



D.T3.4.6 ARTIFICIAL INTELLIGENCE REPORT

Chamber of Commerce and Industry of
Slovenia (Slovenia)

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This report is written with the aim of presenting the state of AI in Slovenia. It also offers an insight of how Chamber of Commerce and Industry of Slovenia is involved in this field.

There are 4 relevant documents that address the use and the development of the AI in Slovenia: National programme promoting the development and use of AI in the Republic of Slovenia by 2025 (NpUI), Slovenian Development Strategy 2030, Slovenia's Smart Specialisation Strategy - S4 and the most recent one, Strategy for digital transformation of economy.

THE STATE OF AI IN SLOVENIA

Slovenian companies are above the European Union average when it comes to use of AI. A survey conducted for the European Commission in 9640 European companies by the research company Ipsos showed that at least one artificial technology in Slovenia is used by 46 percent of companies: 60 percent of large companies, 53 percent of medium-sized companies, 49 percent of small companies and 42 percent of micro companies. In the EU27, these shares are 55, 49, 39 and 38 percent. Some companies offer AI as a complement to a wider range of services, mostly related to business intelligence systems, data warehouse layouts, etc., while others specialize in a product or service specific to a specific area of application, e. g. health, image and video processing, business process automation, industry & robotics. An important share is also represented by companies that do not directly offer a product or service based on the use of AI but have an internal team of data scientists who support the company's operations with their work. Among them are larger companies in the field of banking, trade, manufacturing and also technology companies. It is estimated that between 300 and 500 data scientists work in Slovenia, but despite this number, companies are facing a shortage of properly trained staff.

In the field of education, Slovenia has a long tradition of studying AI at higher education institutions. Today, AI is one of the main fields of study at several faculties of the University of Ljubljana, and the contents of AI are also offered by other universities and research institutions (e. g. the Jožef Stefan Institute). Slovenia has around 250 researchers in the field of AI. This number must be considered in the view of small size of the available population in Slovenia. Slovenia is also the seat of the International Research Center on Artificial Intelligence (IRCAI), which was established under the auspices of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and which is the first and only center to focus directly on artificial intelligence in the global field.

The common problem of the economy and the education in Slovenia is in putting the knowledge and experience gained at universities and research institutions into practice. On one hand the companies are facing a shortage of properly trained staff, on the other Slovenia is increasingly facing the brain drain of the younger highly educated population, as Slovenian researchers with their knowledge and experience can get better opportunities at foreign universities or the economy.

THE VISION

ALL 4 documents are addressing the above-mentioned problems in the field of AI in Slovenia. The solutions that these documents are proposing are the following:

- the state and municipalities should encourage cooperation between knowledge institutions and companies involved in the development and implementation of AI through national projects and tenders;
- cooperation between AI companies should be encouraged through national projects and tenders;
- supportive environments - chambers, DIHs, technology parks, etc., for knowledge transfer and accelerating market access for companies in the field of AI must be strengthened;



- Slovenian companies need to participate in European and international connections in order to transfer knowledge from the international environment to Slovenia and to present the Slovenian knowledge to international partners (access to the wider European and global market);
- creation of a stimulating environment for work and life for high educated AI experts in Slovenia and alleviating the problem of brain drain (in the public higher education and research sphere and in the economy), including instruments support in maintaining one's own highly educated talents in Slovenia and returning domestic ones and attracting foreign experts to Slovenia from abroad.

These are just some of the proposed solutions. The undertone of most of the proposed solutions is a need for a more successful knowledge transfer between different stakeholders.

THE ROLE OF CHAMBER OF COMMERCE AND INDUSTRY OF SLOVENIA

The Chamber of Commerce and Industry of Slovenia is well aware of the role it plays in supporting Slovenian companies in the implementation of AI in their services and processes. In addition, CCIS is aware of the importance of the successful implementation of AI in Slovenian companies for the whole society.

The Chamber of Commerce has therefore established DIH Slovenia which raises awareness and provides services for the growth of digital competencies, the exchange of digital experiences and examples of good practice at the local, regional, and international levels; in addition, CCIS participates in various initiatives (e. g. AI4SI) that support the transfer of knowledge from educational institutions to companies and between companies themselves. CCIS regularly organizes different events - round tables, seminars, conferences - that support and foster the digitalisation and the implementation of AI in companies and the knowledge transfer between different stakeholders.