127	1.6
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	82	0.29
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	134	743.47
4.03 Internet & telephony competition, 0–2 (best).....	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	81	3.5
5.02 Quality of math & science education*.....	111	3.2
5.03 Secondary education gross enrollment rate, %.....	136	27.6
5.04 Adult literacy rate, %.....	93	73.9

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	134	52.4
6.02 Individuals using Internet, %.....	108	17.7
6.03 Households w/ personal computer, %.....	127	5.8
6.04 Households w/ Internet access, %.....	124	6.2
6.05 Fixed broadband Internet subs/100 pop.....	117	0.3
6.06 Mobile broadband subs/100 pop.....	104	14.7
6.07 Use of virtual social networks*.....	110	4.8
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	110	4.1
7.02 Capacity for innovation*.....	86	3.8
7.03 PCT patents, applications/million pop.....	116	0.0
7.04 ICT use for business-to-business transactions*.....	93	4.3
7.05 Business-to-consumer Internet use*.....	121	3.5
7.06 Extent of staff training*.....	107	3.6
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	55	4.1
8.02 Government Online Service Index, 0–1 (best).....	120	0.15
8.03 Gov't success in ICT promotion*.....	52	4.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	77	4.3
9.02 ICT PCT patents, applications/million pop.....	101	0.0
9.03 Impact of ICTs on organizational models*.....	91	3.7
9.04 Knowledge-intensive jobs, % workforce.....	105	4.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	115	3.5
10.02 Internet access in schools*.....	118	3.2
10.03 ICT use & gov't efficiency*.....	69	4.0
10.04 E-Participation Index, 0–1 (best).....	126	0.14

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

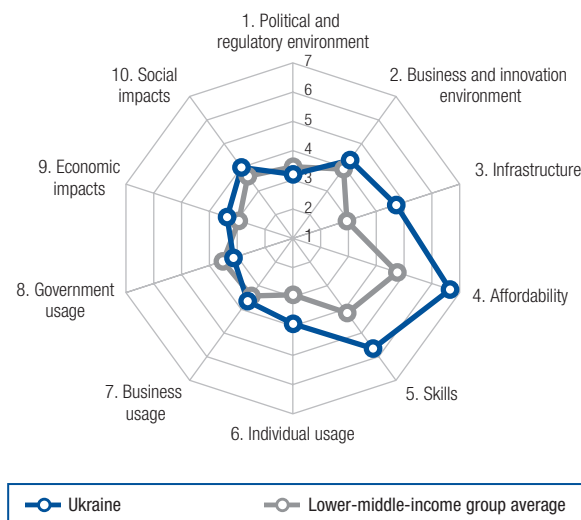
# Ukraine

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 64.. 4.2

Networked Readiness Index (out of 143)..... 71 ..... 4.0  
 Networked Readiness Index 2014 (out of 148)..... 81 ..... 3.9  
 Networked Readiness Index 2013 (out of 144)..... 73 ..... 3.9

- A. Environment subindex..... 94..... 3.8**
  - 1st pillar: Political and regulatory environment..... 113 ..... 3.2
  - 2nd pillar: Business and innovation environment..... 67 ..... 4.3
- B. Readiness subindex ..... 30..... 5.7**
  - 3rd pillar: Infrastructure ..... 51 ..... 4.7
  - 4th pillar: Affordability ..... 6 ..... 6.6
  - 5th pillar: Skills..... 33 ..... 5.6
- C. Usage subindex..... 88..... 3.6**
  - 6th pillar: Individual usage..... 76 ..... 3.9
  - 7th pillar: Business usage..... 63 ..... 3.6
  - 8th pillar: Government usage..... 114 ..... 3.1
- D. Impact subindex..... 69..... 3.7**
  - 9th pillar: Economic impacts..... 59 ..... 3.4
  - 10th pillar: Social impacts..... 75 ..... 4.0



## The Networked Readiness Index in detail

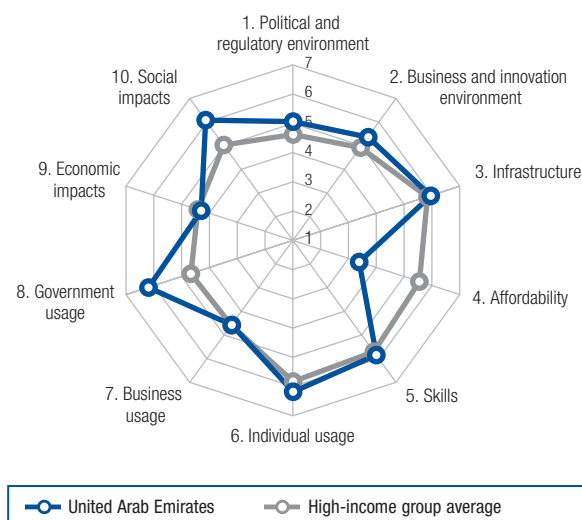
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies* ..... 120 ..... 2.8		
1.02 Laws relating to ICTs* ..... 74 ..... 3.8		
1.03 Judicial independence* ..... 131 ..... 2.3		
1.04 Efficiency of legal system in settling disputes* .. 121 ..... 2.8		
1.05 Efficiency of legal system in challenging regs* .. 123 ..... 2.6		
1.06 Intellectual property protection* ..... 120 ..... 3.1		
1.07 Software piracy rate, % software installed..... 92 ..... 83		
1.08 No. procedures to enforce a contract ..... 18 ..... 30		
1.09 No. days to enforce a contract ..... 20 ..... 378		
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies* ..... 96 ..... 4.3		
2.02 Venture capital availability* ..... 102 ..... 2.4		
2.03 Total tax rate, % profits ..... 118 ..... 52.2		
2.04 No. days to start a business ..... 42 ..... 7		
2.05 No. procedures to start a business ..... 22 ..... 4		
2.06 Intensity of local competition* ..... 99 ..... 4.7		
2.07 Tertiary education gross enrollment rate, %..... 11 ..... 82.3		
2.08 Quality of management schools* ..... 87 ..... 3.9		
2.09 Gov't procurement of advanced tech* ..... 98 ..... 3.0		
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita ..... 51 ... 4258.2		
3.02 Mobile network coverage, % pop. .... 37 ..... 99.9		
3.03 Int'l Internet bandwidth, kb/s per user..... 63 ..... 40.7		
3.04 Secure Internet servers/million pop. .... 68 ..... 45.5		
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min. .... 48 ..... 0.17		
4.02 Fixed broadband Internet tariffs, PPP \$/month .... 2 ..... 10.64		
4.03 Internet & telephony competition, 0-2 (best) ..... 80 ..... 1.86		
<b>5th pillar: Skills</b>		
5.01 Quality of education system* ..... 54 ..... 4.0		
5.02 Quality of math & science education* ..... 38 ..... 4.6		
5.03 Secondary education gross enrollment rate, % .. 51 ..... 99.2		
5.04 Adult literacy rate, % ..... 9 ..... 99.8		

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop. .... 31 ..... 144.1		
6.02 Individuals using Internet, %..... 80 ..... 43.4		
6.03 Households w/ personal computer, % ..... 63 ..... 52.4		
6.04 Households w/ Internet access, % ..... 72 ..... 43.0		
6.05 Fixed broadband Internet subs/100 pop. .... 71 ..... 9.3		
6.06 Mobile broadband subs/100 pop. .... 121 ..... 7.5		
6.07 Use of virtual social networks* ..... 78 ..... 5.5		
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption* ..... 100 ..... 4.2		
7.02 Capacity for innovation* ..... 52 ..... 4.2		
7.03 PCT patents, applications/million pop. .... 50 ..... 3.7		
7.04 ICT use for business-to-business transactions* .. 89 ..... 4.4		
7.05 Business-to-consumer Internet use* ..... 36 ..... 5.1		
7.06 Extent of staff training* ..... 74 ..... 3.9		
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision* ..... 122 ..... 3.1		
8.02 Government Online Service Index, 0-1 (best) .. 105 ..... 0.27		
8.03 Gov't success in ICT promotion* ..... 94 ..... 3.7		
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models* ..... 113 ..... 3.8		
9.02 ICT PCT patents, applications/million pop. .... 51 ..... 1.1		
9.03 Impact of ICTs on organizational models* ..... 72 ..... 4.1		
9.04 Knowledge-intensive jobs, % workforce..... 38 ..... 33.7		
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services* ..... 74 ..... 4.1		
10.02 Internet access in schools* ..... 44 ..... 4.8		
10.03 ICT use & gov't efficiency* ..... 96 ..... 3.5		
10.04 E-Participation Index, 0-1 (best)..... 75 ..... 0.43		

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# United Arab Emirates

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>26</b>	<b>5.3</b>
Networked Readiness Index 2015 (out of 143).....	23	5.3
Networked Readiness Index 2014 (out of 148).....	24	5.2
Networked Readiness Index 2013 (out of 144).....	25	5.1
<b>A. Environment subindex</b> .....	<b>19</b>	<b>5.2</b>
1st pillar: Political and regulatory environment.....	25	5.1
2nd pillar: Business and innovation environment.....	13	5.4
<b>B. Readiness subindex</b> .....	<b>56</b>	<b>5.0</b>
3rd pillar: Infrastructure.....	28	5.9
4th pillar: Affordability.....	116	3.4
5th pillar: Skills.....	22	5.8
<b>C. Usage subindex</b> .....	<b>13</b>	<b>5.6</b>
6th pillar: Individual usage.....	19	6.2
7th pillar: Business usage.....	27	4.6
8th pillar: Government usage.....	2	6.2
<b>D. Impact subindex</b> .....	<b>18</b>	<b>5.2</b>
9th pillar: Economic impacts.....	26	4.3
10th pillar: Social impacts.....	2	6.1



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	11	5.3
1.02 Laws relating to ICTs*	4	5.7
1.03 Judicial independence*	22	5.6
1.04 Efficiency of legal system in settling disputes*	18	5.2
1.05 Efficiency of legal system in challenging regs*	21	4.7
1.06 Intellectual property protection*	22	5.5
1.07 Software piracy rate, % software installed	22	36
1.08 No. procedures to enforce a contract	134	49
1.09 No. days to enforce a contract	53	495
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	9	6.3
2.02 Venture capital availability*	7	4.4
2.03 Total tax rate, % profits	7	15.9
2.04 No. days to start a business	48	8
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	8	6.0
2.07 Tertiary education gross enrollment rate, %	93	22.0
2.08 Quality of management schools*	20	5.3
2.09 Gov't procurement of advanced tech*	2	5.4
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	10	11750.2
3.02 Mobile network coverage, % pop.	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user	35	79.6
3.04 Secure Internet servers/million pop.	35	294.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	41	0.15
4.02 Fixed broadband Internet tariffs, PPP \$/month	120	83.40
4.03 Internet & telephony competition, 0–2 (best)	122	1.07
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	12	5.3
5.02 Quality of math & science education*	11	5.3
5.03 Secondary education gross enrollment rate, %	67	92.3
5.04 Adult literacy rate, %	63	93.8

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	4	178.1
6.02 Individuals using Internet, %	12	90.4
6.03 Households w/ personal computer, %	13	87.9
6.04 Households w/ Internet access, %	11	90.1
6.05 Fixed broadband Internet subs/100 pop.	64	11.6
6.06 Mobile broadband subs/100 pop.	9	114.0
6.07 Use of virtual social networks*	6	6.5
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	7	6.0
7.02 Capacity for innovation*	28	4.7
7.03 PCT patents, applications/million pop.	45	6.6
7.04 ICT use for business-to-business transactions*	4	6.0
7.05 Business-to-consumer Internet use*	22	5.5
7.06 Extent of staff training*	12	5.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	1	6.1
8.02 Government Online Service Index, 0–1 (best)	12	0.88
8.03 Gov't success in ICT promotion*	1	6.2
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	7	5.7
9.02 ICT PCT patents, applications/million pop.	40	2.4
9.03 Impact of ICTs on organizational models*	10	5.5
9.04 Knowledge-intensive jobs, % workforce	32	36.1
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	4	6.1
10.02 Internet access in schools*	9	6.0
10.03 ICT use & gov't efficiency*	1	6.1
10.04 E-Participation Index, 0–1 (best)	13	0.84

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

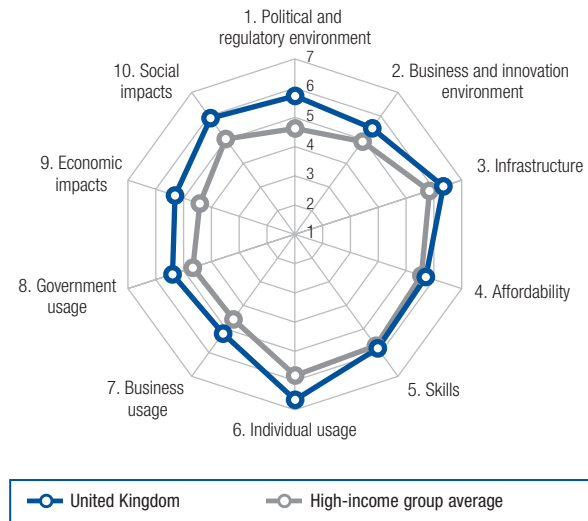
# United Kingdom

Rank Value  
(out of 139) (1-7)

## Networked Readiness Index..... 8.. 5.7

Networked Readiness Index (out of 143)..... 8..... 5.6  
 Networked Readiness Index 2014 (out of 148)..... 9..... 5.5  
 Networked Readiness Index 2013 (out of 144)..... 7..... 5.6

<b>A. Environment subindex..... 3..... 5.6</b>
1st pillar: Political and regulatory environment..... 5..... 5.7
2nd pillar: Business and innovation environment..... 5..... 5.5
<b>B. Readiness subindex ..... 20..... 5.9</b>
3rd pillar: Infrastructure ..... 20..... 6.3
4th pillar: Affordability ..... 53..... 5.7
5th pillar: Skills..... 24..... 5.8
<b>C. Usage subindex..... 11..... 5.7</b>
6th pillar: Individual usage..... 5..... 6.6
7th pillar: Business usage..... 16..... 5.2
8th pillar: Government usage..... 10..... 5.4
<b>D. Impact subindex..... 7..... 5.6</b>
9th pillar: Economic impacts..... 11..... 5.3
10th pillar: Social impacts..... 5..... 5.9



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies* .....5..... 5.7		
1.02 Laws relating to ICTs* .....6..... 5.5		
1.03 Judicial independence* .....10..... 6.2		
1.04 Efficiency of legal system in settling disputes* .....6..... 5.7		
1.05 Efficiency of legal system in challenging regs* .....9..... 5.3		
1.06 Intellectual property protection* .....7..... 6.0		
1.07 Software piracy rate, % software installed.....9..... 24		
1.08 No. procedures to enforce a contract .....14..... 29		
1.09 No. days to enforce a contract .....41..... 437		
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies* .....5..... 6.5		
2.02 Venture capital availability* .....14..... 3.9		
2.03 Total tax rate, % profits .....45..... 32.0		
2.04 No. days to start a business .....24..... 5		
2.05 No. procedures to start a business .....22..... 4		
2.06 Intensity of local competition* .....3..... 6.0		
2.07 Tertiary education gross enrollment rate, %.....46..... 56.9		
2.08 Quality of management schools* .....3..... 5.9		
2.09 Gov't procurement of advanced tech* .....34..... 3.8		
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita .....39... 5557.2		
3.02 Mobile network coverage, % pop. ....55..... 99.7		
3.03 Int'l Internet bandwidth, kb/s per user.....7..... 429.8		
3.04 Secure Internet servers/million pop. ....15... 1291.2		
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....113..... 0.43		
4.02 Fixed broadband Internet tariffs, PPP \$/month ....6..... 14.12		
4.03 Internet & telephony competition, 0-2 (best).....73..... 1.88		
<b>5th pillar: Skills</b>		
5.01 Quality of education system* .....21..... 4.7		
5.02 Quality of math & science education* .....46..... 4.4		
5.03 Secondary education gross enrollment rate, % ....9..... 124.4		
5.04 Adult literacy rate, % .....n/a..... n/a <sup>1</sup>		

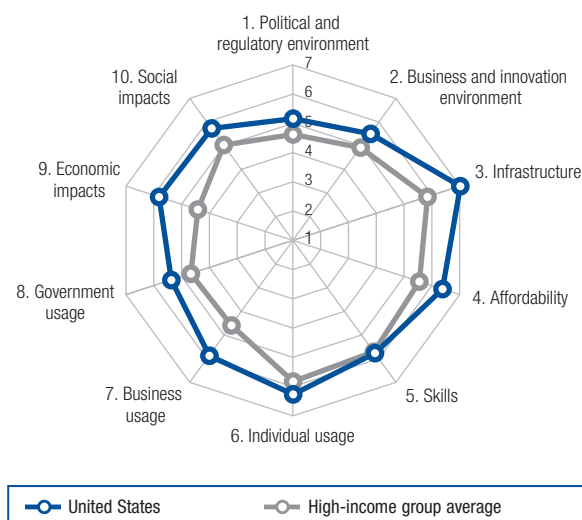
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....52..... 123.6		
6.02 Individuals using Internet, %.....8..... 91.6		
6.03 Households w/ personal computer, % .....10..... 90.8		
6.04 Households w/ Internet access, % .....12..... 89.9		
6.05 Fixed broadband Internet subs/100 pop.....7..... 37.4		
6.06 Mobile broadband subs/100 pop.....17..... 88.8		
6.07 Use of virtual social networks* .....5..... 6.5		
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption* .....14..... 5.7		
7.02 Capacity for innovation* .....10..... 5.4		
7.03 PCT patents, applications/million pop. ....18..... 93.2		
7.04 ICT use for business-to-business transactions* .....2..... 6.0		
7.05 Business-to-consumer Internet use* .....1..... 6.4		
7.06 Extent of staff training* .....21..... 4.8		
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision* .....16..... 4.9		
8.02 Government Online Service Index, 0-1 (best).....11..... 0.90		
8.03 Gov't success in ICT promotion* .....15..... 4.9		
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models* .....2..... 5.9		
9.02 ICT PCT patents, applications/million pop. ....17..... 31.1		
9.03 Impact of ICTs on organizational models* .....1..... 5.8		
9.04 Knowledge-intensive jobs, % workforce.....8..... 47.4		
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services* .....19..... 5.7		
10.02 Internet access in schools* .....7..... 6.1		
10.03 ICT use & gov't efficiency* .....15..... 5.1		
10.04 E-Participation Index, 0-1 (best).....4..... 0.96		

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# United States

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index</b> .....	<b>5</b>	<b>5.8</b>
Networked Readiness Index 2015 (out of 143).....	7	5.6
Networked Readiness Index 2014 (out of 148).....	7	5.6
Networked Readiness Index 2013 (out of 144).....	9	5.6
<b>A. Environment subindex</b> .....	<b>13</b>	<b>5.3</b>
1st pillar: Political and regulatory environment.....	21	5.2
2nd pillar: Business and innovation environment.....	3	5.5
<b>B. Readiness subindex</b> .....	<b>5</b>	<b>6.4</b>
3rd pillar: Infrastructure.....	5	7.0
4th pillar: Affordability.....	17	6.4
5th pillar: Skills.....	27	5.8
<b>C. Usage subindex</b> .....	<b>8</b>	<b>5.8</b>
6th pillar: Individual usage.....	17	6.2
7th pillar: Business usage.....	4	5.9
8th pillar: Government usage.....	12	5.4
<b>D. Impact subindex</b> .....	<b>5</b>	<b>5.8</b>
9th pillar: Economic impacts.....	7	5.8
10th pillar: Social impacts.....	7	5.7



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	49	4.0
1.02 Laws relating to ICTs*	11	5.3
1.03 Judicial independence*	28	5.2
1.04 Efficiency of legal system in settling disputes*	25	4.9
1.05 Efficiency of legal system in challenging regs*	19	4.8
1.06 Intellectual property protection*	15	5.8
1.07 Software piracy rate, % software installed	1	18
1.08 No. procedures to enforce a contract	41	34
1.09 No. days to enforce a contract	33	420
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	2	6.5
2.02 Venture capital availability*	5	4.5
2.03 Total tax rate, % profits	93	43.9
2.04 No. days to start a business	33	6
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	4	6.0
2.07 Tertiary education gross enrollment rate, %	4	88.8
2.08 Quality of management schools*	9	5.7
2.09 Gov't procurement of advanced tech*	11	4.3
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	8	13544.8
3.02 Mobile network coverage, % pop.	37	99.9
3.03 Int'l Internet bandwidth, kb/s per user	42	71.0
3.04 Secure Internet servers/million pop.	12	1548.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	77	0.27
4.02 Fixed broadband Internet tariffs, PPP \$/month	11	16.32
4.03 Internet & telephony competition, 0–2 (best)	1	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	18	4.9
5.02 Quality of math & science education*	44	4.5
5.03 Secondary education gross enrollment rate, %	62	95.9
5.04 Adult literacy rate, %	n/a	n/a <sup>1</sup>

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	79	110.2
6.02 Individuals using Internet, %	13	87.4
6.03 Households w/ personal computer, %	28	81.5
6.04 Households w/ Internet access, %	29	79.6
6.05 Fixed broadband Internet subs/100 pop.	18	31.1
6.06 Mobile broadband subs/100 pop.	14	102.7
6.07 Use of virtual social networks*	3	6.6
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	3	6.1
7.02 Capacity for innovation*	2	5.9
7.03 PCT patents, applications/million pop.	10	173.1
7.04 ICT use for business-to-business transactions*	17	5.7
7.05 Business-to-consumer Internet use*	2	6.3
7.06 Extent of staff training*	14	5.1
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	29	4.7
8.02 Government Online Service Index, 0–1 (best)	4	0.94
8.03 Gov't success in ICT promotion*	25	4.8
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	14	5.5
9.02 ICT PCT patents, applications/million pop.	7	69.8
9.03 Impact of ICTs on organizational models*	2	5.8
9.04 Knowledge-intensive jobs, % workforce	26	38.0
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	15	5.7
10.02 Internet access in schools*	17	5.9
10.03 ICT use & gov't efficiency*	35	4.7
10.04 E-Participation Index, 0–1 (best)	9	0.92

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

<sup>1</sup> See the "Technical Notes and Sources" section.

# Uruguay

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 43.. 4.5

Networked Readiness Index (out of 143)..... 46..... 4.5  
 Networked Readiness Index 2014 (out of 148)..... 56..... 4.2  
 Networked Readiness Index 2013 (out of 144)..... 52..... 4.2

### A. Environment subindex..... 44..... 4.4

1st pillar: Political and regulatory environment..... 44..... 4.2  
 2nd pillar: Business and innovation environment..... 51..... 4.6

### B. Readiness subindex ..... 76..... 4.7

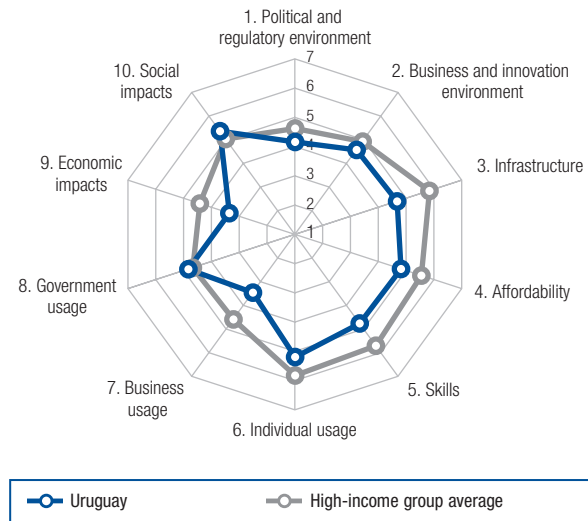
3rd pillar: Infrastructure ..... 53..... 4.7  
 4th pillar: Affordability ..... 87..... 4.8  
 5th pillar: Skills..... 83..... 4.8

### C. Usage subindex..... 38..... 4.5

6th pillar: Individual usage..... 44..... 5.2  
 7th pillar: Business usage..... 90..... 3.4  
 8th pillar: Government usage..... 27..... 4.8

### D. Impact subindex..... 36..... 4.4

9th pillar: Economic impacts..... 62..... 3.4  
 10th pillar: Social impacts..... 22..... 5.4



## The Networked Readiness Index in detail

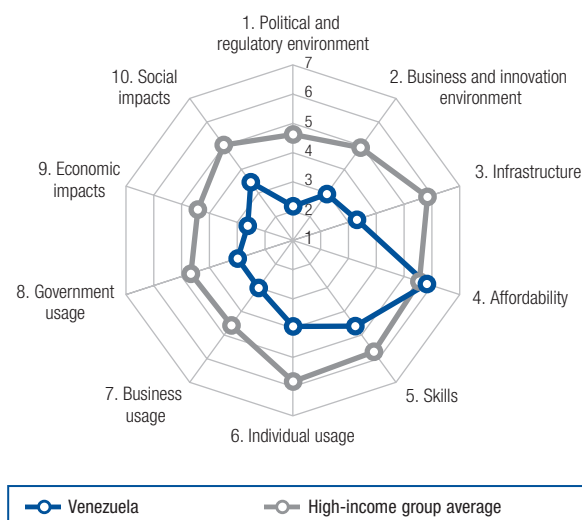
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	55	4.0
1.02 Laws relating to ICTs*	64	4.0
1.03 Judicial independence*	20	5.7
1.04 Efficiency of legal system in settling disputes*	51	4.0
1.05 Efficiency of legal system in challenging regs*	35	4.2
1.06 Intellectual property protection*	38	4.5
1.07 Software piracy rate, % software installed.....	65	68
1.08 No. procedures to enforce a contract.....	94	40
1.09 No. days to enforce a contract.....	108	725
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	69	4.8
2.02 Venture capital availability*.....	73	2.7
2.03 Total tax rate, % profits.....	88	41.8
2.04 No. days to start a business.....	41	7
2.05 No. procedures to start a business.....	41	5
2.06 Intensity of local competition*.....	92	4.7
2.07 Tertiary education gross enrollment rate, %.....	37	63.1
2.08 Quality of management schools*.....	52	4.4
2.09 Gov't procurement of advanced tech*.....	81	3.2
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	59	3422.0
3.02 Mobile network coverage, % pop.....	1	100.0
3.03 Int'l Internet bandwidth, kb/s per user.....	45	60.7
3.04 Secure Internet servers/million pop.....	53	95.3
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	107	0.39
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	40	26.19
4.03 Internet & telephony competition, 0-2 (best).....	124	1.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	113	3.0
5.02 Quality of math & science education*.....	122	2.9
5.03 Secondary education gross enrollment rate, %.....	73	90.3
5.04 Adult literacy rate, %.....	25	98.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	11	160.8
6.02 Individuals using Internet, %.....	53	61.5
6.03 Households w/ personal computer, %.....	48	67.4
6.04 Households w/ Internet access, %.....	54	57.4
6.05 Fixed broadband Internet subs/100 pop.....	35	24.6
6.06 Mobile broadband subs/100 pop.....	43	59.8
6.07 Use of virtual social networks*.....	64	5.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	93	4.3
7.02 Capacity for innovation*.....	97	3.6
7.03 PCT patents, applications/million pop.....	54	2.9
7.04 ICT use for business-to-business transactions*.....	87	4.5
7.05 Business-to-consumer Internet use*.....	74	4.3
7.06 Extent of staff training*.....	85	3.8
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	59	4.1
8.02 Government Online Service Index, 0-1 (best).....	14	0.85
8.03 Gov't success in ICT promotion*.....	48	4.3
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	39	4.9
9.02 ICT PCT patents, applications/million pop.....	56	0.6
9.03 Impact of ICTs on organizational models*.....	58	4.3
9.04 Knowledge-intensive jobs, % workforce.....	67	20.9
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	44	4.8
10.02 Internet access in schools*.....	22	5.7
10.03 ICT use & gov't efficiency*.....	60	4.1
10.04 E-Participation Index, 0-1 (best).....	3	0.98

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Venezuela

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>108..</b>	<b>3.4</b>
Networked Readiness Index 2015 (out of 143).....	103.....	3.4
Networked Readiness Index 2014 (out of 148).....	106.....	3.4
Networked Readiness Index 2013 (out of 144).....	108.....	3.3
<b>A. Environment subindex.....</b>	<b>139.....</b>	<b>2.6</b>
1st pillar: Political and regulatory environment.....	139.....	2.2
2nd pillar: Business and innovation environment.....	136.....	3.0
<b>B. Readiness subindex.....</b>	<b>85.....</b>	<b>4.6</b>
3rd pillar: Infrastructure.....	89.....	3.3
4th pillar: Affordability.....	50.....	5.8
5th pillar: Skills.....	88.....	4.6
<b>C. Usage subindex.....</b>	<b>98.....</b>	<b>3.3</b>
6th pillar: Individual usage.....	74.....	3.9
7th pillar: Business usage.....	131.....	3.0
8th pillar: Government usage.....	118.....	3.0
<b>D. Impact subindex.....</b>	<b>112.....</b>	<b>3.0</b>
9th pillar: Economic impacts.....	118.....	2.6
10th pillar: Social impacts.....	102.....	3.5



## The Networked Readiness Index in detail

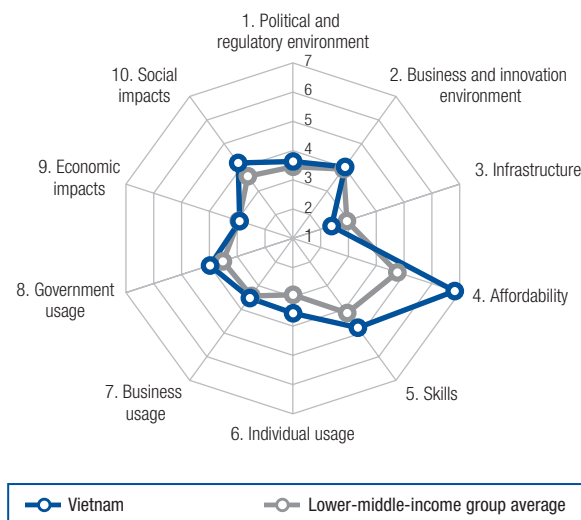
INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	139	1.4
1.02 Laws relating to ICTs*	125	2.7
1.03 Judicial independence*	139	1.1
1.04 Efficiency of legal system in settling disputes*	139	1.5
1.05 Efficiency of legal system in challenging regs*	139	1.3
1.06 Intellectual property protection*	139	1.7
1.07 Software piracy rate, % software installed	101	88
1.08 No. procedures to enforce a contract	18	30
1.09 No. days to enforce a contract	91	610
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	134	3.3
2.02 Venture capital availability*	110	2.3
2.03 Total tax rate, % profits	130	65.0
2.04 No. days to start a business	139	144
2.05 No. procedures to start a business	139	17
2.06 Intensity of local competition*	139	2.7
2.07 Tertiary education gross enrollment rate, %	20	77.0
2.08 Quality of management schools*	67	4.3
2.09 Gov't procurement of advanced tech*	139	1.6
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	53	4067.9
3.02 Mobile network coverage, % pop.	116	90.0
3.03 Int'l Internet bandwidth, kb/s per user	94	14.4
3.04 Secure Internet servers/million pop.	90	12.2
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	103	0.36
4.02 Fixed broadband Internet tariffs, PPP \$/month	27	21.71
4.03 Internet & telephony competition, 0–2 (best)	n/a	n/a
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	128	2.5
5.02 Quality of math & science education*	116	3.1
5.03 Secondary education gross enrollment rate, %	69	91.6
5.04 Adult literacy rate, %	47	95.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	97	99.0
6.02 Individuals using Internet, %	59	57.0
6.03 Households w/ personal computer, %	76	43.7
6.04 Households w/ Internet access, %	79	34.2
6.05 Fixed broadband Internet subs/100 pop.	76	7.8
6.06 Mobile broadband subs/100 pop.	67	44.0
6.07 Use of virtual social networks*	61	5.7
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	122	3.9
7.02 Capacity for innovation*	135	2.9
7.03 PCT patents, applications/million pop.	86	0.3
7.04 ICT use for business-to-business transactions*	129	3.7
7.05 Business-to-consumer Internet use*	105	3.9
7.06 Extent of staff training*	111	3.4
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	138	2.4
8.02 Government Online Service Index, 0–1 (best)	55	0.55
8.03 Gov't success in ICT promotion*	139	2.3
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	135	3.2
9.02 ICT PCT patents, applications/million pop.	89	0.0
9.03 Impact of ICTs on organizational models*	120	3.4
9.04 Knowledge-intensive jobs, % workforce	75	19.2
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	121	3.3
10.02 Internet access in schools*	111	3.5
10.03 ICT use & gov't efficiency*	136	2.6
10.04 E-Participation Index, 0–1 (best)	51	0.57

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# Vietnam

	Rank (out of 139)	Value (1-7)
<b>Networked Readiness Index.....</b>	<b>79..</b>	<b>3.9</b>
Networked Readiness Index (out of 143).....	85.....	3.9
Networked Readiness Index 2014 (out of 148).....	84.....	3.8
Networked Readiness Index 2013 (out of 144).....	84.....	3.7
<b>A. Environment subindex.....</b>	<b>86.....</b>	<b>3.8</b>
1st pillar: Political and regulatory environment.....	82.....	3.6
2nd pillar: Business and innovation environment.....	91.....	4.0
<b>B. Readiness subindex.....</b>	<b>82.....</b>	<b>4.6</b>
3rd pillar: Infrastructure.....	121.....	2.4
4th pillar: Affordability.....	3.....	6.8
5th pillar: Skills.....	82.....	4.8
<b>C. Usage subindex.....</b>	<b>81.....</b>	<b>3.7</b>
6th pillar: Individual usage.....	85.....	3.6
7th pillar: Business usage.....	81.....	3.5
8th pillar: Government usage.....	61.....	4.0
<b>D. Impact subindex.....</b>	<b>76.....</b>	<b>3.6</b>
9th pillar: Economic impacts.....	92.....	2.9
10th pillar: Social impacts.....	65.....	4.2



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*.....	65.....	3.8
1.02 Laws relating to ICTs*.....	72.....	3.9
1.03 Judicial independence*.....	86.....	3.5
1.04 Efficiency of legal system in settling disputes*.....	69.....	3.7
1.05 Efficiency of legal system in challenging regs*.....	79.....	3.4
1.06 Intellectual property protection*.....	88.....	3.6
1.07 Software piracy rate, % software installed.....	87.....	81
1.08 No. procedures to enforce a contract.....	58.....	36
1.09 No. days to enforce a contract.....	27.....	400
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*.....	112.....	4.0
2.02 Venture capital availability*.....	46.....	3.0
2.03 Total tax rate, % profits.....	75.....	39.4
2.04 No. days to start a business.....	102.....	20
2.05 No. procedures to start a business.....	114.....	10
2.06 Intensity of local competition*.....	71.....	5.0
2.07 Tertiary education gross enrollment rate, %.....	78.....	30.5
2.08 Quality of management schools*.....	113.....	3.5
2.09 Gov't procurement of advanced tech*.....	28.....	3.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita.....	92 ...	1416.0
3.02 Mobile network coverage, % pop.....	131.....	70.0
3.03 Int'l Internet bandwidth, kb/s per user.....	89.....	20.7
3.04 Secure Internet servers/million pop.....	91.....	11.9
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....	42.....	0.15
4.02 Fixed broadband Internet tariffs, PPP \$/month.....	1.....	2.59
4.03 Internet & telephony competition, 0-2 (best).....	1.....	2.00
<b>5th pillar: Skills</b>		
5.01 Quality of education system*.....	78.....	3.5
5.02 Quality of math & science education*.....	65.....	4.2
5.03 Secondary education gross enrollment rate, %.....	97.....	75.2
5.04 Adult literacy rate, %.....	55.....	94.5

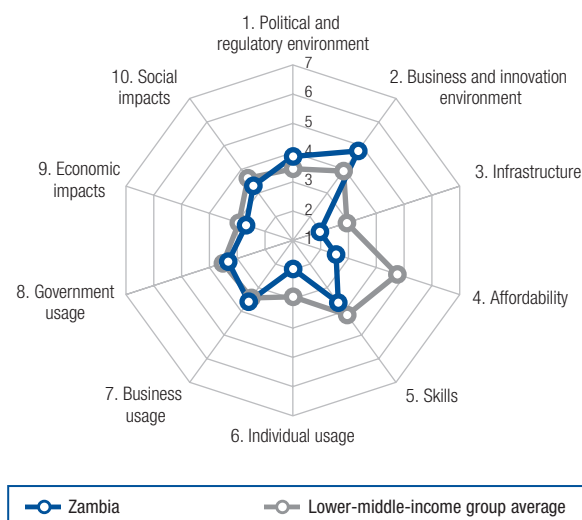
INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....	26.....	147.1
6.02 Individuals using Internet, %.....	73.....	48.3
6.03 Households w/ personal computer, %.....	98.....	20.5
6.04 Households w/ Internet access, %.....	98.....	18.6
6.05 Fixed broadband Internet subs/100 pop.....	79.....	6.5
6.06 Mobile broadband subs/100 pop.....	82.....	31.0
6.07 Use of virtual social networks*.....	86.....	5.4
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*.....	121.....	3.9
7.02 Capacity for innovation*.....	81.....	3.8
7.03 PCT patents, applications/million pop.....	92.....	0.2
7.04 ICT use for business-to-business transactions*.....	55.....	4.9
7.05 Business-to-consumer Internet use*.....	47.....	4.8
7.06 Extent of staff training*.....	73.....	3.9
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*.....	48.....	4.3
8.02 Government Online Service Index, 0-1 (best).....	78.....	0.42
8.03 Gov't success in ICT promotion*.....	57.....	4.1
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*.....	68.....	4.5
9.02 ICT PCT patents, applications/million pop.....	87.....	0.1
9.03 Impact of ICTs on organizational models*.....	66.....	4.2
9.04 Knowledge-intensive jobs, % workforce.....	95.....	10.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*.....	68.....	4.2
10.02 Internet access in schools*.....	57.....	4.6
10.03 ICT use & gov't efficiency*.....	62.....	4.1
10.04 E-Participation Index, 0-1 (best).....	64.....	0.49

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.



