

Innovating for Long-Term Growth and the Future of Work

Technological progress generally enables economic growth because it helps to boost productivity. This is especially important in advanced economies like those in Europe, where GDP growth has been gradually slowing over the last decades, and where innovation through technology is important to maintain growth and a competitive edge in the global economy. Innovations such as automation and artificial intelligence can increase productivity and improve potential GDP growth but can also disrupt the existing industries and displace jobs, potentially on a larger scale compared to previous waves of innovation.

However uncertain, the future of work will require significant adjustments to how the workforce is trained and re-trained. In addition, the Covid-19 pandemic will have a lasting impact on how we work, consume, and produce. What can euro area countries and the EU do to spur innovation and increase productivity? How can they prepare their economies and workforce to benefit from automation and new technology?

But what is...?

Productivity measures output produced per unit of input (e.g., number of hours worked). It is one of the principal determinants of a country's standard of living and is a key contributor to GDP growth.

Automation refers to the introduction of technology and equipment that replaces some or all of a function performed by a worker. Automation can increase productivity by freeing workers to perform functions they are more productive at. While automation has historically been present in manufacturing, AI (or artificial intelligence) is expected to increasingly affect the service sector where human labor had so far been thought to be irreplaceable.

Potential GDP growth refers to the rate at which an economy can expand without overheating. Policy reforms, especially those that target productivity, can help boost potential growth allowing the economy to expand at a faster rate.

NextGenerationEU is a €800 billion+ temporary recovery instrument to help repair the immediate economic and social damage brought about by the coronavirus pandemic. It focuses on resilience and opportunities of green and digital transformation.

- 1 What does productivity measure, and how do productivity gains lead to more wealth and increased standards of living? Some euro area countries have higher levels of GDP per capita than others. What accounts for these differences?
- 2 How can new technology, such as information and communication technology (ICT), help to boost growth and productivity?
- 3 How and why is your chosen country adapting to changing technology?
- 4 What can your country do to make sure the workforce meets the needs of these new sectors (and to mitigate its displacement)?
- 5 How can your country equip its workforce with the skills and training to succeed in the face of further automation and the expansion of artificial intelligence? How can an increase in productivity be assured thanks to these new technologies?
- 6 Does your country protect old industries? Does it have measures in place to protect against losses incurred by these industries?
- 7 How can investment and entrepreneurship help to increase productivity and competitiveness in an economy? Describe the kind of business environment your country has. How, if at all, does the country promote research and development (R&D) and encourage entrepreneurship?
- 8 What role does the NextGeneration EU strategy play in increasing productivity and making better use of technology? What is your chosen country doing under Europe 2020?

