



European Commission AI Watch initiative: Artificial Intelligence uptake and the European Geosciences Community

EGU General Meeting 2020

05 May 2020

Stefano Nativi and Max Craglia

“Artificial Intelligence for Europe” (COM (Apr 2018) 237)

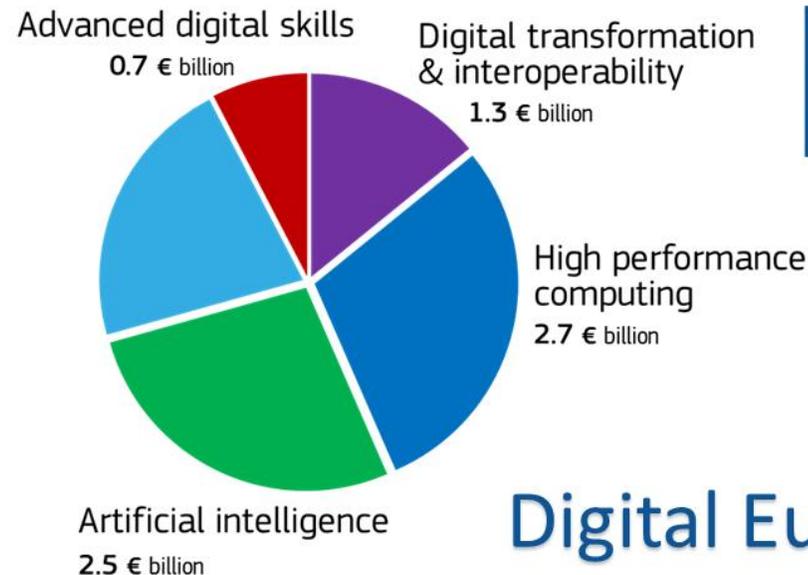
–a strategy to lead the way

1 Boost technological and industrial capacity & AI uptake

2 Prepare for socio-economic changes

3 Ensure an appropriate ethical & legal framework

Joining Forces



€ 9.2 billion in total

Digital Europe

Coordinated Plan on Artificial Intelligence

(COM(Dec 2018) 795)

- It details actions to be started in 2019-2020 and prepares the ground for activities in the following years. It will be reviewed and updated annually.
- Key action lines
 - Boosting investments and reinforcing excellence in AI technologies and applications which are trustworthy and “ethical and secure by design”.
 - Building on Europe’s strengths, to develop and implement in partnership with industry and Member States shared agendas for industry-academia collaborative Research and Development (R&D) and innovation.
 - Adapting learning and skilling programmes and systems to prepare Europe’s society and its future generations for AI.
 - Building up essential capacities in Europe underpinning AI such as data spaces and world-class reference sites for testing and experimentation.

Coordinated Plan on Artificial Intelligence

(COM(Dec 2018) 795)

- Making public administrations in Europe frontrunners in the use of AI.
- Implementing, on the basis of expert work, clear ethics guidelines for the development and the use of AI in full respect of fundamental rights, with a view to set global ethical standards and be a world leader in ethical, trusted AI.
- Where needed, reviewing the existing national and European legal framework to better adapt them to specific challenges.
- Member States and the Commission will monitor progress of the implementation of the plan on annual basis
 - **AI Watch** developed by the Joint Research Centre will contribute to monitoring AI-related development and will provide a number of analyses necessary to support the implementation of the European AI initiative.

Following up Communications

(Feb 2020)

- Shaping Europe's **Digital Future** *COM(2020) 67 final*
 - Technology that works for people
 - A fair and competitive economy
 - An open, democratic and sustainable society
- On **Artificial Intelligence** - A European approach to excellence and trust *COM(2020) 65 final*
 - Support a regulatory and investment oriented approach with the twin objective of promoting the uptake of AI and of addressing the risks associated with certain uses of this new technology
- European **Strategy for Data** *COM(2020) 66 final*
 - A cross-sectoral governance framework for data access and use
 - Enablers: Investments in data and strengthening Europe's capabilities and infrastructures for hosting, processing and using data, interoperability
 - Competences: Empowering individuals, investing in skills and in SMEs
 - Common European data spaces in strategic sectors and domains of public interest

AI Watch initiative

Knowledge for policy

About AI Watch

- The Plan foresees the creation of **AI Watch**: the “**Commission Knowledge Service to Monitor the Development, Uptake and Impact of Artificial Intelligence for Europe**”
- AI Watch is an initiative of the European Commission (**EC**) jointly developed by the EC Joint Research Centre (**JRC**) and the Directorate General for Communications Networks, Content and Technology (**DG CONNECT**)
- AI Watch is monitoring industrial, technological and research capacity, policy initiatives in the Member States, uptake and technical developments of Artificial Intelligence and its impact in the economy, society and public services.
- It provides a number of analyses necessary to monitor and facilitate the implementation of the European Strategy for AI

AI Watch Knowledge Base

- It provides knowledge base services

- To search

Search our KnowledgeBase

All Online Resource Projects and activities Publication Events News

Search

- To browse by topic

Browse AI Watch by topic



AI for the public sector
AI-enabled solutions can deliver shorter and richer feedback loops for all levels of governance, providing an opportunity to speed up, improve the efficiency and effectiveness of service delivery.