# Zambia

	Rank (out of 139)	Value (1–7)
<b>Networked Readiness Index.....</b>	<b>116..</b>	<b>3.2</b>
Networked Readiness Index 2015 (out of 143).....	114.....	3.2
Networked Readiness Index 2014 (out of 148).....	110.....	3.3
Networked Readiness Index 2013 (out of 144).....	115.....	3.2
<b>A. Environment subindex.....</b>	<b>46.....</b>	<b>4.3</b>
1st pillar: Political and regulatory environment.....	61.....	3.9
2nd pillar: Business and innovation environment.....	39.....	4.8
<b>B. Readiness subindex.....</b>	<b>127.....</b>	<b>2.7</b>
3rd pillar: Infrastructure.....	129.....	2.0
4th pillar: Affordability.....	129.....	2.5
5th pillar: Skills.....	114.....	3.6
<b>C. Usage subindex.....</b>	<b>113.....</b>	<b>3.0</b>
6th pillar: Individual usage.....	126.....	2.0
7th pillar: Business usage.....	71.....	3.6
8th pillar: Government usage.....	104.....	3.3
<b>D. Impact subindex.....</b>	<b>113.....</b>	<b>3.0</b>
9th pillar: Economic impacts.....	115.....	2.7
10th pillar: Social impacts.....	111.....	3.3



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies*	36	4.3
1.02 Laws relating to ICTs*	83	3.6
1.03 Judicial independence*	62	4.0
1.04 Efficiency of legal system in settling disputes*	37	4.3
1.05 Efficiency of legal system in challenging regs*	48	3.8
1.06 Intellectual property protection*	46	4.3
1.07 Software piracy rate, % software installed	87	81
1.08 No. procedures to enforce a contract	48	35
1.09 No. days to enforce a contract	92	611
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies*	76	4.6
2.02 Venture capital availability*	115	2.2
2.03 Total tax rate, % profits	10	18.6
2.04 No. days to start a business	46	8
2.05 No. procedures to start a business	54	6
2.06 Intensity of local competition*	26	5.5
2.07 Tertiary education gross enrollment rate, %	n/a	n/a
2.08 Quality of management schools*	58	4.3
2.09 Gov't procurement of advanced tech*	25	3.9
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita	99	873.5
3.02 Mobile network coverage, % pop.	128	78.0
3.03 Int'l Internet bandwidth, kb/s per user	122	4.2
3.04 Secure Internet servers/million pop.	112	3.4
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min	118	0.46
4.02 Fixed broadband Internet tariffs, PPP \$/month	131	147.42
4.03 Internet & telephony competition, 0–2 (best)	96	1.64
<b>5th pillar: Skills</b>		
5.01 Quality of education system*	35	4.3
5.02 Quality of math & science education*	81	3.9
5.03 Secondary education gross enrollment rate, %	n/a	n/a
5.04 Adult literacy rate, %	101	63.4

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.	128	67.3
6.02 Individuals using Internet, %	112	17.3
6.03 Households w/ personal computer, %	126	6.6
6.04 Households w/ Internet access, %	117	6.9
6.05 Fixed broadband Internet subs/100 pop.	125	0.1
6.06 Mobile broadband subs/100 pop.	133	1.0
6.07 Use of virtual social networks*	104	5.0
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption*	65	4.7
7.02 Capacity for innovation*	65	4.0
7.03 PCT patents, applications/million pop.	114	0.0
7.04 ICT use for business-to-business transactions*	71	4.7
7.05 Business-to-consumer Internet use*	104	3.9
7.06 Extent of staff training*	72	4.0
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision*	57	4.1
8.02 Government Online Service Index, 0–1 (best)	122	0.14
8.03 Gov't success in ICT promotion*	68	4.0
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models*	86	4.2
9.02 ICT PCT patents, applications/million pop.	103	0.0
9.03 Impact of ICTs on organizational models*	79	3.9
9.04 Knowledge-intensive jobs, % workforce	99	7.3
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services*	106	3.6
10.02 Internet access in schools*	94	3.8
10.03 ICT use & gov't efficiency*	88	3.8
10.04 E-Participation Index, 0–1 (best)	119	0.18

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

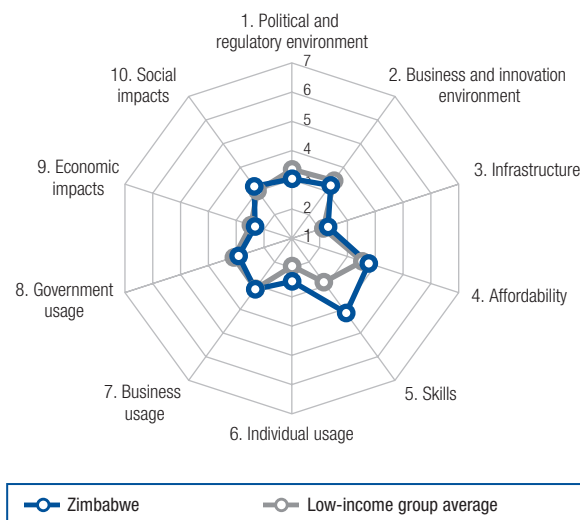
# Zimbabwe

Rank (out of 139) Value (1-7)

## Networked Readiness Index..... 122.. 3.0

Networked Readiness Index (out of 143)..... 121 ..... 3.1  
 Networked Readiness Index 2014 (out of 148)..... 117 ..... 3.2  
 Networked Readiness Index 2013 (out of 144)..... 116 ..... 3.2

<b>A. Environment subindex..... 128..... 3.1</b>	
1st pillar: Political and regulatory environment..... 121 ..... 3.0	
2nd pillar: Business and innovation environment..... 132 ..... 3.2	
<b>B. Readiness subindex ..... 114..... 3.4</b>	
3rd pillar: Infrastructure ..... 123 ..... 2.3	
4th pillar: Affordability ..... 112 ..... 3.8	
5th pillar: Skills ..... 100 ..... 4.1	
<b>C. Usage subindex..... 121 ..... 2.8</b>	
6th pillar: Individual usage..... 114 ..... 2.5	
7th pillar: Business usage ..... 117 ..... 3.1	
8th pillar: Government usage ..... 120 ..... 2.9	
<b>D. Impact subindex..... 124 ..... 2.8</b>	
9th pillar: Economic impacts..... 133 ..... 2.3	
10th pillar: Social impacts..... 116 ..... 3.2	



## The Networked Readiness Index in detail

INDICATOR	RANK/139	VALUE
<b>1st pillar: Political and regulatory environment</b>		
1.01 Effectiveness of law-making bodies* .....91 ..... 3.4		
1.02 Laws relating to ICTs* .....132 ..... 2.5		
1.03 Judicial independence* .....115 ..... 2.7		
1.04 Efficiency of legal system in settling disputes* .....92 ..... 3.3		
1.05 Efficiency of legal system in challenging regs* ..121 ..... 2.7		
1.06 Intellectual property protection* .....96 ..... 3.4		
1.07 Software piracy rate, % software installed.....104 ..... 91		
1.08 No. procedures to enforce a contract .....76 ..... 38		
1.09 No. days to enforce a contract .....29 ..... 410		
<b>2nd pillar: Business and innovation environment</b>		
2.01 Availability of latest technologies* .....104 ..... 4.1		
2.02 Venture capital availability* .....139 ..... 1.5		
2.03 Total tax rate, % profits .....51 ..... 32.8		
2.04 No. days to start a business .....137 ..... 90		
2.05 No. procedures to start a business .....105 ..... 9		
2.06 Intensity of local competition* .....88 ..... 4.8		
2.07 Tertiary education gross enrollment rate, %.....127 ..... 5.9		
2.08 Quality of management schools* .....83 ..... 4.0		
2.09 Gov't procurement of advanced tech* .....138 ..... 2.2		
<b>3rd pillar: Infrastructure</b>		
3.01 Electricity production, kWh/capita .....105 ..... 636.5		
3.02 Mobile network coverage, % pop. ....120 ..... 88.0		
3.03 Int'l Internet bandwidth, kb/s per user.....125 ..... 3.9		
3.04 Secure Internet servers/million pop. ....108 ..... 4.5		
<b>4th pillar: Affordability</b>		
4.01 Prepaid mobile cellular tariffs, PPP \$/min.....114 ..... 0.43		
4.02 Fixed broadband Internet tariffs, PPP \$/month 107 ..... 57.65		
4.03 Internet & telephony competition, 0-2 (best).....85 ..... 1.79		
<b>5th pillar: Skills</b>		
5.01 Quality of education system* .....42 ..... 4.2		
5.02 Quality of math & science education* .....54 ..... 4.4		
5.03 Secondary education gross enrollment rate, % 120 ..... 46.7		
5.04 Adult literacy rate, % .....77 ..... 86.5		

INDICATOR	RANK/139	VALUE
<b>6th pillar: Individual usage</b>		
6.01 Mobile phone subscriptions/100 pop.....115 ..... 80.8		
6.02 Individuals using Internet, %.....102 ..... 19.9		
6.03 Households w/ personal computer, % .....121 ..... 7.6		
6.04 Households w/ Internet access, % .....126 ..... 5.8		
6.05 Fixed broadband Internet subs/100 pop.....108 ..... 1.0		
6.06 Mobile broadband subs/100 pop.....74 ..... 39.2		
6.07 Use of virtual social networks* .....107 ..... 4.9		
<b>7th pillar: Business usage</b>		
7.01 Firm-level technology absorption* .....111 ..... 4.1		
7.02 Capacity for innovation* .....129 ..... 3.2		
7.03 PCT patents, applications/million pop. ....102 ..... 0.1		
7.04 ICT use for business-to-business transactions* 109 ..... 4.1		
7.05 Business-to-consumer Internet use* .....132 ..... 3.2		
7.06 Extent of staff training* .....87 ..... 3.8		
<b>8th pillar: Government usage</b>		
8.01 Importance of ICTs to gov't vision* .....133 ..... 2.8		
8.02 Government Online Service Index, 0-1 (best).....98 ..... 0.31		
8.03 Gov't success in ICT promotion* .....127 ..... 3.1		
<b>9th pillar: Economic impacts</b>		
9.01 Impact of ICTs on business models* .....120 ..... 3.7		
9.02 ICT PCT patents, applications/million pop. ....96 ..... 0.0		
9.03 Impact of ICTs on organizational models* .....129 ..... 3.0		
9.04 Knowledge-intensive jobs, % workforce.....102 ..... 6.6		
<b>10th pillar: Social impacts</b>		
10.01 Impact of ICTs on access to basic services* ....118 ..... 3.4		
10.02 Internet access in schools* .....117 ..... 3.2		
10.03 ICT use & gov't efficiency* .....138 ..... 2.5		
10.04 E-Participation Index, 0-1 (best).....73 ..... 0.45		

**Note:** Indicators followed by an asterisk (\*) are measured on a 1-to-7 (best) scale. For further details and explanation, please refer to the section "How to Read the Country/Economy Profiles" on page 53.

# 2.2

## Data Tables



# How to Read the Data Tables

The following pages provide detailed data for all the 53 indicators used to compute the Networked Readiness Index (NRI). The data tables are organized into 10 sections, which correspond to the 10 pillars of the NRI.

## Environment subindex

1st pillar: Political and regulatory environment

2nd pillar: Business and innovation environment

## Readiness subindex

3rd pillar: Infrastructure

4th pillar: Affordability

5th pillar: Skills

## Usage subindex

6th pillar: Individual usage

7th pillar: Business usage

8th pillar: Government usage

## Impact subindex

9th pillar: Economic impacts

10th pillar: Social impacts

## EXECUTIVE OPINION SURVEY INDICATORS

In the tables, indicators derived from the World Economic Forum's Executive Opinion Survey (the Survey) have scores represented by blue-colored bar graphs. Survey questions ask for responses on a scale of 1 to 7, where 1 is the worst possible outcome and 7 is the best. In the tables, the Survey question and the two extreme answers are shown above the rankings. Scores are reported with a precision of one decimal point, although exact figures are used to determine rankings. The sample mean is represented by a dotted line running across the bar graphs. For more information on the Executive Opinion Survey and a detailed explanation of how scores are computed, refer to Chapter 1.3 of *The Global Competitiveness Report 2015–2016*, available for free on the World Economic Forum website at [www.weforum.org/gcr](http://www.weforum.org/gcr).

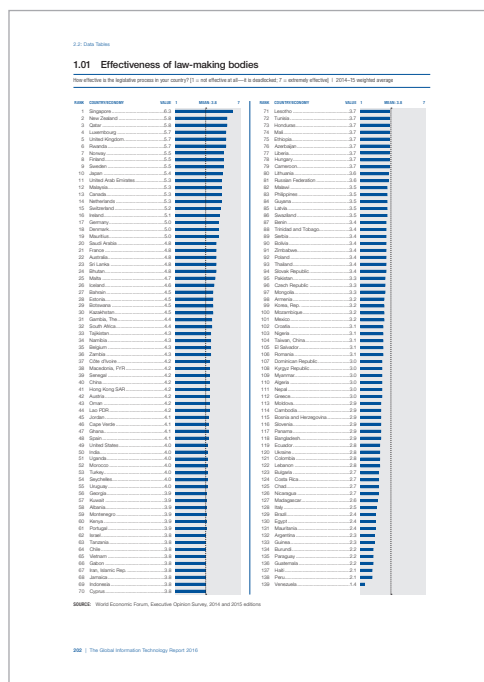
## OTHER INDICATORS

Indicators not derived from the Executive Opinion Survey are presented in black bar graphs. For each indicator, a short description appears at the top of the page. The base period (i.e., the period to which the majority of the data corresponds) follows the description. When the period differs from the base period for a particular economy, this is indicated in a footnote. A detailed description for each indicator can be found in the Technical Notes and Sources section at the end of the *Report*. When data are not available or are too outdated, "n/a" is used in lieu of the rank and the value.

Because of the nature of data, ties between two or more economies are possible. In such cases, shared rankings are indicated accordingly. For example, it takes the same number of procedures—15—in Bolivia and Uganda to start a business. As a result, in Table 2.05, both countries are ranked 136th and listed alphabetically.

## THE GITR ONLINE

In complement to the analysis presented in this *Report*, the GTR's portal—available at [www.weforum.org/gitr](http://www.weforum.org/gitr)—offers additional analysis and a number of analytical tools and visualizations, including sortable rankings and maps. The portal also offers the option of downloading portions of the NRI dataset.





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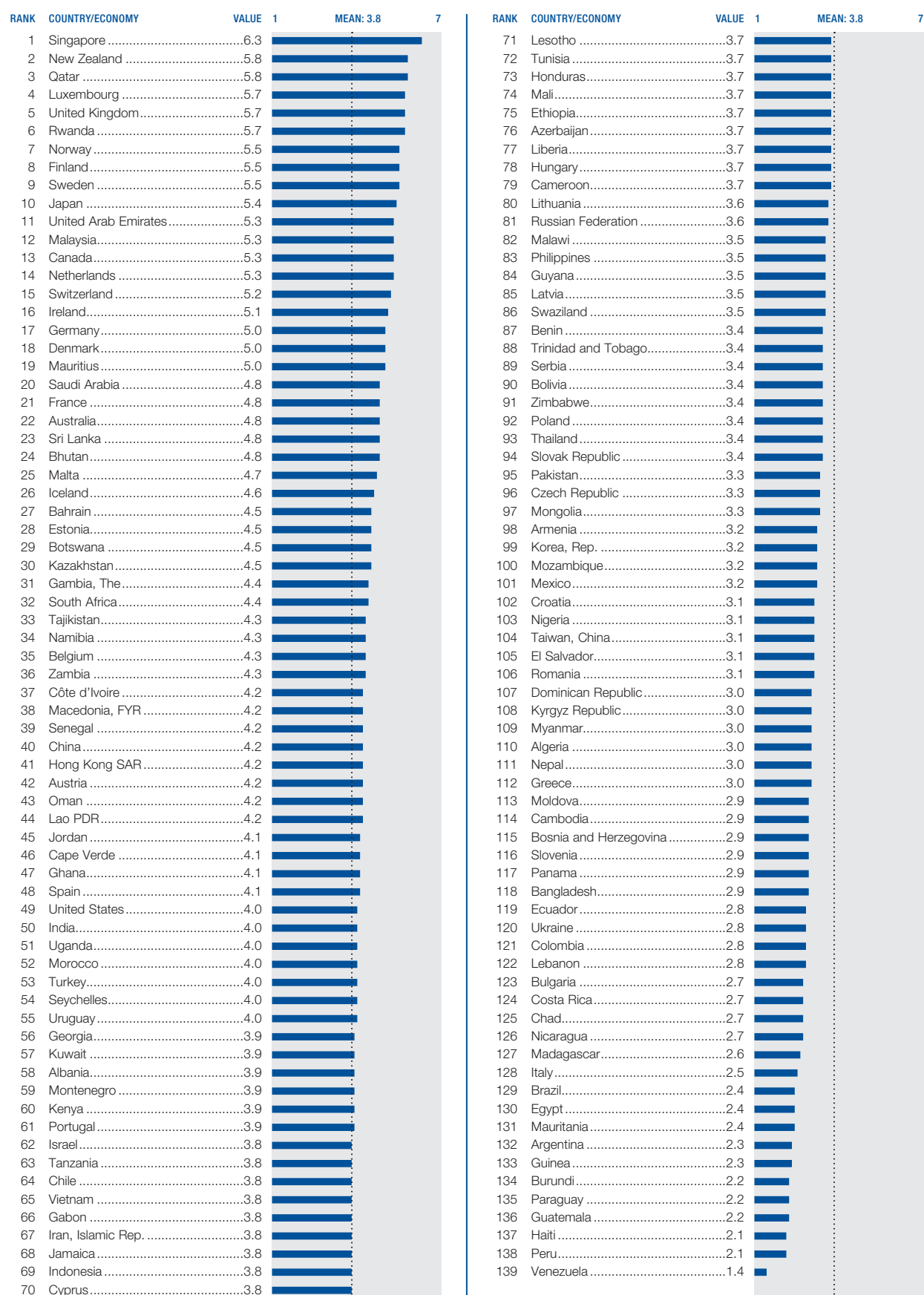


1st pillar

Political and  
regulatory environment

## 1.01 Effectiveness of law-making bodies

How effective is the legislative process in your country? [1 = not effective at all—it is deadlocked; 7 = extremely effective] | 2014–15 weighted average



SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 1.02 Laws relating to ICTs

How developed are your country's laws relating to the use of ICTs (e.g., e-commerce, digital signatures, consumer protection)? [1 = not developed at all; 7 = extremely well developed] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 3.9	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 3.9	7
1	Luxembourg	5.9				71	Italy	3.9			
2	Estonia	5.9				72	Vietnam	3.9			
3	Qatar	5.8				73	Senegal	3.9			
4	United Arab Emirates	5.7				74	Ukraine	3.8			
5	Singapore	5.7				75	Russian Federation	3.8			
6	United Kingdom	5.5				76	Georgia	3.8			
7	Norway	5.5				77	Honduras	3.8			
8	Malaysia	5.4				78	Morocco	3.7			
9	Iceland	5.3				79	Guatemala	3.7			
10	Finland	5.3				80	Brazil	3.7			
11	United States	5.3				81	Philippines	3.7			
12	Netherlands	5.2				82	Cape Verde	3.7			
13	Canada	5.1				83	Zambia	3.6			
14	Denmark	5.1				84	Tajikistan	3.6			
15	New Zealand	5.1				85	Dominican Republic	3.6			
16	Switzerland	5.1				86	Namibia	3.6			
17	France	5.1				87	Thailand	3.6			
18	Hong Kong SAR	5.1				88	Gambia, The	3.6			
19	Austria	5.1				89	Serbia	3.6			
20	Sweden	5.1				90	Mongolia	3.6			
21	Korea, Rep.	5.1				91	Lesotho	3.5			
22	Ireland	5.0				92	El Salvador	3.5			
23	Portugal	5.0				93	Jamaica	3.5			
24	Azerbaijan	5.0				94	Greece	3.5			
25	Lithuania	4.9				95	Peru	3.4			
26	Germany	4.8				96	Iran, Islamic Rep.	3.4			
27	Japan	4.8				97	Guyana	3.4			
28	Taiwan, China	4.8				98	Tunisia	3.4			
29	Australia	4.8				99	Lao PDR	3.4			
30	Saudi Arabia	4.7				100	Uganda	3.4			
31	Israel	4.7				101	Ghana	3.4			
32	Rwanda	4.7				102	Botswana	3.3			
33	Malta	4.7				103	Bhutan	3.3			
34	Belgium	4.6				104	Kuwait	3.2			
35	Slovenia	4.6				105	Liberia	3.2			
36	Spain	4.6				106	Mali	3.2			
37	Macedonia, FYR	4.6				107	Tanzania	3.2			
38	Kazakhstan	4.6				108	Egypt	3.2			
39	Bahrain	4.5				109	Cambodia	3.1			
40	Chile	4.5				110	Cameroon	3.1			
41	Latvia	4.4				111	Albania	3.1			
42	Panama	4.4				112	Bolivia	3.1			
43	South Africa	4.4				113	Ethiopia	3.1			
44	Jordan	4.3				114	Argentina	3.0			
45	Czech Republic	4.3				115	Kyrgyz Republic	3.0			
46	Slovak Republic	4.3				116	Trinidad and Tobago	3.0			
47	Mauritius	4.3				117	Pakistan	3.0			
48	Turkey	4.3				118	Bangladesh	3.0			
49	China	4.2				119	Mozambique	3.0			
50	Armenia	4.2				120	Mauritania	2.9			
51	Hungary	4.2				121	Nigeria	2.9			
52	Sri Lanka	4.2				122	Paraguay	2.8			
53	India	4.2				123	Algeria	2.8			
54	Oman	4.1				124	Nicaragua	2.7			
55	Montenegro	4.1				125	Venezuela	2.7			
56	Indonesia	4.1				126	Gabon	2.7			
57	Bulgaria	4.1				127	Nepal	2.6			
58	Costa Rica	4.1				128	Swaziland	2.6			
59	Colombia	4.1				129	Madagascar	2.6			
60	Romania	4.1				130	Benin	2.5			
61	Côte d'Ivoire	4.0				131	Bosnia and Herzegovina	2.5			
62	Ecuador	4.0				132	Zimbabwe	2.5			
63	Kenya	4.0				133	Myanmar	2.5			
64	Uruguay	4.0				134	Malawi	2.5			
65	Mexico	3.9				135	Lebanon	2.4			
66	Cyprus	3.9				136	Burundi	2.4			
67	Croatia	3.9				137	Guinea	2.2			
68	Poland	3.9				138	Chad	2.0			
69	Seychelles	3.9				139	Haiti	2.0			
70	Moldova	3.9									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 1.03 Judicial independence

In your country, how independent is the judicial system from influences of the government, individuals, or companies? [1 = not independent at all; 7 = entirely independent]  
| 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.0	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.0	7
1	New Zealand	6.7				71	Tunisia	3.8			
2	Finland	6.6				72	Kazakhstan	3.8			
3	Norway	6.5				73	Mali	3.8			
4	Hong Kong SAR	6.3				74	Senegal	3.8			
5	Denmark	6.3				75	Gambia, The	3.7			
6	Switzerland	6.3				76	Philippines	3.7			
7	Netherlands	6.3				77	Nepal	3.7			
8	Ireland	6.3				78	Lao PDR	3.7			
9	Luxembourg	6.2				79	Hungary	3.6			
10	United Kingdom	6.2				80	Iran, Islamic Rep.	3.6			
11	Canada	6.2				81	Italy	3.6			
12	Japan	6.2				82	Pakistan	3.6			
13	Australia	6.2				83	Morocco	3.5			
14	Sweden	5.9				84	Spain	3.5			
15	Qatar	5.9				85	Slovenia	3.5			
16	Belgium	5.8				86	Vietnam	3.5			
17	Germany	5.8				87	Benin	3.5			
18	Israel	5.8				88	Montenegro	3.4			
19	Iceland	5.7				89	Tanzania	3.4			
20	Uruguay	5.7				90	El Salvador	3.4			
21	Estonia	5.7				91	Uganda	3.4			
22	United Arab Emirates	5.6				92	Brazil	3.4			
23	Singapore	5.5				93	Ethiopia	3.4			
24	South Africa	5.4				94	Honduras	3.3			
25	Saudi Arabia	5.3				95	Algeria	3.3			
26	Rwanda	5.2				96	Nigeria	3.3			
27	Austria	5.2				97	Guyana	3.3			
28	United States	5.2				98	Macedonia, FYR	3.3			
29	France	5.1				99	Croatia	3.2			
30	Costa Rica	5.1				100	Mexico	3.2			
31	Chile	5.0				101	Azerbaijan	3.2			
32	Mauritius	5.0				102	Mongolia	3.1			
33	Malaysia	5.0				103	Cameroon	3.1			
34	Kuwait	4.9				104	Gabon	3.0			
35	Bhutan	4.9				105	Guatemala	3.0			
36	Botswana	4.8				106	Armenia	3.0			
37	Malta	4.8				107	Turkey	3.0			
38	Lesotho	4.8				108	Russian Federation	2.9			
39	Namibia	4.8				109	Kyrgyz Republic	2.9			
40	Jamaica	4.8				110	Bosnia and Herzegovina	2.9			
41	Bahrain	4.7				111	Swaziland	2.9			
42	Cyprus	4.7				112	Peru	2.8			
43	Portugal	4.6				113	Lebanon	2.7			
44	Jordan	4.6				114	Colombia	2.7			
45	Egypt	4.5				115	Zimbabwe	2.7			
46	Oman	4.5				116	Bulgaria	2.7			
47	Taiwan, China	4.4				117	Haiti	2.7			
48	Cape Verde	4.3				118	Panama	2.6			
49	Ghana	4.3				119	Albania	2.6			
50	Czech Republic	4.3				120	Myanmar	2.6			
51	Trinidad and Tobago	4.3				121	Mozambique	2.6			
52	Sri Lanka	4.2				122	Serbia	2.6			
53	Liberia	4.2				123	Dominican Republic	2.6			
54	Poland	4.2				124	Slovak Republic	2.6			
55	Latvia	4.2				125	Bolivia	2.6			
56	Georgia	4.1				126	Madagascar	2.5			
57	Seychelles	4.1				127	Cambodia	2.5			
58	Tajikistan	4.1				128	Argentina	2.4			
59	Thailand	4.1				129	Bangladesh	2.4			
60	Malawi	4.1				130	Chad	2.4			
61	Kenya	4.1				131	Ukraine	2.3			
62	Zambia	4.0				132	Ecuador	2.1			
63	Indonesia	4.0				133	Moldova	2.1			
64	India	4.0				134	Mauritania	2.0			
65	Côte d'Ivoire	4.0				135	Guinea	2.0			
66	Romania	4.0				136	Paraguay	2.0			
67	China	3.9				137	Nicaragua	1.7			
68	Lithuania	3.9				138	Burundi	1.6			
69	Korea, Rep.	3.8				139	Venezuela	1.1			
70	Greece	3.8									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 1.04 Efficiency of legal framework in settling disputes

In your country, how efficient are the legal and judicial systems for companies in settling disputes? [1 = extremely inefficient; 7 = extremely efficient] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 3.8	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 3.8	7
1	Singapore	6.2				71	Lesotho	3.7			
2	Hong Kong SAR	6.0				72	Morocco	3.6			
3	Finland	5.8				73	Cameroon	3.6			
4	Qatar	5.7				74	Tunisia	3.6			
5	New Zealand	5.7				75	Montenegro	3.5			
6	United Kingdom	5.7				76	Turkey	3.5			
7	Norway	5.6				77	Guyana	3.5			
8	Switzerland	5.6				78	Swaziland	3.5			
9	Luxembourg	5.5				79	Costa Rica	3.5			
10	Netherlands	5.5				80	Gabon	3.5			
11	Sweden	5.4				81	Iran, Islamic Rep.	3.5			
12	Rwanda	5.4				82	Egypt	3.4			
13	Japan	5.4				83	Nigeria	3.4			
14	South Africa	5.3				84	Jamaica	3.4			
15	Malaysia	5.3				85	Algeria	3.4			
16	Germany	5.3				86	Mongolia	3.4			
17	Canada	5.2				87	Philippines	3.3			
18	United Arab Emirates	5.2				88	Spain	3.3			
19	Denmark	5.0				89	Armenia	3.3			
20	Iceland	5.0				90	Czech Republic	3.3			
21	Austria	5.0				91	Romania	3.3			
22	Australia	4.9				92	Zimbabwe	3.3			
23	Mauritius	4.9				93	Cape Verde	3.3			
24	Ireland	4.9				94	Mozambique	3.3			
25	United States	4.9				95	Panama	3.3			
26	Sri Lanka	4.7				96	Hungary	3.2			
27	Saudi Arabia	4.7				97	Trinidad and Tobago	3.2			
28	France	4.6				98	Malawi	3.2			
29	Côte d'Ivoire	4.6				99	Dominican Republic	3.2			
30	Bhutan	4.5				100	Benin	3.2			
31	Namibia	4.5				101	Russian Federation	3.2			
32	Botswana	4.5				102	Bolivia	3.2			
33	Bahrain	4.5				103	Lebanon	3.1			
34	Belgium	4.5				104	Mexico	3.1			
35	Gambia, The	4.4				105	Colombia	3.1			
36	Jordan	4.4				106	Nepal	3.1			
37	Zambia	4.3				107	Pakistan	3.1			
38	Senegal	4.3				108	Ecuador	3.1			
39	Estonia	4.3				109	Guatemala	3.0			
40	Oman	4.3				110	El Salvador	3.0			
41	Tajikistan	4.2				111	Latvia	3.0			
42	India	4.2				112	Kyrgyz Republic	3.0			
43	Ghana	4.2				113	Portugal	3.0			
44	Israel	4.1				114	Slovenia	2.9			
45	Kuwait	4.1				115	Bulgaria	2.9			
46	Lao PDR	4.1				116	Burundi	2.9			
47	Chile	4.0				117	Nicaragua	2.9			
48	Kazakhstan	4.0				118	Chad	2.9			
49	Seychelles	4.0				119	Cambodia	2.8			
50	China	4.0				120	Albania	2.8			
51	Uruguay	4.0				121	Ukraine	2.8			
52	Kenya	4.0				122	Madagascar	2.8			
53	Indonesia	3.9				123	Brazil	2.8			
54	Georgia	3.9				124	Serbia	2.7			
55	Thailand	3.9				125	Myanmar	2.7			
56	Taiwan, China	3.9				126	Haiti	2.7			
57	Korea, Rep.	3.9				127	Bosnia and Herzegovina	2.7			
58	Macedonia, FYR	3.9				128	Argentina	2.7			
59	Liberia	3.8				129	Peru	2.6			
60	Malta	3.8				130	Bangladesh	2.6			
61	Mali	3.8				131	Greece	2.6			
62	Uganda	3.8				132	Mauritania	2.5			
63	Azerbaijan	3.8				133	Moldova	2.5			
64	Honduras	3.7				134	Paraguay	2.4			
65	Tanzania	3.7				135	Guinea	2.3			
66	Ethiopia	3.7				136	Croatia	2.3			
67	Lithuania	3.7				137	Slovak Republic	2.2			
68	Cyprus	3.7				138	Italy	2.1			
69	Vietnam	3.7				139	Venezuela	1.5			
70	Poland	3.7									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 1.05 Efficiency of legal framework in challenging regulations

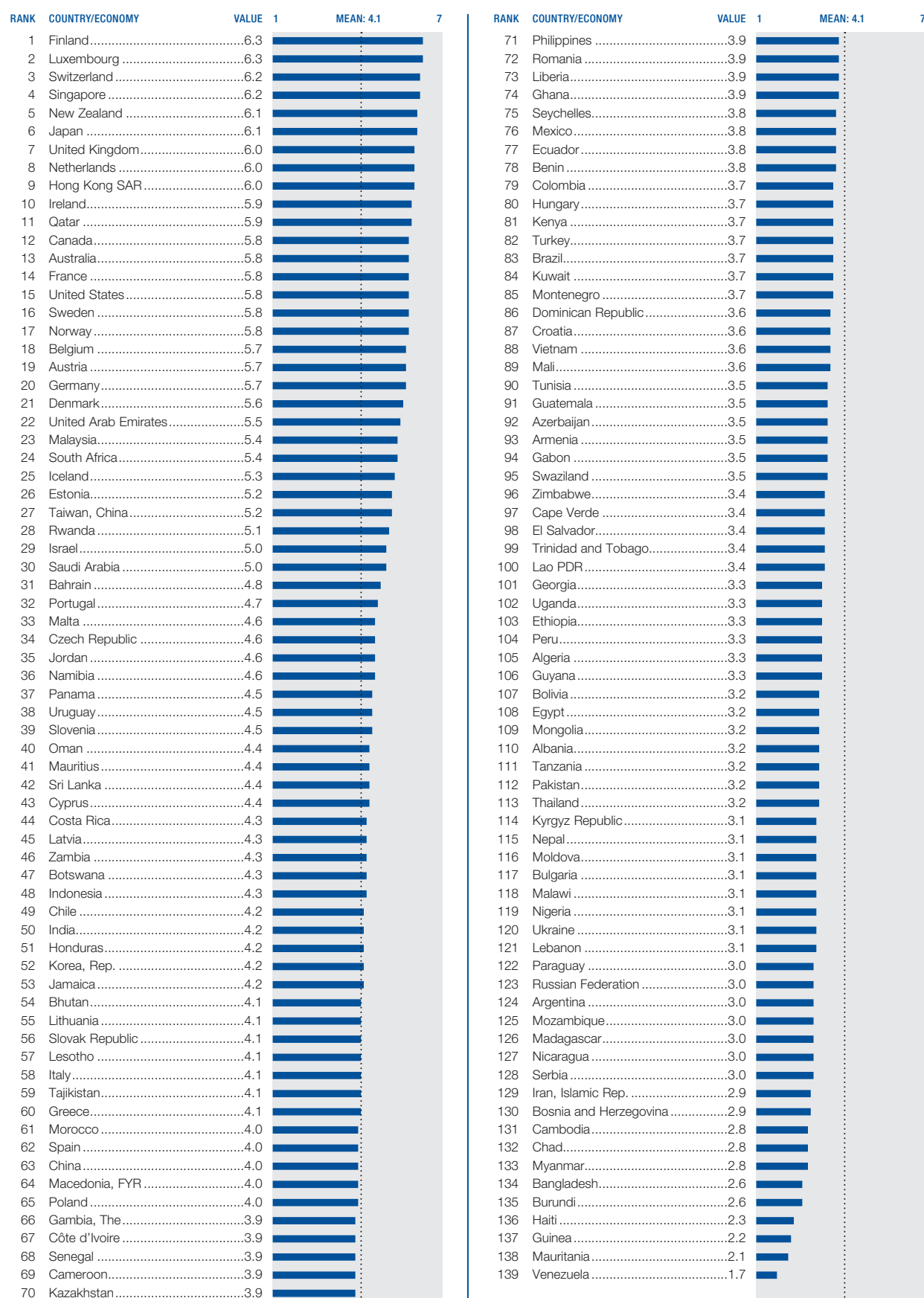
In your country, to what extent can individuals, institutions (civil society), and businesses obtain justice through the judicial system against arbitrary government decisions?  
[1 = not at all; 7 = to a great extent] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 3.6	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 3.6	7
1	Finland	5.8				71	Portugal	3.4			
2	Qatar	5.7				72	Tanzania	3.4			
3	Switzerland	5.6				73	Cameroon	3.4			
4	Hong Kong SAR	5.6				74	Korea, Rep.	3.4			
5	New Zealand	5.5				75	Seychelles	3.4			
6	Netherlands	5.5				76	Czech Republic	3.4			
7	Norway	5.4				77	Malawi	3.4			
8	Luxembourg	5.4				78	Cape Verde	3.4			
9	United Kingdom	5.3				79	Vietnam	3.4			
10	Singapore	5.2				80	Philippines	3.3			
11	Germany	5.2				81	Latvia	3.3			
12	Sweden	5.1				82	Guatemala	3.3			
13	Iceland	5.1				83	Romania	3.3			
14	Canada	5.0				84	Montenegro	3.3			
15	Malaysia	5.0				85	Algeria	3.3			
16	Ireland	5.0				86	Greece	3.3			
17	South Africa	5.0				87	Panama	3.2			
18	Rwanda	5.0				88	Macedonia, FYR	3.2			
19	United States	4.8				89	Benin	3.2			
20	Austria	4.7				90	Turkey	3.2			
21	United Arab Emirates	4.7				91	Nigeria	3.2			
22	Belgium	4.7				92	Swaziland	3.1			
23	Australia	4.7				93	Lithuania	3.1			
24	Japan	4.6				94	Trinidad and Tobago	3.1			
25	Estonia	4.5				95	Nepal	3.1			
26	Saudi Arabia	4.4				96	Ethiopia	3.1			
27	France	4.4				97	Poland	3.1			
28	Bahrain	4.4				98	Mongolia	3.0			
29	Namibia	4.4				99	Kyrgyz Republic	3.0			
30	Jordan	4.3				100	Colombia	3.0			
31	Mauritius	4.3				101	Pakistan	3.0			
32	Costa Rica	4.3				102	Mexico	3.0			
33	Botswana	4.2				103	El Salvador	3.0			
34	Israel	4.2				104	Gabon	3.0			
35	Uruguay	4.2				105	Slovenia	3.0			
36	Kuwait	4.1				106	Brazil	2.9			
37	Denmark	4.1				107	Dominican Republic	2.9			
38	Côte d'Ivoire	4.1				108	Albania	2.9			
39	India	4.1				109	Russian Federation	2.9			
40	Senegal	4.1				110	Burundi	2.9			
41	Liberia	4.0				111	Mozambique	2.9			
42	Chile	4.0				112	Iran, Islamic Rep.	2.9			
43	Bhutan	4.0				113	Lebanon	2.8			
44	Kenya	4.0				114	Bulgaria	2.8			
45	Cyprus	3.9				115	Armenia	2.8			
46	Indonesia	3.9				116	Bosnia and Herzegovina	2.8			
47	Ghana	3.8				117	Bangladesh	2.7			
48	Zambia	3.8				118	Peru	2.7			
49	Malta	3.8				119	Bolivia	2.7			
50	Tajikistan	3.8				120	Hungary	2.7			
51	Sri Lanka	3.7				121	Zimbabwe	2.7			
52	Kazakhstan	3.7				122	Paraguay	2.6			
53	Oman	3.7				123	Ukraine	2.6			
54	Gambia, The	3.7				124	Cambodia	2.6			
55	Georgia	3.7				125	Chad	2.6			
56	Thailand	3.7				126	Myanmar	2.6			
57	Honduras	3.7				127	Serbia	2.6			
58	Mali	3.7				128	Madagascar	2.4			
59	Uganda	3.6				129	Italy	2.4			
60	Lesotho	3.6				130	Guinea	2.4			
61	Tunisia	3.6				131	Slovak Republic	2.4			
62	Azerbaijan	3.5				132	Croatia	2.3			
63	Taiwan, China	3.5				133	Argentina	2.3			
64	Morocco	3.5				134	Mauritania	2.3			
65	Spain	3.5				135	Moldova	2.3			
66	China	3.5				136	Haiti	2.2			
67	Jamaica	3.5				137	Nicaragua	2.1			
68	Lao PDR	3.4				138	Ecuador	2.0			
69	Guyana	3.4				139	Venezuela	1.3			
70	Egypt	3.4									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 1.06 Intellectual property protection

In your country, to what extent is intellectual property protected? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average



SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 1.07 Software piracy rate

Unlicensed software units as a percentage of total software units installed | 2013

