StandICT.eu 2023

ICT STANDARDISATION OBSERVATORY AND SUPPORT FACILITY IN EUROPE

# AI Watch

Stefano Nativi (European Commission, Joint Research Centre)

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European Commission

# AI Watch

- Knowledge Service from the European Commission
- *Monitor the Development, Uptake and Impact of Artificial Intelligence for Europe*
- Developed by the EC **Joint Research Centre** in close collaboration with **DG CONNECT**
  - To support monitoring and development of the **European strategy for AI**
  - Based on scientific evidence
- Mentioned in the **Coordinated Plan on AI** (published December 2018)

# Main AI Watch publications… so far

- National Strategies on AI

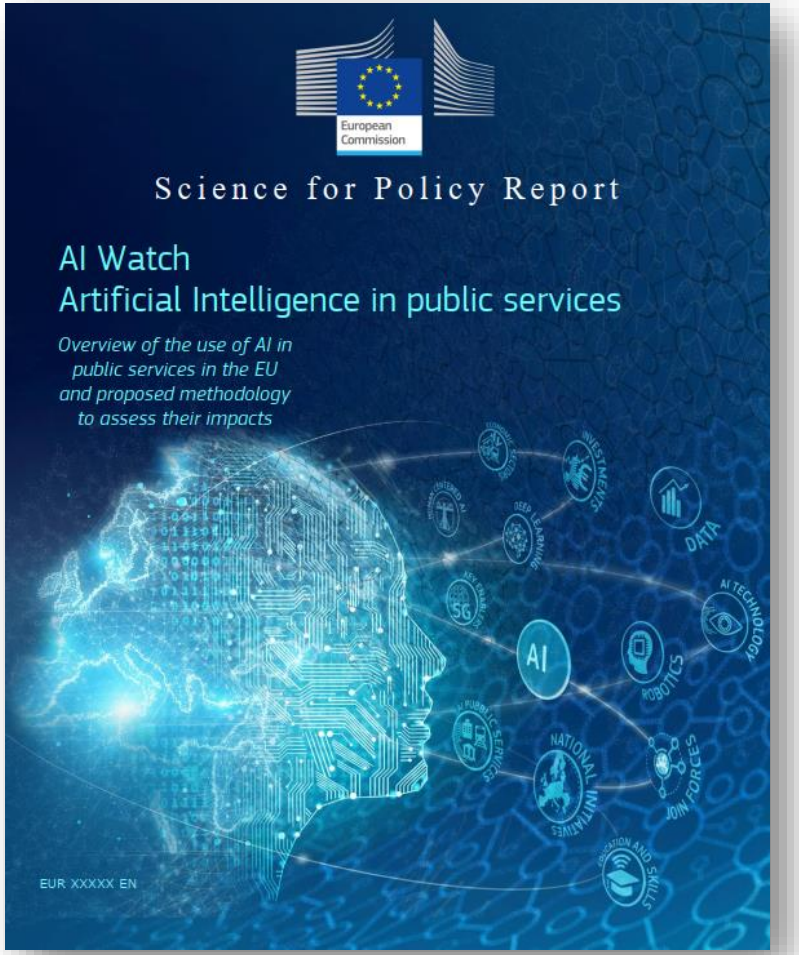
  – in collaboration with OECD
- AI in the Public Sector
- AI Worldwide Landscape
- AI History Timeline
- and several methodology reports


AI Watch portal: https://ec.europa.eu/knowledge4policy/ai-watch_en

Note: AI Watch is mentioned in the EP June 2020 study
"Opportunities of Artificial Intelligence"

# AI Watch: Mapping AI use in public services in the EU

- **230 cases** (EU27 + CH, NO & UK)




