

## **Industry 4.0 as a Challenge for Policy-Makers: The Case of Robotization in Slovenia**

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The nature of life and work has made an incredible leap forward since the beginning of the first industrial revolution. The traditional manufacture had become a thing of the past and living standards began to rise quickly (Maddison 2019). Today, we are facing the 4th industrial revolution, also known as Industry 4.0 (Schwab 2019), marked by the technologies like cyber-physical systems, IoT, artificial intelligence and primarily swiftly increasing production efficiency and allowing companies, which do implement the new technologies, to boost their competitiveness in the increasingly demanding global economy.

One of the most prominent features of Industry 4.0 are robots. Today, in total about 2.4 million robots are being used in production, up by 17% from 2017, while by 2021 this number is expected to increase to 3.7 million, mostly used in manufacturing, although the use of robots in services is on the rise (IFR 2018). In aggregate, the use of new technologies is expected to contribute positively to productivity growth, improve quality, efficiency, save time, lead to process and product innovation, stimulate horizontal and vertical integration, allow flexibility and customization and improve customer satisfaction and have other positive impacts on economic development ((Prašnikar, Redek, and Koman 2017; International federation of robotics 2017; PWC 2014; Černe et al. 2017; Rüßmann et al. 2015). But the use of new technologies, similarly as in the past, is accompanied by scepticism, primarily surrounding the future of jobs and the changing nature of our societies, fearing loss of jobs and a squeeze of the middle income earners (Acemoglu and Restrepo 2017; PWC 2014; “Cost of Human vs. Robot” 2014; Farmer 2017; Ma 2017; Prašnikar, Redek, and Koman 2017; Tilley 2017).

The purpose of this article is to prepare a comprehensive approach to the introduction of new technologies, with an emphasis on the role of the state, which can on the one hand promote the use of new technologies and thereby ensure companies maintain their competitive edge and on the other hand mitigate the possible negative impacts in the societies. The paper contributes to the discussion of the importance of keeping up with new technologies in emerging economies with the focus on Slovenia, while trying to ensure a sustainable development.

*Keywords:* Industry 4.0, robotization, role of economic policy

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