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	United States	18	70	Thailand	71
2	Japan	19	72	Panama	72
3	Luxembourg	20	73	China	74
3	New Zealand	20	73	Honduras	74
5	Australia	21	73	Kazakhstan	74
6	Austria	22	76	Albania	75
7	Denmark	23	76	Dominican Republic	75
7	Sweden	23	76	Tunisia	75
9	Belgium	24	79	Senegal	77
9	Finland	24	80	Kenya	78
9	Germany	24	80	Montenegro	78
9	Switzerland	24	82	Bolivia	79
9	United Kingdom	24	82	Botswana	79
14	Canada	25	82	Guatemala	79
14	Netherlands	25	85	Côte d'Ivoire	80
14	Norway	25	85	El Salvador	80
17	Israel	30	87	Nigeria	81
18	Singapore	32	87	Vietnam	81
19	Ireland	33	87	Zambia	81
20	Czech Republic	34	90	Cameroon	82
20	South Africa	34	90	Nicaragua	82
22	France	36	92	Sri Lanka	83
22	United Arab Emirates	36	92	Ukraine	83
24	Slovak Republic	37	94	Indonesia	84
25	Taiwan, China	38	94	Paraguay	84
25	Korea, Rep.	38	96	Algeria	85
27	Hungary	39	96	Azerbaijan	85
28	Portugal	40	96	Pakistan	85
29	Hong Kong SAR	43	99	Armenia	86
30	Malta	44	100	Bangladesh	87
31	Slovenia	45	101	Venezuela	88
31	Spain	45	102	Georgia	90
33	Cyprus	47	102	Moldova	90
33	Estonia	47	104	Zimbabwe	91
33	Italy	47	n/a	Benin	n/a
36	Iceland	48	n/a	Bhutan	n/a
37	Qatar	49	n/a	Burundi	n/a
38	Brazil	50	n/a	Cambodia	n/a
38	Saudi Arabia	50	n/a	Cape Verde	n/a
40	Poland	51	n/a	Chad	n/a
41	Colombia	52	n/a	Ethiopia	n/a
41	Croatia	52	n/a	Gabon	n/a
43	Bahrain	53	n/a	Gambia, The	n/a
43	Latvia	53	n/a	Ghana	n/a
43	Lithuania	53	n/a	Guinea	n/a
46	Malaysia	54	n/a	Guyana	n/a
46	Mexico	54	n/a	Haiti	n/a
48	Mauritius	55	n/a	Iran, Islamic Rep.	n/a
49	Jordan	57	n/a	Jamaica	n/a
50	Kuwait	58	n/a	Kyrgyz Republic	n/a
51	Chile	59	n/a	Lao PDR	n/a
51	Costa Rica	59	n/a	Lesotho	n/a
53	India	60	n/a	Liberia	n/a
53	Oman	60	n/a	Madagascar	n/a
53	Turkey	60	n/a	Malawi	n/a
56	Egypt	62	n/a	Mali	n/a
56	Greece	62	n/a	Mauritania	n/a
56	Romania	62	n/a	Mongolia	n/a
56	Russian Federation	62	n/a	Mozambique	n/a
60	Bulgaria	63	n/a	Myanmar	n/a
60	Bosnia and Herzegovina	65	n/a	Namibia	n/a
61	Macedonia, FYR	65	n/a	Nepal	n/a
61	Peru	65	n/a	Rwanda	n/a
64	Morocco	66	n/a	Seychelles	n/a
65	Ecuador	68	n/a	Swaziland	n/a
65	Uruguay	68	n/a	Tajikistan	n/a
67	Argentina	69	n/a	Tanzania	n/a
67	Philippines	69	n/a	Trinidad and Tobago	n/a
67	Serbia	69	n/a	Uganda	n/a
70	Lebanon	71			

SOURCES: The Software Alliance (BSA), The Compliance Gap: BSA Global Software Survey (June 2014); [http://globalstudy.bsa.org/2013/downloads/studies/2013GlobalSurvey\\_Study\\_en.pdf](http://globalstudy.bsa.org/2013/downloads/studies/2013GlobalSurvey_Study_en.pdf)



## 1.08 Number of procedures to enforce a contract

Number of procedures to resolve a dispute, counted from the moment the plaintiff files a lawsuit in court until payment | 2014

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Ireland.....	21	69	China.....	37
1	Singapore.....	21	69	Italy.....	37
3	Rwanda.....	23	69	Lebanon.....	37
4	Austria.....	25	69	Nicaragua.....	37
5	Belgium.....	26	69	Philippines.....	37
5	Hong Kong SAR.....	26	76	Bulgaria.....	38
5	Luxembourg.....	26	76	Croatia.....	38
5	Netherlands.....	26	76	Ethiopia.....	38
9	Czech Republic.....	27	76	Gabon.....	38
9	Iceland.....	27	76	Ghana.....	38
9	Latvia.....	27	76	Greece.....	38
12	Australia.....	28	76	Kyrgyz Republic.....	38
12	Botswana.....	28	76	Macedonia, FYR.....	38
14	France.....	29	76	Madagascar.....	38
14	Malaysia.....	29	76	Paraguay.....	38
14	South Africa.....	29	76	Tanzania.....	38
14	United Kingdom.....	29	76	Uganda.....	38
18	Mozambique.....	30	76	Zimbabwe.....	38
18	New Zealand.....	30	89	Albania.....	39
18	Ukraine.....	30	89	Ecuador.....	39
18	Venezuela.....	30	89	Jordan.....	39
22	Germany.....	31	89	Nepal.....	39
22	Guatemala.....	31	89	Tunisia.....	39
22	Lithuania.....	31	94	Azerbaijan.....	40
22	Moldova.....	31	94	Bolivia.....	40
22	Sweden.....	31	94	Costa Rica.....	40
27	Côte d'Ivoire.....	32	94	Indonesia.....	40
27	Japan.....	32	94	Iran, Islamic Rep.....	40
27	Korea, Rep.....	32	94	Liberia.....	40
27	Mongolia.....	32	94	Malta.....	40
27	Panama.....	32	94	Morocco.....	40
27	Slovenia.....	32	94	Saudi Arabia.....	40
27	Switzerland.....	32	94	Spain.....	40
34	Colombia.....	33	94	Sri Lanka.....	40
34	Finland.....	33	94	Swaziland.....	40
34	Gambia, The.....	33	94	Uruguay.....	40
34	Georgia.....	33	107	Nigeria.....	40
34	Namibia.....	33	108	Bangladesh.....	41
34	Poland.....	33	108	Benin.....	41
34	Slovak Republic.....	33	108	Chad.....	41
41	United States.....	34	108	Lesotho.....	41
42	Dominican Republic.....	34	108	Peru.....	41
42	Hungary.....	34	113	Cameroon.....	42
42	Mauritius.....	34	113	Egypt.....	42
42	Norway.....	34	113	Lao PDR.....	42
42	Portugal.....	34	113	Malawi.....	42
42	Romania.....	34	113	Trinidad and Tobago.....	42
48	Denmark.....	35	118	Cyprus.....	43
48	El Salvador.....	35	118	Qatar.....	43
48	Estonia.....	35	118	Senegal.....	43
48	Haiti.....	35	121	Brazil.....	44
48	Israel.....	35	122	Burundi.....	44
48	Jamaica.....	35	122	Cambodia.....	44
48	Russian Federation.....	35	122	Kenya.....	44
48	Tajikistan.....	35	125	Algeria.....	45
48	Turkey.....	35	125	Taiwan, China.....	45
48	Zambia.....	35	125	Myanmar.....	45
58	Argentina.....	36	128	India.....	46
58	Canada.....	36	128	Mauritania.....	46
58	Chile.....	36	128	Pakistan.....	46
58	Guyana.....	36	131	Bhutan.....	47
58	Kazakhstan.....	36	131	Honduras.....	47
58	Mali.....	36	133	Bahrain.....	48
58	Serbia.....	36	134	Armenia.....	49
58	Seychelles.....	36	134	Guinea.....	49
58	Thailand.....	36	134	Montenegro.....	49
58	Vietnam.....	36	134	United Arab Emirates.....	49
68	Mexico.....	37	138	Kuwait.....	50
69	Bosnia and Herzegovina.....	37	139	Oman.....	51
69	Cape Verde.....	37			

SOURCES: World Bank/International Finance Corporation, Doing Business 2015: Going Beyond Efficiency; <http://www.doingbusiness.org>

## 1.09 Time required to enforce a contract

Number of days to resolve a dispute, counted from the moment the plaintiff decides to file the lawsuit in court until payment | 2015

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Singapore	150	71	Portugal	547
2	New Zealand	216	72	Bulgaria	564
3	Bhutan	225	73	Tunisia	565
4	Korea, Rep.	230	74	Kuwait	566
4	Rwanda	230	75	Armenia	570
6	Azerbaijan	277	75	Canada	570
7	Norway	280	75	Qatar	570
8	Georgia	285	78	Croatia	572
9	Lithuania	300	79	Saudi Arabia	575
10	Russian Federation	307	80	Turkey	580
11	Guinea	311	81	Guyana	581
12	Luxembourg	321	82	Moldova	585
12	Sweden	321	83	Ecuador	588
14	Hong Kong SAR	360	84	Argentina	590
14	Japan	360	85	Bolivia	591
16	Kazakhstan	370	85	Paraguay	591
16	Mauritania	370	87	Bosnia and Herzegovina	595
18	Mongolia	374	88	Oman	598
19	Finland	375	89	South Africa	600
20	Ukraine	378	90	Macedonia, FYR	604
21	Mexico	389	91	Venezuela	610
22	Switzerland	390	92	Czech Republic	611
23	Australia	395	92	Zambia	611
23	France	395	94	Lesotho	615
23	Hungary	395	95	Mali	620
26	Austria	397	96	Botswana	625
27	Vietnam	400	97	Algeria	630
28	Gambia, The	407	98	Bahrain	635
29	Denmark	410	98	Serbia	635
29	Kyrgyz Republic	410	100	Ireland	650
29	Zimbabwe	410	101	Jamaica	655
32	Iceland	417	102	Poland	685
33	United States	420	103	Panama	686
34	Cape Verde	425	104	Jordan	689
34	Estonia	425	105	Slovak Republic	705
34	Malaysia	425	106	Ghana	710
37	Peru	426	107	Lebanon	721
38	Germany	429	108	Uruguay	725
39	Tajikistan	430	109	Brazil	731
40	Malawi	432	110	Senegal	740
41	United Kingdom	437	111	Chad	743
42	Thailand	440	112	Benin	750
43	Lao PDR	443	113	El Salvador	786
44	China	453	114	Cameroon	800
45	Dominican Republic	460	115	Burundi	832
45	Namibia	460	116	Philippines	842
47	Kenya	465	117	Costa Rica	852
48	Latvia	469	118	Madagascar	871
49	Indonesia	471	119	Nepal	910
50	Chile	480	120	Seychelles	915
51	Cambodia	483	121	Honduras	920
52	Uganda	490	122	Mozambique	950
53	United Arab Emirates	495	123	Swaziland	956
54	Belgium	505	124	Israel	975
54	Iran, Islamic Rep.	505	125	Pakistan	993
54	Malta	505	126	Egypt	1,010
57	Nigeria	510	127	Gabon	1,070
58	Taiwan, China	510	128	Cyprus	1,100
58	Morocco	510	129	Italy	1,120
58	Spain	510	130	Myanmar	1,160
61	Romania	512	130	Slovenia	1,160
62	Netherlands	514	132	Liberia	1,280
63	Tanzania	515	133	Colombia	1,288
64	Mauritius	519	134	Sri Lanka	1,318
64	Nicaragua	519	135	Trinidad and Tobago	1,340
66	Albania	525	136	Guatemala	1,402
66	Côte d'Ivoire	525	137	India	1,420
68	Ethiopia	530	138	Bangladesh	1,442
68	Haiti	530	139	Greece	1,580
70	Montenegro	545			

SOURCES: World Bank/International Finance Corporation, Doing Business 2016: Measuring Regulatory Quality and Efficiency; <http://www.doingbusiness.org>

2nd pillar

Business and  
innovation environment

## 2.01 Availability of latest technologies

In your country, to what extent are the latest technologies available? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.8	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.8	7
1	Finland	6.6				71	Romania	4.6			
2	United States	6.5				72	Poland	4.6			
3	Norway	6.5				73	Bulgaria	4.6			
4	Sweden	6.5				74	Montenegro	4.6			
5	United Kingdom	6.5				75	Cape Verde	4.6			
6	Iceland	6.4				76	Zambia	4.6			
7	Switzerland	6.4				77	Senegal	4.6			
8	Israel	6.4				78	Philippines	4.6			
9	United Arab Emirates	6.3				79	Pakistan	4.6			
10	Netherlands	6.3				80	Ecuador	4.5			
11	Canada	6.2				81	Gambia, The	4.5			
12	Germany	6.2				82	Colombia	4.5			
13	Singapore	6.2				83	Tunisia	4.5			
14	Luxembourg	6.2				84	Peru	4.5			
15	Belgium	6.2				85	Brazil	4.5			
16	Japan	6.2				86	Guyana	4.5			
17	Ireland	6.1				87	Armenia	4.4			
18	Portugal	6.1				88	Mongolia	4.4			
19	Austria	6.1				89	Kazakhstan	4.4			
20	Qatar	6.1				90	Lebanon	4.4			
21	France	6.0				91	Mauritania	4.4			
22	Hong Kong SAR	6.0				92	Moldova	4.4			
23	Denmark	6.0				93	El Salvador	4.3			
24	Australia	5.9				94	Tajikistan	4.3			
25	New Zealand	5.9				95	China	4.3			
26	Estonia	5.8				96	Ukraine	4.3			
27	Latvia	5.8				97	Georgia	4.3			
28	Lithuania	5.8				98	Botswana	4.2			
29	Bahrain	5.7				99	Nigeria	4.2			
30	Malaysia	5.7				100	Russian Federation	4.2			
31	Korea, Rep.	5.6				101	Cambodia	4.2			
32	Czech Republic	5.6				102	Uganda	4.2			
33	Chile	5.6				103	Bosnia and Herzegovina	4.2			
34	Spain	5.5				104	Zimbabwe	4.1			
35	Panama	5.5				105	Bhutan	4.1			
36	Taiwan, China	5.5				106	Bangladesh	4.0			
37	Slovak Republic	5.5				107	Serbia	4.0			
38	Slovenia	5.5				108	India	4.0			
39	Saudi Arabia	5.4				109	Paraguay	4.0			
40	Malta	5.4				110	Nicaragua	4.0			
41	South Africa	5.3				111	Iran, Islamic Rep.	4.0			
42	Guatemala	5.3				112	Vietnam	4.0			
43	Jamaica	5.2				113	Mali	4.0			
44	Cyprus	5.2				114	Madagascar	4.0			
45	Rwanda	5.2				115	Albania	3.9			
46	Hungary	5.1				116	Gabon	3.9			
47	Jordan	5.1				117	Lao PDR	3.9			
48	Namibia	5.1				118	Mozambique	3.9			
49	Italy	5.1				119	Ethiopia	3.9			
50	Kenya	5.1				120	Egypt	3.9			
51	Morocco	5.1				121	Ghana	3.9			
52	Macedonia, FYR	5.0				122	Swaziland	3.9			
53	Mauritius	5.0				123	Cameroon	3.8			
54	Azerbaijan	5.0				124	Bolivia	3.8			
55	Turkey	5.0				125	Nepal	3.7			
56	Greece	5.0				126	Argentina	3.7			
57	Croatia	5.0				127	Tanzania	3.7			
58	Mexico	5.0				128	Lesotho	3.6			
59	Trinidad and Tobago	5.0				129	Algeria	3.6			
60	Seychelles	4.9				130	Kyrgyz Republic	3.6			
61	Sri Lanka	4.9				131	Malawi	3.6			
62	Honduras	4.9				132	Benin	3.5			
63	Dominican Republic	4.9				133	Haiti	3.4			
64	Costa Rica	4.9				134	Venezuela	3.3			
65	Oman	4.8				135	Guinea	3.3			
66	Côte d'Ivoire	4.8				136	Liberia	3.2			
67	Kuwait	4.8				137	Burundi	3.1			
68	Indonesia	4.8				138	Chad	2.9			
69	Uruguay	4.8				139	Myanmar	2.7			
70	Thailand	4.7									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 2.02 Venture capital availability

In your country, how easy is it for start-up entrepreneurs with innovative but risky projects to obtain equity funding? [1 = extremely difficult; 7 = extremely easy] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 2.9	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 2.9	7
1	Qatar	5.1				71	Azerbaijan	2.7			
2	Malaysia	4.8				72	Denmark	2.7			
3	Singapore	4.6				73	Uruguay	2.7			
4	Israel	4.5				74	Cambodia	2.7			
5	United States	4.5				75	Cape Verde	2.7			
6	Finland	4.5				76	Ethiopia	2.7			
7	United Arab Emirates	4.4				77	Mali	2.6			
8	Luxembourg	4.3				78	Pakistan	2.6			
9	Hong Kong SAR	4.3				79	Algeria	2.6			
10	Norway	4.2				80	Botswana	2.6			
11	New Zealand	4.1				81	Ghana	2.6			
12	Taiwan, China	4.1				82	Namibia	2.6			
13	India	4.0				83	Bhutan	2.6			
14	United Kingdom	3.9				84	Kyrgyz Republic	2.6			
15	Sweden	3.8				85	Madagascar	2.6			
16	China	3.8				86	Korea, Rep.	2.6			
17	Indonesia	3.8				87	Lao PDR	2.6			
18	Switzerland	3.7				88	Nepal	2.6			
19	Jordan	3.7				89	El Salvador	2.6			
20	Canada	3.7				90	Armenia	2.5			
21	Japan	3.6				91	Egypt	2.5			
22	Panama	3.6				92	Brazil	2.5			
23	Bahrain	3.6				93	Turkey	2.5			
24	Netherlands	3.5				94	Paraguay	2.5			
25	Germany	3.5				95	Dominican Republic	2.5			
26	Estonia	3.5				96	Poland	2.5			
27	Saudi Arabia	3.5				97	Gambia, The	2.4			
28	Belgium	3.5				98	Lesotho	2.4			
29	France	3.4				99	Tanzania	2.4			
30	Rwanda	3.4				100	Uganda	2.4			
31	Czech Republic	3.3				101	Hungary	2.4			
32	Chile	3.3				102	Ukraine	2.4			
33	Thailand	3.3				103	Romania	2.4			
34	Guyana	3.3				104	Slovenia	2.4			
35	Tajikistan	3.3				105	Ecuador	2.3			
36	Oman	3.3				106	Bosnia and Herzegovina	2.3			
37	Ireland	3.2				107	Cyprus	2.3			
38	Iceland	3.1				108	Cameroon	2.3			
39	Philippines	3.1				109	Croatia	2.3			
40	Australia	3.1				110	Venezuela	2.3			
41	Bolivia	3.1				111	Tunisia	2.3			
42	Lebanon	3.1				112	Costa Rica	2.3			
43	Peru	3.1				113	Swaziland	2.2			
44	Côte d'Ivoire	3.0				114	Benin	2.2			
45	Liberia	3.0				115	Zambia	2.2			
46	Vietnam	3.0				116	Mozambique	2.2			
47	South Africa	3.0				117	Gabon	2.2			
48	Lithuania	3.0				118	Trinidad and Tobago	2.2			
49	Macedonia, FYR	2.9				119	Georgia	2.2			
50	Senegal	2.9				120	Nicaragua	2.1			
51	Kuwait	2.9				121	Jamaica	2.1			
52	Latvia	2.9				122	Bangladesh	2.1			
53	Honduras	2.9				123	Moldova	2.1			
54	Kenya	2.9				124	Italy	2.1			
55	Malta	2.9				125	Iran, Islamic Rep.	2.0			
56	Guatemala	2.9				126	Argentina	2.0			
57	Slovak Republic	2.9				127	Chad	2.0			
58	Austria	2.9				128	Nigeria	2.0			
59	Kazakhstan	2.9				129	Serbia	1.9			
60	Sri Lanka	2.8				130	Burundi	1.9			
61	Portugal	2.8				131	Guinea	1.9			
62	Bulgaria	2.8				132	Albania	1.9			
63	Mauritius	2.8				133	Mauritania	1.9			
64	Montenegro	2.8				134	Haiti	1.9			
65	Mexico	2.8				135	Greece	1.9			
66	Russian Federation	2.7				136	Mongolia	1.8			
67	Seychelles	2.7				137	Malawi	1.8			
68	Morocco	2.7				138	Myanmar	1.8			
69	Spain	2.7				139	Zimbabwe	1.5			
70	Colombia	2.7									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 2.03 Total tax rate

Sum of profit tax, labor tax and social contributions, property taxes, turnover taxes, and other taxes, as a share (%) of commercial profits | 2014

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Qatar .....	11.3	71	Guatemala .....	37.5
2	Macedonia, FYR .....	12.9	72	Finland .....	37.9
3	Kuwait .....	13.0	73	Madagascar .....	38.1
4	Bahrain .....	13.5	74	El Salvador .....	38.7
5	Lesotho .....	13.6	75	Vietnam .....	39.4
6	Saudi Arabia .....	15.0	76	Norway .....	39.5
7	United Arab Emirates .....	15.9	77	Serbia .....	39.7
8	Georgia .....	16.4	78	Azerbaijan .....	39.8
9	Singapore .....	18.4	79	Malaysia .....	40.0
10	Zambia .....	18.6	80	Moldova .....	40.2
11	Armenia .....	19.9	81	Burundi .....	40.3
12	Croatia .....	20.0	81	Haiti .....	40.3
13	Luxembourg .....	20.1	81	Poland .....	40.3
14	Cambodia .....	21.0	84	Turkey .....	40.9
15	Canada .....	21.1	85	Netherlands .....	41.0
16	Namibia .....	21.3	85	Portugal .....	41.0
17	Montenegro .....	21.6	87	Malta .....	41.3
18	Mauritius .....	22.4	88	Uruguay .....	41.8
19	Hong Kong SAR .....	22.8	89	Romania .....	42.0
20	Oman .....	22.9	90	Dominican Republic .....	42.4
21	Bosnia and Herzegovina .....	23.3	91	Lithuania .....	42.6
22	Cyprus .....	24.4	92	Philippines .....	42.9
22	Mongolia .....	24.4	93	Tanzania .....	43.9
24	Denmark .....	24.5	93	United States .....	43.9
25	Botswana .....	25.1	95	Iran, Islamic Rep. ....	44.1
26	Lao PDR .....	25.3	96	Honduras .....	44.3
27	Ireland .....	25.9	97	Egypt .....	45.0
28	Bulgaria .....	27.0	98	Gabon .....	45.7
29	Thailand .....	27.5	99	Russian Federation .....	47.0
30	South Africa .....	28.8	100	Senegal .....	47.3
30	Switzerland .....	28.8	101	Australia .....	47.6
32	Chile .....	28.9	102	Liberia .....	47.8
33	Kyrgyz Republic .....	29.0	103	Mali .....	48.3
34	Kazakhstan .....	29.2	104	Hungary .....	48.4
35	Jordan .....	29.5	105	Cameroon .....	48.8
35	Nepal .....	29.5	105	Germany .....	48.8
37	Iceland .....	29.6	107	Morocco .....	49.1
38	Indonesia .....	29.7	107	Sweden .....	49.1
39	Seychelles .....	30.1	109	Estonia .....	49.4
40	Lebanon .....	30.3	110	Greece .....	49.6
41	Israel .....	30.6	111	Spain .....	50.0
42	Slovenia .....	31.0	112	Czech Republic .....	50.4
43	Myanmar .....	31.4	113	Slovak Republic .....	51.2
44	Bangladesh .....	31.6	114	Japan .....	51.3
45	United Kingdom .....	32.0	115	Austria .....	51.7
46	Ethiopia .....	32.1	115	Mexico .....	51.7
47	Trinidad and Tobago .....	32.2	117	Côte d'Ivoire .....	51.9
48	Guyana .....	32.3	118	Ukraine .....	52.2
49	Pakistan .....	32.6	119	Sri Lanka .....	55.2
50	Ghana .....	32.7	120	Costa Rica .....	58.0
51	Zimbabwe .....	32.8	121	Belgium .....	58.4
52	Ecuador .....	33.0	122	Tunisia .....	59.9
52	Rwanda .....	33.0	123	India .....	60.6
54	Korea, Rep. ....	33.2	124	France .....	62.7
55	Nigeria .....	33.3	125	Benin .....	63.3
56	New Zealand .....	34.3	125	Gambia, The .....	63.3
57	Taiwan, China .....	34.5	127	Chad .....	63.5
57	Malawi .....	34.5	128	Nicaragua .....	63.9
59	Swaziland .....	34.7	129	Italy .....	64.8
60	Paraguay .....	35.0	130	Venezuela .....	65.0
61	Jamaica .....	35.2	131	China .....	67.8
62	Bhutan .....	35.3	132	Guinea .....	68.3
63	Latvia .....	35.9	133	Brazil .....	69.2
63	Peru .....	35.9	134	Colombia .....	69.7
65	Mozambique .....	36.1	135	Mauritania .....	71.3
66	Albania .....	36.5	136	Algeria .....	72.7
66	Cape Verde .....	36.5	137	Tajikistan .....	81.8
66	Uganda .....	36.5	138	Bolivia .....	83.7
69	Kenya .....	37.1	139	Argentina .....	137.4
70	Panama .....	37.2			

SOURCES: World Bank/PwC, Paying Taxes 2016: The Global Picture; <http://www.doingbusiness.org>

## 2.04 Time required to start a business

Number of days required to start a business | 2015

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	New Zealand	1	70	Trinidad and Tobago	12
2	Macedonia, FYR	1	72	Benin	12
3	Canada	2	72	Croatia	12
3	Hong Kong SAR	2	72	Jordan	12
5	Georgia	2	72	Serbia	12
6	Australia	3	76	Greece	13
6	Portugal	3	76	Israel	13
6	Singapore	3	76	Madagascar	13
9	Armenia	3	76	Myanmar	13
9	Azerbaijan	3	76	Nicaragua	13
9	Denmark	3	81	Finland	14
9	Jamaica	3	81	Ghana	14
13	Estonia	4	81	Honduras	14
13	Lithuania	4	81	Spain	14
15	Belgium	4	85	Dominican Republic	15
15	Burundi	4	86	Bhutan	15
15	France	4	86	Cameroon	15
15	Iceland	4	86	Czech Republic	15
15	Korea, Rep.	4	86	Iran, Islamic Rep.	15
15	Malaysia	4	86	Lebanon	15
15	Moldova	4	91	El Salvador	17
15	Netherlands	4	92	Nepal	17
15	Norway	4	93	Bulgaria	18
24	Liberia	5	93	Guyana	18
24	United Kingdom	5	95	Guatemala	19
26	Hungary	5	95	Luxembourg	19
26	Kazakhstan	5	97	Ethiopia	19
28	Albania	6	97	Mozambique	19
28	Chile	6	97	Pakistan	19
28	Italy	6	97	Saudi Arabia	19
28	Latvia	6	101	Bangladesh	20
28	Rwanda	6	102	Algeria	20
33	United States	6	102	Vietnam	20
34	Ireland	6	104	Austria	22
34	Mauritius	6	105	Costa Rica	24
34	Mongolia	6	106	Argentina	25
34	Panama	6	106	Gambia, The	25
34	Senegal	6	108	Kenya	26
34	Slovenia	6	108	Peru	26
40	Mexico	6	108	Tanzania	26
41	Uruguay	7	111	Uganda	27
42	Côte d'Ivoire	7	112	Thailand	28
42	Oman	7	113	Malta	28
42	Sweden	7	114	India	29
42	Ukraine	7	114	Lesotho	29
46	Turkey	8	114	Philippines	29
46	Zambia	8	117	Poland	30
48	Cyprus	8	117	Swaziland	30
48	Egypt	8	119	Nigeria	31
48	Guinea	8	120	Kuwait	31
48	Mauritania	8	121	China	31
48	Romania	8	122	Seychelles	32
48	United Arab Emirates	8	123	Paraguay	35
54	Mali	9	124	Malawi	38
54	Qatar	9	125	South Africa	46
56	Bahrain	9	126	Indonesia	48
57	Cape Verde	10	127	Botswana	48
57	Taiwan, China	10	128	Bolivia	50
57	Kyrgyz Republic	10	128	Gabon	50
57	Montenegro	10	130	Ecuador	51
57	Morocco	10	131	Chad	60
57	Sri Lanka	10	132	Namibia	66
57	Switzerland	10	133	Bosnia and Herzegovina	67
64	Japan	10	134	Lao PDR	73
65	Germany	11	135	Brazil	83
65	Russian Federation	11	136	Cambodia	87
67	Colombia	11	137	Zimbabwe	90
67	Tajikistan	11	138	Haiti	97
67	Tunisia	11	139	Venezuela	144
70	Slovak Republic	12			

SOURCES: World Bank/International Finance Corporation, Doing Business 2016: Measuring Regulatory Quality and Efficiency; <http://www.doingbusiness.org>

## 2.05 Number of procedures required to start a business

Number of procedures required to start a business | 2015

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Macedonia, FYR	1	54	United Arab Emirates	6
1	New Zealand	1	54	United States	6
3	Armenia	2	54	Zambia	6
3	Azerbaijan	2	74	Bahrain	7
3	Canada	2	74	Benin	7
3	Georgia	2	74	Cambodia	7
3	Hong Kong SAR	2	74	Cape Verde	7
3	Jamaica	2	74	Chile	7
3	Lithuania	2	74	Croatia	7
3	Slovenia	2	74	Dominican Republic	7
11	Australia	3	74	Egypt	7
11	Belgium	3	74	Gabon	7
11	Burundi	3	74	Gambia, The	7
11	Taiwan, China	3	74	Guyana	7
11	Estonia	3	74	Jordan	7
11	Finland	3	74	Lesotho	7
11	Korea, Rep.	3	74	Nepal	7
11	Malaysia	3	74	Paraguay	7
11	Portugal	3	74	Rwanda	7
11	Singapore	3	74	Spain	7
11	Sweden	3	74	Trinidad and Tobago	7
22	Bulgaria	4	92	Austria	8
22	Côte d'Ivoire	4	92	Bhutan	8
22	Denmark	4	92	Colombia	8
22	Hungary	4	92	Czech Republic	8
22	Ireland	4	92	El Salvador	8
22	Kazakhstan	4	92	Ghana	8
22	Kyrgyz Republic	4	92	Iran, Islamic Rep.	8
22	Latvia	4	92	Japan	8
22	Liberia	4	92	Malawi	8
22	Moldova	4	92	Qatar	8
22	Morocco	4	92	Sri Lanka	8
22	Netherlands	4	92	Turkey	8
22	Norway	4	104	Nigeria	9
22	Poland	4	105	Bangladesh	9
22	Senegal	4	105	Botswana	9
22	Tajikistan	4	105	Chad	9
22	Ukraine	4	105	Costa Rica	9
22	United Kingdom	4	105	Germany	9
40	Russian Federation	4	105	Madagascar	9
41	Cameroon	5	105	Seychelles	9
41	France	5	105	Tanzania	9
41	Greece	5	105	Zimbabwe	9
41	Iceland	5	114	Malta	10
41	Israel	5	114	Mozambique	10
41	Italy	5	114	Namibia	10
41	Mali	5	114	Pakistan	10
41	Mauritius	5	114	Tunisia	10
41	Mongolia	5	114	Vietnam	10
41	Oman	5	120	Brazil	11
41	Panama	5	120	China	11
41	Romania	5	120	Ethiopia	11
41	Uruguay	5	120	Kenya	11
54	Albania	6	120	Myanmar	11
54	Cyprus	6	125	Algeria	12
54	Guatemala	6	125	Bosnia and Herzegovina	12
54	Guinea	6	125	Ecuador	12
54	Lao PDR	6	125	Haiti	12
54	Lebanon	6	125	Honduras	12
54	Luxembourg	6	125	Kuwait	12
54	Mauritania	6	125	Saudi Arabia	12
54	Mexico	6	125	Swaziland	12
54	Montenegro	6	133	India	13
54	Nicaragua	6	134	Indonesia	13
54	Peru	6	135	Argentina	14
54	Serbia	6	136	Bolivia	15
54	Slovak Republic	6	136	Uganda	15
54	South Africa	6	138	Philippines	16
54	Switzerland	6	139	Venezuela	17
54	Thailand	6			

SOURCES: World Bank/International Finance Corporation, Doing Business 2016: Measuring Regulatory Quality and Efficiency; <http://www.doingbusiness.org>



## 2.06 Intensity of local competition

In your country, how intense is competition in the local markets? [1 = not intense at all; 7 = extremely intense] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 5.0	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 5.0	7
1	Japan	6.3				71	Vietnam	5.0			
2	Hong Kong SAR	6.2				72	Botswana	5.0			
3	United Kingdom	6.0				73	Morocco	5.0			
4	United States	6.0				74	Honduras	5.0			
5	Taiwan, China	6.0				75	Bangladesh	5.0			
6	Belgium	6.0				76	Ecuador	5.0			
7	Germany	6.0				77	Russian Federation	5.0			
8	United Arab Emirates	6.0				78	Mongolia	5.0			
9	Australia	5.9				79	Paraguay	5.0			
10	Turkey	5.9				80	Senegal	4.9			
11	Netherlands	5.9				81	Benin	4.9			
12	Malta	5.8				82	Nepal	4.9			
13	Korea, Rep.	5.8				83	Croatia	4.9			
14	Czech Republic	5.7				84	Iceland	4.8			
15	Austria	5.7				85	Armenia	4.8			
16	New Zealand	5.7				86	Ghana	4.8			
17	Sri Lanka	5.7				87	Swaziland	4.8			
18	Lithuania	5.6				88	Zimbabwe	4.8			
19	Spain	5.6				89	Finland	4.8			
20	Estonia	5.6				90	Tunisia	4.7			
21	Singapore	5.6				91	Georgia	4.7			
22	Chile	5.6				92	Uruguay	4.7			
23	Kenya	5.6				93	Gambia, The	4.7			
24	Canada	5.6				94	Kazakhstan	4.7			
25	Qatar	5.5				95	Oman	4.7			
26	Zambia	5.5				96	Nicaragua	4.7			
27	Slovak Republic	5.5				97	Cambodia	4.7			
28	Guatemala	5.5				98	Pakistan	4.7			
29	France	5.5				99	Ukraine	4.7			
30	Switzerland	5.5				100	Namibia	4.6			
31	Macedonia, FYR	5.5				101	India	4.6			
32	Mauritius	5.5				102	Bhutan	4.6			
33	Sweden	5.5				103	Moldova	4.6			
34	Lebanon	5.4				104	Bulgaria	4.6			
35	Colombia	5.4				105	Côte d'Ivoire	4.6			
36	China	5.4				106	Cameroon	4.6			
37	Malaysia	5.4				107	Tajikistan	4.6			
38	Latvia	5.4				108	Mozambique	4.6			
39	Jamaica	5.4				109	Madagascar	4.6			
40	Saudi Arabia	5.4				110	Guyana	4.5			
41	Brazil	5.4				111	Tanzania	4.5			
42	Thailand	5.4				112	Romania	4.5			
43	South Africa	5.4				113	Mali	4.5			
44	Dominican Republic	5.3				114	Cape Verde	4.4			
45	Denmark	5.3				115	Kyrgyz Republic	4.4			
46	Cyprus	5.3				116	Israel	4.4			
47	Bahrain	5.3				117	Bosnia and Herzegovina	4.4			
48	Poland	5.3				118	Myanmar	4.4			
49	Trinidad and Tobago	5.3				119	Lesotho	4.4			
50	Norway	5.3				120	Azerbaijan	4.3			
51	Uganda	5.3				121	Iran, Islamic Rep.	4.3			
52	Panama	5.3				122	Lao PDR	4.3			
53	Italy	5.3				123	Argentina	4.3			
54	Portugal	5.3				124	Serbia	4.3			
55	Costa Rica	5.2				125	Ethiopia	4.3			
56	Philippines	5.2				126	Bolivia	4.3			
57	Jordan	5.2				127	Egypt	4.2			
58	Peru	5.2				128	Seychelles	4.2			
59	Mexico	5.2				129	Guinea	4.2			
60	Nigeria	5.2				130	Montenegro	4.2			
61	Luxembourg	5.1				131	Liberia	4.1			
62	El Salvador	5.1				132	Gabon	4.1			
63	Hungary	5.1				133	Albania	4.0			
64	Slovenia	5.1				134	Mauritania	4.0			
65	Indonesia	5.1				135	Burundi	3.9			
66	Malawi	5.1				136	Haiti	3.9			
67	Ireland	5.1				137	Algeria	3.7			
68	Greece	5.1				138	Chad	3.7			
69	Kuwait	5.0				139	Venezuela	2.7			
70	Rwanda	5.0									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 2.07 Tertiary education enrollment rate

Tertiary education gross enrollment rate (%) | 2013 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Greece.....	110.2	71	Bolivia <sup>5</sup> .....	38.4
2	Korea, Rep. <sup>11</sup> .....	95.3	72	Bahrain <sup>11</sup> .....	36.8
3	Finland.....	91.1	73	Philippines <sup>11</sup> .....	35.8
4	United States.....	88.8	74	Paraguay <sup>8</sup> .....	35.1
5	Spain.....	87.1	75	Algeria <sup>11</sup> .....	34.6
6	Australia.....	86.6	76	Tunisia <sup>11</sup> .....	34.6
7	Slovenia.....	85.2	77	Indonesia.....	31.3
8	Taiwan, China.....	83.9	78	Vietnam <sup>11</sup> .....	30.5
9	Chile.....	83.8	79	Egypt.....	30.3
10	Singapore.....	82.7	80	China.....	30.2
11	Ukraine <sup>11</sup> .....	82.3	81	Mexico.....	29.2
12	Iceland <sup>10</sup> .....	82.2	82	El Salvador.....	29.2
13	Denmark.....	81.2	83	Oman <sup>9</sup> .....	28.6
14	Austria <sup>11</sup> .....	80.0	84	Botswana <sup>11</sup> .....	27.5
15	Argentina.....	80.0	85	Jamaica.....	27.4
16	New Zealand.....	79.7	86	Kuwait.....	27.0
17	Turkey.....	79.0	87	Tajikistan <sup>12</sup> .....	26.4
18	Netherlands <sup>10</sup> .....	78.5	88	Morocco <sup>11</sup> .....	24.6
19	Russian Federation.....	78.0	89	India.....	23.9
20	Venezuela <sup>7</sup> .....	77.0	90	Azerbaijan <sup>11</sup> .....	23.2
21	Norway.....	76.1	91	Cape Verde <sup>11</sup> .....	23.0
22	Ireland.....	73.2	92	Bosnia and Herzegovina <sup>1</sup> .....	22.1
23	Estonia.....	72.9	93	United Arab Emirates <sup>11</sup> .....	22.0
24	Belgium.....	72.3	94	Honduras <sup>11</sup> .....	21.2
25	Lithuania.....	72.0	95	Sri Lanka <sup>11</sup> .....	20.7
26	Poland.....	71.2	96	South Africa.....	19.7
27	Bulgaria <sup>11</sup> .....	70.8	97	Luxembourg <sup>10</sup> .....	19.4
28	Hong Kong SAR <sup>11</sup> .....	68.8	98	Guatemala.....	18.3
29	Latvia.....	67.0	99	Lao PDR <sup>11</sup> .....	17.3
30	Israel.....	66.3	100	Nicaragua <sup>1</sup> .....	17.2
31	Portugal.....	66.2	101	Cambodia <sup>9</sup> .....	15.9
32	Iran, Islamic Rep. <sup>11</sup> .....	66.0	102	Nepal <sup>11</sup> .....	15.8
33	Czech Republic.....	65.4	103	Qatar <sup>11</sup> .....	15.8
34	Mongolia <sup>11</sup> .....	64.3	104	Ghana <sup>11</sup> .....	15.6
35	Italy.....	63.5	105	Benin.....	15.4
36	Sweden.....	63.4	106	Myanmar <sup>10</sup> .....	13.5
37	Uruguay <sup>8</sup> .....	63.1	107	Bangladesh <sup>10</sup> .....	13.4
38	Albania <sup>11</sup> .....	62.7	108	Guyana <sup>10</sup> .....	12.5
39	Japan.....	62.4	109	Trinidad and Tobago <sup>3</sup> .....	12.0
40	France.....	62.1	110	Cameroon <sup>9</sup> .....	11.9
41	Croatia <sup>10</sup> .....	61.7	111	Liberia <sup>10</sup> .....	11.6
42	Saudi Arabia <sup>11</sup> .....	61.1	112	Bhutan.....	10.9
43	Germany.....	61.1	113	Guinea <sup>11</sup> .....	10.8
44	Serbia <sup>11</sup> .....	58.1	114	Nigeria <sup>4</sup> .....	10.4
45	Hungary.....	57.0	115	Pakistan <sup>11</sup> .....	10.4
46	United Kingdom.....	56.9	116	Lesotho <sup>11</sup> .....	9.8
47	Switzerland.....	56.3	117	Namibia <sup>6</sup> .....	9.3
48	Montenegro <sup>8</sup> .....	55.3	118	Côte d'Ivoire <sup>11</sup> .....	8.7
49	Slovak Republic.....	54.4	119	Gabon <sup>2</sup> .....	8.4
50	Cyprus <sup>11</sup> .....	53.1	120	Rwanda.....	7.5
51	Costa Rica <sup>11</sup> .....	53.0	121	Senegal <sup>6</sup> .....	7.4
52	Romania.....	52.2	122	Mali <sup>10</sup> .....	6.9
53	Thailand.....	51.4	123	Haiti <sup>11</sup> .....	6.5
54	Colombia <sup>11</sup> .....	51.3	124	Seychelles <sup>11</sup> .....	6.5
55	Jordan <sup>10</sup> .....	47.6	125	Ethiopia <sup>11</sup> .....	6.3
56	Dominican Republic <sup>11</sup> .....	47.5	126	Mozambique <sup>11</sup> .....	6.0
57	Kyrgyz Republic.....	47.3	127	Zimbabwe.....	5.9
58	Armenia <sup>11</sup> .....	46.6	128	Mauritania.....	5.5
59	Kazakhstan <sup>12</sup> .....	46.0	129	Swaziland.....	5.3
60	Brazil.....	45.1	130	Uganda <sup>9</sup> .....	4.5
61	Malta <sup>11</sup> .....	45.1	131	Burundi.....	4.4
62	Lebanon <sup>11</sup> .....	42.8	132	Madagascar.....	4.2
63	Moldova.....	41.3	133	Kenya <sup>7</sup> .....	4.0
64	Peru <sup>8</sup> .....	40.5	134	Tanzania.....	3.6
65	Ecuador.....	40.5	135	Chad <sup>11</sup> .....	3.4
66	Macedonia, FYR.....	39.4	136	Gambia, The <sup>9</sup> .....	3.4
67	Georgia <sup>11</sup> .....	39.2	137	Malawi <sup>9</sup> .....	0.8
68	Panama.....	38.7	n/a	Canada.....	n/a
69	Mauritius <sup>11</sup> .....	38.7	n/a	Zambia.....	n/a
70	Malaysia.....	38.5			

