

Policy recommendations

# Developing next generation skills

## The opportunity

Cloud computing and the innovative capabilities it makes possible have the potential to drive significant economic growth and activity. The European Commission, for example, estimates that the digitization of products and services will enable European industry to generate an additional 110 billion euros per year in revenue over the next five years. McKinsey & Company believes that advanced digital capabilities could add 2.2 trillion U.S. dollars to the U.S. GDP by 2025. This suggests that there are tremendous opportunities for people with the right skills to help their organizations create products and services that can, in turn, drive additional job creation and create further economic growth.

In addition, in an economy increasingly driven by advances in digital technology, more and more jobs require a degree in one of the STEM fields (science, technology, engineering, and math). In Europe, for example, over the past decade, employment in the technology sector grew three times faster than total employment. And in the United States, demand for people with a background in computer science is likely to be particularly strong, with estimates suggesting that by 2024, the number of computer and information analyst jobs will increase by almost 20 percent.

## The challenge

For companies to thrive in the digital, cloud-driven economy, the skills of employees must keep pace with advances in technology. But in the manufacturing sector in the United States, as many as 2 million jobs could go unfilled during the next decade because of a shortage of people with the right technical skills. In Europe, a 2013 survey found that skills shortages caused major business problems for a third of EU employers. And in China, McKinsey

estimates that demand for skilled labor could outstrip supply by 24 million people by 2020.<sup>33</sup> Shortages like these pose serious competitive issues for companies and threaten the long-term economic health of countries around the world. More than that, they threaten to widen the income gap between those who have the skills to succeed in the 21st century and those who do not.

Failing to address this gap will leave many people facing an uncertain future—particularly women, young people, and those in rural and underserved communities. Closing this divide is an important factor in addressing income inequality and one of the most important actions governments can take. Recognizing this, the United Nations has established several related targets as part of the Sustainable Development Goals, including 4.b which states: “By 2020, substantially expand globally the number of scholarships available to developing countries . . . for enrolment in higher education, including vocational training and [ICT].”

## Policy recommendations

At a time when income inequality is growing, people are struggling to find well-paying jobs because they lack the needed skills and knowledge, and an increasing number of technology-related jobs are going unfilled, the imperative to make training widely available is clear and the urgency to act is growing. To ensure that workers get the right training and employers have access to a workforce that offers the right range of knowledge and skills, policymakers should consider these steps:

**Invest in training that prepares people for high-demand jobs.** Governments should invest in high-quality worker retraining programs for basic skills and for certifications and

ongoing education for those already in the workforce. A first step is to identify the skills that are most in demand—a task that the IT industry is well-placed to assist with. With that knowledge, governments can develop and deliver high-quality workforce retraining programs or provide incentives and financial resources for private and nonprofit organizations to do so.

**Reach broadly.** Governments should seek to meet the needs of people at all stages of the workforce continuum—students entering the workforce, unemployed and underemployed workers, and employed workers who need help gaining new skills to ensure their long-term employability. Governments should also think broadly about what training to offer and how to make it widely accessible. Digital technology skills are one important element. Tools and resources to help new business owners develop business skills and management know-how are also critical.

**Make the most of public-private collaboration.** Responsibility for identifying and addressing retraining needs shouldn't fall solely on governments. The private sector and educators also have an essential role to play. Education providers don't always offer training in the skills that employers are looking for. The private sector has the real-world experience and insights to identify skills shortages and drive educational best practices. They are also essential partners in educational delivery.

**Foster flexible regulatory frameworks.** Regulatory frameworks should provide appropriate flexibility so that employers can expand their operations and develop their workforce while maintaining worker protections. Nations with the fewest legal, regulatory, and practical barriers to importing, training, and retaining talent will be in the best position to take advantage of opportunities for economic growth.

**Support mutual recognition of qualifications.** Mutual recognition allows recently trained individuals to find work where it is available, even if it is not where they trained. This is important for millions of unemployed or at-risk workers unable to travel to high-growth regions for retraining (as opposed to traveling there once they are confident of finding a job). Mutual recognition would make it easier for people to take advantage of local retraining programs.

**Encourage innovation.** Governments can also encourage entrepreneurship through programs that help people start new businesses. Programs that offer startups and entrepreneurs easy and affordable access to software, marketing support, and visibility will help foster business success.

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*Evidence and further reading:*

**United Nations Resolution:** [“Transforming our world: the 2030 Agenda for Sustainable Development”](#)

**Deloitte Report:** [“The skills gap in US manufacturing 2015-2025 outlook”](#)

**McKinsey & Company Report:** [“Tackling Youth Unemployment”](#)

**Malaysian Government Announcement:** [“Creating a Nation of Digital Makers Key to Malaysia’s Future Success”](#)

**Microsoft Blog:** [Extending Microsoft’s support for veterans entering the workforce](#)

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<http://www.microsoft.com/cloudforgood>