# AI Watch: mapping worldwide AI Landscape

Total number of AI agents
31.04k

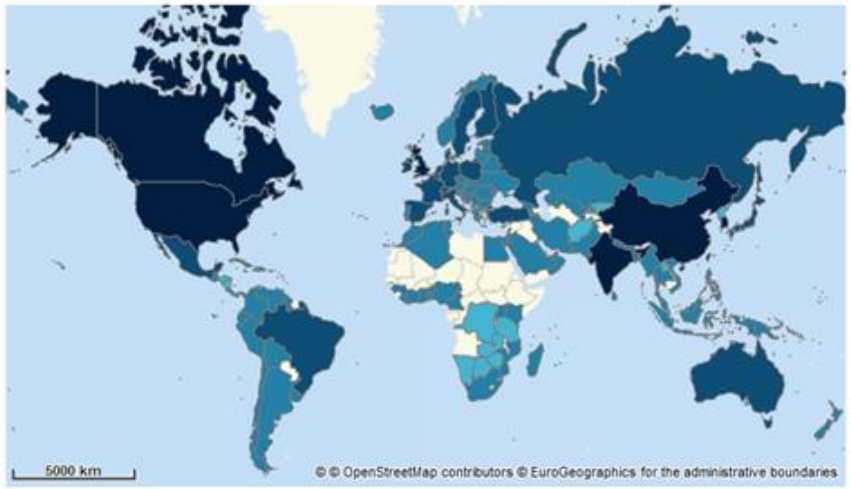
Number of AI firms
28.1k

AI Patent applications
29.25k

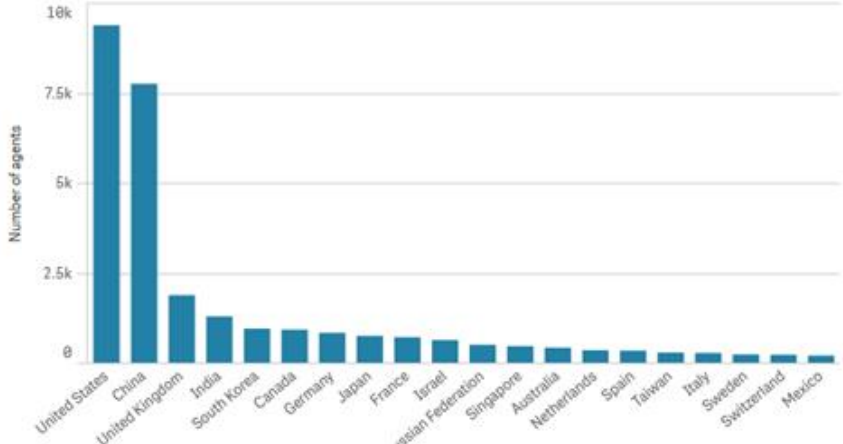
AI Frontier Research publications
4.72k

Geographical Area
Africa
Canada
China
EU28
India
Japan
Middle East
Oceania
Other American countries
Other Asian countries
Other European countries
South Korea
US

Number of Economic Agents in the AI ecosystem by Country
Colors proportional to total number of agents




Number of Economic Agents in the AI ecosystem by Country (top 20)

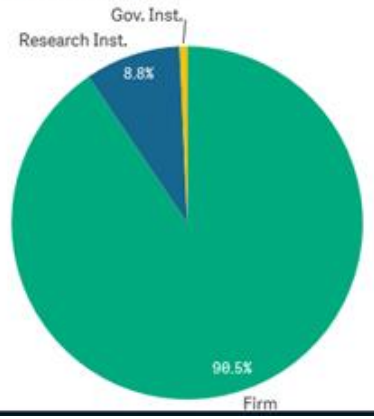



- 30+k AI players identified in the period 2009-2018
- update will be released in Dec 2020