**SOURCES:** United Nations Education, Science and Culture Organization (UNESCO), UNESCO Institute for Statistics Data Centre (retrieved December 15, 2015), <http://data.uis.unesco.org/>; Authors' calculation based on Organisation for Economic Co-operation and Development (OECD); national sources

<sup>1</sup> 2002 <sup>2</sup> 2003 <sup>3</sup> 2004 <sup>4</sup> 2005 <sup>5</sup> 2007 <sup>6</sup> 2008 <sup>7</sup> 2009 <sup>8</sup> 2010 <sup>9</sup> 2011 <sup>10</sup> 2012 <sup>11</sup> 2014 <sup>12</sup> 2015

## 2.08 Quality of management schools

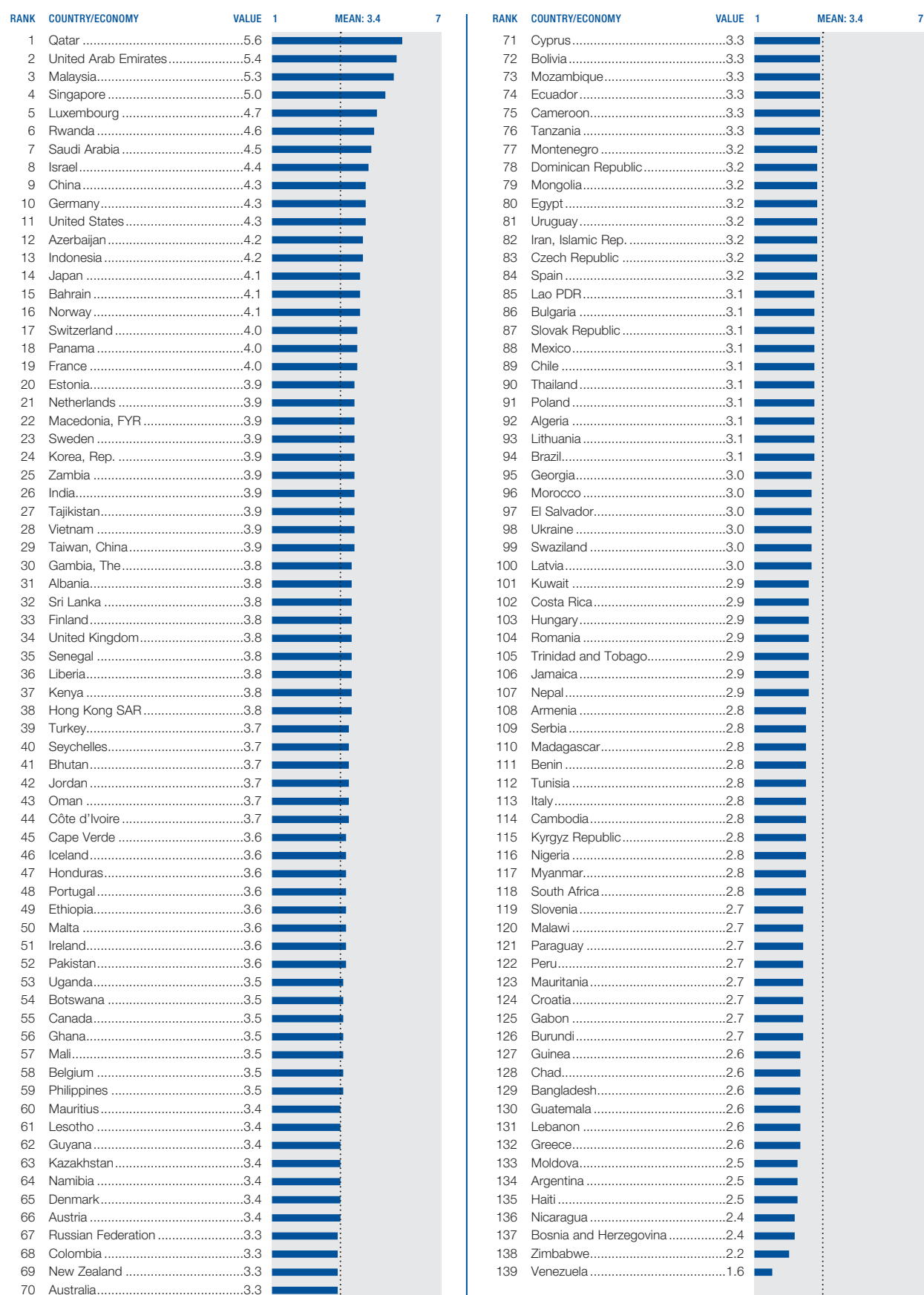
In your country, how do you assess the quality of business schools? [1 = extremely poor—among the worst in the world; 7 = excellent—among the best in the world] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.2	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.2	7
1	Switzerland	6.3				71	Peru	4.1			
2	Belgium	6.0				72	Morocco	4.1			
3	United Kingdom	5.9				73	Hungary	4.1			
4	Singapore	5.9				74	Rwanda	4.1			
5	Canada	5.8				75	Poland	4.1			
6	Spain	5.8				76	Cape Verde	4.0			
7	Qatar	5.7				77	Thailand	4.0			
8	Netherlands	5.7				78	Tajikistan	4.0			
9	United States	5.7				79	Colombia	4.0			
10	Hong Kong SAR	5.6				80	Croatia	4.0			
11	France	5.5				81	Macedonia, FYR	4.0			
12	Lebanon	5.5				82	Honduras	4.0			
13	Finland	5.4				83	Zimbabwe	4.0			
14	Ireland	5.4				84	Brazil	4.0			
15	Norway	5.4				85	China	3.9			
16	Sweden	5.4				86	Kuwait	3.9			
17	Denmark	5.4				87	Ukraine	3.9			
18	Iceland	5.3				88	Greece	3.9			
19	Australia	5.3				89	Panama	3.9			
20	United Arab Emirates	5.3				90	El Salvador	3.9			
21	Chile	5.3				91	Iran, Islamic Rep.	3.9			
22	Malaysia	5.2				92	Lao PDR	3.9			
23	New Zealand	5.2				93	Uganda	3.9			
24	South Africa	5.2				94	Romania	3.9			
25	Germany	5.2				95	Slovak Republic	3.8			
26	Portugal	5.2				96	Madagascar	3.8			
27	Costa Rica	5.1				97	Georgia	3.8			
28	Italy	5.1				98	Bhutan	3.8			
29	Israel	5.0				99	Ethiopia	3.7			
30	Trinidad and Tobago	4.9				100	Russian Federation	3.7			
31	Sri Lanka	4.9				101	Kazakhstan	3.7			
32	Austria	4.9				102	Nigeria	3.7			
33	Taiwan, China	4.9				103	Dominican Republic	3.7			
34	Luxembourg	4.9				104	Nicaragua	3.7			
35	Argentina	4.8				105	Bangladesh	3.7			
36	Cyprus	4.7				106	Turkey	3.7			
37	Estonia	4.7				107	Nepal	3.6			
38	Senegal	4.7				108	Lesotho	3.6			
39	Malta	4.7				109	Mali	3.6			
40	Philippines	4.7				110	Gabon	3.6			
41	Guatemala	4.6				111	Bulgaria	3.6			
42	Côte d'Ivoire	4.6				112	Botswana	3.5			
43	Bahrain	4.6				113	Vietnam	3.5			
44	Guyana	4.6				114	Namibia	3.5			
45	Latvia	4.5				115	Armenia	3.4			
46	Jamaica	4.5				116	Serbia	3.4			
47	Slovenia	4.5				117	Algeria	3.4			
48	Ghana	4.5				118	Moldova	3.3			
49	Indonesia	4.4				119	Benin	3.3			
50	Jordan	4.4				120	Bosnia and Herzegovina	3.3			
51	Japan	4.4				121	Azerbaijan	3.3			
52	Uruguay	4.4				122	Swaziland	3.3			
53	Lithuania	4.4				123	Tanzania	3.2			
54	Montenegro	4.4				124	Cambodia	3.2			
55	India	4.4				125	Mauritania	3.2			
56	Kenya	4.4				126	Liberia	3.2			
57	Cameroon	4.3				127	Chad	3.1			
58	Zambia	4.3				128	Oman	3.1			
59	Korea, Rep.	4.3				129	Bolivia	3.1			
60	Seychelles	4.3				130	Malawi	3.1			
61	Albania	4.3				131	Kyrgyz Republic	3.1			
62	Saudi Arabia	4.3				132	Mongolia	3.0			
63	Czech Republic	4.3				133	Paraguay	3.0			
64	Gambia, The	4.3				134	Haiti	2.9			
65	Ecuador	4.3				135	Mozambique	2.8			
66	Mauritius	4.3				136	Myanmar	2.8			
67	Venezuela	4.3				137	Burundi	2.6			
68	Mexico	4.2				138	Egypt	2.5			
69	Tunisia	4.2				139	Guinea	2.3			
70	Pakistan	4.1									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 2.09 Government procurement of advanced technology products

In your country, to what extent do government purchasing decisions foster innovation? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average



SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

# 3rd pillar Infrastructure

## 3.01 Electricity production

Electricity production (kWh) per capita | 2013 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Iceland.....	55,954.3	71	Azerbaijan.....	2,480.0
2	Norway.....	26,319.9	72	Thailand.....	2,456.7
3	Bahrain.....	19,205.2	73	Kyrgyz Republic.....	2,449.6
4	Canada.....	18,539.2	74	Albania.....	2,401.8
5	Kuwait.....	16,969.2	75	Mexico.....	2,400.8
6	Qatar.....	16,498.5	76	Panama.....	2,353.8
7	Sweden.....	15,940.1	77	Mauritius.....	2,294.5
8	United States.....	13,544.8	78	Georgia.....	2,241.7
9	Finland.....	13,100.1	79	Costa Rica.....	2,174.7
10	United Arab Emirates.....	11,750.2	80	Tajikistan.....	2,109.9
11	Australia.....	10,765.5	81	Egypt.....	1,915.4
12	Korea, Rep.....	10,710.8	82	Lao PDR <sup>1</sup> .....	1,869.3
13	Taiwan, China.....	10,646.5	83	Mongolia.....	1,755.8
14	Estonia.....	10,072.1	84	Dominican Republic.....	1,719.6
15	Bhutan.....	10,004.8	85	Tunisia.....	1,688.4
16	New Zealand.....	9,737.7	86	Algeria.....	1,568.4
17	Saudi Arabia.....	9,404.2	87	Jamaica.....	1,530.5
18	Paraguay.....	9,338.7	88	Ecuador.....	1,485.1
19	Singapore.....	8,883.5	89	Gabon.....	1,454.2
20	France.....	8,606.2	90	Lithuania.....	1,424.8
21	Switzerland.....	8,505.6	91	Peru.....	1,419.0
22	Czech Republic.....	8,194.6	92	Vietnam.....	1,416.0
23	Japan.....	8,155.2	93	Colombia.....	1,366.3
24	Germany.....	7,779.4	94	Moldova.....	1,262.0
25	Slovenia.....	7,666.7	95	Guyana <sup>1</sup> .....	1,054.8
26	Austria.....	7,611.3	96	Honduras.....	1,028.7
27	Israel.....	7,437.3	97	El Salvador.....	958.2
28	Russian Federation.....	7,369.6	98	India.....	932.8
29	Belgium.....	7,342.8	99	Zambia.....	873.5
30	Trinidad and Tobago.....	7,049.9	100	Indonesia.....	858.0
31	Oman.....	6,716.3	101	Morocco.....	834.9
32	Montenegro.....	6,350.5	102	Bolivia.....	775.3
33	Denmark.....	6,188.7	103	Philippines.....	771.4
34	Netherlands.....	6,002.9	104	Nicaragua.....	700.2
35	Spain.....	5,990.4	105	Zimbabwe.....	636.5
36	Bulgaria.....	5,928.2	106	Guatemala.....	632.2
37	Ireland.....	5,605.8	107	Cape Verde <sup>1</sup> .....	612.9
38	Kazakhstan.....	5,598.3	108	Sri Lanka.....	587.0
39	United Kingdom.....	5,557.2	109	Namibia.....	567.2
40	Serbia.....	5,475.5	110	Mozambique.....	562.8
41	Hong Kong SAR.....	5,447.7	111	Pakistan.....	539.7
42	Malta.....	5,323.9	112	Ghana.....	491.9
43	Slovak Republic.....	5,267.3	113	Botswana.....	400.2
44	Greece.....	5,179.2	114	Côte d'Ivoire.....	350.0
45	Portugal.....	4,832.4	115	Swaziland <sup>1</sup> .....	345.1
46	Italy.....	4,779.8	116	Bangladesh.....	337.5
47	South Africa.....	4,763.1	117	Cameroon.....	308.4
48	Malaysia.....	4,695.3	118	Mauritania <sup>1</sup> .....	274.0
49	Bosnia and Herzegovina.....	4,564.1	119	Senegal.....	261.0
50	Poland.....	4,311.2	120	Lesotho <sup>1</sup> .....	236.2
51	Ukraine.....	4,258.2	121	Myanmar.....	224.4
52	Chile.....	4,157.1	122	Kenya.....	203.1
53	Venezuela.....	4,067.9	123	Nigeria.....	167.6
54	Lebanon.....	4,039.9	124	Malawi <sup>1</sup> .....	138.8
55	China.....	4,005.2	125	Nepal.....	131.0
56	Cyprus.....	3,757.7	126	Gambia, The <sup>1</sup> .....	130.0
57	Seychelles <sup>1</sup> .....	3,578.6	127	Cambodia.....	117.9
58	Iran, Islamic Rep.....	3,504.4	128	Tanzania.....	111.0
59	Uruguay.....	3,422.0	129	Haiti.....	105.9
60	Luxembourg.....	3,402.9	130	Ethiopia.....	92.2
61	Argentina.....	3,271.7	131	Madagascar <sup>1</sup> .....	90.8
62	Turkey.....	3,201.6	132	Uganda <sup>1</sup> .....	86.0
63	Croatia.....	3,131.3	133	Guinea <sup>1</sup> .....	83.5
64	Latvia.....	3,085.0	134	Liberia <sup>1</sup> .....	71.6
65	Hungary.....	3,060.0	135	Mali <sup>1</sup> .....	58.9
66	Macedonia, FYR.....	2,940.3	136	Rwanda <sup>1</sup> .....	28.7
67	Romania.....	2,929.2	137	Burundi <sup>1</sup> .....	20.0
68	Brazil.....	2,792.2	138	Benin.....	16.8
69	Jordan.....	2,672.3	139	Chad <sup>1</sup> .....	16.1
70	Armenia.....	2,576.7			

**SOURCES:** Authors' calculations based on International Energy Agency (IEA), World Energy Statistics and Balances 2015, [www.iea.org/statistics/](http://www.iea.org/statistics/); The World Bank, World Development Indicators (retrieved January 4, 2016), <http://data.worldbank.org>; US Central Intelligence Agency (CIA), The World Factbook (retrieved January 5, 2016), <https://www.cia.gov/library/publications/the-world-factbook/>

<sup>1</sup> 2012

## 3.02 Mobile network coverage rate

Percentage of total population covered by a mobile network signal | 2014 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Armenia	100.0	67	Benin	99.0
1	Azerbaijan	100.0	67	Cambodia <sup>8</sup>	99.0
1	Bahrain	100.0	67	Canada	99.0
1	Bhutan	100.0	67	France	99.0
1	Bolivia	100.0	67	Germany	99.0
1	Taiwan, China	100.0	67	Hungary	99.0
1	Colombia	100.0	67	Iceland	99.0
1	Costa Rica	100.0	67	Ireland	99.0
1	Croatia	100.0	67	Jordan	99.0
1	Estonia	100.0	67	Luxembourg	99.0
1	Guatemala	100.0	67	Mauritius	99.0
1	Hong Kong SAR	100.0	67	Moldova	99.0
1	Indonesia <sup>6</sup>	100.0	67	Oman	99.0
1	Israel <sup>8</sup>	100.0	67	Philippines	99.0
1	Italy <sup>8</sup>	100.0	67	Portugal	99.0
1	Kuwait <sup>5</sup>	100.0	67	Tunisia	99.0
1	Lithuania	100.0	87	Latvia <sup>8</sup>	98.8
1	Malta	100.0	88	Dominican Republic	98.5
1	Namibia	100.0	89	Cape Verde	98.4
1	Netherlands	100.0	90	Botswana	98.0
1	Nicaragua <sup>4</sup>	100.0	90	Seychelles	98.0
1	Norway	100.0	90	Sri Lanka <sup>8</sup>	98.0
1	Peru	100.0	90	Turkey	98.0
1	Qatar	100.0	94	Côte d'Ivoire	97.9
1	Singapore	100.0	95	Kyrgyz Republic	97.7
1	Slovak Republic	100.0	96	Guyana <sup>8</sup>	97.1
1	Switzerland	100.0	97	New Zealand	97.0
1	Trinidad and Tobago	100.0	97	Thailand	97.0
1	Uganda <sup>7</sup>	100.0	99	Ecuador	96.9
1	United Arab Emirates	100.0	100	Swaziland <sup>7</sup>	96.8
1	Uruguay <sup>8</sup>	100.0	101	Lao PDR	96.0
32	Bulgaria	100.0	101	Panama	96.0
32	Finland	100.0	103	Malaysia	95.4
32	Sweden	100.0	104	Chile <sup>7</sup>	95.0
35	Brazil <sup>8</sup>	100.0	104	Jamaica <sup>2</sup>	95.0
35	Cyprus	100.0	104	Russian Federation <sup>1</sup>	95.0
37	Belgium	99.9	104	Tanzania	95.0
37	Greece	99.9	108	Iran, Islamic Rep.	94.2
37	Japan <sup>8</sup>	99.9	109	Argentina <sup>2</sup>	94.1
37	Korea, Rep.	99.9	110	Gambia, The	94.0
37	Macedonia, FYR <sup>5</sup>	99.9	111	India <sup>8</sup>	93.5
37	Mexico <sup>8</sup>	99.9	112	Lesotho	92.7
37	Poland	99.9	113	Madagascar <sup>8</sup>	92.2
37	Romania	99.9	114	Senegal	91.6
37	Rwanda	99.9	115	Mongolia <sup>7</sup>	91.3
37	South Africa	99.9	116	Ethiopia	90.0
37	Ukraine	99.9	116	Venezuela <sup>2</sup>	90.0
37	United States	99.9	118	Honduras <sup>2</sup>	89.9
49	Albania	99.8	119	Kenya	89.1
49	Bosnia and Herzegovina	99.8	120	Zimbabwe	88.0
49	Czech Republic	99.8	121	El Salvador	87.6
49	Egypt	99.8	122	Ghana <sup>7</sup>	87.0
49	Spain	99.8	123	Kazakhstan	86.6
54	Serbia	99.8	124	Chad	86.0
55	Paraguay <sup>8</sup>	99.7	125	Pakistan	81.5
55	Slovenia	99.7	126	Guinea <sup>3</sup>	80.0
55	United Kingdom	99.7	126	Nepal	80.0
58	Malawi	99.6	128	Zambia	78.0
59	Denmark	99.5	129	Myanmar	73.0
59	Montenegro	99.5	130	Mozambique	72.0
61	China <sup>8</sup>	99.5	131	Vietnam <sup>1</sup>	70.0
62	Saudi Arabia	99.4	132	Haiti	63.3
63	Nigeria	99.4	133	Mauritania <sup>3</sup>	62.0
64	Morocco	99.2	134	Liberia <sup>8</sup>	60.0
65	Lebanon <sup>7</sup>	99.1	135	Cameroon <sup>1</sup>	58.0
66	Georgia <sup>6</sup>	99.1	136	Burundi	30.0
67	Algeria	99.0	137	Mali <sup>1</sup>	20.0
67	Australia	99.0	138	Gabon	1.9
67	Austria	99.0	n/a	Tajikistan	n/a
67	Bangladesh	99.0			

SOURCE: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

<sup>1</sup> 2006 <sup>2</sup> 2007 <sup>3</sup> 2008 <sup>4</sup> 2009 <sup>5</sup> 2010 <sup>6</sup> 2011 <sup>7</sup> 2012 <sup>8</sup> 2013

### 3.03 International Internet bandwidth

International Internet bandwidth (kb/s) per Internet user | 2014 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Luxembourg	6,887.7	71	Mauritius	33.0
2	Hong Kong SAR	3,721.8	72	Algeria	32.9
3	Malta	1,178.8	73	Azerbaijan	32.2
4	Singapore	616.5	74	Albania	32.1
5	Sweden	627.4	75	Russian Federation	29.9
6	Iceland	519.9	76	Seychelles	28.9
7	United Kingdom	429.8	77	Myanmar	28.7
8	Switzerland	352.2	78	Estonia	28.7
9	Denmark	341.7	79	Philippines	27.7
10	Netherlands	281.1	80	Guatemala	27.5
11	Belgium	263.9	81	Malaysia	27.2
12	France	221.7	82	Tunisia	26.0
13	Portugal	218.9	83	Kenya	25.2
14	Finland	218.7	84	Dominican Republic	24.9
15	Norway	203.9	85	Lebanon	24.0
16	Ireland	161.0	86	Nicaragua	23.0
17	Moldova	152.4	87	Honduras	21.8
18	South Africa	149.5	88	Mexico	20.9
19	Germany	146.0	89	Vietnam	20.7
20	Bulgaria	135.1	90	Gabon	19.7
21	Canada	129.2	91	Botswana	16.4
22	Lithuania	125.5	92	Cambodia	16.3
23	Slovenia	121.1	93	Bolivia	15.5
24	Romania	117.3	94	Venezuela	14.4
25	Czech Republic	116.8	95	Jamaica	14.2
26	Serbia	112.4	96	Sri Lanka	12.7
27	Spain	111.5	97	Paraguay	12.6
28	Greece	99.5	98	Cape Verde	12.3
29	Israel	98.4	99	Slovak Republic	11.5
30	New Zealand	95.1	100	Gambia, The	10.9
31	Latvia	93.7	101	Morocco	10.8
32	Italy	92.5	102	Guyana	10.0
33	Poland	90.4	103	Egypt	9.3
34	Mongolia	90.0	104	Mozambique	9.2
35	United Arab Emirates	79.6	105	Rwanda	8.9
36	Austria	79.6	106	Senegal	8.3
37	Montenegro	77.0	107	Kyrgyz Republic	8.2
38	Australia	75.1	108	Jordan	7.9
39	Cyprus	75.1	109	Burundi	6.9
40	Chile	73.1	110	Bangladesh	6.6
41	Panama	72.7	111	Liberia	6.3
42	United States	71.0	112	Indonesia	6.2
43	Georgia	71.0	113	Tanzania	6.1
44	Qatar	67.5	114	Iran, Islamic Rep.	6.1
45	Uruguay	60.7	115	Pakistan	5.7
46	Taiwan, China	60.4	116	India	5.7
47	Croatia	58.0	117	Côte d'Ivoire	5.2
48	Thailand	54.8	118	Ethiopia	5.0
49	Kazakhstan	51.5	119	China	5.0
50	El Salvador	50.3	120	Lesotho	4.3
51	Kuwait	50.1	121	Malawi	4.2
52	Bahrain	49.1	122	Zambia	4.2
53	Trinidad and Tobago	48.9	123	Uganda	4.0
54	Japan	48.6	124	Tajikistan	3.9
55	Costa Rica	48.2	125	Zimbabwe	3.9
56	Argentina	48.1	126	Ghana	3.6
57	Korea, Rep.	45.2	127	Nigeria	3.1
58	Armenia	44.5	128	Nepal	3.1
59	Bosnia and Herzegovina	43.0	129	Lao PDR	2.8
60	Brazil	43.0	130	Benin	2.8
61	Turkey	42.9	131	Bhutan	2.5
62	Macedonia, FYR	41.8	132	Guinea	2.4
63	Ukraine	40.7	133	Mali	1.9
64	Hungary	37.0	134	Cameroon	1.8
65	Ecuador	36.9	135	Swaziland	1.7
66	Peru	36.4	136	Mauritania	1.5
67	Colombia	35.0	137	Chad	0.7
68	Namibia	34.5	138	Madagascar	0.3
69	Saudi Arabia	34.0	139	Haiti <sup>1</sup>	0.1
70	Oman	33.7			

SOURCE: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

<sup>1</sup> 2010



## 3.04 Secure Internet servers

Secure Internet servers per million population | 2014

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Iceland	3,214.4	71	Georgia	37.1
2	Switzerland	2,820.4	72	Bosnia and Herzegovina	35.9
3	Luxembourg	2,645.3	73	Ecuador	34.5
4	Netherlands	2,635.1	74	Mexico	34.1
5	Korea, Rep.	2,178.3	75	Jordan	30.4
6	Denmark	2,080.8	76	Mongolia	28.5
7	Norway	1,942.0	77	Dominican Republic	28.3
8	Finland	1,791.3	78	Peru	28.1
9	Taiwan, China	1,752.0	79	Paraguay	24.1
10	Malta	1,691.6	80	Albania	23.8
11	Sweden	1,602.2	81	Thailand	23.3
12	United States	1,548.2	82	Namibia	22.5
13	Germany	1,420.0	83	El Salvador	22.1
14	Australia	1,348.6	84	Tunisia	17.9
15	United Kingdom	1,291.2	85	Guatemala	17.5
16	Austria	1,267.7	86	Kazakhstan	14.5
17	New Zealand	1,211.2	87	Bhutan	14.4
18	Canada	1,210.0	88	Azerbaijan	13.5
19	Estonia	927.2	89	Bolivia	12.9
20	Japan	911.7	90	Venezuela	12.2
21	Belgium	854.2	91	Vietnam	11.9
22	Singapore	822.3	92	Sri Lanka	11.4
23	Hong Kong SAR	790.6	93	Honduras	11.4
24	Ireland	775.0	94	Nicaragua	11.3
25	Czech Republic	691.6	95	Botswana	11.3
26	France	683.4	96	Philippines	10.9
27	Slovenia	648.3	97	Gabon	10.7
28	Cyprus	606.8	98	Guyana	10.5
29	Seychelles	469.8	99	Swaziland	10.2
30	Poland	429.7	100	Kyrgyz Republic	9.1
31	Latvia	360.7	101	Kenya	7.8
32	Slovak Republic	321.3	102	China	7.0
33	Spain	316.8	103	Indonesia	6.2
34	Hungary	300.8	104	Gambia, The	5.7
35	United Arab Emirates	294.4	105	India	5.5
36	Portugal	262.9	106	Morocco	4.9
37	Israel	254.3	107	Egypt	4.8
38	Italy	249.2	108	Zimbabwe	4.5
39	Qatar	231.6	109	Rwanda	3.9
40	Croatia	219.5	110	Ghana	3.7
41	Lithuania	206.9	111	Senegal	3.5
42	Kuwait	198.8	112	Zambia	3.4
43	Bahrain	177.0	113	Cambodia	3.0
44	Bulgaria	176.7	114	Nepal	3.0
45	Mauritius	154.6	115	Côte d'Ivoire	2.6
46	Greece	147.4	116	Mauritania	2.5
47	Chile	127.6	117	Liberia	2.5
48	Romania	125.1	118	Nigeria	2.3
49	Panama	116.6	119	Benin	2.2
50	South Africa	115.6	120	Iran, Islamic Rep.	2.1
51	Trinidad and Tobago	111.5	121	Lao PDR	2.1
52	Costa Rica	99.4	122	Algeria	2.0
53	Uruguay	95.3	123	Pakistan	1.8
54	Malaysia	88.5	124	Mozambique	1.8
55	Russian Federation	84.4	125	Haiti	1.7
56	Oman	79.3	126	Cameroon	1.7
57	Macedonia, FYR	76.6	127	Uganda	1.6
58	Brazil	68.6	128	Tanzania	1.5
59	Turkey	57.3	129	Tajikistan	1.4
60	Jamaica	57.0	130	Lesotho	1.4
61	Montenegro	56.3	131	Mali	1.3
62	Lebanon	54.5	132	Malawi	1.1
63	Argentina	52.7	133	Madagascar	0.9
64	Cape Verde	50.6	134	Bangladesh	0.9
65	Moldova	48.4	135	Burundi	0.6
66	Colombia	47.1	136	Myanmar	0.5
67	Saudi Arabia	45.9	137	Guinea	0.3
68	Ukraine	45.5	138	Ethiopia	0.2
69	Serbia	43.8	139	Chad	0.1
70	Armenia	40.9			

SOURCES: The World Bank, World Development Indicators (retrieved January 4, 2016), <http://data.worldbank.org>; national sources



# 4th pillar Affordability

## 4.01 Prepaid mobile cellular tariffs

Average per-minute cost of different types of mobile cellular calls (PPP \$) | 2014 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Hong Kong SAR	0.02	71	Guyana <sup>3</sup>	0.26
2	Russian Federation	0.03	72	Czech Republic	0.26
3	Bangladesh	0.04	73	Italy	0.26
4	Sri Lanka	0.05	74	Kuwait <sup>3</sup>	0.26
5	India	0.05	75	Hungary	0.27
6	China	0.06	76	Croatia	0.27
7	Jordan	0.06	77	United States	0.27
8	Tunisia	0.06	78	Benin	0.27
9	Denmark	0.06	79	Algeria	0.28
10	Pakistan	0.06	80	Gambia, The <sup>3</sup>	0.28
11	Egypt	0.07	81	Oman	0.29
12	Finland	0.07	82	Uganda	0.29
13	Sweden	0.08	83	Israel	0.29
14	Austria	0.08	84	Colombia	0.29
15	Nepal	0.08	85	Slovenia	0.30
16	Thailand	0.09	86	Honduras	0.30
17	Costa Rica	0.09	87	Brazil	0.31
18	Georgia	0.09	88	El Salvador	0.31
19	Australia	0.10	89	Saudi Arabia	0.32
20	Iran, Islamic Rep.	0.10	90	Peru	0.32
21	Kenya	0.10	91	Bosnia and Herzegovina	0.32
22	Turkey	0.10	92	Belgium	0.32
23	Norway	0.10	93	Chile	0.32
24	Myanmar <sup>1</sup>	0.11	94	Liberia	0.33
25	Lao PDR	0.11	95	Paraguay	0.33
26	Ethiopia	0.11	96	New Zealand	0.33
27	Germany	0.11	97	Estonia	0.33
28	Ghana	0.12	98	Burundi	0.34
29	Kazakhstan	0.12	99	Trinidad and Tobago	0.35
30	Mexico	0.12	100	Azerbaijan	0.35
31	Mongolia	0.12	101	Côte d'Ivoire	0.35
32	Cyprus	0.12	102	Cameroon	0.35
33	Nigeria	0.13	103	Venezuela <sup>2</sup>	0.36
34	Portugal	0.14	104	Ecuador	0.36
35	Korea, Rep.	0.14	105	Netherlands	0.36
36	Bhutan	0.14	106	Japan	0.37
37	Morocco	0.14	107	Uruguay	0.39
38	Bahrain	0.15	108	Tajikistan	0.39
39	Spain	0.15	109	Swaziland	0.40
40	Iceland	0.15	110	Philippines	0.40
41	United Arab Emirates	0.15	111	Botswana	0.41
42	Vietnam	0.15	112	Malta	0.41
43	Guinea	0.15	113	United Kingdom <sup>3</sup>	0.43
44	Kyrgyz Republic	0.16	114	Zimbabwe <sup>3</sup>	0.43
45	Poland	0.16	115	Gabon	0.44
46	Malaysia	0.17	116	Switzerland	0.44
47	Luxembourg	0.17	117	Bolivia	0.46
48	Ukraine	0.17	118	Zambia	0.46
49	Mauritius	0.18	119	Dominican Republic	0.47
50	Latvia	0.18	120	Lebanon	0.48
51	Singapore	0.19	121	France	0.48
52	Indonesia	0.19	122	Seychelles	0.49
53	Jamaica	0.20	123	Mali	0.50
54	Macedonia, FYR	0.20	124	Senegal	0.50
55	Rwanda	0.20	125	Ireland	0.54
56	Armenia	0.22	126	Lesotho	0.55
57	Qatar	0.22	127	Mauritania <sup>3</sup>	0.57
58	South Africa	0.22	128	Romania	0.57
59	Panama	0.23	129	Malawi	0.59
60	Canada <sup>3</sup>	0.23	130	Guatemala	0.62
61	Moldova	0.23	131	Chad	0.65
62	Haiti	0.23	132	Cape Verde	0.65
63	Taiwan, China	0.23	133	Tanzania	0.67
64	Serbia	0.23	134	Albania	0.71
65	Cambodia	0.23	135	Greece	0.77
66	Slovak Republic	0.24	136	Bulgaria	0.78
67	Mozambique	0.25	137	Madagascar	0.95
68	Lithuania	0.25	138	Nicaragua	1.16
69	Namibia	0.25	n/a	Argentina	n/a
70	Montenegro	0.26			

**SOURCES:** Authors' calculations based on International Telecommunication Union (ITU), ITU World Telecommunication/ICT Indicators Database 2015 (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>; World Bank, World Development Indicators (retrieved January 4, 2016), <http://data.worldbank.org>; national sources

<sup>1</sup> 2011 <sup>2</sup> 2012 <sup>3</sup> 2013

## 4.02 Fixed broadband Internet tariffs

Monthly subscription charge for fixed (wired) broadband Internet service (PPP \$) | 2014 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Vietnam	2.59	71	Norway	34.80
2	Ukraine	10.64	72	Egypt	34.88
3	Sri Lanka	12.56	73	Korea, Rep.	35.00
4	Bangladesh	12.77	74	Croatia	35.52
5	Iran, Islamic Rep.	13.48	75	Spain	35.63
6	United Kingdom	14.12	76	Serbia	36.05
7	Albania	14.98	77	Ecuador	36.13
8	Tunisia	15.08	78	Portugal	36.56
9	Taiwan, China	15.65	79	Montenegro	36.60
10	Russian Federation	15.73	80	El Salvador	36.62
11	United States	16.32	81	Canada <sup>3</sup>	37.50
12	Bosnia and Herzegovina	16.39	82	Paraguay	38.65
13	Romania	16.81	83	Malta	38.80
14	Brazil	17.62	84	Guatemala	39.11
15	Pakistan	18.04	85	Netherlands	39.38
16	Trinidad and Tobago	18.48	86	Mozambique	39.98
17	Turkey	19.10	87	Mauritius	42.35
18	Cape Verde	19.17	88	Lao PDR	42.39
19	Mongolia	20.69	89	Thailand	42.47
20	Kazakhstan	20.71	90	Guyana <sup>3</sup>	42.72
21	Japan	20.72	91	Jamaica	42.91
22	Costa Rica	20.75	92	Chile	43.12
23	Latvia	21.04	93	Hungary	43.18
24	Armenia	21.04	94	Mexico	43.50
25	Poland	21.33	95	New Zealand	44.27
26	Ireland	21.41	96	Honduras	44.35
27	Venezuela <sup>2</sup>	21.71	97	Germany	44.40
28	Kuwait <sup>3</sup>	22.27	98	Dominican Republic	44.63
29	Nepal	22.80	99	Singapore	46.31
30	Austria	22.93	100	Australia	46.70
31	Lesotho	23.27	101	Algeria	49.98
32	Bulgaria	24.12	102	Peru	51.00
33	Cyprus	24.15	103	Oman	51.96
34	Switzerland	24.82	104	Philippines	54.59
35	Lithuania	24.86	105	Gabon	54.72
36	India	24.89	106	Saudi Arabia	56.74
37	France	25.32	107	Zimbabwe <sup>3</sup>	57.65
38	Moldova	25.37	108	Mauritania <sup>3</sup>	59.29
39	Czech Republic	26.18	109	Nicaragua	60.11
40	Uruguay	26.19	110	Malaysia	60.97
41	Bhutan	26.21	111	Ghana	65.43
42	Panama	26.21	112	Jordan	67.29
43	Seychelles	26.80	113	Nigeria	70.87
44	Iceland	27.03	114	Tanzania	72.15
45	Morocco	27.65	115	Botswana	73.04
46	Indonesia	27.92	116	Kenya	74.19
47	Greece	28.03	117	Côte d'Ivoire	79.04
48	Kyrgyz Republic	28.10	118	Senegal	79.60
49	Azerbaijan	28.34	119	Malawi	80.54
50	Estonia	28.36	120	United Arab Emirates	83.40
51	Finland	28.63	121	Namibia	84.64
52	Italy	28.88	122	Haiti	89.97
53	Georgia	29.25	123	Qatar	93.07
54	Hong Kong SAR	29.71	124	Mali	108.35
55	Slovak Republic	29.80	125	Benin	113.62
56	Cambodia	29.81	126	Cameroon	127.72
57	Bolivia	30.40	127	Myanmar <sup>1</sup>	136.43
58	Lebanon	30.40	128	Swaziland	137.77
59	Belgium	30.41	129	Burundi	139.23
60	Israel	30.45	130	Gambia, The <sup>3</sup>	141.78
61	South Africa	30.60	131	Zambia	147.42
62	Macedonia, FYR	31.07	132	Liberia <sup>3</sup>	186.23
63	Colombia	31.24	133	Madagascar	197.62
64	Slovenia	31.46	134	Uganda	743.47
65	Luxembourg	32.20	135	Tajikistan <sup>3</sup>	814.09
66	Sweden	33.41	136	Rwanda	1,040.24
67	Ethiopia	33.50	137	Chad	1,275.69
68	China	33.99	n/a	Argentina	n/a
69	Bahrain	34.08	n/a	Guinea	n/a
70	Denmark	34.15			

