

Keynote speech by Commissioner Gabriel on the ethical and economic impact of artificial intelligence at GSMA Mobile 360 Series – Europe event

Dear Director-General, Mr Granryd,

Ladies and gentlemen,

We have entered a new era of technological change. Artificial intelligence and machine learning technologies hold great promise.

Europe shall strive after leading this revolution. Our world-class research and innovation communities coupled with our strong industry are assets that we can build on.

Several EU Member States have already adopted strategies to unlock the potential of AI. For example, in 2017, Finland appointed a steering group and published its vision on artificial intelligence; earlier this year, France announced a National Artificial Intelligence Programme; and in autumn, Germany will publish its own AI strategy. I am convinced that these national efforts are fundamental.

However, in addition to such bottom-up development of strategies, we also need a strong European approach to AI, to allow for coordination and pooling of resources. It is only in this way, that we will be able to maximise the impact of AI investments in the EU. This is the only way forward in a context of abundant investments from our competitors.

Responding to the European Council's call, the Commission's strategy is now on the table. It has three dimensions: first, increasing investments to boost the EU's technological and industrial capacity as well as AI uptake across the economy; second, preparing for socio-economic changes brought about by AI; and third, ensuring an appropriate ethical and legal framework.

At the heart of the strategy, lays an ambitious investment plan. The Commission's investments in AI will increase to €1.5 billion, over the next three years, and this should trigger a strong effort also of the public and private sectors to reach a total of €20 billion in this period. But this is just the first step. During the next decade the European Union's investment in AI, public and private, should reach €20 billion per year.

The investments from the EU budget, proposed in the new strategy, aim at strengthening research and innovation, at upgrading AI research infrastructures, at developing AI applications in key sectors, at improving access to data, and at facilitating industrial testing and uptake.

To make the most of these investments, the Commission will also facilitate

access to relevant AI resources, including knowledge, data repositories, computing power, tools and algorithms, through its support to an AI-on-demand platform, to be launched in January, as well as through the Digital Innovation Hubs.

A network of Digital Innovation Hubs with a specific focus on AI will help users, including non-tech companies and public administrations.

The Commission has long recognised the paramount importance of investing in people. Europe is facing a significant skills gap in digital, including especially in the area of AI. We need more data scientists, more engineers and more philosophers who understand AI, all the more as it will bring about considerable adjustments on the labour markets.

All citizens shall be able to benefit from the technological advances, to take part, with confidence, in an economy powered by transparent and trustworthy AI. Skilling-up and re-skilling our fellow citizens is instrumental to allow them to reap the benefits of the digital shift. The Commission has already implemented a number of measures in this perspective, such as the Digital Opportunity Traineeships, as well as actions to support specifically female students and professionals into this field.

The High-Level Expert Group on the Impact of the Digital Transformation on EU Labour Markets, set up by the Commission, will work on recommendations on the best way to take advantage of the digital revolution while addressing the challenges for jobs, which shall be delivered by March 2019.

While we are already anticipating the consequences brought by the development of AI, we shall not deprive ourselves from shaping up the changes. It is our duty to ensure that the technology developed is safe, that accountability is clear, that choices are not biased, and that we humans understand how decisions are made. In other words, we must ensure that AI is developed and applied, in an appropriate legal framework, in line with the Union's values and our fundamental rights, with ethical principles, and last but not least with citizens at its heart.

The dedicated High-Level Group on Artificial Intelligence is working on a proposal for ethics guidelines, with a first version open for comments before the end of the year. A wider discussion is also on-going in the European AI Alliance, the dedicated multi-stakeholder platform with more than 1350 members. I seize this opportunity to warmly invite all of you to join the Alliance as well.

So a lot is going on already, but more is needed. Therefore, the Commission will further increase its investment in AI in the next budget period, mainly through two programmes: Horizon Europe, and the new Digital Europe programme.

Horizon Europe will be the EU's flagship programme to support research and innovation. Out of a total of nearly €100 billion for 2021-2027, the Commission proposes to invest €15 billion in 'Digital and Industry', which includes AI as a key activity.

Digital Europe is a new €9.2 billion programme that will support industrial deployment and the strengthening of Europe's strategic digital capacities. AI is one of the programme's priorities, with a budget of €2.5 billion. This funding will target in particular testing and experimentation facilities, through the Digital Innovation Hubs that are accessible to businesses and administrations. It will also support the data platforms that are crucial to the development of AI, to allow wide access to quality data, in a secure setting, bringing together companies with data and companies with ideas. In line with our commitment for skills that I have just mentioned, Digital Europe will also support skills development.

Ladies and Gentlemen,

Achieving these ambitious goals will not be possible without joining forces. It is a good sign that everybody agrees on the need to join forces. Since April, all EU Member States have signed a Declaration of Cooperation on AI. They agree to work together on the most important issues raised by AI, from ensuring Europe's competitiveness in the research and deployment of AI, to dealing with social, economic, ethical and legal questions.

The Commission is also working, with the Member States, on a coordinated plan on AI. A first version should be agreed by the end of this year. It will build on the current plans and priorities of Member States' investments in AI. By avoiding investment gaps and overlaps, the plan will increase the impact of investments at EU and national levels by building synergies and cooperation across the EU. Needless to say, this is crucial in a context of budgetary scarce resources and fierce international competition.

AI is a global development that touches people and societies everywhere. To promote our human-centric and values-based approach to AI, we have to make sure that our voice is heard, in the numerous international discussions on AI accountability, transparency, data protection and security. In Canada, in June, G7 Leaders agreed to *"endeavour to promote human-centric AI and commercial adoption of AI, and continue to advance appropriate technical, ethical and technologically neutral approaches."*

In August, I attended the G20 Meeting on the Digital Economy in Argentina, whose Ministerial Declaration encourages countries to enable individuals and businesses to benefit from artificial intelligence. I am glad to see that Japan, the next Presidency of the G20, has chosen to continue this work.

Ladies and Gentlemen,

Artificial intelligence is touching upon a wealth of questions and many challenges. While this technology is still in its early days, it may well be everywhere in a blink of an eye. That is why, our common efforts are so important. They hold the power to make a difference if they happen now. It is not just about investment, about industry, or about the digital sector. It is about our digital economies, hence our present and future societies.

I would like to thank you for your attention and wish you fruitful exchanges.