



Position Paper
White Paper on Artificial Intelligence
CSC – IT Center for Science Ltd.

12.6.2020

CSC welcomes the AI White Paper and its objective to define a European approach to artificial intelligence. CSC agrees with the Commission that AI and its applications have a huge potential to improve peoples' lives and lead Europe to a more sustainable economic growth. AI, together with digitalisation and data economy, should be recognized as the key phenomena that can support attaining the goals of the Green Deal.

An Ecosystem of Excellence

To boost the development of AI in Europe, it is of utmost importance to invest sufficiently in key capacities, such as high-performance computing (HPC), data infrastructures and skills development. It is essential to build Europe's own digital capacities and technologies to build a strong competence and technology base, that will boost European competitiveness. Therefore, Digital Europe, Horizon Europe, Erasmus+ and Connecting Europe Facility Digital programmes must be allocated an adequate funding level, which should be at least of the level of the Commission's original MFF proposal from May 2018. The need for digital infrastructures is growing in all sectors and thus Europe needs to invest in these programmes, if it wishes to reap the benefits of digitalisation.

Digital infrastructures form an entity that is essential for the technological development and competitiveness of Europe. AI, world-class HPC capacity, reliable network connections, and related skills must be developed coherently and in convergence with each other. Increasing interactivity between HPC and AI communities is especially important, as these technologies have many common characteristics. The EU must invest in the strengthening of high-speed digital connections, not only intra-EU, but also between Europe and strategically important regions such as North America and Asia.

The EU must support skills development and training to ensure that researchers and innovators can reap the benefits of the new technology. Investing in life-long learning and digitalisation of education is needed to make sure that citizens are able to use new technologies and understand the operating principles of AI applications. The role of data in research is instrumental, thus data science should be better incorporated in all university programmes, as well as already in earlier stages of education. Also the teachers need to be educated. Continuous learning and skills are also needed on a more general level, to enhance employment and inclusiveness in the society, through developing a competence base that meets the needs of industry.

It is crucial to focus on the interoperability of data as it is the raw material used by AI applications. The EU must promote FAIR principles¹ (findability, accessibility, interoperability, reusability) and interoperability of data at all levels (legal, organisational, technical and semantic), according to the European Interoperability Framework². Data must be made interoperable, in a well-managed way, between sectors (business, public, research) and across borders, to enable the creation of new business, that is based on AI solutions.

As highlighted in [CSC's statement on the Data Strategy](#), in certain sectors the utilisation of data could be substantially advanced. First of all, openness of public sector data needs to be increased further, in order to enable stronger data-based decision-making and policy implementation across all sectors of society. This requires ensuring that the Open Data Directive is properly implemented in all member states. In addition, health data also has a very high potential to be used for the common good if its cross-border movement and secondary use for research purposes are promoted. A good example of how to implement the secondary use of health data in legislation can be found in Finland.

An Ecosystem of Trust

CSC supports the Commission's human-centric approach to AI. Seven key requirements for trustworthy AI systems identified in the Guidelines of the High-Level Expert Group on AI³ are a good basis for possible new legislation for the application of AI technologies. The EU should also actively promote everyone's control over their own personal data, based on the MyData approach⁴. Maintaining human oversight in all AI operations is especially important. At the same time, it is important to raise awareness of how AI works so that people will have a realistic understanding of the benefits it can offer as well as the risks it may present.

The need for and possible consequences of any new legislation must be carefully analysed. CSC supports the risk-based approach presented in the White Paper but notes that the details of its implementation require careful consideration. For example, the definition of high-risk applications must be flexible enough in order to not label entire sectors high-risk and to be able to take into consideration the rapid development of the technology and its applications.

¹ <https://www.go-fair.org/fair-principles/>

² https://ec.europa.eu/isa2/sites/isa/files/eif_brochure_final.pdf

³ <https://ec.europa.eu/futurium/en/ai-alliance-consultation>

⁴ <https://mydata.org/>



The Commission should not impose any unnecessary regulatory burden upon AI applications, if it is not absolutely necessary in order to protect personal integrity and privacy. In addition, it must be examined whether all the existing legislation is coherent and fit for purpose. One piece of existing legislation requiring prompt revision is the Digital Single Market (copyright) directive. As outlined in CSC's statement on the Data Strategy, article 4 of the directive puts commercial users of text and data mining (TDM) at a disadvantage and damages seriously the potential of European start-ups to create data based solutions, by limiting the ability for developing machine learning capabilities, which are in the very core of AI. This regulation must thus be amended in order to remove barriers for TDM for commercial purposes.

All in all, the EU needs to take measures in a broad range of areas and levels, in order to build a globally competitive data economy. Europe must build its own competence and a strong infrastructure base for AI and data, and support this with a regulatory framework that enables a flourishing data economy.

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