**SOURCES:** Authors' calculations based on International Telecommunication Union (ITU), ITU World Telecommunication/ICT Indicators Database 2015 (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>; World Bank, World Development Indicators (retrieved January 4, 2016), <http://data.worldbank.org>; national sources

<sup>1</sup> 2011 <sup>2</sup> 2012 <sup>3</sup> 2013

## 4.03 Internet and telephony sectors competition index

Level of competition index for Internet services, international long distance services, and mobile telephone services on a 0-to-2 (best) scale | 2014 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Argentina <sup>1</sup>	2.00	71	Denmark <sup>1</sup>	1.88
1	Armenia	2.00	71	Nicaragua	1.88
1	Australia	2.00	73	Slovak Republic	1.88
1	Austria	2.00	73	United Kingdom	1.88
1	Belgium	2.00	75	Czech Republic	1.87
1	Brazil	2.00	75	El Salvador <sup>1</sup>	1.87
1	Cambodia	2.00	75	Hungary	1.87
1	Canada	2.00	75	Kazakhstan <sup>1</sup>	1.87
1	Cape Verde	2.00	75	Kyrgyz Republic <sup>2</sup>	1.87
1	Chile	2.00	80	Albania	1.86
1	Taiwan, China <sup>3</sup>	2.00	80	Bosnia and Herzegovina	1.86
1	Colombia	2.00	80	Oman	1.86
1	Croatia	2.00	80	Ukraine <sup>1</sup>	1.86
1	Ecuador <sup>1</sup>	2.00	84	Trinidad and Tobago	1.85
1	Estonia <sup>1</sup>	2.00	85	Greece	1.79
1	Finland	2.00	85	Zimbabwe	1.79
1	France	2.00	87	Indonesia <sup>1</sup>	1.76
1	Georgia	2.00	87	Israel <sup>1</sup>	1.76
1	Germany	2.00	89	Korea, Rep. <sup>1</sup>	1.75
1	Guatemala <sup>2</sup>	2.00	89	Latvia	1.75
1	Guinea	2.00	89	Liberia <sup>1</sup>	1.75
1	Haiti <sup>1</sup>	2.00	92	Azerbaijan	1.73
1	Hong Kong SAR	2.00	93	Cyprus	1.71
1	Iceland	2.00	93	Senegal	1.71
1	India <sup>2</sup>	2.00	95	Dominican Republic	1.71
1	Ireland	2.00	96	Zambia <sup>1</sup>	1.64
1	Japan	2.00	97	Thailand	1.63
1	Kenya <sup>1</sup>	2.00	98	Egypt	1.60
1	Lesotho <sup>1</sup>	2.00	99	Burundi <sup>1</sup>	1.54
1	Lithuania	2.00	100	New Zealand <sup>1</sup>	1.53
1	Luxembourg	2.00	101	Chad <sup>1</sup>	1.50
1	Macedonia, FYR	2.00	101	Russian Federation <sup>1</sup>	1.50
1	Madagascar <sup>1</sup>	2.00	103	Costa Rica	1.44
1	Malaysia <sup>2</sup>	2.00	104	Namibia	1.38
1	Malta	2.00	105	Algeria <sup>1</sup>	1.33
1	Mauritania <sup>1</sup>	2.00	105	Bangladesh <sup>2</sup>	1.33
1	Mauritius	2.00	105	Bhutan <sup>1</sup>	1.33
1	Mexico	2.00	105	Bulgaria <sup>1</sup>	1.33
1	Moldova	2.00	109	Nepal	1.29
1	Montenegro	2.00	110	Gabon <sup>1</sup>	1.23
1	Morocco	2.00	111	Cameroon <sup>1</sup>	1.22
1	Netherlands <sup>1</sup>	2.00	111	Côte d'Ivoire <sup>1</sup>	1.22
1	Nigeria <sup>1</sup>	2.00	113	Botswana <sup>2</sup>	1.21
1	Norway	2.00	114	Ghana	1.20
1	Pakistan	2.00	114	Mali <sup>1</sup>	1.20
1	Panama	2.00	116	Mozambique <sup>1</sup>	1.17
1	Paraguay <sup>2</sup>	2.00	117	Tunisia	1.15
1	Peru	2.00	118	China <sup>2</sup>	1.14
1	Philippines <sup>1</sup>	2.00	119	Gambia, The <sup>1</sup>	1.13
1	Poland	2.00	119	Malawi <sup>1</sup>	1.13
1	Portugal	2.00	121	Seychelles	1.08
1	Romania	2.00	122	South Africa <sup>1</sup>	1.07
1	Saudi Arabia	2.00	122	United Arab Emirates	1.07
1	Serbia	2.00	124	Uruguay <sup>2</sup>	1.00
1	Singapore	2.00	125	Qatar	0.93
1	Slovenia	2.00	126	Benin	0.91
1	Spain	2.00	126	Lao PDR <sup>1</sup>	0.91
1	Sweden	2.00	128	Sri Lanka <sup>1</sup>	0.88
1	Switzerland	2.00	129	Iran, Islamic Rep.	0.85
1	Tanzania	2.00	130	Bolivia <sup>1</sup>	0.80
1	Turkey	2.00	131	Guyana <sup>1</sup>	0.50
1	Uganda <sup>1</sup>	2.00	131	Lebanon	0.50
1	United States	2.00	133	Kuwait <sup>1</sup>	0.25
1	Vietnam	2.00	134	Swaziland <sup>1</sup>	0.08
65	Honduras	1.94	135	Ethiopia	0.00
65	Jamaica	1.94	135	Myanmar <sup>1</sup>	0.00
67	Jordan <sup>1</sup>	1.94	135	Tajikistan <sup>1</sup>	0.00
68	Rwanda <sup>1</sup>	1.93	n/a	Mongolia	n/a
69	Bahrain	1.90	n/a	Venezuela	n/a
69	Italy	1.90			

SOURCE: Authors' calculations based on International Telecommunication Union (ITU), *ITU World Telecommunication Regulatory Database* (retrieved January 5, 2016), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtd.aspx>.

<sup>1</sup> pre-2013 <sup>2</sup> 2013 <sup>3</sup> 2015

# 5th pillar Skills

## 5.01 Quality of the education system

In your country, how well does the education system meet the needs of a competitive economy? [1 = not well at all; 7 = extremely well] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 3.8	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 3.8	7
1	Switzerland	6.1				71	Ecuador	3.6			
2	Qatar	5.9				72	Cameroon	3.6			
3	Singapore	5.8				73	Poland	3.6			
4	Finland	5.7				74	Thailand	3.6			
5	Belgium	5.5				75	Pakistan	3.6			
6	Malaysia	5.4				76	Ghana	3.6			
7	New Zealand	5.4				77	Botswana	3.6			
8	Netherlands	5.4				78	Vietnam	3.5			
9	Ireland	5.4				79	Honduras	3.5			
10	Germany	5.4				80	Swaziland	3.5			
11	Norway	5.3				81	Uganda	3.5			
12	United Arab Emirates	5.3				82	Russian Federation	3.5			
13	Australia	5.1				83	Liberia	3.5			
14	Canada	5.1				84	Armenia	3.5			
15	Iceland	5.0				85	Spain	3.4			
16	Denmark	4.9				86	Chile	3.4			
17	Cyprus	4.9				87	Bangladesh	3.4			
18	United States	4.9				88	Kuwait	3.4			
19	Lebanon	4.9				89	Tunisia	3.3			
20	Hong Kong SAR	4.8				90	Romania	3.3			
21	United Kingdom	4.7				91	Algeria	3.3			
22	Malta	4.7				92	Turkey	3.3			
23	Luxembourg	4.7				93	Bulgaria	3.3			
24	Sri Lanka	4.7				94	Panama	3.3			
25	Sweden	4.6				95	Iran, Islamic Rep.	3.2			
26	Bahrain	4.6				96	Namibia	3.2			
27	Japan	4.5				97	Moldova	3.2			
28	Costa Rica	4.5				98	Tanzania	3.2			
29	Albania	4.5				99	Hungary	3.2			
30	France	4.5				100	Cambodia	3.2			
31	Philippines	4.5				101	Georgia	3.1			
32	Jordan	4.4				102	Colombia	3.1			
33	Trinidad and Tobago	4.4				103	Croatia	3.1			
34	Estonia	4.4				104	Malawi	3.1			
35	Zambia	4.3				105	Bolivia	3.1			
36	Kenya	4.3				106	Oman	3.1			
37	Austria	4.3				107	Azerbaijan	3.1			
38	Seychelles	4.3				108	Argentina	3.1			
39	Gambia, The	4.3				109	Mali	3.1			
40	Portugal	4.3				110	Serbia	3.1			
41	Indonesia	4.3				111	Mongolia	3.0			
42	Zimbabwe	4.2				112	Kyrgyz Republic	3.0			
43	India	4.2				113	Uruguay	3.0			
44	Lesotho	4.2				114	Greece	2.9			
45	Rwanda	4.2				115	Madagascar	2.9			
46	Taiwan, China	4.1				116	El Salvador	2.9			
47	Saudi Arabia	4.1				117	Mexico	2.8			
48	Côte d'Ivoire	4.1				118	Mozambique	2.8			
49	Mauritius	4.1				119	Gabon	2.8			
50	Slovenia	4.1				120	Slovak Republic	2.8			
51	Bhutan	4.0				121	Morocco	2.8			
52	Israel	4.0				122	Guatemala	2.7			
53	Lithuania	4.0				123	Chad	2.7			
54	Ukraine	4.0				124	Nigeria	2.7			
55	Cape Verde	4.0				125	Dominican Republic	2.6			
56	China	3.9				126	Burundi	2.6			
57	Tajikistan	3.9				127	Myanmar	2.5			
58	Montenegro	3.9				128	Venezuela	2.5			
59	Guyana	3.9				129	Peru	2.5			
60	Czech Republic	3.8				130	Mauritania	2.5			
61	Macedonia, FYR	3.8				131	Brazil	2.4			
62	Lao PDR	3.8				132	Guinea	2.4			
63	Senegal	3.8				133	Haiti	2.4			
64	Latvia	3.7				134	Benin	2.4			
65	Italy	3.7				135	Bosnia and Herzegovina	2.4			
66	Korea, Rep.	3.7				136	Nicaragua	2.3			
67	Kazakhstan	3.7				137	South Africa	2.2			
68	Ethiopia	3.7				138	Egypt	2.1			
69	Nepal	3.7				139	Paraguay	2.1			
70	Jamaica	3.7									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions



## 5.02 Quality of math and science education

In your country, how do you assess the quality of math and science education [1 = extremely poor—among the worst in the world; 7 = excellent—among the best in the world] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.0	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.0	7
1	Singapore	6.4				71	Kazakhstan	4.1			
2	Finland	6.1				72	Ghana	4.0			
3	Belgium	6.0				73	Tajikistan	4.0			
4	Switzerland	5.9				74	Morocco	4.0			
5	Qatar	5.7				75	Hungary	4.0			
6	Lebanon	5.6				76	Slovak Republic	4.0			
7	Netherlands	5.5				77	Cape Verde	4.0			
8	Hong Kong SAR	5.5				78	Kenya	3.9			
9	Japan	5.3				79	Thailand	3.9			
10	New Zealand	5.3				80	Moldova	3.9			
11	United Arab Emirates	5.3				81	Zambia	3.9			
12	Malaysia	5.3				82	Senegal	3.9			
13	Slovenia	5.3				83	Bhutan	3.8			
14	Estonia	5.2				84	Spain	3.8			
15	Taiwan, China	5.2				85	Ecuador	3.8			
16	Germany	5.2				86	Swaziland	3.7			
17	Côte d'Ivoire	5.2				87	Ethiopia	3.7			
18	Canada	5.1				88	Nepal	3.7			
19	France	5.1				89	Pakistan	3.6			
20	Lithuania	5.1				90	Lao PDR	3.6			
21	Ireland	5.0				91	Madagascar	3.6			
22	Cyprus	5.0				92	Bosnia and Herzegovina	3.6			
23	Malta	5.0				93	Gambia, The	3.6			
24	Norway	4.9				94	Liberia	3.5			
25	Sri Lanka	4.8				95	Botswana	3.5			
26	Romania	4.8				96	Jamaica	3.5			
27	Australia	4.8				97	Georgia	3.5			
28	Albania	4.8				98	Burundi	3.5			
29	Denmark	4.8				99	Kuwait	3.4			
30	Korea, Rep.	4.8				100	Lesotho	3.4			
31	Croatia	4.8				101	Honduras	3.4			
32	Luxembourg	4.8				102	Oman	3.3			
33	Iceland	4.8				103	Turkey	3.3			
34	Mongolia	4.7				104	Azerbaijan	3.3			
35	Trinidad and Tobago	4.7				105	Algeria	3.3			
36	Iran, Islamic Rep.	4.6				106	Bangladesh	3.3			
37	Austria	4.6				107	Chile	3.3			
38	Ukraine	4.6				108	Gabon	3.3			
39	Montenegro	4.6				109	Benin	3.2			
40	Latvia	4.6				110	Mali	3.2			
41	Italy	4.6				111	Uganda	3.2			
42	Bahrain	4.6				112	Cambodia	3.2			
43	Sweden	4.5				113	Argentina	3.1			
44	United States	4.5				114	Panama	3.1			
45	Portugal	4.5				115	Guinea	3.1			
46	United Kingdom	4.4				116	Venezuela	3.1			
47	Armenia	4.4				117	Colombia	3.1			
48	Serbia	4.4				118	Kyrgyz Republic	3.0			
49	China	4.4				119	El Salvador	3.0			
50	Mauritius	4.4				120	Chad	3.0			
51	Poland	4.4				121	Namibia	2.9			
52	Indonesia	4.4				122	Uruguay	2.9			
53	Tunisia	4.4				123	Mauritania	2.9			
54	Zimbabwe	4.4				124	Haiti	2.8			
55	Costa Rica	4.3				125	Bolivia	2.8			
56	Seychelles	4.3				126	Mexico	2.8			
57	Czech Republic	4.3				127	Myanmar	2.8			
58	Russian Federation	4.3				128	Malawi	2.7			
59	Rwanda	4.3				129	Tanzania	2.6			
60	Macedonia, FYR	4.3				130	Egypt	2.6			
61	Greece	4.3				131	Nigeria	2.6			
62	Bulgaria	4.2				132	Mozambique	2.5			
63	India	4.2				133	Brazil	2.5			
64	Jordan	4.2				134	Guatemala	2.4			
65	Vietnam	4.2				135	Nicaragua	2.3			
66	Cameroon	4.1				136	Peru	2.2			
67	Philippines	4.1				137	Dominican Republic	2.2			
68	Israel	4.1				138	Paraguay	2.1			
69	Saudi Arabia	4.1				139	South Africa	2.0			
70	Guyana	4.1									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 5.03 Secondary education enrollment rate

Secondary education gross enrollment rate (%) | 2013 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Belgium	163.1	71	Mongolia <sup>11</sup>	90.7
2	Finland	143.2	72	Montenegro <sup>12</sup>	90.3
3	Australia	137.6	73	Uruguay <sup>8</sup>	90.3
4	Spain	131.1	74	Tunisia	90.1
5	Netherlands	130.7	75	Guyana <sup>10</sup>	89.3
6	Denmark	129.8	76	Bosnia and Herzegovina <sup>9</sup>	89.0
7	Sweden	128.5	77	Iran, Islamic Rep. <sup>11</sup>	88.4
8	Ireland	126.5	78	Philippines	88.4
9	United Kingdom	124.4	79	Moldova	88.3
10	Costa Rica <sup>11</sup>	120.3	80	Tajikistan	87.9
11	Portugal	119.7	81	Mexico	87.0
12	New Zealand	117.2	82	Thailand	86.2
13	Turkey	114.6	83	Egypt	86.0
14	Norway	113.0	84	Trinidad and Tobago <sup>2</sup>	85.5
15	Iceland <sup>10</sup>	111.2	85	Malta <sup>11</sup>	85.5
16	Slovenia	110.9	86	Bolivia	84.7
17	France	110.9	87	Jordan <sup>10</sup>	84.3
18	Latvia	110.5	88	Bhutan <sup>11</sup>	84.2
19	Canada <sup>10</sup>	110.3	89	Botswana	83.9
20	Qatar <sup>9</sup>	109.4	90	Jamaica <sup>11</sup>	83.0
21	Kazakhstan <sup>12</sup>	109.1	91	Indonesia	82.5
22	Poland	108.7	92	Macedonia, FYR <sup>10</sup>	82.0
23	Estonia	108.6	93	Dominican Republic <sup>11</sup>	78.4
24	Saudi Arabia <sup>11</sup>	108.3	94	El Salvador	78.1
25	Hungary	108.2	95	Paraguay <sup>10</sup>	76.6
26	Greece	108.2	96	Panama	75.5
27	Singapore	107.6	97	Vietnam <sup>3</sup>	75.2
28	Argentina	106.3	98	Seychelles <sup>11</sup>	74.6
29	Lithuania	105.4	99	Nicaragua <sup>8</sup>	74.2
30	Czech Republic	104.4	100	Malaysia	71.1
31	Ecuador <sup>11</sup>	104.2	101	Ghana <sup>12</sup>	71.0
32	Azerbaijan <sup>11</sup>	102.8	102	Morocco <sup>10</sup>	69.1
33	Germany	102.5	103	India	68.9
34	Luxembourg	102.4	104	Honduras <sup>11</sup>	68.4
35	Italy	102.4	105	Lebanon	68.2
36	Japan	101.9	106	Haiti <sup>10</sup>	68.1
37	Israel	101.5	107	Kenya <sup>10</sup>	67.6
38	Bulgaria <sup>11</sup>	100.9	108	Nepal <sup>12</sup>	67.2
39	Hong Kong SAR <sup>11</sup>	100.6	109	Namibia <sup>5</sup>	64.8
40	Chile	100.5	110	Guatemala <sup>11</sup>	63.5
41	Taiwan, China	100.2	111	Swaziland	63.0
42	Algeria <sup>9</sup>	99.9	112	Bangladesh	58.3
43	Croatia <sup>10</sup>	99.8	113	Gambia, The <sup>8</sup>	57.5
44	Sri Lanka	99.7	114	Lao PDR <sup>11</sup>	57.2
45	Oman <sup>10</sup>	99.6	115	Cameroon <sup>11</sup>	56.4
46	Georgia <sup>11</sup>	99.4	116	Benin <sup>11</sup>	54.4
47	Cyprus <sup>11</sup>	99.4	117	Gabon	53.3
48	Bahrain <sup>4</sup>	99.4	118	Lesotho <sup>11</sup>	52.2
49	Brazil <sup>9</sup>	99.4	119	Myanmar <sup>11</sup>	51.3
50	Austria <sup>11</sup>	99.3	120	Zimbabwe <sup>10</sup>	46.7
51	Ukraine <sup>11</sup>	99.2	121	Cambodia <sup>6</sup>	45.1
52	Colombia <sup>7</sup>	99.2	122	Nigeria <sup>8</sup>	43.8
53	Russian Federation	98.8	123	Mali <sup>11</sup>	43.5
54	South Africa	98.2	124	Pakistan <sup>11</sup>	41.6
55	Mauritius <sup>11</sup>	97.9	125	Rwanda	40.2
56	Romania	97.9	126	Côte d'Ivoire <sup>11</sup>	40.1
57	Korea, Rep. <sup>11</sup>	97.7	127	Senegal <sup>9</sup>	40.1
58	Armenia <sup>7</sup>	96.6	128	Malawi <sup>11</sup>	39.5
59	Albania <sup>11</sup>	96.4	129	Guinea <sup>11</sup>	38.8
60	China	96.2	130	Madagascar <sup>11</sup>	38.4
61	Switzerland <sup>10</sup>	96.2	131	Burundi <sup>11</sup>	37.9
62	United States	95.9	132	Liberia <sup>11</sup>	37.9
63	Peru <sup>11</sup>	95.6	133	Ethiopia <sup>10</sup>	36.2
64	Serbia <sup>11</sup>	94.3	134	Tanzania	32.3
65	Cape Verde <sup>11</sup>	92.6	135	Mauritania <sup>11</sup>	29.9
66	Kuwait	92.5	136	Uganda	27.6
67	United Arab Emirates <sup>4</sup>	92.3	137	Mozambique <sup>11</sup>	24.5
68	Slovak Republic	91.8	138	Chad <sup>10</sup>	22.4
69	Venezuela <sup>11</sup>	91.6	n/a	Zambia	n/a
70	Kyrgyz Republic <sup>11</sup>	90.8			

**SOURCES:** United Nations Education, Science and Culture Organization (UNESCO), UNESCO Institute for Statistics Data Centre (retrieved December 15, 2015), <http://data.uis.unesco.org/>; and Education for All Global Monitoring Monitor 2013; United Nations Children's Fund (UNICEF), Education Statistics; SITEAL - Sistema de Información de tendencias Educativas de América Latina; national sources

<sup>1</sup> 2002 <sup>2</sup> 2004 <sup>3</sup> 2005 <sup>4</sup> 2006 <sup>5</sup> 2007 <sup>6</sup> 2008 <sup>7</sup> 2009 <sup>8</sup> 2010 <sup>9</sup> 2011 <sup>10</sup> 2012 <sup>11</sup> 2014 <sup>12</sup> 2015

## 5.04 Adult literacy rate

Adult literacy rate (%) | 2015 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Latvia.....	99.9	71	Honduras.....	88.5
2	Estonia.....	99.8	72	Botswana.....	88.5
3	Lithuania.....	99.8	73	El Salvador.....	88.4
4	Azerbaijan.....	99.8	74	Cape Verde.....	87.6
5	Poland.....	99.8	75	Swaziland.....	87.5
6	Kazakhstan.....	99.8	76	Iran, Islamic Rep.....	86.8
7	Tajikistan.....	99.8	77	Zimbabwe.....	86.5
8	Armenia.....	99.8	78	Burundi.....	85.6
9	Ukraine.....	99.8	79	Gabon.....	83.2
10	Georgia.....	99.8	80	Nicaragua.....	82.8
11	Russian Federation.....	99.7	81	Namibia.....	81.9
12	Slovenia.....	99.7	82	Tunisia.....	81.8
13	Slovak Republic.....	99.6	83	Tanzania.....	80.3
14	Kyrgyz Republic.....	99.5	84	Algeria.....	80.2
15	Moldova.....	99.4	85	Lao PDR.....	79.9
16	Croatia.....	99.3	86	Lesotho.....	79.4
17	Italy.....	99.2	87	Guatemala.....	79.3
18	Cyprus.....	99.1	88	Kenya.....	78.0
19	Hungary.....	99.1	89	Cambodia.....	77.2
20	Trinidad and Tobago.....	99.0	90	Ghana.....	76.6
21	Romania.....	98.8	91	Egypt.....	75.2
22	Montenegro.....	98.7	92	Cameroon.....	75.0
23	Taiwan, China <sup>1</sup> .....	98.5	93	Uganda.....	73.9
24	Bosnia and Herzegovina.....	98.5	94	Morocco.....	72.4
25	Uruguay.....	98.4	95	India.....	72.1
26	Bulgaria.....	98.4	96	Rwanda.....	70.5
27	Mongolia.....	98.4	97	Malawi.....	65.8
28	Serbia.....	98.1	98	Bhutan.....	64.9
29	Spain.....	98.1	99	Nepal.....	64.7
30	Argentina.....	98.1	100	Madagascar.....	64.7
31	Macedonia, FYR.....	97.8	101	Zambia.....	63.4
32	Qatar.....	97.8	102	Bangladesh.....	61.5
33	Costa Rica.....	97.8	103	Haiti.....	60.7
34	Greece.....	97.7	104	Nigeria.....	59.6
35	Albania.....	97.6	105	Mozambique.....	58.8
36	Chile.....	97.3	106	Pakistan.....	58.7
37	Singapore.....	96.8	107	Senegal.....	55.7
38	Jordan.....	96.7	108	Gambia, The.....	55.5
39	Thailand.....	96.7	109	Mauritania.....	52.1
40	China.....	96.4	110	Ethiopia.....	49.1
41	Philippines.....	96.3	111	Liberia.....	47.6
42	Kuwait.....	96.2	112	Côte d'Ivoire.....	43.1
43	Bahrain.....	95.7	113	Chad.....	40.2
44	Portugal.....	95.7	114	Mali.....	38.7
45	Bolivia.....	95.7	115	Benin.....	38.4
46	Paraguay.....	95.6	116	Guinea.....	30.4
47	Venezuela.....	95.4	n/a	Australia <sup>2</sup> .....	n/a
48	Seychelles.....	95.2	n/a	Austria <sup>2</sup> .....	n/a
49	Panama.....	95.0	n/a	Belgium <sup>2</sup> .....	n/a
50	Turkey.....	95.0	n/a	Canada <sup>2</sup> .....	n/a
51	Oman.....	94.8	n/a	Czech Republic <sup>2</sup> .....	n/a
52	Colombia.....	94.7	n/a	Denmark <sup>2</sup> .....	n/a
53	Saudi Arabia.....	94.7	n/a	Finland <sup>2</sup> .....	n/a
54	Malaysia.....	94.6	n/a	France <sup>2</sup> .....	n/a
55	Vietnam.....	94.5	n/a	Germany <sup>2</sup> .....	n/a
56	Peru.....	94.5	n/a	Hong Kong SAR <sup>2</sup> .....	n/a
57	Ecuador.....	94.5	n/a	Iceland <sup>2</sup> .....	n/a
58	Mexico.....	94.4	n/a	Ireland <sup>2</sup> .....	n/a
59	South Africa.....	94.3	n/a	Israel <sup>2</sup> .....	n/a
60	Malta.....	94.1	n/a	Japan <sup>2</sup> .....	n/a
61	Lebanon.....	93.9	n/a	Korea, Rep. <sup>2</sup> .....	n/a
62	Indonesia.....	93.9	n/a	Luxembourg <sup>2</sup> .....	n/a
63	United Arab Emirates.....	93.8	n/a	Netherlands <sup>2</sup> .....	n/a
64	Myanmar.....	93.1	n/a	New Zealand <sup>2</sup> .....	n/a
65	Sri Lanka.....	92.6	n/a	Norway <sup>2</sup> .....	n/a
66	Brazil.....	92.6	n/a	Sweden <sup>2</sup> .....	n/a
67	Dominican Republic.....	91.8	n/a	Switzerland <sup>2</sup> .....	n/a
68	Mauritius.....	90.6	n/a	United Kingdom <sup>2</sup> .....	n/a
69	Jamaica.....	88.7	n/a	United States <sup>2</sup> .....	n/a
70	Guyana.....	88.5			

**SOURCES:** United Nations Education, Science and Culture Organization (UNESCO), UNESCO Institute for Statistics Data Centre (retrieved December 15, 2015), <http://data.uis.unesco.org/>; national sources

<sup>1</sup> 2014

<sup>2</sup> See the "Technical Notes and Sources" section.



# 6th pillar

## Individual usage

## 6.01 Mobile telephone subscriptions

Mobile telephone subscriptions (post-paid and pre-paid) per 100 population | 2014

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Hong Kong SAR	233.6	71	Colombia	113.1
2	Kuwait	218.4	72	Portugal	112.1
3	Saudi Arabia	179.6	73	Slovenia	112.1
4	United Arab Emirates	178.1	74	New Zealand	112.1
5	Bahrain	173.3	75	Philippines	111.2
6	Kazakhstan	172.2	76	Iceland	111.1
7	Gabon	171.4	77	Azerbaijan	110.9
8	Botswana	167.3	78	Greece	110.3
9	Montenegro	163.0	79	United States	110.2
10	Seychelles	162.2	80	Moldova	108.0
11	Uruguay	160.8	81	Spain	107.8
12	Estonia	160.7	82	Jamaica	107.4
13	Argentina	158.8	83	Guatemala	106.6
14	Panama	158.1	84	Côte d'Ivoire	106.2
15	Oman	157.8	85	Romania	105.9
16	Russian Federation	155.1	86	Paraguay	105.6
17	Italy	154.2	87	Macedonia, FYR	105.5
18	Austria	151.9	88	Albania	105.5
19	Luxembourg	149.5	89	Ireland	105.1
20	South Africa	149.2	90	Mongolia	105.1
21	Mali	149.1	91	Croatia	104.4
22	Poland	148.9	92	Ecuador	103.9
23	Malaysia	148.8	93	Peru	103.6
24	Jordan	147.8	94	Sri Lanka	103.2
25	Trinidad and Tobago	147.3	95	France	101.2
26	Vietnam	147.1	96	Benin	99.7
27	Lithuania	147.0	97	Venezuela	99.0
28	Singapore	146.9	98	Senegal	98.8
29	Qatar	145.8	99	Bolivia	96.3
30	Thailand	144.4	100	Cyprus	96.3
31	Ukraine	144.1	101	Tajikistan	95.1
32	El Salvador	144.0	102	Turkey	94.8
33	Costa Rica	143.8	103	Mauritania	94.2
34	Finland	139.7	104	Honduras	93.5
35	Brazil	139.0	105	Algeria	92.9
36	Bulgaria	137.7	106	China	92.3
37	Switzerland	136.7	107	Bosnia and Herzegovina	91.3
38	Kyrgyz Republic	134.5	108	Lebanon	88.3
39	Chile	133.3	109	Iran, Islamic Rep.	87.8
40	Cambodia	132.7	110	Lesotho	85.0
41	Mauritius	132.2	111	Mexico	82.2
42	Morocco	131.7	112	Bhutan	82.1
43	Australia	131.2	113	Nepal	81.9
44	Taiwan, China	130.2	114	Canada	81.0
45	Czech Republic	129.5	115	Zimbabwe	80.8
46	Indonesia	128.8	116	Bangladesh	80.0
47	Tunisia	128.5	117	Dominican Republic	78.9
48	Sweden	127.8	118	Nigeria	77.8
49	Malta	127.0	119	Cameroon	75.7
50	Denmark	125.9	120	India	74.5
51	Georgia	124.9	121	Kenya	73.8
52	United Kingdom	123.6	122	Liberia	73.4
53	Serbia	122.1	123	Pakistan	73.3
54	Cape Verde	121.8	124	Swaziland	72.3
55	Israel	121.5	125	Guinea	72.1
56	Germany	120.4	126	Guyana	70.5
57	Japan	120.2	127	Mozambique	69.8
58	Gambia, The	119.6	128	Zambia	67.3
59	Hungary	118.1	129	Lao PDR	67.0
60	Slovak Republic	116.9	130	Haiti	64.7
61	Latvia	116.8	131	Rwanda	64.0
62	Netherlands	116.4	132	Tanzania	62.8
63	Norway	116.1	133	Myanmar	54.0
64	Armenia	115.9	134	Uganda	52.4
65	Korea, Rep.	115.7	135	Madagascar	41.2
66	Ghana	114.8	136	Chad	39.8
67	Nicaragua	114.6	137	Malawi	33.5
68	Egypt	114.3	138	Ethiopia	31.6
69	Belgium	114.3	139	Burundi	30.5
70	Namibia	113.8			

SOURCE: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

## 6.02 Internet users

Percentage of individuals using the Internet | 2014

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Iceland.....	98.2	71	South Africa.....	49.0
2	Norway.....	96.3	72	Georgia.....	48.9
3	Denmark.....	96.0	73	Vietnam.....	48.3
4	Luxembourg.....	94.7	74	Moldova.....	46.6
5	Netherlands.....	93.2	75	Armenia.....	46.3
6	Sweden.....	92.5	76	Tunisia.....	46.2
7	Finland.....	92.4	77	Panama.....	44.9
8	United Kingdom.....	91.6	78	Mexico.....	44.4
9	Qatar.....	91.5	79	Jordan.....	44.0
10	Bahrain.....	91.0	80	Kenya.....	43.4
11	Japan.....	90.6	80	Ukraine.....	43.4
12	United Arab Emirates.....	90.4	82	Ecuador.....	43.0
13	United States.....	87.4	82	Paraguay.....	43.0
14	Canada.....	87.1	84	Nigeria.....	42.7
15	Switzerland.....	87.0	85	Mauritius.....	41.4
16	Germany.....	86.2	86	Jamaica.....	40.5
17	New Zealand.....	85.5	87	Cape Verde.....	40.3
18	Belgium.....	85.0	88	Peru.....	40.2
19	Australia.....	84.6	89	Philippines.....	39.7
20	Korea, Rep.....	84.3	90	Iran, Islamic Rep.....	39.4
21	Estonia.....	84.2	91	Bolivia.....	39.0
22	Taiwan, China.....	84.0	92	Guyana.....	37.4
23	France.....	83.8	93	Thailand.....	34.9
24	Singapore.....	82.0	94	Bhutan.....	34.4
25	Austria.....	81.0	95	Egypt.....	31.7
26	Slovak Republic.....	80.0	96	El Salvador.....	29.7
27	Czech Republic.....	79.7	97	Kyrgyz Republic.....	28.3
28	Ireland.....	79.7	98	Swaziland.....	27.1
29	Kuwait.....	78.7	99	Mongolia.....	27.0
30	Spain.....	76.2	100	Sri Lanka.....	25.8
31	Hungary.....	76.1	101	Guatemala.....	23.4
32	Latvia.....	75.8	102	Zimbabwe.....	19.9
33	Lebanon.....	74.7	103	Honduras.....	19.1
34	Hong Kong SAR.....	74.6	104	Ghana.....	18.9
35	Malta.....	73.2	105	Botswana.....	18.5
36	Chile.....	72.4	106	Algeria.....	18.1
37	Lithuania.....	72.1	107	India.....	18.0
38	Slovenia.....	71.6	108	Uganda.....	17.7
39	Israel.....	71.5	109	Senegal.....	17.7
40	Russian Federation.....	70.5	110	Nicaragua.....	17.6
41	Oman.....	70.2	111	Tajikistan.....	17.5
42	Cyprus.....	69.3	112	Zambia.....	17.3
43	Croatia.....	68.6	113	Indonesia.....	17.1
44	Macedonia, FYR.....	68.1	114	Gambia, The.....	15.6
45	Malaysia.....	67.5	115	Nepal.....	15.4
46	Poland.....	66.6	116	Namibia.....	14.8
47	Trinidad and Tobago.....	65.1	117	Côte d'Ivoire.....	14.6
48	Argentina.....	64.7	118	Lao PDR.....	14.3
49	Portugal.....	64.6	119	Pakistan.....	13.8
50	Saudi Arabia.....	63.7	120	Haiti.....	11.4
51	Greece.....	63.2	121	Cameroon.....	11.0
52	Italy.....	62.0	121	Lesotho.....	11.0
53	Uruguay.....	61.5	123	Mauritania.....	10.7
54	Azerbaijan.....	61.0	124	Rwanda.....	10.6
54	Montenegro.....	61.0	125	Gabon.....	9.8
56	Bosnia and Herzegovina.....	60.8	126	Bangladesh.....	9.6
57	Albania.....	60.1	127	Cambodia.....	9.0
58	Brazil.....	57.6	128	Mali.....	7.0
59	Venezuela.....	57.0	129	Mozambique.....	5.9
60	Morocco.....	56.8	130	Malawi.....	5.8
61	Bulgaria.....	55.5	131	Liberia.....	5.4
62	Kazakhstan.....	54.9	132	Benin.....	5.3
63	Seychelles.....	54.3	133	Tanzania.....	4.9
64	Romania.....	54.1	134	Madagascar.....	3.7
65	Serbia.....	53.5	135	Ethiopia.....	2.9
66	Colombia.....	52.6	136	Chad.....	2.5
67	Turkey.....	51.0	137	Myanmar.....	2.1
68	Dominican Republic.....	49.6	138	Guinea.....	1.7
69	Costa Rica.....	49.4	139	Burundi.....	1.4
70	China.....	49.3			

SOURCE: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

## 6.03 Households with a personal computer

Percentage of households equipped with a personal computer | 2014 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Iceland.....	98.1	71	China.....	46.7
2	Netherlands.....	97.6	72	Georgia.....	45.8
3	Qatar.....	97.2	73	Egypt.....	45.1
4	Luxembourg.....	96.3	74	Bosnia and Herzegovina.....	45.0
5	Norway.....	95.4	75	Colombia.....	44.5
6	Denmark.....	95.0	76	Venezuela.....	43.7
7	Bahrain.....	94.6	77	Ghana.....	39.9
8	Sweden.....	93.4	78	Mexico.....	38.3
9	Finland.....	91.9	79	Panama.....	38.2
10	United Kingdom.....	90.8	80	Ecuador.....	38.0
11	Germany.....	90.6	81	Mongolia.....	35.8
12	Singapore.....	88.0	82	Bolivia.....	34.9
13	United Arab Emirates.....	87.9	83	Thailand.....	33.9
14	Kuwait.....	87.8	84	Tunisia.....	33.1
15	Canada.....	87.6	85	Jamaica.....	32.5
16	Switzerland.....	87.6	86	Peru.....	32.3
17	Australia.....	85.6	87	Cape Verde.....	32.2
18	Ireland.....	84.0	88	Paraguay.....	31.9
18	Oman.....	84.0	89	Algeria.....	28.2
20	Belgium.....	83.8	90	South Africa.....	28.1
21	Austria.....	83.7	91	Guyana.....	26.9
22	Hong Kong SAR.....	83.7	92	Dominican Republic.....	26.2
23	Japan.....	83.3	93	El Salvador.....	25.2
24	France.....	82.8	94	Albania.....	23.5
25	Estonia.....	82.5	95	Bhutan.....	21.9
26	Israel.....	82.4	96	Honduras.....	21.6
27	Malta.....	82.2	97	Guatemala.....	20.9
28	United States.....	81.5	98	Vietnam.....	20.5
29	Lebanon.....	81.0	99	Philippines.....	20.5
30	Slovak Republic.....	80.5	100	Sri Lanka.....	17.8
31	Saudi Arabia.....	80.0	101	Indonesia.....	17.8
32	New Zealand.....	79.8	102	Kyrgyz Republic.....	17.6
33	Slovenia.....	79.8	103	Swaziland.....	17.0
34	Czech Republic.....	78.5	104	Namibia.....	16.5
35	Korea, Rep.....	78.3	105	Pakistan.....	15.9
36	Taiwan, China.....	78.0	106	Botswana.....	14.8
37	Poland.....	77.7	107	India.....	13.0
38	Hungary.....	76.8	108	Gabon.....	12.5
39	Spain.....	74.0	109	Kenya.....	12.3
40	Cyprus.....	74.0	110	Senegal.....	11.6
40	Italy.....	74.0	111	Nicaragua.....	11.1
42	Latvia.....	73.5	112	Cambodia.....	10.6
43	Russian Federation.....	71.0	113	Lao PDR.....	10.5
44	Croatia.....	70.1	114	Cameroon.....	9.6
44	Macedonia, FYR.....	70.1	115	Tajikistan.....	9.2
46	Portugal.....	69.4	116	Nigeria.....	9.1
47	Lithuania.....	68.1	117	Haiti.....	8.7
48	Uruguay.....	67.4	118	Gambia, The.....	8.3
49	Malaysia.....	66.5	119	Mali.....	8.2
50	Serbia.....	65.6	119	Nepal.....	8.2
51	Kazakhstan.....	64.7	121	Zimbabwe.....	7.6
52	Trinidad and Tobago.....	64.0	122	Mozambique.....	7.3
53	Romania.....	63.8	123	Côte d'Ivoire.....	7.2
54	Greece.....	62.7	124	Bangladesh.....	6.9
55	Argentina.....	62.1	124	Lesotho.....	6.9
56	Seychelles.....	61.8	126	Zambia.....	6.6
57	Chile.....	60.3	127	Uganda.....	5.8
58	Bulgaria.....	57.9	128	Malawi.....	5.2
59	Turkey.....	56.0	129	Benin.....	4.8
60	Montenegro.....	54.7	130	Madagascar.....	4.5
61	Morocco.....	52.5	131	Mauritania.....	4.4
62	Iran, Islamic Rep.....	52.5	132	Tanzania.....	3.8
63	Moldova.....	52.4	133	Myanmar.....	3.4
63	Ukraine.....	52.4	134	Rwanda.....	3.4
65	Costa Rica.....	52.3	135	Chad.....	2.9
66	Brazil.....	52.0	136	Ethiopia.....	2.8
67	Azerbaijan.....	51.7	137	Guinea.....	2.3
68	Armenia.....	51.5	138	Liberia.....	2.2
69	Mauritius.....	51.3	139	Burundi <sup>1</sup> .....	0.1
70	Jordan.....	51.1			

