



D.T3.4.6 ARTIFICIAL INTELLIGENCE REPORT

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The digital transformation of all sectors of the economy as well as public administration is a unique opportunity for Slovakia to reach a new level and build conditions for the online world, whose essential elements are now an integral part of the everyday life of people and entrepreneurs. The vision of Slovakia's digital transformation is linked to the development of the new EU Multiannual Financial Framework 2021-2027, including cohesion policy instruments as well as directly managed programmes (including Digital Europe and Connecting Europe Facility - Digital Strand), where the need for the development of the digital economy receives special attention. Many countries around the world are trying to promote digital potential in a conceptual way, adopting ambitious digital strategies.

Recently, a new trend has been to specialise strategies on the development of artificial intelligence as a key technology, the mastery of which is a prerequisite for future prosperity. The aim is to embed AI in areas of the economy where it appears as an opportunity for innovation, growth and the gradual creation of innovation ecosystems. In the experience of Slovak IT companies, the educational content of several schools (primary, secondary and higher education) is already enriched with IoT issues and Slovak pupils/students have excellent results in this field. Slovakia has a number of companies providing quality further education (lifelong learning) in IT, e.g. GOPAS, ELCT, as well as a successful Cisco Networking Academy programme at secondary and higher education institutions, which prepares specialists in computer networks and the Internet of Things.

Slovakia already has its own Smart Industry Action Plan approved by the Government, which includes aspects of artificial intelligence and their implementation in SK NACE 26-28. The Smart Industry Concept has been developed jointly for the public sector, industry and academia and represents the start of a nationwide initiative to transform and empower industry through the latest technological developments, and to help Slovakia adapt to the changes that this transformation will bring. The Slovak Smart Industry Action Plan aims to support industrial, service and commercial enterprises, regardless of their size, to create better conditions for the implementation of digitalisation, innovative solutions and increased competitiveness: by reducing the bureaucratic burden, adjusting legislation, defining standards, changing education programmes and the labour market, co-funding research, etc.

A VISION FOR THE APPLICATION OF ARTIFICIAL INTELLIGENCE

The use of AI must be based on trust, necessarily subject to the fundamentals of ethics and morality, as well as the principles of transparent and safe use. The vision of AI in industry is based on five principles:

- Increase the transparency of AI.
- Recognise and properly address the social risks arising from AI.
- Adapt education and training to the digital age.
- Regulate and improve data processing.



- Adapt the protection of rights and freedoms to the requirements of the digital age.

The state, in connection with the Smart Industry Action Plan, is creating the conditions for a successful digital transformation and is focusing on the following steps in the area of the right procurement setup and the use of smart systems:

- Amend and strengthen legislation to protect individual rights and freedoms and rights when using AI-based intelligent systems.
- Strengthen communication and cooperation between public authorities and technology companies to better address the social and other risks of digital transformation for citizens.
- Legislate on the legal liability as well as the related insurance frameworks for technology and innovation companies for their innovations, so that they work to address potential errors and risks in order to ensure the trustworthy use of AI.
- Improve education and training at higher education level.
- In parallel, address and implement sufficient safety mechanisms (in particular in the area of clear and AI system-invariant default constraints in relation to the resolution of related ethical dilemmas and conflicts, e.g. in terms of the dilemma of protecting the individual in border situations or in the event of a technological component failure).

The position of the University of Economics in Bratislava in the whole process of introducing artificial intelligence in industry and in the state sphere is manifested on several levels - in the educational field it is about more intensive elaboration of the thematic blocks of digital economy, digital technologies, digital competence and digital intelligence; in the research field it is to elaborate strategies and policies for the use of artificial intelligence in accordance with Industry 4.0; in the area of cooperation with economic practice, to create conditions for student and teacher mobility, hosting of experts on campus and the development of concrete projects for the evaluation of the implementation of artificial intelligence.