Artificial Intelligence for Europe

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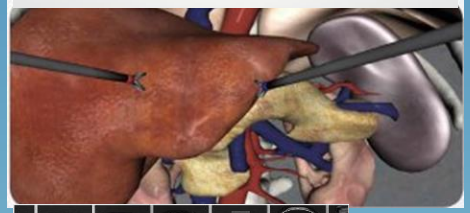
Artificial Intelligence today

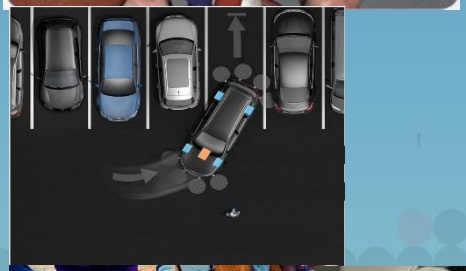
AI: systems which analyse the environment and take action - with autonomy – to achieve goals

Exponential growth of computing power + availability of increasing amounts of data + increasingly sophisticated algorithms

Strong economic impact, but mostly: addressing world's biggest challenges

Europe has strong assets





- World-class researchers, labs and startups
- World-leading robotics industry
- Performant industrial and services sectors: transport, healthcare, manufacturing
- Strong in the business-to-business domain, and wealth of industrial data

Political context

- Resolution on civil law rules on robotics from European Parliament [2016]
- Opinion of the European Economic and Social Committee – Artificial intelligence [2017]
- European Council asked EC to prepare a European approach to AI [October 2017]
- Adoption of the Data package (25 April) and completing the Digital Single Market
- Activities within the EU (e.g. France, Finland) and outside (e.g. USA, China)

Artificial Intelligence for Europe
Commission Communication published on 25 April 2018

STRATEGY FOR EUROPE TO LEAD THE WAY

Boost technological and industrial capacity – AI uptake

Prepare for socio-economic changes

Ensure an appropriate ethical and legal framework

Development and use of AI for good and for all

Boosting the EU's technological and industrial capacity: 2018–2020

€1.5 billion EC investments into AI in 2018-20

Basic and industrial research (health, transport, agriculture, manufacturing, public administration, etc.)

AI-on-demand platform

Network of AI-focused Digital Innovation Hubs (DIHs)

Strengthening AI excellence centres

Boosting the EU's technological and industrial capacity: beyond 2020

Overarching goal: Increasing the investments into AI from currently *€4–5 billion* per year to *€20 billion* per year in the 2020s

- An ambitious proposal to support AI in the period 2021–27
- Basic and application-oriented research
- AI excellence centres and DIHs
- Supporting the establishment of world-leading testing and experimentation sites

Preparing for socio-economic changes

Set up dedicated **(re-)training schemes** in connection with the Blueprint on sectoral cooperation on skills

Gather input from experts to **anticipate changes** on the labour market

Support **Digital Opportunity Traineeships** (2018-20) in advanced digital skills for students and fresh graduates

Ask **social partners** to include AI in their joint work programmes

Ask the **European Institute of Innovation and Technology** to integrate AI in their education offerings

Consider broadening the scope of the current European Globalisation Adjustment Fund to digitisation/automation

Ensuring an appropriate ethical and legal framework

Develop draft AI **ethics guidelines** by the end of the year

Issue a guidance document on the interpretation of the **Product Liability Directive** by mid-2019

Publish a report on the broader implications of AI for the **liability and safety** frameworks

Support the development of **explainable AI**

Implement a pilot project on **Algorithmic Awareness Building**

High-Level Expert Group and European AI Alliance

Joint reflection on the future of AI in Europe

Full mobilisation of all stakeholders needed: industry, academia, civil society

Supported by a 52-strong high-level expert group on AI

Could become a worldwide reference for thinking and reflection on AI

Support from Member States and Norway

The Member States and Norway have signed the Declaration of Cooperation on Artificial Intelligence

They should attempt to match the Commission investment increase of 70% to reach an EU total investment of €20 billion per year after 2020

Selected goals and points

Goal: strengthening and networking research centres

Goal strengthening and networking Digital Innovation Hubs

Bilateral and multilateral cooperation between centres and Member States are welcome

However, it must be aligned with and support the European AI strategy

Avoid fragmentation! Only a European approach can be sufficiently strong.