SOURCE: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

<sup>1</sup> 2009



## 6.04 Households with Internet access

Percentage of households with Internet access at home | 2014 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Korea, Rep.	98.5	71	Iran, Islamic Rep.	44.7
2	Qatar	98.0	72	Ukraine	43.0
3	Japan	97.5	73	Panama	41.6
4	Iceland	96.5	74	Georgia	41.0
5	Netherlands	95.8	75	Colombia	38.0
6	Luxembourg	95.6	76	South Africa	37.3
7	Saudi Arabia	94.0	77	Egypt	36.8
8	Denmark	93.1	78	Mexico	34.4
9	Norway	93.1	79	Venezuela	34.2
10	Switzerland	90.6	80	Thailand	33.8
11	United Arab Emirates	90.1	81	Ecuador	32.0
12	United Kingdom	89.9	82	Indonesia	29.1
13	Finland	89.8	83	Ghana	29.0
14	Sweden	89.6	83	Mongolia	29.0
15	Germany	89.5	85	Tunisia	28.8
16	Singapore	88.0	86	Philippines	26.9
17	Australia	86.9	87	Albania	26.6
18	Canada	86.6	88	Bhutan	26.3
19	Oman	86.2	89	Algeria	25.9
20	France	83.0	90	Jamaica	25.7
21	Estonia	82.9	91	Cape Verde	24.8
22	Belgium	82.8	92	Paraguay	24.6
23	Hong Kong SAR	82.4	93	Guyana	24.2
24	Ireland	82.2	94	Peru	23.5
25	Bahrain	81.0	95	El Salvador	23.3
26	Austria	81.0	96	Dominican Republic	21.1
27	Malta	80.7	97	Honduras	19.6
28	New Zealand	79.8	98	Vietnam	18.6
29	United States	79.6	99	Swaziland	18.4
30	Slovak Republic	78.4	100	Namibia	17.3
31	Czech Republic	78.0	101	Bolivia	17.0
32	Taiwan, China	77.5	102	Kenya	16.9
33	Slovenia	76.8	103	India	15.3
34	Kuwait	75.4	104	Sri Lanka	15.3
35	Hungary	75.1	105	Guatemala	15.0
36	Poland	74.8	106	Pakistan	13.2
37	Spain	74.4	107	Senegal	12.6
38	Latvia	73.4	108	Côte d'Ivoire	12.2
39	Italy	72.6	109	Botswana	12.1
40	Israel	71.5	110	Kyrgyz Republic	12.0
41	Russian Federation	69.9	111	Nicaragua	11.6
42	Cyprus	68.6	112	Gabon	9.7
43	Lebanon	68.4	113	Gambia, The	8.5
44	Croatia	68.4	114	Nigeria	8.5
45	Macedonia, FYR	68.3	115	Tajikistan	7.2
46	Lithuania	66.0	116	Cambodia	7.0
47	Greece	65.6	117	Zambia	6.9
48	Malaysia	65.5	118	Mali	6.7
49	Portugal	64.9	119	Bangladesh	6.5
50	Romania	60.5	119	Cameroon	6.5
51	Turkey	60.2	119	Lesotho	6.5
52	Jordan	60.0	122	Malawi	6.2
53	Kazakhstan	58.8	123	Mozambique	6.2
54	Uruguay	57.4	124	Mauritania	6.2
55	Bulgaria	56.7	124	Uganda	6.2
56	Montenegro	56.6	126	Zimbabwe	5.8
57	Costa Rica	55.1	127	Nepal	5.6
58	Seychelles	55.0	128	Lao PDR	5.2
59	Azerbaijan	54.6	129	Madagascar	4.7
60	Chile	53.9	130	Tanzania	4.1
61	Argentina	52.0	131	Haiti	4.0
62	Serbia	51.8	132	Rwanda	3.8
63	Morocco	50.4	133	Benin	3.5
64	Trinidad and Tobago	50.0	134	Myanmar	3.0
65	Bosnia and Herzegovina	50.0	135	Ethiopia	2.9
66	Brazil	48.0	136	Chad	2.7
67	Mauritius	47.5	137	Liberia	2.5
68	Moldova	47.5	138	Guinea	1.5
69	China	47.4	139	Burundi <sup>1</sup>	0.1
70	Armenia	46.6			

SOURCE: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

<sup>1</sup> 2009

## 6.05 Fixed broadband Internet subscriptions

Fixed broadband Internet subscriptions per 100 population | 2014

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Switzerland	42.5	71	Ukraine	9.3
2	Denmark	41.3	72	Armenia	9.1
3	Netherlands	40.8	73	Thailand	8.5
4	France	40.2	74	Ecuador	8.3
5	Norway	38.8	75	Panama	7.9
6	Korea, Rep.	38.8	76	Venezuela	7.8
7	United Kingdom	37.4	77	Mongolia	6.8
8	Belgium	36.0	78	Albania	6.6
9	Iceland	35.9	79	Vietnam	6.5
10	Germany	35.8	80	Peru	5.7
11	Canada	35.4	81	Dominican Republic	5.7
12	Malta	35.2	82	Guyana	5.6
13	Luxembourg	34.8	83	Jamaica	5.4
14	Sweden	34.1	84	El Salvador	5.0
15	Finland	32.3	85	Jordan	4.7
16	Taiwan, China	31.9	86	Oman	4.5
17	Hong Kong SAR	31.4	87	Tunisia	4.5
18	United States	31.1	88	Kyrgyz Republic	4.2
19	New Zealand	31.0	89	Algeria	4.0
20	Japan	29.3	90	Egypt	3.7
21	Estonia	28.9	91	Cape Verde	3.4
22	Greece	28.4	92	Bhutan	3.3
23	Czech Republic	27.9	93	South Africa	3.2
24	Austria	27.7	94	Morocco	3.0
25	Australia	27.7	95	Guatemala	2.7
26	Hungary	27.3	96	Sri Lanka	2.6
27	Spain	27.3	97	Nicaragua	2.5
28	Israel	27.2	98	Paraguay	2.4
29	Ireland	26.9	99	Bangladesh	2.0
30	Singapore	26.7	100	Namibia	1.8
31	Lithuania	26.7	101	Botswana	1.6
32	Slovenia	26.6	102	Bolivia	1.6
33	Portugal	25.7	103	Honduras	1.4
34	Latvia	24.7	104	Kuwait	1.4
35	Uruguay	24.6	105	India	1.2
36	Italy	23.5	106	Indonesia	1.2
37	Saudi Arabia	23.4	107	Pakistan	1.1
38	Philippines	23.2	108	Zimbabwe	1.0
39	Croatia	23.0	109	Nepal	0.9
40	Lebanon	22.8	110	Senegal	0.7
41	Slovak Republic	21.8	111	Gabon	0.6
42	Bahrain	21.4	112	Côte d'Ivoire	0.6
43	Cyprus	21.1	113	Ethiopia	0.5
44	Bulgaria	20.7	114	Cambodia	0.4
45	Azerbaijan	19.9	115	Swaziland	0.4
46	Poland	18.9	116	Benin	0.4
47	Romania	18.5	117	Uganda	0.3
48	Trinidad and Tobago	17.6	118	Myanmar	0.3
49	Russian Federation	17.5	119	Ghana	0.3
50	Macedonia, FYR	16.8	120	Mauritania	0.2
51	Montenegro	16.7	121	Kenya	0.2
52	Argentina	15.6	122	Tanzania	0.2
53	Serbia	15.6	123	Lao PDR	0.2
54	Moldova	14.7	124	Gambia, The	0.1
55	Mauritius	14.6	125	Zambia	0.1
56	China	14.4	126	Liberia	0.1
57	Bosnia and Herzegovina	14.2	127	Madagascar	0.1
58	Chile	14.1	128	Chad	0.1
59	Kazakhstan	12.9	129	Mozambique	0.1
60	Seychelles	12.7	130	Tajikistan	0.1
61	Georgia	12.2	131	Lesotho	0.1
62	Turkey	11.7	132	Cameroon	0.1
63	Brazil	11.7	133	Malawi	0.1
64	United Arab Emirates	11.6	134	Rwanda	0.0
65	Costa Rica	10.5	135	Mali	0.0
66	Mexico	10.5	136	Burundi	0.0
67	Colombia	10.3	137	Nigeria	0.0
68	Malaysia	10.1	138	Guinea	0.0
69	Qatar	9.9	139	Haiti	0.0
70	Iran, Islamic Rep.	9.5			

SOURCE: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

## 6.06 Mobile broadband Internet subscriptions

Mobile broadband Internet subscriptions per 100 population | 2014 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Singapore	141.7	71	China	41.8
2	Kuwait	139.8	72	Mexico	41.1
3	Finland	138.5	73	Greece	41.0
4	Bahrain	126.2	74	Zimbabwe	39.2
5	Japan	121.4	75	Jamaica	38.8
6	Estonia	117.0	76	Indonesia	34.7
7	Sweden	116.3	77	Armenia	34.2
8	Denmark	115.6	78	Namibia	34.2
9	United Arab Emirates	114.0	79	Hungary	34.0
10	Australia	112.2	80	Mauritius	31.7
11	Luxembourg	111.3	81	Cambodia	31.1
12	Korea, Rep.	108.6	82	Vietnam	31.0
13	Hong Kong SAR	104.5	83	Montenegro	31.0
14	United States	102.7	84	Albania	30.9
15	Saudi Arabia	99.0	85	Ecuador	30.9
16	New Zealand	92.7	86	Dominican Republic	30.1
17	United Kingdom	88.8	87	Panama	29.5
18	Norway	88.8	88	Trinidad and Tobago	28.3
19	Costa Rica	87.2	89	Bhutan	28.2
20	Switzerland	86.8	90	Bolivia	28.1
21	Iceland	85.3	91	Philippines	28.0
22	Ireland	81.0	92	Bosnia and Herzegovina	27.8
23	Thailand	79.9	93	Morocco	26.8
24	Brazil	78.2	94	Lesotho	25.5
25	Spain	77.3	95	Côte d'Ivoire	24.6
26	Oman	73.7	96	Senegal	23.7
27	Qatar	73.0	97	Georgia	21.8
28	Italy	70.9	98	Algeria	20.8
29	Netherlands	69.2	99	Jordan	19.1
30	Croatia	68.5	100	El Salvador	18.4
31	Kyrgyz Republic	68.5	101	Nepal	17.4
32	Austria	67.2	102	Honduras	16.3
33	Taiwan, China	66.9	103	Myanmar	14.9
34	Czech Republic	66.7	104	Uganda	14.7
35	Bulgaria	66.4	105	Mauritania	14.4
36	Serbia	66.4	106	Peru	13.7
37	France	66.3	107	Bangladesh	13.4
38	Russian Federation	65.8	108	Sri Lanka	13.0
39	Germany	63.6	109	Seychelles	12.7
40	Lithuania	63.4	110	Nigeria	11.7
41	Azerbaijan	61.5	111	Mali	11.3
42	Latvia	61.2	112	Rwanda	11.1
43	Uruguay	59.8	113	Iran, Islamic Rep.	10.7
44	Ghana	59.8	114	Tajikistan	9.5
45	Slovak Republic	59.5	115	Guatemala	9.4
46	Kazakhstan	59.4	116	Kenya	9.1
47	Malaysia	58.3	117	Gambia, The	8.0
48	Belgium	57.8	118	Swaziland	8.0
49	Mongolia	57.6	119	Liberia	7.6
50	Malta	56.6	120	Ethiopia	7.5
51	Poland	55.7	121	Ukraine	7.5
52	Canada	54.3	122	Lao PDR	6.5
53	Argentina	53.6	123	Madagascar	6.1
54	Lebanon	53.5	124	India	5.5
55	Israel	52.2	125	Pakistan	5.1
56	Cape Verde	51.3	126	Paraguay <sup>1</sup>	4.9
57	Chile	50.5	127	Malawi	4.1
58	Botswana	49.7	128	Tanzania	3.0
59	Macedonia, FYR	49.5	129	Mozambique	3.0
60	Romania	49.4	130	Benin	2.8
61	Moldova	49.4	131	Guinea	2.2
62	Tunisia	47.6	132	Nicaragua	1.4
63	South Africa	46.7	133	Zambia	1.0
64	Slovenia	46.7	134	Burundi	0.5
65	Colombia	45.1	135	Guyana	0.2
66	Portugal	44.8	136	Haiti	0.2
67	Venezuela	44.0	137	Cameroon	0.0
68	Egypt	43.5	137	Chad	0.0
69	Turkey	42.7	137	Gabon	0.0
70	Cyprus	42.1			

SOURCE: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

<sup>1</sup> 2013

## 6.07 Use of virtual social networks

In your country, how widely are virtual social networks used (e.g., Facebook, Twitter, LinkedIn)? [1 = not at all used; 7 = used extensively] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 5.5	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 5.5	7
1	Iceland	6.7				71	Guatemala	5.6			
2	Norway	6.6				72	Tunisia	5.6			
3	United States	6.6				73	South Africa	5.5			
4	Netherlands	6.6				74	Sri Lanka	5.5			
5	United Kingdom	6.5				75	Jamaica	5.5			
6	United Arab Emirates	6.5				76	Seychelles	5.5			
7	Sweden	6.5				77	Morocco	5.5			
8	Singapore	6.4				78	Ukraine	5.5			
9	Lithuania	6.4				79	El Salvador	5.5			
10	Finland	6.4				80	Moldova	5.5			
11	Israel	6.4				81	Cape Verde	5.5			
12	Qatar	6.3				82	Namibia	5.5			
13	Thailand	6.3				83	Dominican Republic	5.4			
14	Estonia	6.3				84	Croatia	5.4			
15	Bahrain	6.3				85	Nigeria	5.4			
16	Hong Kong SAR	6.3				86	Vietnam	5.4			
17	Ireland	6.2				87	Cambodia	5.4			
18	Canada	6.2				88	Oman	5.4			
19	Luxembourg	6.2				89	Colombia	5.4			
20	New Zealand	6.2				90	Hungary	5.4			
21	Denmark	6.2				91	Mexico	5.4			
22	Malaysia	6.2				92	Greece	5.3			
23	Macedonia, FYR	6.2				93	Kazakhstan	5.3			
24	Taiwan, China	6.1				94	Guyana	5.2			
25	Belgium	6.1				95	Botswana	5.2			
26	Azerbaijan	6.1				96	Poland	5.2			
27	Philippines	6.1				97	Senegal	5.2			
28	Latvia	6.1				98	Bosnia and Herzegovina	5.2			
29	Malta	6.1				99	Rwanda	5.2			
30	Switzerland	6.1				100	Bhutan	5.2			
31	Saudi Arabia	6.0				101	Gambia, The	5.1			
32	Australia	6.0				102	Paraguay	5.0			
33	Trinidad and Tobago	6.0				103	Peru	5.0			
34	Georgia	6.0				104	Zambia	5.0			
35	Italy	6.0				105	Kyrgyz Republic	5.0			
36	Indonesia	5.9				106	Nepal	4.9			
37	Chile	5.9				107	Zimbabwe	4.9			
38	Cyprus	5.9				108	Madagascar	4.9			
39	Panama	5.9				109	Côte d'Ivoire	4.8			
40	Korea, Rep.	5.9				110	Uganda	4.8			
41	Czech Republic	5.9				111	Myanmar	4.8			
42	Kuwait	5.9				112	Gabon	4.8			
43	Japan	5.9				113	Mozambique	4.8			
44	Portugal	5.9				114	Ecuador	4.8			
45	France	5.9				115	Lao PDR	4.8			
46	Brazil	5.9				116	Mauritania	4.8			
47	Austria	5.8				117	Cameroon	4.8			
48	Slovenia	5.8				118	Bangladesh	4.8			
49	Turkey	5.8				119	Swaziland	4.8			
50	Albania	5.8				120	Ghana	4.7			
51	Montenegro	5.8				121	China	4.7			
52	Egypt	5.8				122	Benin	4.7			
53	Argentina	5.8				123	Algeria	4.7			
54	Germany	5.8				124	Haiti	4.5			
55	Costa Rica	5.8				125	Nicaragua	4.5			
56	Mongolia	5.7				126	Tajikistan	4.5			
57	Jordan	5.7				127	Mali	4.4			
58	Slovak Republic	5.7				128	Ethiopia	4.4			
59	Armenia	5.7				129	Malawi	4.4			
60	Kenya	5.7				130	India	4.3			
61	Venezuela	5.7				131	Pakistan	4.3			
62	Bulgaria	5.7				132	Bolivia	4.3			
63	Lebanon	5.7				133	Tanzania	4.2			
64	Uruguay	5.7				134	Iran, Islamic Rep.	4.0			
65	Honduras	5.6				135	Liberia	4.0			
66	Russian Federation	5.6				136	Guinea	4.0			
67	Romania	5.6				137	Lesotho	3.7			
68	Serbia	5.6				138	Chad	3.2			
69	Spain	5.6				139	Burundi	3.2			
70	Mauritius	5.6									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

7th pillar

Business usage

## 7.01 Firm-level technology absorption

In your country, to what extent do businesses adopt new technology? [1 = not at all; 7 = adopt extensively] | 2013–14 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.7	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.7	7
1	Iceland	6.2				71	Côte d'Ivoire	4.6			
2	Japan	6.1				72	Greece	4.5			
3	United States	6.1				73	Morocco	4.5			
4	Norway	6.1				74	Gambia, The	4.5			
5	Israel	6.0				75	Dominican Republic	4.5			
6	Switzerland	6.0				76	Ecuador	4.5			
7	United Arab Emirates	6.0				77	Peru	4.5			
8	Luxembourg	6.0				78	Tunisia	4.5			
9	Sweden	6.0				79	Guyana	4.4			
10	Finland	5.8				80	Romania	4.4			
11	New Zealand	5.8				81	El Salvador	4.4			
12	Qatar	5.8				82	Pakistan	4.4			
13	Germany	5.7				83	Bosnia and Herzegovina	4.4			
14	United Kingdom	5.7				84	Cameroon	4.4			
15	Denmark	5.7				85	Bulgaria	4.4			
16	Singapore	5.7				86	Gabon	4.4			
17	Austria	5.7				87	Madagascar	4.4			
18	Hong Kong SAR	5.6				88	Montenegro	4.4			
19	Belgium	5.6				89	Colombia	4.4			
20	Netherlands	5.6				90	Kazakhstan	4.4			
21	Portugal	5.6				91	Nigeria	4.3			
22	Australia	5.6				92	Botswana	4.3			
23	Malaysia	5.6				93	Uruguay	4.3			
24	Ireland	5.6				94	Lebanon	4.3			
25	Taiwan, China	5.5				95	Ghana	4.3			
26	France	5.5				96	Lao PDR	4.3			
27	Korea, Rep.	5.4				97	Cambodia	4.3			
28	South Africa	5.4				98	Russian Federation	4.2			
29	Canada	5.4				99	Mozambique	4.2			
30	Saudi Arabia	5.4				100	Ukraine	4.2			
31	Estonia	5.4				101	Poland	4.2			
32	Lithuania	5.4				102	India	4.2			
33	Bahrain	5.3				103	Georgia	4.2			
34	Panama	5.3				104	Mauritania	4.2			
35	Jordan	5.3				105	Macedonia, FYR	4.2			
36	Turkey	5.2				106	Italy	4.2			
37	Malta	5.2				107	Mali	4.1			
38	Chile	5.2				108	Bangladesh	4.1			
39	Cyprus	5.1				109	Moldova	4.1			
40	Philippines	5.1				110	Uganda	4.1			
41	Indonesia	5.1				111	Zimbabwe	4.1			
42	Senegal	5.0				112	Albania	4.1			
43	Mauritius	5.0				113	Armenia	4.1			
44	Costa Rica	5.0				114	Paraguay	4.1			
45	Guatemala	5.0				115	Argentina	4.0			
46	Latvia	5.0				116	Tajikistan	4.0			
47	Rwanda	5.0				117	Benin	4.0			
48	Czech Republic	5.0				118	Kyrgyz Republic	3.9			
49	Slovenia	4.9				119	Swaziland	3.9			
50	Spain	4.9				120	Bhutan	3.9			
51	Sri Lanka	4.9				121	Vietnam	3.9			
52	Namibia	4.9				122	Venezuela	3.9			
53	Thailand	4.9				123	Nepal	3.9			
54	Kenya	4.8				124	Nicaragua	3.8			
55	Slovak Republic	4.8				125	Malawi	3.8			
56	Oman	4.8				126	Egypt	3.8			
57	Brazil	4.8				127	Serbia	3.8			
58	Honduras	4.8				128	Ethiopia	3.8			
59	Jamaica	4.7				129	Tanzania	3.8			
60	Kuwait	4.7				130	Liberia	3.8			
61	Seychelles	4.7				131	Bolivia	3.7			
62	Azerbaijan	4.7				132	Iran, Islamic Rep.	3.7			
63	Hungary	4.7				133	Guinea	3.7			
64	Mongolia	4.7				134	Haiti	3.5			
65	Zambia	4.7				135	Lesotho	3.5			
66	China	4.7				136	Algeria	3.4			
67	Cape Verde	4.6				137	Chad	3.3			
68	Mexico	4.6				138	Burundi	3.2			
69	Trinidad and Tobago	4.6				139	Myanmar	2.9			
70	Croatia	4.6									

SOURCE: World Economic Forum, Executive Opinion Survey, 2013 and 2014 editions

## 7.02 Capacity for innovation

In your country, to what extent do companies have the capacity to innovate? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.1	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.1	7
1	Switzerland	6.0				71	Namibia	3.9			
2	United States	5.9				72	Poland	3.9			
3	Israel	5.9				73	Malta	3.9			
4	Sweden	5.7				74	Argentina	3.9			
5	Germany	5.6				75	Seychelles	3.9			
6	Finland	5.6				76	Guyana	3.9			
7	Malaysia	5.5				77	Slovak Republic	3.8			
8	Austria	5.4				78	Madagascar	3.8			
9	Luxembourg	5.4				79	Bulgaria	3.8			
10	United Kingdom	5.4				80	Brazil	3.8			
11	Denmark	5.3				81	Vietnam	3.8			
12	Qatar	5.3				82	Nigeria	3.8			
13	Belgium	5.3				83	Turkey	3.8			
14	Japan	5.3				84	Russian Federation	3.8			
15	New Zealand	5.3				85	Chile	3.8			
16	Netherlands	5.2				86	Uganda	3.8			
17	Ireland	5.2				87	Armenia	3.8			
18	Norway	5.2				88	Bhutan	3.8			
19	Singapore	5.1				89	Lao PDR	3.7			
20	France	5.1				90	Cyprus	3.7			
21	Taiwan, China	4.9				91	Macedonia, FYR	3.7			
22	Benin	4.9				92	Dominican Republic	3.7			
23	Canada	4.9				93	Colombia	3.7			
24	Korea, Rep.	4.8				94	Lesotho	3.7			
25	Australia	4.8				95	Pakistan	3.7			
26	Czech Republic	4.8				96	Liberia	3.7			
27	Estonia	4.7				97	Uruguay	3.6			
28	United Arab Emirates	4.7				98	Kyrgyz Republic	3.6			
29	Hong Kong SAR	4.7				99	Cape Verde	3.6			
30	Indonesia	4.7				100	Montenegro	3.6			
31	Lithuania	4.6				101	Kuwait	3.6			
32	South Africa	4.6				102	Botswana	3.6			
33	Philippines	4.6				103	Albania	3.6			
34	Iceland	4.5				104	Iran, Islamic Rep.	3.6			
35	Portugal	4.5				105	Peru	3.6			
36	Sri Lanka	4.5				106	Trinidad and Tobago	3.5			
37	Italy	4.5				107	Tanzania	3.5			
38	Senegal	4.4				108	Morocco	3.5			
39	Honduras	4.4				109	Tunisia	3.5			
40	Costa Rica	4.4				110	Mozambique	3.5			
41	Slovenia	4.4				111	Greece	3.5			
42	Kenya	4.3				112	Ethiopia	3.5			
43	Guatemala	4.3				113	Cambodia	3.5			
44	Côte d'Ivoire	4.3				114	Malawi	3.4			
45	Lebanon	4.3				115	Moldova	3.4			
46	Cameroon	4.3				116	Gabon	3.4			
47	Jordan	4.3				117	Bangladesh	3.4			
48	Panama	4.2				118	Swaziland	3.4			
49	China	4.2				119	Oman	3.4			
50	India	4.2				120	Paraguay	3.4			
51	Jamaica	4.2				121	Georgia	3.4			
52	Ukraine	4.2				122	Croatia	3.3			
53	Azerbaijan	4.1				123	Mali	3.3			
54	Thailand	4.1				124	Bolivia	3.3			
55	Spain	4.1				125	Nepal	3.3			
56	Ghana	4.1				126	Algeria	3.3			
57	Saudi Arabia	4.1				127	Haiti	3.2			
58	Mauritius	4.1				128	Chad	3.2			
59	El Salvador	4.0				129	Zimbabwe	3.2			
60	Tajikistan	4.0				130	Hungary	3.1			
61	Latvia	4.0				131	Serbia	3.1			
62	Rwanda	4.0				132	Egypt	3.1			
63	Romania	4.0				133	Bosnia and Herzegovina	3.0			
64	Mongolia	4.0				134	Nicaragua	3.0			
65	Zambia	4.0				135	Venezuela	2.9			
66	Mexico	4.0				136	Myanmar	2.9			
67	Gambia, The	4.0				137	Burundi	2.8			
68	Kazakhstan	4.0				138	Guinea	2.7			
69	Ecuador	3.9				139	Mauritania	2.6			
70	Bahrain	3.9									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 7.03 PCT patents applications

Number of applications filed under the Patent Cooperation Treaty (PCT) per million population | 2012–13 average

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Japan	335.2	71	Sri Lanka	0.8
2	Sweden	320.1	72	Jordan	0.8
3	Switzerland	309.4	73	Mongolia	0.7
4	Finland	289.5	74	Egypt	0.7
5	Israel	242.5	75	Tunisia	0.7
6	Korea, Rep.	231.7	76	Moldova	0.7
7	Germany	217.6	77	Jamaica	0.6
8	Denmark	209.3	78	Peru	0.5
9	Netherlands	207.2	79	Azerbaijan	0.5
10	United States	173.1	80	Gambia, The	0.4
11	Austria	169.0	81	Trinidad and Tobago	0.4
12	Norway	139.4	82	Oman	0.4
13	Singapore	138.4	83	Philippines	0.3
14	France	117.2	84	Kuwait	0.3
15	Luxembourg	113.0	85	Dominican Republic	0.3
16	Belgium	107.0	86	Venezuela	0.3
17	Iceland	103.6	87	Albania	0.2
18	United Kingdom	93.2	88	Ecuador	0.2
19	Canada	89.3	89	Algeria	0.2
20	Ireland	82.1	90	Kenya	0.2
21	New Zealand	78.3	91	Namibia	0.2
22	Australia	76.4	92	Vietnam	0.2
23	Slovenia	66.7	93	Swaziland	0.2
24	Italy	55.4	94	El Salvador	0.2
25	Spain	37.4	95	Lao PDR	0.2
26	Hungary	23.5	96	Botswana	0.1
27	Qatar	21.6	97	Kyrgyz Republic	0.1
28	Czech Republic	21.4	98	Indonesia	0.1
29	Estonia	18.1	99	Iran, Islamic Rep.	0.1
30	Malta	18.1	100	Gabon	0.1
31	Latvia	16.5	101	Bolivia	0.1
32	China	15.2	102	Zimbabwe	0.1
33	Lithuania	14.6	103	Nicaragua	0.1
34	Portugal	13.9	104	Guatemala	0.1
35	Malaysia	11.3	105	Côte d'Ivoire	0.1
36	Slovak Republic	10.3	106	Ghana	0.0
37	Greece	10.2	107	Madagascar	0.0
38	Poland	9.6	108	Cambodia	0.0
39	Croatia	9.6	109	Cameroon	0.0
40	Turkey	9.0	110	Pakistan	0.0
41	Russian Federation	7.9	111	Nigeria	0.0
42	Cyprus	7.7	112	Bangladesh	0.0
43	Chile	7.1	113	Ethiopia	0.0
44	Bulgaria	6.8	114	Zambia	0.0
45	United Arab Emirates	6.6	115	Rwanda	0.0
46	South Africa	6.3	116	Uganda	0.0
47	Saudi Arabia	5.9	117	Nepal	0.0
48	Seychelles	5.6	118	Malawi	0.0
49	Serbia	3.8	119	Myanmar	0.0
50	Ukraine	3.7	120	Tanzania	0.0
51	Brazil	3.4	121	Benin	0.0
52	Romania	3.2	121	Bhutan	0.0
53	Montenegro	3.2	121	Burundi	0.0
54	Uruguay	2.9	121	Cape Verde	0.0
55	Bahrain	2.8	121	Chad	0.0
56	Armenia	2.8	121	Guinea	0.0
57	Costa Rica	2.4	121	Guyana	0.0
58	Mexico	2.0	121	Haiti	0.0
59	Colombia	1.7	121	Honduras	0.0
60	Bosnia and Herzegovina	1.7	121	Lesotho	0.0
61	Georgia	1.7	121	Liberia	0.0
62	Panama	1.7	121	Mali	0.0
63	Mauritius	1.6	121	Mauritania	0.0
64	India	1.5	121	Mozambique	0.0
65	Morocco	1.5	121	Paraguay	0.0
66	Lebanon	1.5	121	Senegal	0.0
67	Macedonia, FYR	1.4	121	Tajikistan	0.0
68	Kazakhstan	1.4	n/a	Taiwan, China	n/a
69	Thailand	1.3	n/a	Hong Kong SAR	n/a
70	Argentina	1.2			

**SOURCES:** World Intellectual Property Organization (WIPO) PCT Data, sourced from Organisation for Economic Co-operation and Development (OECD), Patent Database, January 2016, <http://www.oecd.org/sti/innno/oeecdpatentdatabases.htm>; World Bank, World Development Indicators (retrieved December 15, 2015), <http://data.worldbank.org>; national sources



## 7.04 ICT use for business-to-business transactions

In your country, to what extent do businesses use ICTs for transactions with other businesses? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.7	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.7	7
1	Japan	6.1				71	Zambia	4.7			
2	United Kingdom	6.0				72	Mauritania	4.6			
3	Switzerland	6.0				73	Dominican Republic	4.6			
4	United Arab Emirates	6.0				74	Mauritius	4.6			
5	Estonia	6.0				75	Ecuador	4.6			
6	Netherlands	6.0				76	Senegal	4.6			
7	Norway	5.9				77	Peru	4.6			
8	Finland	5.9				78	Brazil	4.6			
9	Qatar	5.9				79	Georgia	4.6			
10	Iceland	5.9				80	Italy	4.5			
11	Lithuania	5.8				81	Romania	4.5			
12	Sweden	5.8				82	Cambodia	4.5			
13	Singapore	5.8				83	Poland	4.5			
14	Luxembourg	5.8				84	Trinidad and Tobago	4.5			
15	Austria	5.7				85	Botswana	4.5			
16	Israel	5.7				86	Serbia	4.5			
17	United States	5.7				87	Uruguay	4.5			
18	Belgium	5.7				88	Cape Verde	4.4			
19	Germany	5.7				89	Ukraine	4.4			
20	Hong Kong SAR	5.7				90	Montenegro	4.4			
21	Malaysia	5.7				91	Nigeria	4.4			
22	Denmark	5.6				92	Cameroon	4.4			
23	Canada	5.6				93	Uganda	4.3			
24	New Zealand	5.6				94	Côte d'Ivoire	4.3			
25	Taiwan, China	5.5				95	El Salvador	4.3			
26	Australia	5.5				96	Greece	4.3			
27	Slovak Republic	5.5				97	Lao PDR	4.3			
28	Czech Republic	5.5				98	Seychelles	4.3			
29	Portugal	5.5				99	Ghana	4.3			
30	Ireland	5.4				100	Benin	4.3			
31	Bahrain	5.4				101	Moldova	4.2			
32	Latvia	5.4				102	Madagascar	4.2			
33	France	5.3				103	Oman	4.2			
34	Korea, Rep.	5.3				104	Morocco	4.2			
35	South Africa	5.3				105	Gambia, The	4.2			
36	Saudi Arabia	5.3				106	Guyana	4.2			
37	Chile	5.2				107	Mali	4.1			
38	Azerbaijan	5.2				108	India	4.1			
39	Malta	5.2				109	Zimbabwe	4.1			
40	Slovenia	5.2				110	Mozambique	4.1			
41	Kenya	5.1				111	Tajikistan	4.0			
42	Panama	5.1				112	Tanzania	4.0			
43	Mongolia	5.1				113	Albania	4.0			
44	Hungary	5.1				114	Lebanon	4.0			
45	Sri Lanka	5.1				115	Bosnia and Herzegovina	4.0			
46	Costa Rica	5.1				116	Tunisia	4.0			
47	Turkey	5.0				117	Nicaragua	4.0			
48	Honduras	5.0				118	Swaziland	3.9			
49	Namibia	5.0				119	Kyrgyz Republic	3.9			
50	Spain	5.0				120	Argentina	3.9			
51	Jordan	5.0				121	Iran, Islamic Rep.	3.9			
52	Thailand	5.0				122	Bhutan	3.9			
53	Indonesia	4.9				123	Liberia	3.9			
54	Bulgaria	4.9				124	Bangladesh	3.8			
55	Vietnam	4.9				125	Nepal	3.8			
56	Guatemala	4.9				126	Pakistan	3.8			
57	China	4.9				127	Malawi	3.8			
58	Philippines	4.8				128	Gabon	3.7			
59	Rwanda	4.8				129	Venezuela	3.7			
60	Russian Federation	4.8				130	Bolivia	3.7			
61	Mexico	4.8				131	Paraguay	3.7			
62	Cyprus	4.8				132	Algeria	3.6			
63	Kazakhstan	4.8				133	Guinea	3.5			
64	Macedonia, FYR	4.7				134	Ethiopia	3.5			
65	Croatia	4.7				135	Lesotho	3.4			
66	Jamaica	4.7				136	Haiti	3.3			
67	Egypt	4.7				137	Myanmar	3.3			
68	Kuwait	4.7				138	Burundi	2.9			
69	Colombia	4.7				139	Chad	2.9			
70	Armenia	4.7									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 7.05 Business-to-consumer Internet use

In your country, to what extent do businesses use the Internet for selling their goods and services to consumers? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.5	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.5	7
1	United Kingdom	6.4				71	Croatia	4.3			
2	United States	6.3				72	Macedonia, FYR	4.3			
3	Netherlands	6.0				73	Mexico	4.3			
4	Sweden	6.0				74	Uruguay	4.3			
5	Japan	6.0				75	Guyana	4.3			
6	Malaysia	5.9				76	Argentina	4.2			
7	Lithuania	5.8				77	India	4.2			
8	Norway	5.8				78	Albania	4.2			
9	Estonia	5.8				79	Greece	4.2			
10	Korea, Rep.	5.8				80	Dominican Republic	4.2			
11	Czech Republic	5.8				81	Peru	4.2			
12	Germany	5.8				82	Moldova	4.1			
13	Canada	5.7				83	Kyrgyz Republic	4.1			
14	Switzerland	5.7				84	Montenegro	4.1			
15	Latvia	5.7				85	Trinidad and Tobago	4.1			
16	Slovak Republic	5.7				86	Morocco	4.1			
17	Luxembourg	5.6				87	Namibia	4.1			
18	New Zealand	5.6				88	Ecuador	4.1			
19	Israel	5.6				89	Ghana	4.1			
20	Iceland	5.6				90	Egypt	4.0			
21	Denmark	5.6				91	Cape Verde	4.0			
22	United Arab Emirates	5.5				92	Nigeria	4.0			
23	France	5.5				93	Jamaica	4.0			
24	Singapore	5.5				94	Georgia	4.0			
25	Australia	5.5				95	Lao PDR	4.0			
26	Austria	5.4				96	Seychelles	4.0			
27	Hong Kong SAR	5.4				97	Serbia	4.0			
28	Indonesia	5.4				98	Cambodia	4.0			
29	Qatar	5.4				99	Bosnia and Herzegovina	4.0			
30	Belgium	5.3				100	Madagascar	4.0			
31	Taiwan, China	5.3				101	Rwanda	4.0			
32	China	5.3				102	Côte d'Ivoire	4.0			
33	Portugal	5.2				103	Cameroon	3.9			
34	Ireland	5.2				104	Zambia	3.9			
35	Russian Federation	5.1				105	Venezuela	3.9			
36	Ukraine	5.1				106	Tajikistan	3.8			
37	Finland	5.1				107	Benin	3.8			
38	Chile	5.1				108	Mauritius	3.8			
39	Thailand	5.1				109	Oman	3.7			
40	Brazil	5.0				110	Bangladesh	3.7			
41	Poland	5.0				111	Mozambique	3.7			
42	Romania	4.9				112	Pakistan	3.7			
43	Panama	4.9				113	Iran, Islamic Rep.	3.7			
44	Azerbaijan	4.9				114	Gambia, The	3.6			
45	Spain	4.9				115	Nepal	3.6			
46	Sri Lanka	4.9				116	Paraguay	3.6			
47	Vietnam	4.8				117	Botswana	3.6			
48	Slovenia	4.8				118	Liberia	3.5			
49	Turkey	4.8				119	Lebanon	3.5			
50	Bulgaria	4.8				120	Haiti	3.5			
51	Philippines	4.8				121	Uganda	3.5			
52	Hungary	4.8				122	Bhutan	3.5			
53	Costa Rica	4.7				123	Ethiopia	3.4			
54	Kenya	4.7				124	Nicaragua	3.4			
55	Kazakhstan	4.7				125	Tunisia	3.4			
56	Colombia	4.7				126	Tanzania	3.3			
57	Kuwait	4.7				127	Myanmar	3.3			
58	Jordan	4.7				128	Algeria	3.3			
59	Italy	4.7				129	Lesotho	3.3			
60	Guatemala	4.6				130	Bolivia	3.3			
61	Malta	4.6				131	Mali	3.3			
62	Honduras	4.6				132	Zimbabwe	3.2			
63	El Salvador	4.6				133	Gabon	3.2			
64	South Africa	4.6				134	Malawi	3.1			
65	Cyprus	4.6				135	Swaziland	3.0			
66	Saudi Arabia	4.5				136	Guinea	3.0			
67	Senegal	4.5				137	Mauritania	2.8			
68	Bahrain	4.5				138	Burundi	2.6			
69	Mongolia	4.5				139	Chad	2.2			
70	Armenia	4.4									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 7.06 Extent of staff training

