

Comparison of manufacturing automation in China and in Poland

Łukasz Sarek

A shrinking labour force, rising costs of hiring employees and a need to improve productivity and profitability are the main factors driving Chinese producers to automate their production processes. The leadership of the Communist Party of China (CPC) has for many years been supporting the introduction of robots into Chinese factories in order to increase the competitiveness of products offered by domestic companies in both domestic and foreign markets. The Chinese authorities consider automation as one of the key elements of development of the Chinese production base. They have taken steps to decrease the import of robots and increase the market share of domestic manufacturers in order to limit the impact of independent factors, such as the policy of foreign manufacturers and other countries on the stability and quality of supplies. Beijing also hopes that Chinese companies will enter foreign markets with their products, allowing them to benefit from the expected further global growth in demand for robots.

The medium and long-term scientific and technological development plan for 2006-2020 has indicated the need of automation, digitisation and introduction of the intelligent production processes. Intelligent manufacturing, where automation is a key element, was one of the special programmes of the 12th five-year plan. In 2014, Xi Jinping announced the "robot revolution". In March 2016, a plan for the development of Chinese robotics was announced, which assumed a growing number of national robot brands, a significant increase in the location of spare parts production in China and increased robots' density. These assumptions have been followed by real steps to support Chinese manufacturers directly and indirectly. Subsidies have been the key component of this programme. Companies have received financial support not only from the central budget, but in major part from local governments, which subsidised the purchases of robots as well as research and development.

The CPC leadership has been partially successful in implementing these policies. China is now the largest market for robots and the number of robots installed in the manufacturing sector has increased significantly by 40 percent above the global average. However, the assumptions of increasing the market share of Chinese companies have not been fulfilled. Domestic production is not growing fast enough to meet the requirements of customers and to replace foreign brands. There have been also no significant export successes. Nevertheless, it has been possible to increase the location of production in China, as foreign multinationals have been setting up robotic plants there.

Polish companies compete with the Chinese ones not only in the Polish market, but also in the European markets and, like them, they are also struggling and will be struggling in the future because of rising labour costs related to the shrinking labour force. Automation of production is one of the important elements of increasing the competitiveness of the Polish production base as it increases the efficiency and flexibility of the manufacturing processes. State support in the area of production automation seems to be strongly limited and still remains in the declarative sphere, despite the fact that for several years this industry has been indicated as one of the key factors for the development of the Polish manufacturing sector. Automation should be also properly integrated into the transformation of the economy in order to avoid or to minimise adverse social effects. It is also advisable to intensify support for the development of Polish robotics, so that Polish enterprises could benefit from the expected development of this industry and at the same time to make the Polish market partly independent of foreign producers.

The COVID-19 epidemic in Afghanistan and its implications

Przemysław Lesiński

In February, the COVID-19 pandemic came to Afghanistan from the neighbouring Iran, where it was already thriving. Although the Afghan government tried to stop the spread of the virus by closing the country's borders, after a few days it was forced to reopen them because of thousands of Afghans waiting to enter the country. It was a conscious decision, especially as the terrain and the length of the border make it almost impossible for the