

# 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.