In your country, to what extent do companies invest in training and employee development? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.0	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.0	7
1	Switzerland	5.7				71	Swaziland	4.0			
2	Luxembourg	5.5				72	Zambia	4.0			
3	Malaysia	5.5				73	Vietnam	3.9			
4	Singapore	5.4				74	Ukraine	3.9			
5	Qatar	5.4				75	Lesotho	3.9			
6	Japan	5.4				76	Kazakhstan	3.9			
7	Norway	5.3				77	Senegal	3.9			
8	Sweden	5.3				78	Liberia	3.9			
9	Netherlands	5.2				79	Mexico	3.9			
10	Finland	5.2				80	Mongolia	3.9			
11	Belgium	5.2				81	Tajikistan	3.9			
12	United Arab Emirates	5.1				82	Slovak Republic	3.9			
13	Germany	5.1				83	Russian Federation	3.8			
14	United States	5.1				84	Kuwait	3.8			
15	Austria	5.1				85	Uruguay	3.8			
16	Denmark	5.1				86	Bhutan	3.8			
17	Iceland	4.9				87	Zimbabwe	3.8			
18	New Zealand	4.9				88	Argentina	3.8			
19	South Africa	4.9				89	Romania	3.8			
20	Ireland	4.8				90	Azerbaijan	3.7			
21	United Kingdom	4.8				91	Greece	3.7			
22	Bahrain	4.8				92	Peru	3.7			
23	Hong Kong SAR	4.8				93	Colombia	3.7			
24	Australia	4.7				94	Ecuador	3.7			
25	Canada	4.7				95	Cambodia	3.7			
26	Philippines	4.7				96	Macedonia, FYR	3.7			
27	Taiwan, China	4.6				97	El Salvador	3.7			
28	France	4.6				98	Montenegro	3.6			
29	Honduras	4.5				99	Gabon	3.6			
30	Mauritius	4.5				100	Cape Verde	3.6			
31	Costa Rica	4.5				101	Kyrgyz Republic	3.6			
32	Estonia	4.5				102	Turkey	3.6			
33	Indonesia	4.4				103	Dominican Republic	3.6			
34	Guatemala	4.4				104	Spain	3.6			
35	Lithuania	4.4				105	Madagascar	3.6			
36	Korea, Rep.	4.3				106	Tunisia	3.6			
37	Albania	4.3				107	Uganda	3.6			
38	Jordan	4.3				108	Lebanon	3.6			
39	Czech Republic	4.3				109	Nicaragua	3.5			
40	Namibia	4.3				110	Benin	3.5			
41	Thailand	4.3				111	Venezuela	3.4			
42	Latvia	4.3				112	Ethiopia	3.4			
43	Israel	4.2				113	Hungary	3.4			
44	Malta	4.2				114	Paraguay	3.4			
45	Panama	4.2				115	Tanzania	3.4			
46	Kenya	4.2				116	Armenia	3.4			
47	Trinidad and Tobago	4.2				117	Bulgaria	3.4			
48	India	4.2				118	Georgia	3.4			
49	Guyana	4.2				119	Morocco	3.4			
50	China	4.2				120	Moldova	3.3			
51	Botswana	4.1				121	Pakistan	3.3			
52	Chile	4.1				122	Croatia	3.3			
53	Saudi Arabia	4.1				123	Bolivia	3.3			
54	Portugal	4.1				124	Mozambique	3.3			
55	Cyprus	4.1				125	Nepal	3.3			
56	Côte d'Ivoire	4.1				126	Algeria	3.3			
57	Rwanda	4.1				127	Guinea	3.2			
58	Slovenia	4.0				128	Iran, Islamic Rep.	3.2			
59	Lao PDR	4.0				129	Bangladesh	3.2			
60	Seychelles	4.0				130	Mali	3.2			
61	Brazil	4.0				131	Italy	3.2			
62	Nigeria	4.0				132	Haiti	3.0			
63	Sri Lanka	4.0				133	Chad	3.0			
64	Ghana	4.0				134	Serbia	3.0			
65	Poland	4.0				135	Myanmar	2.9			
66	Malawi	4.0				136	Bosnia and Herzegovina	2.9			
67	Jamaica	4.0				137	Burundi	2.9			
68	Oman	4.0				138	Egypt	2.7			
69	Gambia, The	4.0				139	Mauritania	2.6			
70	Cameroon	4.0									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions



8th pillar

Government usage

## 8.01 Importance of ICTs to government vision of the future

To what extent does the government have a clear implementation plan for utilizing ICTs to improve your country's overall competitiveness? [1 = not at all—there is no plan; 7 = to a great extent—there is a clear plan] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.0	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.0	7
1	United Arab Emirates	6.1				71	Mexico	3.9			
2	Singapore	5.9				72	Thailand	3.9			
3	Qatar	5.9				73	Turkey	3.9			
4	Rwanda	5.8				74	Mongolia	3.9			
5	Luxembourg	5.7				75	Albania	3.9			
6	Malaysia	5.6				76	Russian Federation	3.8			
7	Saudi Arabia	5.3				77	Guyana	3.8			
8	Azerbaijan	5.2				78	Bulgaria	3.8			
9	Bahrain	5.2				79	Trinidad and Tobago	3.7			
10	New Zealand	5.2				80	Spain	3.7			
11	Taiwan, China	5.0				81	Georgia	3.7			
12	Estonia	5.0				82	Mali	3.7			
13	Sri Lanka	5.0				83	Cyprus	3.7			
14	Japan	4.9				84	Ethiopia	3.6			
15	Norway	4.9				85	Costa Rica	3.6			
16	United Kingdom	4.9				86	Ghana	3.6			
17	Korea, Rep.	4.9				87	Latvia	3.6			
18	Kenya	4.8				88	Moldova	3.6			
19	Macedonia, FYR	4.8				89	Tanzania	3.6			
20	Sweden	4.8				90	Tunisia	3.6			
21	Ireland	4.8				91	Iran, Islamic Rep.	3.6			
22	Finland	4.8				92	Cameroon	3.6			
23	Malta	4.8				93	Mozambique	3.6			
24	Germany	4.7				94	Gabon	3.6			
25	Portugal	4.7				95	Cambodia	3.5			
26	Israel	4.7				96	Slovak Republic	3.5			
27	China	4.7				97	Slovenia	3.5			
28	Hong Kong SAR	4.7				98	Hungary	3.5			
29	United States	4.7				99	Pakistan	3.5			
30	Côte d'Ivoire	4.6				100	Dominican Republic	3.5			
31	Netherlands	4.6				101	Croatia	3.4			
32	Iceland	4.6				102	El Salvador	3.4			
33	Panama	4.5				103	Bolivia	3.4			
34	Switzerland	4.5				104	Nigeria	3.4			
35	Jordan	4.5				105	Romania	3.3			
36	Denmark	4.5				106	Czech Republic	3.3			
37	Gambia, The	4.5				107	Lesotho	3.3			
38	Cape Verde	4.5				108	Italy	3.3			
39	Oman	4.5				109	Liberia	3.3			
40	Mauritius	4.4				110	Guatemala	3.3			
41	Austria	4.4				111	Poland	3.3			
42	France	4.4				112	Egypt	3.2			
43	Indonesia	4.4				113	Kuwait	3.2			
44	Kazakhstan	4.4				114	Serbia	3.2			
45	Bhutan	4.3				115	Benin	3.2			
46	Colombia	4.3				116	South Africa	3.2			
47	Australia	4.3				117	Swaziland	3.2			
48	Vietnam	4.3				118	Malawi	3.2			
49	Canada	4.3				119	Algeria	3.1			
50	Morocco	4.3				120	Peru	3.1			
51	Montenegro	4.3				121	Brazil	3.1			
52	Belgium	4.3				122	Ukraine	3.1			
53	Lithuania	4.2				123	Kyrgyz Republic	3.1			
54	Armenia	4.1				124	Mauritania	3.1			
55	Uganda	4.1				125	Burundi	3.0			
56	Bangladesh	4.1				126	Nepal	3.0			
57	Zambia	4.1				127	Chad	3.0			
58	Senegal	4.1				128	Guinea	3.0			
59	Uruguay	4.1				129	Greece	2.9			
60	Seychelles	4.0				130	Madagascar	2.9			
61	Botswana	4.0				131	Myanmar	2.9			
62	India	4.0				132	Paraguay	2.9			
63	Philippines	4.0				133	Zimbabwe	2.8			
64	Lao PDR	3.9				134	Lebanon	2.7			
65	Jamaica	3.9				135	Nicaragua	2.7			
66	Tajikistan	3.9				136	Bosnia and Herzegovina	2.6			
67	Ecuador	3.9				137	Argentina	2.6			
68	Chile	3.9				138	Venezuela	2.4			
69	Namibia	3.9				139	Haiti	2.3			
70	Honduras	3.9									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 8.02 Government Online Service Index

The Government Online Service Index assesses the quality of government's delivery of online services on a 0-to-1 (best) scale | 2013

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	France	1.00	71	Ethiopia	0.46
2	Singapore	0.99	72	Albania	0.45
3	Korea, Rep.	0.98	73	Romania	0.44
4	Japan	0.94	73	Thailand	0.44
4	Spain	0.94	75	Azerbaijan	0.43
4	United States	0.94	76	Kenya	0.43
7	Bahrain	0.94	76	Slovenia	0.43
8	Australia	0.93	78	Vietnam	0.42
8	Netherlands	0.93	79	Honduras	0.40
10	Canada	0.91	79	Malta	0.40
11	United Kingdom	0.90	81	Bolivia	0.39
12	United Arab Emirates	0.88	81	Serbia	0.39
13	Israel	0.87	83	Dominican Republic	0.39
14	Uruguay	0.85	83	South Africa	0.39
15	New Zealand	0.84	85	Czech Republic	0.37
16	Chile	0.82	85	Iran, Islamic Rep.	0.37
17	Colombia	0.79	85	Panama	0.37
18	Estonia	0.77	88	Indonesia	0.36
18	Finland	0.77	89	Lebanon	0.35
18	Saudi Arabia	0.77	90	Bangladesh	0.35
21	Lithuania	0.76	91	Seychelles	0.33
21	Norway	0.76	91	Trinidad and Tobago	0.33
23	Austria	0.75	93	Namibia	0.32
23	Italy	0.75	93	Pakistan	0.32
23	Kazakhstan	0.75	95	Ghana	0.31
26	Oman	0.73	95	Jamaica	0.31
27	Russian Federation	0.71	95	Mozambique	0.31
28	Latvia	0.70	98	Botswana	0.31
28	Sweden	0.70	98	Nigeria	0.31
30	Morocco	0.69	98	Senegal	0.31
31	Belgium	0.68	98	Zimbabwe	0.31
31	Ireland	0.68	102	Tanzania	0.30
31	Malaysia	0.68	103	Bosnia and Herzegovina	0.28
34	Germany	0.67	104	Kyrgyz Republic	0.28
35	Denmark	0.66	105	Ukraine	0.27
35	Mexico	0.66	106	Bhutan	0.24
37	Qatar	0.65	106	Guyana	0.24
37	Sri Lanka	0.65	106	Macedonia, FYR	0.24
39	Portugal	0.64	106	Madagascar	0.24
39	Tunisia	0.64	110	Bulgaria	0.24
41	Peru	0.63	111	Paraguay	0.23
42	Luxembourg	0.62	112	Gambia, The	0.20
43	Armenia	0.61	113	Cameroon	0.20
43	Costa Rica	0.61	114	Cambodia	0.17
43	Iceland	0.61	114	Côte d'Ivoire	0.17
43	Mongolia	0.61	114	Malawi	0.17
47	China	0.61	117	Cape Verde	0.17
47	Greece	0.61	118	Lesotho	0.16
49	Brazil	0.60	118	Nepal	0.16
49	Georgia	0.60	120	Guatemala	0.15
51	Egypt	0.59	120	Uganda	0.15
52	Kuwait	0.57	122	Lao PDR	0.14
53	Hungary	0.56	122	Zambia	0.14
53	Turkey	0.56	124	Mali	0.13
55	Argentina	0.55	124	Swaziland	0.13
55	Venezuela	0.55	126	Benin	0.11
57	India	0.54	126	Haiti	0.11
57	Poland	0.54	128	Gabon	0.09
59	El Salvador	0.54	128	Nicaragua	0.09
60	Moldova	0.53	130	Algeria	0.08
60	Montenegro	0.53	130	Liberia	0.08
62	Jordan	0.52	132	Tajikistan	0.06
63	Rwanda	0.51	133	Chad	0.05
64	Switzerland	0.50	133	Mauritania	0.05
65	Slovak Republic	0.49	135	Myanmar	0.02
66	Ecuador	0.48	136	Burundi	0.02
66	Philippines	0.48	137	Guinea	0.00
68	Cyprus	0.47	n/a	Taiwan, China	n/a
68	Mauritius	0.47	n/a	Hong Kong SAR	n/a
70	Croatia	0.46			

SOURCE: United Nations Department of Economic and Social Affairs (UNDESA), *UN E-Government Development Database* (retrieved November 27, 2014), <http://unpan3.un.org/egovkb/en-us/>

## 8.03 Government success in ICT promotion

In your country, how successful is the government in promoting the use of ICTs? [1 = not successful at all; 7 = extremely successful] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.1	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.1	7
1	United Arab Emirates	6.2				71	Ecuador	4.0			
2	Rwanda	6.0				72	Tajikistan	4.0			
3	Singapore	5.9				73	Turkey	4.0			
4	Qatar	5.8				74	Ethiopia	3.9			
5	Malaysia	5.8				75	India	3.9			
6	Luxembourg	5.8				76	Guyana	3.9			
7	Estonia	5.6				77	Costa Rica	3.9			
8	Azerbaijan	5.4				78	Botswana	3.9			
9	Saudi Arabia	5.3				79	Moldova	3.9			
10	Sri Lanka	5.2				80	Spain	3.9			
11	Korea, Rep.	5.2				81	Bulgaria	3.8			
12	Bahrain	5.1				82	Mexico	3.8			
13	Norway	5.1				83	Tunisia	3.8			
14	Sweden	5.1				84	Slovenia	3.8			
15	United Kingdom	4.9				85	Thailand	3.8			
16	Taiwan, China	4.9				86	Liberia	3.8			
17	Portugal	4.9				87	Tanzania	3.8			
18	Iceland	4.9				88	Slovak Republic	3.8			
19	Netherlands	4.9				89	Honduras	3.8			
20	Macedonia, FYR	4.9				90	Iran, Islamic Rep.	3.7			
21	Kenya	4.8				91	Trinidad and Tobago	3.7			
22	Israel	4.8				92	Ghana	3.7			
23	Switzerland	4.8				93	Namibia	3.7			
24	New Zealand	4.8				94	Ukraine	3.7			
25	United States	4.8				95	Gabon	3.7			
26	Malta	4.8				96	Cyprus	3.7			
27	Ireland	4.7				97	Dominican Republic	3.6			
28	Finland	4.7				98	Albania	3.6			
29	Hong Kong SAR	4.7				99	Egypt	3.6			
30	Japan	4.7				100	Pakistan	3.6			
31	Mauritius	4.7				101	Czech Republic	3.6			
32	Germany	4.7				102	Cambodia	3.6			
33	Kazakhstan	4.6				103	Nigeria	3.5			
34	Denmark	4.6				104	Hungary	3.5			
35	Austria	4.6				105	Lesotho	3.5			
36	Lithuania	4.6				106	Guatemala	3.5			
37	France	4.5				107	Chad	3.4			
38	Canada	4.5				108	Benin	3.4			
39	China	4.5				109	Guinea	3.4			
40	Jordan	4.4				110	Poland	3.4			
41	Senegal	4.4				111	South Africa	3.4			
42	Panama	4.4				112	Croatia	3.4			
43	Gambia, The	4.4				113	Romania	3.4			
44	Oman	4.4				114	Mozambique	3.4			
45	Cape Verde	4.4				115	Algeria	3.4			
46	Belgium	4.4				116	Kuwait	3.3			
47	Côte d'Ivoire	4.3				117	Serbia	3.3			
48	Uruguay	4.3				118	Peru	3.3			
49	Morocco	4.3				119	El Salvador	3.2			
50	Armenia	4.3				120	Kyrgyz Republic	3.2			
51	Indonesia	4.3				121	Malawi	3.2			
52	Uganda	4.2				122	Brazil	3.2			
53	Colombia	4.2				123	Mauritania	3.1			
54	Russian Federation	4.2				124	Madagascar	3.1			
55	Australia	4.2				125	Bolivia	3.1			
56	Mongolia	4.2				126	Italy	3.1			
57	Vietnam	4.1				127	Zimbabwe	3.1			
58	Montenegro	4.1				128	Greece	3.0			
59	Bhutan	4.1				129	Burundi	3.0			
60	Cameroon	4.1				130	Nepal	3.0			
61	Chile	4.1				131	Myanmar	3.0			
62	Georgia	4.1				132	Swaziland	2.9			
63	Bangladesh	4.1				133	Argentina	2.9			
64	Mali	4.1				134	Paraguay	2.8			
65	Seychelles	4.1				135	Haiti	2.8			
66	Latvia	4.1				136	Nicaragua	2.7			
67	Lao PDR	4.1				137	Lebanon	2.7			
68	Zambia	4.0				138	Bosnia and Herzegovina	2.3			
69	Jamaica	4.0				139	Venezuela	2.3			
70	Philippines	4.0									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions



9th pillar

Economic impacts

## 9.01 Impact of ICTs on business models

In your country, to what extent do ICTs enable new business models? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.5	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.5	7
1	Finland	5.9				71	Cambodia	4.4			
2	United Kingdom	5.9				72	Italy	4.4			
3	Qatar	5.8				73	Kazakhstan	4.4			
4	Netherlands	5.8				74	Bulgaria	4.4			
5	Luxembourg	5.8				75	Cyprus	4.3			
6	Singapore	5.8				76	Brazil	4.3			
7	United Arab Emirates	5.7				77	Uganda	4.3			
8	Switzerland	5.7				78	Croatia	4.3			
9	Sweden	5.6				79	Iran, Islamic Rep.	4.3			
10	Malaysia	5.6				80	Montenegro	4.3			
11	Estonia	5.6				81	Romania	4.2			
12	Ireland	5.6				82	Nigeria	4.2			
13	Norway	5.6				83	Poland	4.2			
14	United States	5.5				84	Namibia	4.2			
15	Israel	5.5				85	Mongolia	4.2			
16	Portugal	5.5				86	Zambia	4.2			
17	Korea, Rep.	5.5				87	Ghana	4.1			
18	Canada	5.5				88	Oman	4.1			
19	New Zealand	5.4				89	India	4.1			
20	Belgium	5.4				90	Pakistan	4.1			
21	Germany	5.4				91	Tunisia	4.1			
22	Iceland	5.4				92	Mali	4.1			
23	Taiwan, China	5.3				93	Cameroon	4.1			
24	Japan	5.3				94	El Salvador	4.1			
25	Austria	5.3				95	Greece	4.0			
26	Hong Kong SAR	5.2				96	Gambia, The	4.0			
27	Lithuania	5.2				97	Russian Federation	4.0			
28	France	5.2				98	Egypt	4.0			
29	Denmark	5.1				99	Paraguay	4.0			
30	Spain	5.1				100	Kuwait	4.0			
31	Chile	5.1				101	Lao PDR	4.0			
32	Rwanda	5.1				102	Georgia	4.0			
33	Saudi Arabia	5.0				103	Tajikistan	3.9			
34	Panama	5.0				104	Mozambique	3.9			
35	Czech Republic	5.0				105	Guyana	3.9			
36	Guatemala	5.0				106	Botswana	3.9			
37	Malta	4.9				107	Serbia	3.9			
38	Bahrain	4.9				108	Madagascar	3.9			
39	Uruguay	4.9				109	Trinidad and Tobago	3.9			
40	Kenya	4.9				110	Seychelles	3.9			
41	Australia	4.9				111	Tanzania	3.8			
42	Thailand	4.8				112	Moldova	3.8			
43	Dominican Republic	4.8				113	Ukraine	3.8			
44	Costa Rica	4.8				114	Benin	3.8			
45	Azerbaijan	4.8				115	Bolivia	3.8			
46	Latvia	4.8				116	Bangladesh	3.8			
47	Indonesia	4.8				117	Lebanon	3.7			
48	Honduras	4.8				118	Albania	3.7			
49	China	4.7				119	Bhutan	3.7			
50	Jordan	4.7				120	Zimbabwe	3.7			
51	Macedonia, FYR	4.7				121	Ethiopia	3.6			
52	Turkey	4.7				122	Bosnia and Herzegovina	3.6			
53	Sri Lanka	4.7				123	Mauritania	3.6			
54	Mexico	4.7				124	Nicaragua	3.6			
55	Senegal	4.6				125	Argentina	3.6			
56	Colombia	4.6				126	Algeria	3.6			
57	Slovak Republic	4.6				127	Lesotho	3.6			
58	Philippines	4.6				128	Liberia	3.5			
59	Hungary	4.6				129	Kyrgyz Republic	3.5			
60	South Africa	4.5				130	Gabon	3.5			
61	Slovenia	4.5				131	Malawi	3.4			
62	Armenia	4.5				132	Nepal	3.4			
63	Morocco	4.5				133	Myanmar	3.2			
64	Ecuador	4.5				134	Swaziland	3.2			
65	Cape Verde	4.5				135	Venezuela	3.2			
66	Mauritius	4.5				136	Guinea	3.2			
67	Peru	4.5				137	Haiti	2.9			
68	Vietnam	4.5				138	Chad	2.8			
69	Jamaica	4.5				139	Burundi	2.7			
70	Côte d'Ivoire	4.4									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 9.02 PCT ICT patent applications

Number of applications for information and communication technology–related patents filed under the Patent Cooperation Treaty (PCT) per million population | 2012–13 average

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Sweden	153.1	71	Egypt	0.2
2	Finland	149.0	72	Sri Lanka	0.2
3	Japan	137.5	73	Argentina	0.2
4	Israel	117.5	74	Tunisia	0.2
5	Korea, Rep.	107.8	75	Thailand	0.2
6	Switzerland	74.6	76	Bahrain	0.2
7	United States	69.8	77	Kuwait	0.1
8	Netherlands	59.1	78	Oman	0.1
9	Singapore	55.8	79	Macedonia, FYR	0.1
10	Germany	52.3	80	Azerbaijan	0.1
11	Denmark	42.1	81	Philippines	0.1
12	Canada	38.2	82	Kenya	0.1
13	Austria	37.3	83	Peru	0.1
14	Norway	36.8	84	Nicaragua	0.1
15	Ireland	34.1	85	Ecuador	0.1
16	France	33.5	86	Albania	0.1
17	United Kingdom	31.1	87	Vietnam	0.1
18	Luxembourg	29.6	88	Dominican Republic	0.0
19	Belgium	28.3	89	Venezuela	0.0
20	Australia	24.0	90	Iran, Islamic Rep.	0.0
21	Qatar	17.1	91	Indonesia	0.0
22	Iceland	16.7	92	Lao PDR	0.0
23	New Zealand	16.1	93	Cambodia	0.0
24	Slovenia	13.0	94	Pakistan	0.0
25	Estonia	9.8	95	Algeria	0.0
26	China	9.5	96	Zimbabwe	0.0
27	Italy	9.4	97	Ethiopia	0.0
28	Spain	9.4	98	Nigeria	0.0
29	Hungary	8.2	99	El Salvador	0.0
30	Malta	6.2	100	Bangladesh	0.0
31	Malaysia	6.0	101	Uganda	0.0
32	Seychelles	5.6	102	Myanmar	0.0
33	Czech Republic	4.3	103	Benin	0.0
34	Lithuania	3.8	103	Bhutan	0.0
35	Cyprus	3.7	103	Bolivia	0.0
36	Latvia	3.5	103	Botswana	0.0
37	Portugal	3.0	103	Burundi	0.0
38	Russian Federation	2.8	103	Cameroon	0.0
39	Greece	2.6	103	Cape Verde	0.0
40	United Arab Emirates	2.4	103	Chad	0.0
41	Bulgaria	2.4	103	Côte d'Ivoire	0.0
42	Slovak Republic	2.2	103	Gabon	0.0
43	Croatia	2.0	103	Ghana	0.0
44	Serbia	1.9	103	Guatemala	0.0
45	Poland	1.8	103	Guinea	0.0
46	Turkey	1.7	103	Guyana	0.0
47	South Africa	1.7	103	Haiti	0.0
48	Saudi Arabia	1.5	103	Honduras	0.0
49	Romania	1.4	103	Kyrgyz Republic	0.0
50	Panama	1.3	103	Lesotho	0.0
51	Ukraine	1.1	103	Liberia	0.0
52	Chile	0.8	103	Madagascar	0.0
53	Montenegro	0.8	103	Malawi	0.0
54	Mauritius	0.8	103	Mali	0.0
55	Georgia	0.7	103	Mauritania	0.0
56	Uruguay	0.6	103	Moldova	0.0
57	Mongolia	0.5	103	Mozambique	0.0
58	Brazil	0.5	103	Namibia	0.0
59	India	0.5	103	Nepal	0.0
60	Costa Rica	0.5	103	Paraguay	0.0
61	Lebanon	0.4	103	Rwanda	0.0
62	Gambia, The	0.4	103	Senegal	0.0
63	Morocco	0.4	103	Swaziland	0.0
64	Jordan	0.4	103	Tajikistan	0.0
65	Jamaica	0.4	103	Tanzania	0.0
66	Armenia	0.4	103	Trinidad and Tobago	0.0
67	Mexico	0.3	103	Zambia	0.0
68	Bosnia and Herzegovina	0.3	n/a	Taiwan, China	n/a
69	Colombia	0.3	n/a	Hong Kong SAR	n/a
70	Kazakhstan	0.2			

**SOURCES:** World Intellectual Property Organization (WIPO) PCT Data, sourced from Organisation for Economic Co-operation and Development (OECD), Patent Database, January 2016, <http://www.oecd.org/sti/inno/oecdpatentdatabases.htm>; World Bank, World Development Indicators (retrieved December 15, 2015), <http://data.worldbank.org>

## 9.03 Impact of ICTs on organizational models

In your country, to what extent do ICTs enable new organizational models (e.g., virtual teams, remote working, telecommuting) within companies? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.2	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.2	7
1	United Kingdom	5.8				71	Romania	4.1			
2	United States	5.8				72	Ukraine	4.1			
3	Finland	5.8				73	Hungary	4.1			
4	Netherlands	5.7				74	Poland	4.0			
5	Estonia	5.6				75	Russian Federation	4.0			
6	Norway	5.6				76	Cyprus	4.0			
7	Qatar	5.6				77	Jamaica	4.0			
8	Malaysia	5.6				78	Brazil	4.0			
9	Sweden	5.5				79	Zambia	3.9			
10	United Arab Emirates	5.5				80	El Salvador	3.9			
11	Singapore	5.5				81	Namibia	3.9			
12	Canada	5.4				82	Cape Verde	3.9			
13	Iceland	5.4				83	Peru	3.9			
14	Ireland	5.4				84	Italy	3.8			
15	Luxembourg	5.3				85	Argentina	3.8			
16	Hong Kong SAR	5.3				86	Morocco	3.8			
17	Switzerland	5.3				87	Guyana	3.8			
18	Germany	5.2				88	Trinidad and Tobago	3.8			
19	Lithuania	5.2				89	Cameroon	3.8			
20	Israel	5.1				90	Egypt	3.7			
21	Taiwan, China	5.1				91	Uganda	3.7			
22	Belgium	5.1				92	Liberia	3.7			
23	New Zealand	5.1				93	Madagascar	3.7			
24	Denmark	5.0				94	Tajikistan	3.7			
25	Australia	5.0				95	Lao PDR	3.7			
26	France	4.9				96	Montenegro	3.7			
27	Portugal	4.9				97	Mali	3.6			
28	Korea, Rep.	4.9				98	Kuwait	3.6			
29	Czech Republic	4.9				99	Oman	3.6			
30	Azerbaijan	4.8				100	Greece	3.6			
31	China	4.7				101	Nigeria	3.6			
32	Austria	4.7				102	Seychelles	3.6			
33	Japan	4.7				103	Ghana	3.6			
34	Guatemala	4.7				104	Moldova	3.6			
35	Honduras	4.6				105	Mongolia	3.5			
36	Latvia	4.6				106	Bangladesh	3.5			
37	Bahrain	4.6				107	Bolivia	3.5			
38	Panama	4.6				108	Iran, Islamic Rep.	3.5			
39	Indonesia	4.6				109	Kyrgyz Republic	3.5			
40	Costa Rica	4.6				110	Benin	3.5			
41	Saudi Arabia	4.6				111	Gambia, The	3.5			
42	Malta	4.6				112	Ethiopia	3.5			
43	Colombia	4.5				113	Tunisia	3.4			
44	Slovak Republic	4.5				114	Serbia	3.4			
45	Spain	4.5				115	Lesotho	3.4			
46	Slovenia	4.4				116	Georgia	3.4			
47	Philippines	4.4				117	Botswana	3.4			
48	Sri Lanka	4.4				118	Mauritania	3.4			
49	Chile	4.4				119	Tanzania	3.4			
50	Thailand	4.4				120	Venezuela	3.4			
51	Dominican Republic	4.4				121	Nepal	3.3			
52	Kenya	4.4				122	Lebanon	3.3			
53	Senegal	4.4				123	Bhutan	3.3			
54	South Africa	4.4				124	Pakistan	3.3			
55	Mexico	4.4				125	Mozambique	3.2			
56	Jordan	4.4				126	Paraguay	3.2			
57	Côte d'Ivoire	4.3				127	Nicaragua	3.2			
58	Uruguay	4.3				128	Bosnia and Herzegovina	3.1			
59	Ecuador	4.3				129	Zimbabwe	3.0			
60	Croatia	4.3				130	Myanmar	3.0			
61	Armenia	4.3				131	Gabon	3.0			
62	Macedonia, FYR	4.3				132	Malawi	3.0			
63	Bulgaria	4.2				133	Algeria	2.9			
64	Cambodia	4.2				134	Albania	2.9			
65	India	4.2				135	Haiti	2.9			
66	Vietnam	4.2				136	Swaziland	2.8			
67	Rwanda	4.2				137	Guinea	2.7			
68	Mauritius	4.2				138	Burundi	2.4			
69	Turkey	4.1				139	Chad	2.2			
70	Kazakhstan	4.1									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 9.04 Share of workforce employed in knowledge-intensive activities (%)

Share of workforce employed in knowledge-intensive activities (%) | 2014 or most recent

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Luxembourg	62.3	71	Bangladesh <sup>6</sup>	20.0
2	Singapore <sup>8</sup>	52.7	72	Turkey	19.7
3	Switzerland	52.1	73	Pakistan <sup>3</sup>	19.5
4	Norway	50.7	74	Mexico	19.5
5	Sweden	49.4	75	Venezuela <sup>8</sup>	19.2
6	Iceland	48.2	76	Qatar <sup>8</sup>	18.2
7	Israel	47.7	77	Paraguay	18.1
8	United Kingdom	47.4	78	Botswana <sup>5</sup>	17.9
9	Netherlands	46.4	79	Kyrgyz Republic	17.9
10	Belgium	46.2	80	Albania	17.7
11	Denmark	45.3	81	Algeria <sup>8</sup>	17.6
12	Finland	45.2	82	Dominican Republic <sup>8</sup>	17.2
13	Australia	44.9	83	Iran, Islamic Rep.	17.1
14	Russian Federation	44.2	84	Sri Lanka	16.8
15	France	44.0	85	Bolivia <sup>4</sup>	15.3
16	Canada	43.7	86	Peru <sup>8</sup>	15.0
17	Germany	43.5	87	Nicaragua <sup>1</sup>	14.8
18	New Zealand <sup>8</sup>	42.9	88	Bhutan	14.8
19	Estonia	42.7	89	Namibia <sup>8</sup>	14.6
20	Lithuania	42.6	90	Thailand	13.8
21	Slovenia	41.7	91	Ecuador	12.3
22	Austria	40.4	92	El Salvador <sup>8</sup>	12.1
23	Ireland	40.3	93	Colombia <sup>8</sup>	11.7
24	Latvia	39.6	94	Guatemala	10.9
25	Malta	39.3	95	Vietnam	10.3
26	United States <sup>8</sup>	38.0	96	Ghana <sup>5</sup>	9.6
27	Hong Kong SAR	37.9	97	Liberia <sup>5</sup>	9.3
28	Czech Republic	37.9	98	Indonesia <sup>8</sup>	8.9
29	Montenegro <sup>7</sup>	37.2	99	Zambia <sup>5</sup>	7.3
30	Poland	36.8	100	Morocco <sup>3</sup>	6.8
31	Egypt <sup>8</sup>	36.3	101	Lesotho <sup>8</sup>	6.8
32	United Arab Emirates <sup>3</sup>	36.1	102	Zimbabwe <sup>6</sup>	6.6
33	Cyprus	35.8	103	Nepal <sup>3</sup>	4.3
34	Croatia	35.7	104	Cambodia <sup>5</sup>	4.1
35	Italy	35.6	105	Uganda <sup>8</sup>	4.1
36	Hungary	35.3	106	Ethiopia <sup>8</sup>	3.8
37	Portugal	34.8	107	Rwanda <sup>7</sup>	3.8
38	Ukraine <sup>8</sup>	33.7	108	Madagascar <sup>7</sup>	3.5
39	Taiwan, China <sup>8</sup>	33.3	109	Tanzania <sup>1</sup>	2.6
40	Spain	33.1	110	Guinea <sup>5</sup>	0.7
41	Kazakhstan <sup>8</sup>	32.3	n/a	Bahrain	n/a
42	Slovak Republic	31.9	n/a	Benin	n/a
43	Bulgaria	31.9	n/a	Bosnia and Herzegovina	n/a
44	Lebanon <sup>2</sup>	31.8	n/a	Burundi	n/a
45	Greece	30.6	n/a	Cameroon	n/a
46	Serbia	29.1	n/a	Cape Verde	n/a
47	Moldova	28.7	n/a	Chad	n/a
48	Saudi Arabia	28.1	n/a	China	n/a
49	Trinidad and Tobago	27.7	n/a	Côte d'Ivoire	n/a
50	Armenia <sup>6</sup>	26.9	n/a	Gabon	n/a
51	Macedonia, FYR	26.3	n/a	Gambia, The	n/a
52	Seychelles <sup>6</sup>	26.3	n/a	Guyana	n/a
53	Malaysia	25.2	n/a	Haiti	n/a
54	Costa Rica <sup>8</sup>	25.0	n/a	Honduras	n/a
55	Mongolia	25.0	n/a	India	n/a
56	Chile	24.8	n/a	Jordan	n/a
57	South Africa	24.8	n/a	Kenya	n/a
58	Japan	24.4	n/a	Kuwait	n/a
59	Panama	24.0	n/a	Lao PDR	n/a
60	Argentina	23.9	n/a	Malawi	n/a
61	Philippines	23.5	n/a	Mali	n/a
62	Azerbaijan	23.4	n/a	Mauritania	n/a
63	Georgia <sup>2</sup>	22.2	n/a	Mozambique	n/a
64	Brazil	21.6	n/a	Myanmar	n/a
65	Korea, Rep.	21.6	n/a	Nigeria	n/a
66	Romania	21.5	n/a	Oman	n/a
67	Uruguay	20.9	n/a	Senegal	n/a
68	Tunisia <sup>7</sup>	20.9	n/a	Swaziland	n/a
69	Mauritius <sup>7</sup>	20.4	n/a	Tajikistan	n/a
70	Jamaica <sup>3</sup>	20.1			

SOURCE: International Labour Organization (ILO), ILOSTAT Database (retrieved January 5, 2016), <http://www.ilo.org/ilostat>

<sup>1</sup> 2006 <sup>2</sup> 2007 <sup>3</sup> 2008 <sup>4</sup> 2009 <sup>5</sup> 2010 <sup>6</sup> 2011 <sup>7</sup> 2012 <sup>8</sup> 2013



# 10th pillar

## Social impacts

## 10.01 Impact of ICTs on access to basic services

In your country, to what extent do information and communication technologies (ICTs) enable access for all individuals to basic services (e.g., health, education, financial services, etc.)? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.3	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.3	7
1	Singapore	6.2				71	Kuwait	4.1			
2	Netherlands	6.2				72	Senegal	4.1			
3	Switzerland	6.1				73	Dominican Republic	4.1			
4	United Arab Emirates	6.1				74	Ukraine	4.1			
5	Sweden	6.0				75	Jamaica	4.0			
6	Norway	6.0				76	Tajikistan	4.0			
7	Iceland	6.0				77	Gambia, The	4.0			
8	Qatar	6.0				78	Côte d'Ivoire	4.0			
9	Austria	5.9				79	El Salvador	4.0			
10	Luxembourg	5.9				80	Seychelles	4.0			
11	Estonia	5.9				81	Mexico	4.0			
12	Canada	5.8				82	Greece	4.0			
13	Taiwan, China	5.8				83	Peru	4.0			
14	Germany	5.8				84	Philippines	3.9			
15	United States	5.7				85	Moldova	3.9			
16	Denmark	5.7				86	Poland	3.9			
17	Korea, Rep.	5.7				87	Mali	3.9			
18	Belgium	5.7				88	Russian Federation	3.9			
19	United Kingdom	5.7				89	Italy	3.9			
20	Finland	5.7				90	Lao PDR	3.9			
21	Israel	5.6				91	Iran, Islamic Rep.	3.9			
22	Hong Kong SAR	5.6				92	Namibia	3.9			
23	Portugal	5.6				93	Guyana	3.9			
24	Malaysia	5.5				94	Montenegro	3.9			
25	France	5.4				95	Morocco	3.8			
26	Bahrain	5.4				96	Trinidad and Tobago	3.8			
27	Australia	5.4				97	South Africa	3.8			
28	Japan	5.4				98	Romania	3.8			
29	Lithuania	5.3				99	Bolivia	3.8			
30	New Zealand	5.3				100	Tunisia	3.8			
31	Rwanda	5.3				101	Botswana	3.7			
32	Malta	5.3				102	Pakistan	3.7			
33	Saudi Arabia	5.2				103	Liberia	3.7			
34	Macedonia, FYR	5.0				104	Lesotho	3.7			
35	Latvia	5.0				105	Ghana	3.6			
36	Spain	5.0				106	Zambia	3.6			
37	Sri Lanka	5.0				107	Serbia	3.6			
38	Chile	5.0				108	Egypt	3.5			
39	Slovenia	5.0				109	Argentina	3.5			
40	Ireland	4.9				110	Bangladesh	3.5			
41	Czech Republic	4.9				111	Brazil	3.5			
42	Azerbaijan	4.9				112	Tanzania	3.5			
43	Jordan	4.8				113	Bosnia and Herzegovina	3.5			
44	Uruguay	4.8				114	Ethiopia	3.5			
45	Panama	4.8				115	Uganda	3.5			
46	Turkey	4.7				116	Nepal	3.4			
47	China	4.6				117	Lebanon	3.4			
48	Costa Rica	4.6				118	Zimbabwe	3.4			
49	Cyprus	4.6				119	Paraguay	3.4			
50	Oman	4.6				120	Cambodia	3.3			
51	Georgia	4.5				121	Venezuela	3.3			
52	Kenya	4.5				122	Kyrgyz Republic	3.2			
53	Kazakhstan	4.5				123	Nigeria	3.2			
54	Indonesia	4.4				124	Algeria	3.2			
55	Thailand	4.4				125	Swaziland	3.2			
56	Ecuador	4.4				126	Nicaragua	3.2			
57	Hungary	4.3				127	Cameroon	3.1			
58	Croatia	4.3				128	Albania	3.0			
59	Slovak Republic	4.3				129	Mauritania	3.0			
60	Mauritius	4.3				130	Malawi	3.0			
61	Guatemala	4.3				131	Mozambique	3.0			
62	Cape Verde	4.3				132	Myanmar	3.0			
63	Armenia	4.3				133	Madagascar	3.0			
64	Bulgaria	4.3				134	Gabon	3.0			
65	Mongolia	4.3				135	Guinea	3.0			
66	Honduras	4.2				136	Burundi	2.8			
67	Colombia	4.2				137	Benin	2.6			
68	Vietnam	4.2				138	Haiti	2.5			
69	Bhutan	4.2				139	Chad	2.5			
70	India	4.2									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions



## 10.02 Internet access in schools

In your country, to what extent is the Internet used in schools for learning purposes? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.3	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.3	7
1	Iceland	6.5				71	Mauritius	4.2			
2	Singapore	6.3				72	Seychelles	4.2			
3	Norway	6.3				73	Jamaica	4.2			
4	Sweden	6.3				74	Cape Verde	4.1			
5	Netherlands	6.1				75	Argentina	4.1			
6	Australia	6.1				76	Ecuador	4.1			
7	United Kingdom	6.1				77	Colombia	4.1			
8	Estonia	6.1				78	Guyana	4.1			
9	United Arab Emirates	6.0				79	Sri Lanka	4.0			
10	Hong Kong SAR	6.0				80	Côte d'Ivoire	4.0			
11	Lithuania	6.0				81	Kuwait	4.0			
12	Finland	6.0				82	Honduras	3.9			
13	Canada	6.0				83	Bosnia and Herzegovina	3.9			
14	New Zealand	5.9				84	Oman	3.9			
15	Denmark	5.9				85	Lebanon	3.9			
16	Switzerland	5.9				86	Greece	3.9			
17	United States	5.9				87	Kyrgyz Republic	3.9			
18	Qatar	5.9				88	Italy	3.9			
19	Korea, Rep.	5.8				89	Serbia	3.9			
20	Latvia	5.7				90	Mexico	3.9			
21	Slovenia	5.7				91	Kenya	3.9			
22	Uruguay	5.7				92	Bhutan	3.8			
23	Malta	5.6				93	Gambia, The	3.8			
24	Luxembourg	5.6				94	Zambia	3.8			
25	Belgium	5.6				95	Peru	3.7			
26	Malaysia	5.5				96	Ethiopia	3.7			
27	Taiwan, China	5.4				97	Brazil	3.6			
28	Israel	5.4				98	Guatemala	3.6			
29	Czech Republic	5.4				99	El Salvador	3.6			
30	Portugal	5.4				100	India	3.6			
31	Ireland	5.3				101	Lao PDR	3.6			
32	Slovak Republic	5.3				102	Namibia	3.5			
33	Austria	5.3				103	Pakistan	3.5			
34	Bahrain	5.3				104	Mali	3.5			
35	Macedonia, FYR	5.2				105	Ghana	3.5			
36	Russian Federation	5.1				106	Cambodia	3.5			
37	Japan	5.0				107	Bolivia	3.5			
38	Cyprus	5.0				108	Dominican Republic	3.5			
39	Germany	5.0				109	Nepal	3.5			
40	France	4.9				110	Morocco	3.5			
41	Kazakhstan	4.9				111	Venezuela	3.5			
42	Hungary	4.9				112	Tunisia	3.4			
43	Indonesia	4.8				113	Lesotho	3.4			
44	Ukraine	4.8				114	Cameroon	3.4			
45	Albania	4.8				115	Benin	3.3			
46	Poland	4.8				116	Botswana	3.3			
47	China	4.8				117	Zimbabwe	3.2			
48	Romania	4.8				118	Uganda	3.2			
49	Chile	4.8				119	South Africa	3.2			
50	Bulgaria	4.7				120	Iran, Islamic Rep.	3.2			
51	Mongolia	4.7				121	Bangladesh	3.2			
52	Panama	4.7				122	Mozambique	3.1			
53	Costa Rica	4.7				123	Liberia	3.0			
54	Thailand	4.6				124	Nigeria	3.0			
55	Croatia	4.6				125	Paraguay	2.9			
56	Jordan	4.6				126	Madagascar	2.8			
57	Vietnam	4.6				127	Tanzania	2.8			
58	Philippines	4.5				128	Algeria	2.8			
59	Moldova	4.5				129	Nicaragua	2.7			
60	Trinidad and Tobago	4.5				130	Haiti	2.7			
61	Georgia	4.5				131	Swaziland	2.6			
62	Turkey	4.4				132	Egypt	2.6			
63	Saudi Arabia	4.4				133	Malawi	2.5			
64	Tajikistan	4.4				134	Gabon	2.5			
65	Senegal	4.4				135	Myanmar	2.3			
66	Rwanda	4.4				136	Mauritania	2.1			
67	Spain	4.3				137	Guinea	1.8			
68	Azerbaijan	4.3				138	Burundi	1.7			
69	Montenegro	4.3				139	Chad	1.6			
70	Armenia	4.2									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 10.03 ICT use and government efficiency

In your country, to what extent does the use of ICTs by the government improve the quality of government services to the population? [1 = not at all; 7 = to a great extent]  
| 2014–15 weighted average

RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.1	7	RANK	COUNTRY/ECONOMY	VALUE	1	MEAN: 4.1	7
1	United Arab Emirates	6.1				71	Tajikistan	4.0			
2	Singapore	6.1				72	Mongolia	4.0			
3	Qatar	6.0				73	Cyprus	3.9			
4	Estonia	5.8				74	Hungary	3.9			
5	Rwanda	5.6				75	Philippines	3.9			
6	Malaysia	5.6				76	Mexico	3.9			
7	Luxembourg	5.5				77	Honduras	3.8			
8	Saudi Arabia	5.5				78	Albania	3.8			
9	Norway	5.4				79	Mali	3.8			
10	Bahrain	5.4				80	Slovak Republic	3.8			
11	Portugal	5.4				81	Botswana	3.8			
12	Azerbaijan	5.4				82	Moldova	3.8			
13	Korea, Rep.	5.3				83	Costa Rica	3.8			
14	Sweden	5.3				84	Dominican Republic	3.8			
15	United Kingdom	5.1				85	Ethiopia	3.8			
16	Denmark	5.1				86	Lao PDR	3.8			
17	Iceland	5.1				87	Czech Republic	3.8			
18	Taiwan, China	5.0				88	Zambia	3.8			
19	Finland	5.0				89	Kuwait	3.7			
20	Netherlands	5.0				90	Jamaica	3.7			
21	Sri Lanka	4.9				91	Guyana	3.7			
22	Switzerland	4.9				92	Tunisia	3.6			
23	Hong Kong SAR	4.9				93	Croatia	3.6			
24	Lithuania	4.9				94	Ghana	3.6			
25	Malta	4.8				95	Trinidad and Tobago	3.5			
26	Georgia	4.8				96	Ukraine	3.5			
27	New Zealand	4.8				97	Namibia	3.5			
28	Austria	4.8				98	Bangladesh	3.5			
29	Macedonia, FYR	4.8				99	Serbia	3.5			
30	France	4.8				100	Greece	3.5			
31	Kazakhstan	4.8				101	Poland	3.5			
32	Israel	4.8				102	Mozambique	3.5			
33	Germany	4.8				103	Cameroon	3.5			
34	Ireland	4.7				104	Guatemala	3.5			
35	United States	4.7				105	El Salvador	3.4			
36	Canada	4.7				106	Lesotho	3.4			
37	Japan	4.7				107	Italy	3.4			
38	Cape Verde	4.6				108	Pakistan	3.4			
39	Kenya	4.6				109	Tanzania	3.4			
40	Armenia	4.5				110	Brazil	3.4			
41	China	4.5				111	Peru	3.4			
42	Australia	4.5				112	Egypt	3.4			
43	Turkey	4.5				113	Romania	3.4			
44	Chile	4.5				114	Bolivia	3.4			
45	Panama	4.5				115	Liberia	3.3			
46	Oman	4.5				116	Algeria	3.3			
47	Jordan	4.4				117	South Africa	3.2			
48	Côte d'Ivoire	4.4				118	Benin	3.2			
49	Latvia	4.4				119	Kyrgyz Republic	3.2			
50	Belgium	4.4				120	Cambodia	3.2			
51	Seychelles	4.3				121	Gabon	3.1			
52	Bhutan	4.2				122	Paraguay	3.0			
53	Spain	4.2				123	Mauritania	3.0			
54	Montenegro	4.2				124	Swaziland	3.0			
55	Mauritius	4.2				125	Lebanon	3.0			
56	Colombia	4.2				126	Argentina	3.0			
57	Indonesia	4.2				127	Malawi	2.9			
58	Ecuador	4.1				128	Nigeria	2.9			
59	Senegal	4.1				129	Madagascar	2.9			
60	Uruguay	4.1				130	Nicaragua	2.8			
61	Russian Federation	4.1				131	Burundi	2.8			
62	Vietnam	4.1				132	Guinea	2.8			
63	Iran, Islamic Rep.	4.1				133	Myanmar	2.8			
64	Gambia, The	4.0				134	Chad	2.7			
65	Morocco	4.0				135	Nepal	2.7			
66	Slovenia	4.0				136	Venezuela	2.6			
67	Bulgaria	4.0				137	Bosnia and Herzegovina	2.6			
68	India	4.0				138	Zimbabwe	2.5			
69	Uganda	4.0				139	Haiti	2.3			
70	Thailand	4.0									

SOURCE: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

## 10.04 E-Participation Index

The E-Participation Index assesses, on a 0-to-1 (best) scale, the quality, relevance, and usefulness of government websites in providing online information and participatory tools and services to their citizens. | 2013

RANK	COUNTRY/ECONOMY	VALUE	RANK	COUNTRY/ECONOMY	VALUE
1	Korea, Rep.	1.00	70	Malta	0.47
1	Netherlands	1.00	70	Romania	0.47
3	Uruguay	0.98	73	Hungary	0.45
4	France	0.96	73	Zimbabwe	0.45
4	Japan	0.96	75	Azerbaijan	0.43
4	United Kingdom	0.96	75	Kuwait	0.43
7	Australia	0.94	75	Ukraine	0.43
7	Chile	0.94	78	Bolivia	0.41
9	United States	0.92	78	Kyrgyz Republic	0.41
10	Singapore	0.90	78	Serbia	0.41
11	Colombia	0.88	81	Bangladesh	0.39
12	Israel	0.86	81	Ghana	0.39
13	United Arab Emirates	0.84	81	Slovenia	0.39
14	Bahrain	0.82	81	Tanzania	0.39
14	Canada	0.82	85	Switzerland	0.37
14	Costa Rica	0.82	86	Bhutan	0.35
17	Greece	0.80	86	Madagascar	0.35
17	Morocco	0.80	86	Senegal	0.35
19	Italy	0.78	89	Croatia	0.33
19	New Zealand	0.78	89	Dominican Republic	0.33
19	Spain	0.78	89	Guyana	0.33
22	Estonia	0.76	89	Honduras	0.33
22	Kazakhstan	0.76	89	Mozambique	0.33
24	Brazil	0.71	89	Namibia	0.33
24	Finland	0.71	89	Nigeria	0.33
24	Germany	0.71	89	Pakistan	0.33
24	Latvia	0.71	89	South Africa	0.33
24	Oman	0.71	98	Botswana	0.31
24	Peru	0.71	98	Cyprus	0.31
30	Mongolia	0.69	98	Trinidad and Tobago	0.31
30	Norway	0.69	101	Indonesia	0.29
30	Russian Federation	0.69	101	Iran, Islamic Rep.	0.29
33	China	0.65	101	Lebanon	0.29
33	Ireland	0.65	101	Nepal	0.29
33	Kenya	0.65	105	Bulgaria	0.25
33	Lithuania	0.65	105	Czech Republic	0.25
33	Portugal	0.65	105	Ethiopia	0.25
33	Sri Lanka	0.65	105	Paraguay	0.25
33	Tunisia	0.65	105	Seychelles	0.25
40	Austria	0.63	110	Bosnia and Herzegovina	0.24
40	Belgium	0.63	110	Malawi	0.24
40	India	0.63	112	Gabon	0.22
40	Moldova	0.63	112	Gambia, The	0.22
40	Slovak Republic	0.63	112	Macedonia, FYR	0.22
45	El Salvador	0.61	115	Cambodia	0.20
45	Mexico	0.61	115	Guatemala	0.20
45	Qatar	0.61	115	Jamaica	0.20
45	Sweden	0.61	115	Lao PDR	0.20
49	Georgia	0.59	119	Benin	0.18
49	Montenegro	0.59	119	Côte d'Ivoire	0.18
51	Philippines	0.57	119	Haiti	0.18
51	Saudi Arabia	0.57	119	Zambia	0.18
51	Venezuela	0.57	123	Cameroon	0.16
54	Argentina	0.55	123	Mali	0.16
54	Denmark	0.55	123	Swaziland	0.16
54	Egypt	0.55	126	Lesotho	0.14
54	Luxembourg	0.55	126	Uganda	0.14
54	Thailand	0.55	128	Liberia	0.12
59	Albania	0.53	128	Tajikistan	0.12
59	Armenia	0.53	130	Cape Verde	0.10
59	Malaysia	0.53	130	Nicaragua	0.10
59	Mauritius	0.53	132	Algeria	0.08
63	Rwanda	0.51	132	Chad	0.08
64	Ecuador	0.49	132	Mauritania	0.08
64	Iceland	0.49	132	Myanmar	0.08
64	Panama	0.49	136	Burundi	0.06
64	Poland	0.49	137	Guinea	0.02
64	Turkey	0.49	n/a	Taiwan, China	n/a
64	Vietnam	0.49	n/a	Hong Kong SAR	n/a
70	Jordan	0.47			

SOURCE: United Nations Department of Economic and Social Affairs (UNDESA), *UN E-Government Development Database* (retrieved November 27, 2014), <http://unpan3.un.org/egovkb/en-us/>



# 2.3

## **Technical Notes and Sources**



# Technical Notes and Sources

This section complements the Data Tables by providing additional information for all indicators used in the computation of the Networked Readiness Index 2016. In the case of indicators derived from the Executive Opinion Survey (the Survey), the full question and associated answers are provided. For more details on Survey indicators, refer to Chapter 1.3 of *The Global Competitiveness Report 2015–2016*.

For indicators sourced from other organizations, because of space limitations it is not possible to reproduce in this *Report* all the additional information associated with specific data points. Readers and users are urged to refer to the original source for any additional information and exceptions for certain economies or/and data points.

Although the World Economic Forum takes every reasonable step to ensure the quality and accuracy of the data used in the computation of the Networked Readiness Index, it makes no warranties with respect to their quality and accuracy. The World Economic Forum shall not be held responsible or liable for any outcome resulting from the use of these data. In particular, it shall not be responsible for any interpretation, decisions, or actions based on these data.

Furthermore, the data used in the computation of the Networked Readiness Index 2016 represent the most recent or/and best data available at the time when they were collected. It is possible that data were updated or revised subsequently.

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## 1st pillar: Political and regulatory environment

### 1.01 Effectiveness of law-making bodies

[How effective is the legislative process in your country? \[1 = not effective at all—it is deadlocked; 7 = extremely effective\] | 2014–15 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

### 1.02 Laws relating to ICTs

[How developed are your country's laws relating to the use of ICTs \(e.g., e-commerce, digital signatures, consumer protection\)? \[1 = not developed at all; 7 = extremely well developed\] | 2014–15 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

### 1.03 Judicial independence

[In your country, how independent is the judicial system from influences of the government, individuals, or companies? \[1 = not independent at all; 7 = entirely independent\] | 2014–15 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

### 1.04 Efficiency of legal framework in settling disputes

[In your country, how efficient are the legal and judicial systems for companies in settling disputes? \[1 = extremely inefficient; 7 = extremely efficient\] | 2014–15 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

### 1.05 Efficiency of legal framework in challenging regulations

[In your country, to what extent can individuals, institutions \(civil society\), and businesses obtain justice through the judicial system against arbitrary government decisions? \[1 = not at all; 7 = to a great extent\] | 2014–15 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

### 1.06 Intellectual property protection

[In your country, to what extent is intellectual property protected? \[1 = not at all; 7 = to a great extent\] | 2014–15 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

### 1.07 Software piracy rate

[Unlicensed software units as a percentage of total software units installed | 2013](#)

This measure covers piracy of all packaged software that runs on personal computers (PCs), including desktops, laptops, and ultra-portables, including netbooks. This includes operating systems; systems software such as databases and security packages; business applications; and consumer applications such as games, personal finance, and reference software. The study does not include software that runs on servers or mainframes, or software loaded onto tablets or smart phones.

For more information about the methodology, refer to the study available at <http://globalstudy.bsa.org/2013/index.html>.

Source: The Software Alliance (BSA), *The Compliance Gap: BSA Global Software Survey* (June 2014); [http://globalstudy.bsa.org/2013/downloads/studies/2013GlobalSurvey\\_Study\\_en.pdf](http://globalstudy.bsa.org/2013/downloads/studies/2013GlobalSurvey_Study_en.pdf)

**1.08 Number of procedures to enforce a contract**

[Number of procedures to resolve a dispute, counted from the moment the plaintiff files a lawsuit in court until payment | 2014](#)

The list of procedural steps compiled for each economy traces the chronology of a commercial dispute before the relevant court. A *procedure* is defined as any interaction, required by law or commonly used in practice, between the parties or between them and the judge or court officer. Other procedural steps, internal to the court or between the parties and their counsel, may be counted as well. This indicator includes steps to file and serve the case, steps to assign the case to a judge, steps for trial and judgment, and steps necessary to enforce the judgment. To indicate overall efficiency, one procedure is subtracted from the total number for economies that have specialized commercial courts or divisions, and one procedure for economies that allow electronic filing of the initial complaint. Some procedural steps that are part of others are not counted in the total number of procedures.

The World Bank discontinued the publication of this indicator within its *Doing Business* report series. Hence the NRI includes data published in the 2015 edition of the report.

Source: World Bank/International Finance Corporation, *Doing Business 2015: Going Beyond Efficiency*; <http://www.doingbusiness.org>

**1.09 Time required to enforce a contract**

[Number of days to resolve a dispute, counted from the moment the plaintiff decides to file the lawsuit in court until payment | 2015](#)

Time is recorded in calendar days, counted from the moment the plaintiff decides to file the lawsuit in court until payment. This includes both the days when actions take place and the waiting periods between.

For more details about the methodology employed and the assumptions made to compute this indicator, visit <http://www.doingbusiness.org/methodology/enforcing-contracts>.

Source: World Bank/International Finance Corporation, *Doing Business 2016: Measuring Regulatory Quality and Efficiency*; <http://www.doingbusiness.org>

**2nd pillar: Business and innovation environment****2.01 Availability of latest technologies**

[In your country, to what extent are the latest technologies available? \[1 = not at all; 7 = to a great extent\] | 2014–15 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**2.02 Venture capital availability**

[In your country, how easy is it for start-up entrepreneurs with innovative but risky projects to obtain equity funding? \[1 = extremely difficult; 7 = extremely easy\] | 2014–15 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**2.03 Total tax rate**

[Sum of profit tax, labor tax and social contributions, property taxes, turnover taxes, and other taxes, as a share \(%\) of commercial profits | 2014](#)

The total tax rate measures the amount of taxes and mandatory contributions borne by the business in the second year of operation, expressed as a share of commercial profit. *Paying Taxes 2016* reports the total tax rate for calendar year 2014. The total amount of taxes borne is the sum of all the different taxes and contributions payable after accounting for allowable deductions and exemptions. The taxes withheld (such as personal income tax) or collected by the company and remitted to the tax authorities (such as value-added tax, sales tax, or goods and service tax) but not borne by the company are excluded. The taxes included can be divided into five categories: profit or corporate income taxes; social contributions and labor taxes paid by the employer (in respect of which all mandatory contributions are included, even if paid to a private entity such as a required pension fund); property taxes; turnover taxes; and other taxes (such as municipal fees and vehicle taxes).

For more details about the methodology employed and the assumptions made to compute this indicator, visit <http://www.doingbusiness.org/methodology/paying-taxes>.

Source: World Bank/PwC, *Paying Taxes 2016: The Global Picture*; <http://www.doingbusiness.org>

**2.04 Time required to start a business**

[Number of days required to start a business | 2015](#)

Time is recorded in calendar days. The measure captures the median duration that incorporation lawyers indicate is necessary in practice to complete a procedure with minimum follow-up with government agencies and no extra payments.

For more details about the methodology employed and the assumptions made to compute this indicator, visit <http://www.doingbusiness.org/methodology/starting-a-business>.

Source: World Bank/International Finance Corporation, *Doing Business 2016: Measuring Regulatory Quality and Efficiency*; <http://www.doingbusiness.org>

**2.05 Number of procedures required to start a business**

[Number of procedures required to start a business | 2015](#)

A *procedure* is defined as any interaction of the company founders with external parties (e.g., government agencies, lawyers, auditors, or notaries).

For details about the methodology employed and the assumptions made to compute this indicator, visit <http://www.doingbusiness.org/methodology/starting-a-business>.

Source: World Bank/International Finance Corporation, *Doing Business 2016: Measuring Regulatory Quality and Efficiency*; <http://www.doingbusiness.org>

**2.06 Intensity of local competition**

[In your country, how intense is competition in the local markets? \[1 = not intense at all; 7 = extremely intense\] | 2014–15 weighted average](#)

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions



**2.07 Tertiary education enrollment rate****Tertiary education gross enrollment rate (%) | 2013 or most recent year available**

*Tertiary enrollment rate* is the ratio of total enrollment, regardless of age, to the population of the age group that officially corresponds to the tertiary education level. Tertiary education, whether or not leading to an advanced research qualification, normally requires, as a minimum condition of admission, the successful completion of education at the secondary level.

Sources: United Nations Education, Science and Culture Organization (UNESCO), UNESCO Institute for Statistics Data Centre (retrieved December 15, 2015), <http://data.uis.unesco.org/>; Authors' calculations based on Organisation for Economic Co-operation and Development (OECD), OECD.stat (retrieved February 4, 2016), <http://stats.oecd.org/>; national sources

**2.08 Quality of management schools****In your country, how do you assess the quality of business schools? [1 = extremely poor—among the worst in the world; 7 = excellent—among the best in the world] | 2014–15 weighted average**

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**2.09 Government procurement of advanced technology products****In your country, to what extent do government purchasing decisions foster innovation? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average**

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**3rd pillar: Infrastructure****3.01 Electricity production****Electricity production (kWh) per capita | 2013 or most recent year available**

*Electricity production* is measured at the terminals of all alternator sets in a station. In addition to hydropower, coal, oil, gas, and nuclear power generation, it covers generation by geothermal, solar, wind, and tide and wave energy as well as that from combustible renewables and waste. Production includes the output of electricity plants designed to produce electricity only, as well as that of combined heat and power plants. Total electricity production is then divided by total population. Population figures are from the World Bank's *World Development Indicators* (retrieved January 4, 2016).

Sources: Authors' calculations based on International Energy Agency (IEA), *World Energy Statistics and Balances 2015*, [www.iea.org/statistics/](http://www.iea.org/statistics/); World Bank, *World Development Indicators* (retrieved January 4, 2016), <http://data.worldbank.org/>; US Central Intelligence Agency (CIA), *The World Factbook* (retrieved January 5, 2016), <https://www.cia.gov/library/publications/the-world-factbook/>

**3.02 Mobile network coverage rate****Percentage of total population covered by a mobile network signal | 2014 or most recent year available**

This indicator measures the percentage of inhabitants who are within range of a mobile cellular signal, irrespective of whether or not they are subscribers. This is calculated by dividing the number of inhabitants within range of a mobile cellular signal by the total population. Note that this is not the same as the mobile subscription density or penetration.

Source: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

**3.03 International Internet bandwidth****International Internet bandwidth (kb/s) per Internet user | 2014 or most recent year available**

*International Internet bandwidth* is the sum of the capacity of all Internet exchanges offering international bandwidth measured in kilobits per second (kb/s).

Source: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

**3.04 Secure Internet servers****Secure Internet servers per million population | 2014**

*Secure Internet servers* are servers using encryption technology in Internet transactions.

Source: The World Bank, *World Development Indicators* (retrieved January 4, 2016), <http://data.worldbank.org/>; national sources

**4th pillar: Affordability****4.01 Prepaid mobile cellular tariffs****Average per-minute cost of different types of mobile cellular calls (PPP \$) | 2014 or most recent year available**

This measure is constructed by first taking the average per-minute cost of a local call to another mobile cellular phone on the same network (on-net) and on another network (off-net). This amount is then averaged with the per-minute cost of a local call to a fixed telephone line. All the tariffs are for calls placed during peak hours and based on a basic, representative mobile cellular pre-paid subscription service.

In order to account for differences in costs of living, we convert the dollar amounts into international dollars by applying the purchasing power parity (PPP) conversion factor sourced from the World Bank's *World Development Indicators* (retrieved January 4, 2016).

There are limitations associated with using PPP estimates. First, finding comparable baskets of goods with which to compare purchasing power across countries is an arduous task because there are inherent differences across countries in the quality of goods and consumption patterns. Second, price levels in one particular sector or industry, or for a particular product (or service), do not always reflect the general level of prices; this is a result of specific market conditions (competition, maturity, offering, and so on). Tariff rates expressed in PPP terms must therefore be interpreted with caution.

Sources: Authors' calculations based on International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>; World Bank, *World Development Indicators* (retrieved January 4, 2016), <http://data.worldbank.org/>; national sources

#### 4.02 Fixed broadband Internet tariffs

##### Monthly subscription charge for fixed (wired) broadband Internet service (PPP \$) | 2014 or most recent year available

Fixed (wired) broadband is considered any dedicated connection to the Internet at downstream speeds equal to, or greater than, 256 kilobits per second. In order to account for differences in costs of living, we convert the dollar amounts into international dollars by applying the purchasing power parity (PPP) conversion factor sourced from the World Bank's *World Development Indicators* (retrieved January 4, 2016).

There are limitations associated with using PPP estimates. First, finding comparable baskets of goods with which to compare purchasing power across countries is an arduous task because there are inherent differences across countries in the quality of goods and consumption patterns. Second, price levels in one particular sector or industry, or for a particular product (or service), do not always reflect the general level of prices; this is a result of specific market conditions (competition, maturity, offering, and so on). Tariff rates expressed in PPP terms must therefore be interpreted with caution.

Sources: Authors' calculations based on International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>; World Bank, *World Development Indicators* (retrieved January 4, 2016), <http://data.worldbank.org>; national sources

#### 4.03 Internet and telephony sectors competition index

##### Level of competition index for Internet services, international long distance services, and mobile telephone services on a 0-to-2 (best) scale | 2014 or most recent year available

This indicator measures the degree of liberalization in 17 categories of ICT services, including 3G/4G telephony, international long distance calls, and international gateways. For each economy, the level of competition in each of the categories is assessed as follows: monopoly, partial competition, and full competition. The results reflect the situation as of 2014 for the majority of countries (for others, data are available as of 2013 or earlier years). The index is calculated as the average of points obtained in each of the 17 categories for which data are available. Full liberalization across all categories yields a score of 2, the best possible score.

For more information, consult <http://www.itu.int/ITU-D/ICTEYE/Reports.aspx>.

Source: Authors' calculations based on International Telecommunication Union (ITU), *ITU World Telecommunication Regulatory Database* (retrieved January 5, 2016), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

### 5th pillar: Skills

#### 5.01 Quality of the education system

##### In your country, how well does the education system meet the needs of a competitive economy? [1 = not well at all; 7 = extremely well] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

#### 5.02 Quality of math and science education

##### In your country, how do you assess the quality of math and science education [1 = extremely poor—among the worst in the world; 7 = excellent—among the best in the world] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

#### 5.03 Secondary education enrolment rate

##### Secondary education gross enrollment rate (%) | 2013 or most recent year available

The reported value corresponds to the ratio of total secondary enrollment, regardless of age, to the population of the age group that officially corresponds to the secondary education level. Secondary education (ISCED levels 2 and 3) completes the provision of basic education that began at the primary level, and aims to lay the foundations for lifelong learning and human development, by offering more subject- or skills-oriented instruction using more specialized teachers.

Sources: United Nations Education, Science and Culture Organization (UNESCO), UNESCO Institute for Statistics Data Centre (retrieved December 15, 2015), <http://data.uis.unesco.org/>; and *Education for All Global Monitoring Monitor 2013*; United Nations Children's Fund (UNICEF), Education Statistics; SITEAL - Sistema de Información de tendencias Educativas de América Latina; national sources

#### 5.04 Adult literacy rate

##### Adult literacy rate (%) | 2015 or most recent year available

*Adult literacy* is defined as the percentage of the population aged 15 years and over who can both read and write with understanding a short, simple statement on his/her everyday life. For OECD member countries, when data are missing we apply a value of 99 percent for the purposes of calculating the NRI. This is in line with the approach adopted by the United Nations Development Programme (UNDP) in calculating the 2009 edition of the Human Development Index. We also assume a rate of 99 percent for Hong Kong SAR. In the corresponding table, those countries are identified by an asterisk.

Sources: United Nations Education, Science and Culture Organization (UNESCO), UNESCO Institute for Statistics Data Centre (retrieved December 15, 2015), <http://data.uis.unesco.org/>; national sources

### 6th pillar: Individual usage

#### 6.01 Mobile telephone subscriptions

##### Mobile telephone subscriptions (post-paid and pre-paid) per 100 population | 2014

A *mobile telephone subscription* refers to a subscription to a public mobile telephone service that provides access to the Public Switched Telephone Network using cellular technology, including prepaid SIM cards active during the past three months. This includes both analog and digital cellular systems (IMT-2000, Third Generation, 3G) and 4G subscriptions, but excludes mobile broadband subscriptions via data cards or USB modems. Subscriptions to public mobile data services, private trunked mobile radio, telepoint or radio paging, and telemetry services are also excluded. It includes all mobile cellular subscriptions that offer voice communications.

Source: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

#### 6.02 Internet users

##### Percentage of individuals using the Internet | 2014

*Internet users* refers to the proportion of individuals who used the Internet in the last 12 months. Data are based on surveys generally carried out by national statistical offices or estimated based on the number of Internet subscriptions.

Source: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

**6.03 Households with a personal computer****Percentage of households equipped with a personal computer | 2014 or most recent year available**

The proportion of households with a computer is calculated by dividing the number of households with a computer by the total number of households. A *computer* refers to a desktop or a laptop computer. It does not include equipment with some embedded computing abilities such as mobile cellular phones, personal digital assistants (PDAs), or TV sets.

Source: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

**6.04 Households with Internet access****Percentage of households with Internet access at home | 2014 or most recent year available**

The share of households with Internet access at home is calculated by dividing the number of in-scope households (where at least one household member is aged 15–74) with Internet access by the total number of in-scope households.

Source: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

**6.05 Fixed broadband Internet subscriptions****Fixed broadband Internet subscriptions per 100 population | 2014**

This refers to total fixed (wired) broadband Internet subscriptions (that is, subscriptions to high-speed access to the public Internet—a TCP/IP connection—at downstream speeds equal to, or greater than, 256 kb/s). This includes cable modem, DSL, fiber-to-the-home/building, and other fixed (wired)-broadband subscriptions. This total is measured irrespective of the method of payment. It excludes subscriptions that have access to data communications (including the Internet) via mobile-cellular networks and wireless-broadband technologies.

Source: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

**6.06 Mobile broadband Internet subscriptions****Mobile broadband Internet subscriptions per 100 population | 2014 or most recent year available**

*Mobile broadband subscriptions* refers to the sum of standard mobile broadband and dedicated mobile broadband subscriptions to the public Internet. It covers actual subscribers, not potential subscribers, even though the latter may have broadband-enabled handsets.

Source: International Telecommunication Union (ITU), *ITU World Telecommunication/ICT Indicators Database 2015* (December 2015 edition), <http://www.itu.int/en/ITU-D/Statistics/Pages/publications/wtid.aspx>

**6.07 Use of virtual social networks****In your country, how widely are virtual social networks used (e.g., Facebook, Twitter, LinkedIn)? [1 = not at all used; 7 = used extensively] | 2014–15 weighted average**

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**7th pillar: Business usage****7.01 Firm-level technology absorption****In your country, to what extent do businesses adopt new technology? [1 = not at all; 7 = adopt extensively] | 2013–14 weighted average**

Source: World Economic Forum, Executive Opinion Survey, 2013 and 2014 editions

**7.02 Capacity for innovation****In your country, to what extent do companies have the capacity to innovate? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average**

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**7.03 PCT patents applications****Number of applications filed under the Patent Cooperation Treaty (PCT) per million population | 2012–2013 average**

This measures the total count of applications filed under the Patent Cooperation Treaty (PCT), by priority date and inventor nationality, using fractional count if an application is filed by multiple inventors.

In the absence of reliable data on PCT applications for Taiwan, China and Hong Kong SAR, two advanced economies that are not signatories of the Treaty, the number of applications is estimated as follows: first, we compute the average number of all utility patent applications filed with the United States Patents and Trademarks Office (USPTO) for 2012 and 2013. We then divide this value by the average number of PCT applications for 2012 and 2013, before computing the average of these ratios (1.70) across all countries. In doing this, only economies with a two-year average number of at least 100 USPTO applications and 50 PCT applications are considered. Taiwan, China and Hong Kong SAR are excluded in both cases. We then divide the 2012–2013 average number of USPTO applications filed by residents of Taiwan, China (20,766) and Hong Kong SAR (1,118), respectively, by the ratio above in order to produce estimates for PCT applications. As a final step, we compute the estimates per million population—that is, 522.6 for Taiwan, China and 91.5 for Hong Kong SAR. The estimates are used in the computation of the respective business usage pillar scores of the two economies.

For more information, consult <http://www.oecd.org/sti/innovation/science/technologyandindustry/oecdpatentdatabases.htm>. The average count of applications filed in 2012 and 2013 is divided by population, using figures from the World Bank's *World Development Indicators* (retrieved December 15, 2015).

Sources: World Intellectual Property Organization (WIPO) PCT Data, sourced from Organisation for Economic Co-operation and Development (OECD), *Patent Database*, January 2016, <http://www.oecd.org/sti/inno/oecdpatentdatabases.htm>; World Bank, *World Development Indicators* (retrieved December 15, 2015), <http://data.worldbank.org>; World Economic Forum's calculations

**7.04 ICT use for business-to-business transactions****In your country, to what extent do businesses use ICTs for transactions with other businesses? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average**

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**7.05 Business-to-consumer Internet use**

In your country, to what extent do businesses use the Internet for selling their goods and services to consumers? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**7.06 Extent of staff training**

In your country, to what extent do companies invest in training and employee development? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**8th pillar: Government usage****8.01 Importance of ICTs to government vision of the future**

To what extent does the government have a clear implementation plan for utilizing ICTs to improve your country's overall competitiveness? [1 = not at all—there is no plan; 7 = to a great extent—there is a clear plan] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**8.02 Government Online Service Index**

The Government Online Service Index assesses the quality of government's delivery of online services on a 0-to-1 (best) scale | 2013

According to the United Nations' Public Administration Network, the Government Online Service Index captures a government's performance in delivering online services to the citizens. There are four stages of service delivery: *Emerging*, *Enhanced*, *Transactional*, and *Connected*. Online services are assigned to each stage according to their degree of sophistication, from the more basic to the more sophisticated. In each country, the performance of the government in each of the four stages is measured as the number of services provided as a percentage of the maximum services in the corresponding stage. Examples of services include online presence, deployment of multimedia content, governments' solicitation of citizen input, widespread data sharing, and use of social networking.

For more information about the methodology, consult <http://unpan3.un.org/egovkb/en-us/>.

Source: United Nations Department of Economic and Social Affairs (UNDESA), *UN E-Government Development Database* (retrieved November 27, 2014), <http://unpan3.un.org/egovkb/en-us/>

**8.03 Government success in ICT promotion**

In your country, how successful is the government in promoting the use of ICTs? [1 = not successful at all; 7 = extremely successful] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**9th pillar: Economic impacts****9.01 Impact of ICTs on business models**

In your country, to what extent do ICTs enable new business models? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**9.02 PCT ICT patent applications**

Number of applications for information and communication technology-related patents filed under the Patent Cooperation Treaty (PCT) per million population | 2012–2013 average

This measures the count of applications filed under the Patent Cooperation Treaty (PCT) in the technology domain of information and communication technologies by priority date and inventor nationality, using fractional count if an application is filed by multiple inventors.

For more information, consult <http://www.oecd.org/sti/innovationinsciencetechnologyandindustry/oecdpatentdatabases.htm>. The average count of applications filed in 2012 and 2013 is divided by population, using figures from the World Bank's *World Development Indicators* (retrieved December 15, 2015).

Sources: World Intellectual Property Organization (WIPO) PCT Data, sourced from Organisation for Economic Co-operation and Development (OECD), *Patent Database*, January 2016, <http://www.oecd.org/sti/inno/oecdpatentdatabases.htm>; World Bank, *World Development Indicators* (retrieved December 15, 2015), <http://data.worldbank.org>

**9.03 Impact of ICTs on new organizational models**

In your country, to what extent do ICTs enable new organizational models (e.g., virtual teams, remote working, telecommuting) within companies? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**9.04 Share of workforce employed in knowledge-intensive activities (%)**

Share of workforce employed in knowledge-intensive activities (%) | 2014 or most recent year available

Knowledge-intensive jobs correspond to the International Labour Organization (ILO) aggregate category "Managers, professionals, and technicians," as provided in the ILOSTAT Database. For a few countries, when aggregate data were not available, authors have manually calculated the share of knowledge-intensive jobs (as a percentage of total employment) summing the following ISCO-08 categories: (1) Managers; (2) Professionals; and (3) Technicians and associate professionals.

Source: International Labour Organization (ILO), ILOSTAT Database (retrieved January 5, 2016), <http://www.ilo.org/ilostat>

**10th pillar: Social impacts****10.01 Impact of ICTs on access to basic services**

In your country, to what extent do information and communication technologies (ICTs) enable access for all individuals to basic services (e.g., health, education, financial services, etc.)? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

**10.02 Internet access in schools**

In your country, to what extent is the Internet used in schools for learning purposes? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

### 10.03 ICT use and government efficiency

In your country, to what extent does the use of ICTs by the government improve the quality of government services to the population? [1 = not at all; 7 = to a great extent] | 2014–15 weighted average

Source: World Economic Forum, Executive Opinion Survey, 2014 and 2015 editions

### 10.04 E-Participation Index

The E-Participation Index assesses, on a 0-to-1 (best) scale, the quality, relevance, and usefulness of government websites in providing online information and participatory tools and services to their citizens | 2013

According to the United Nations, the *E-Participation Index* assesses the quality and usefulness of information and services provided by a country for the purpose of engaging its citizens in public policymaking through the use of e-government programs. Within the *E-Participation Index*, countries are benchmarked in three areas: *e-information*, *e-consultation*, and *e-decision-making*. As such, the index indicates both the capacity and the willingness of the state in encouraging the citizen in promoting deliberative, participatory decision-making in public policy and of the reach of its own socially inclusive governance program.

For more information about the methodology, consult <http://unpan3.un.org/egovkb/en-us/>.

Source: United Nations Department of Economic and Social Affairs (UNDESA), *UN E-Government Development Database* (retrieved November 27, 2014), <http://unpan3.un.org/egovkb/en-us/>



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