AI Landscape and Indicators
Front end methodologies have been applied to analyse the AI ecosystem and track its evolution.

Evolution of AI uptake
AI as a general-purpose technology can rapidly spread across industry sectors and yield strong positive growth effects.

Strategic Actions and Coordination
The EC coordinated action plan and Member States national strategies.

AI for the public sector
AI-enabled solutions can deliver shorter and richer feedback loops for all levels of governance, providing an opportunity to speed up, improve the efficiency and effectiveness of service delivery.

Education and Skills
Education and training are crucial to harness AI, but AI can also help us rethink what competences and skills will be needed in the future to live...

Key Enablers
The Digital Single Market and its regulatory framework will provide key enablers to enhance AI adoption.

Data: a cornerstone for AI – Toward a Common European Data Space
For an application of AI to be ready for market entry it has to learn on the basis of training data. Additionally, it may need further data sources in order...

Evolution of AI technology
Although AI has a long history of development, recent breakthroughs have impacted multiple application domains and industrial sectors.

Social perspective
It is crucial to think how the concepts of autonomy and identity of individuals as well as security, safety and privacy issues might change under the influence of AI. AI WATCH...

- To get the latest knowledge

- To browse by country

Latest in the KnowledgeBase



AI History Timeline



White Paper on AI - A European Approach



AI Landscape Dashboard



National Strategies on Artificial Intelligence



European Policy on AI



A Storymap on AI in Europe

Next events
30 AUGUST 2020
1st International Workshop on Evaluating progress in AI (EPAI), in conjunction with the European Conference on AI (ECAI)

Latest resources
PAGE
A timeline for visualising the AI history
PUBLICATION
The AI techno-economic complex System: Worldwide

Browse AI Watch by country

Countries ▾

AI Watch project research topics

- 9 tasks are active managed by a Task Leader:
 1. Landscape of AI in Europe: from research to market and society
 2. Evolution of AI technology
 3. Analysis of the uptake and impacts of AI in the economic sectors
 4. Evolution of European market shares in robotics
 5. EU MS national initiatives on AI
 6. Overview and analysis of the use and impact of AI in public services
 7. AI index
 8. Portal development
 9. Monitoring standardization on AI

International collaborations:

- Stanford University



- OECD

Possible collaboration with EGU Community

- Mining the EGU2020 Programme
 - More than 250 contributions dealing with AI
- For AI Watch, it is of great value to understand
 - The impact of Geosciences research on AI methodologies and technologies
 - The (possible) application results
- For example Climate Change, Agriculture, Digital Twin of the Earth, Smart Circular Economy and Cities, Disaster Risk Reduction, etc.

The screenshot shows the AI Watch website, a platform for monitoring AI development in Europe. The header includes the European Commission logo, language options (English), and a search bar. The main navigation bar indicates the current location: European Commission > Knowledge for policy > AI Watch. Below this, the page title 'AI Watch' is displayed, followed by the mission statement: 'Monitor the development, uptake and impact of Artificial Intelligence for Europe'. The page content is organized into several sections: 'PAGE CONTENTS' with links for 'What we do', 'Search KnowledgeBase', 'Browse by topic', 'Browse by country', and 'Latest Knowledge'; 'What we do' featuring a blue abstract image and a list of monitored areas (industrial, technological, and policy initiatives); a search bar for the KnowledgeBase with filters for 'All', 'Online Resource', 'Projects and activities', 'Publication', 'Events', and 'News'; 'Browse AI Watch by topic' with a grid of articles including 'AI for the public sector', 'Data: a cornerstone for AI - Toward a Common European Data Space', 'AI Landscape and indicators', 'Education and Skills', 'Evolution of AI technology', 'Evolution of AI uptake', 'Key Enablers', 'Social perspective', and 'Strategic Actions and Coordination'. The footer contains the European Commission logo and name.

Thank you



stefano.NATIVI@ec.europa.eu



© European Union 2020

AI Watch homepage:

https://ec.europa.eu/knowledge4policy/ai-watch_en#what

Contact us:

EC-AI-WATCH@ec.europa.eu

Unless otherwise noted the reuse of this presentation is authorised under the [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/) license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

Slide 10: [email icon](#), source: [Iconsets by dtafalonso](#).