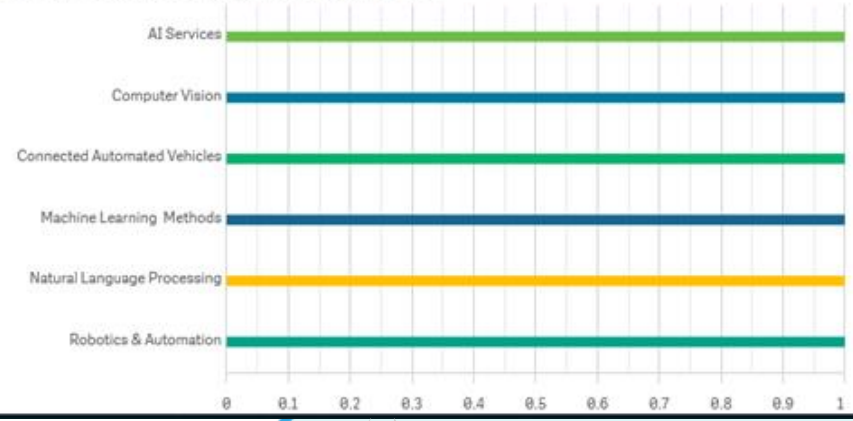
Statistics refer to the period 2009-2018 and therefore UK is included in the EU aggregate

** Note: EU-only co-funded activities are not considered as such in this world wide overview*

Number of economic agents by Organisation Type




Revealed Comparative Advantage by Thematic Area



# AI Watch: mapping worldwide AI Landscape

## AI WATCH DASHBOARD NAVIGATION

This dashboard contains 4 different sections

**Statistics refer to the period 2009-2018 and therefore UK is included in the EU aggregate**

**OVERVIEW**

Focus on country level data to have a comparative worldwide landscape overview. The number of agents detected in each country is used as an indicator of involvement of a country in AI-related economic processes.

**THEMATIC AREAS OF SPECIALISATION**

Identification of technological subdomains and countries' key thematic areas of specialisation, analysing the textual content of worldwide R&D and industrial activities.

**INDUSTRY**

Firms detected to be involved in AI. Location of firms, core business and patenting activity, age and main sector of economic activity.

**RESEARCH AND DEVELOPEMENT**

This section provides a selection of indicators on attractiveness and excellence in research.

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JRC Home | Browse | Services | Places | Tools | Support

# Artificial Intelligence and Big Data Community of Practice @JRC

Home | Reference Documents and publications | Pilots and use cases | Tools and training data | Best practice and knowledge bodies | Activity | Content | People | Projects

**Started in May 2019**

**116 Members**

**151 Followers**
*99 average active members from Oct 2019*

**All Content (284)**

- Blog Posts (109)
- Documents (58)
- Discussions (4)
- Polls (2)
- Events (71)
- Ideas (40)

**Platform URL**

https://webgate.ec.europa.eu/connected/groups/community-of-practice-ai-and-big-data

- to provide a friendly environment for sharing experiences and knowledge
- to implement a network for staying up-to-date
- to monitor JRC activity
- to strengthen a professional identity

**1st AI&JRC Workshop (23 May 2018)**

- **72 Researchers** contributed by presenting **33 research activities**, covering **12 policy areas**.
- **AI@JRC Report** (available online as ePub)

**2nd AI&JRC Workshop (05 July 2019)**

- **68 Researchers** contributed by presenting **27 research activities**, covering **8 policy areas**
- **2nd AI@JRC Report** (available online)

**1st AI Competences Survey @JRC (2018)**

- **108 Colleagues** responded from **29 diverse units**
- **AI@JRC Survey Report** (available online as ePub)

Nov 2020
**Policy-lab to define AI skills in the EU public sector**

2021
**the Webinar ..**

European Commission

# Monitoring Standards on AI

- Monitor and gather information on the current work from the relevant international and global Standards Developing Organisations (SDOs) on AI Framework
- 2020 Deliverables:
  - Class A liaison with ISO/IEC JTC 1/SC 42
  - Identification of relevant SDOs and standardisation activities and proposal for possible engagement with some of them
  - Mapping of AI standardization landscape on the next EC proposal for AI Regulation (Version 1.0)

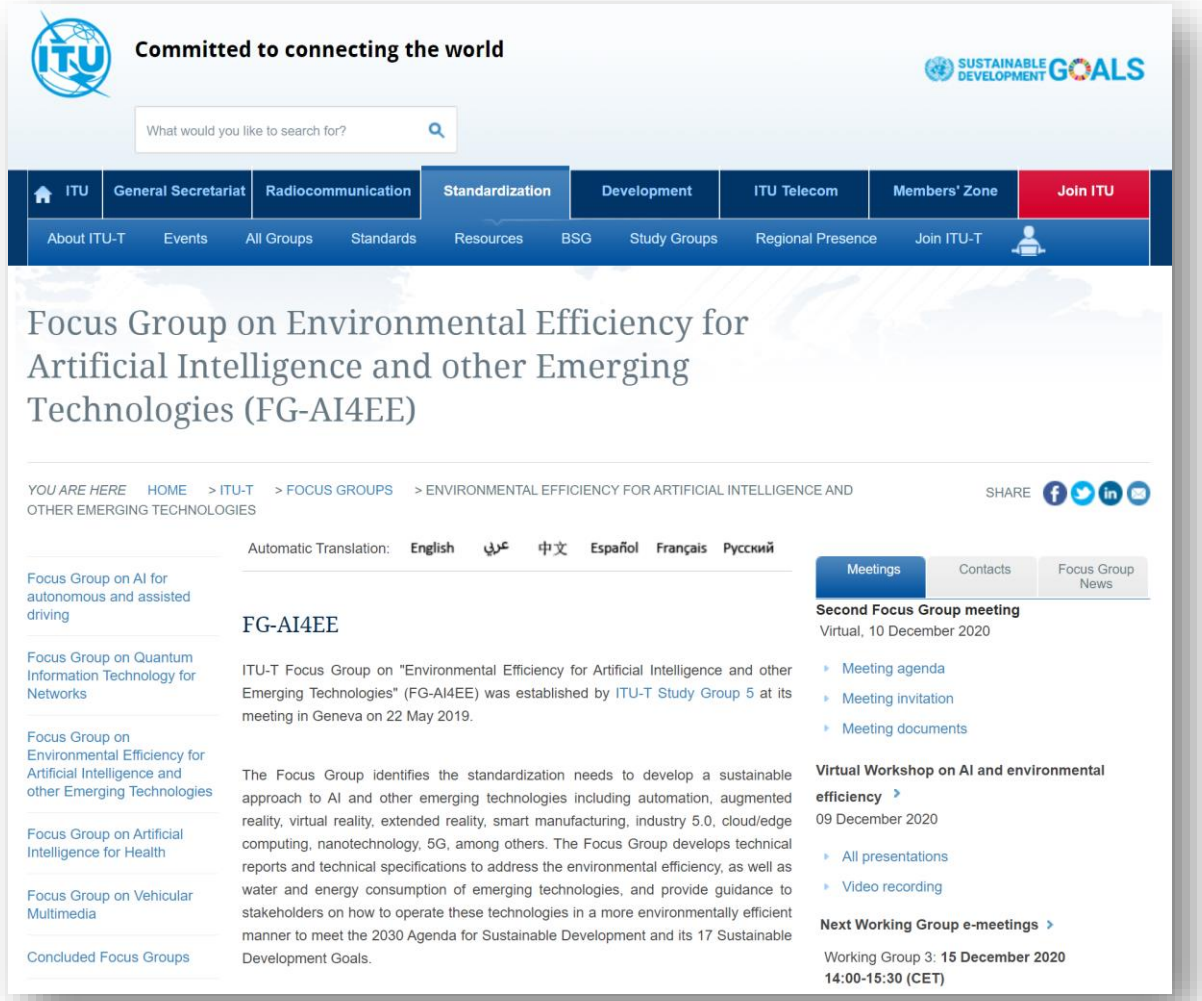
Joint DG CNECT and DG JRC working group

# Relevant SDOs and activities

- Directly engaged
  - **ISO/IEC JTC1-SC42**
  - **CEN/CENELEC Focus Group on AI**
    - joint EC-CENELEC Committee on AI
  - **ITU-T Focus Group on Environmental Efficiency for AI** (FG EE4AI)
- In contact with
  - **IEEE P7000** (covering human ethical values during system design)
  - **OECD Focus Group on AI** (aiming at measuring and analysing the economic and social impacts of AI technologies and applications)
  - **ETSI Industry Specification Group** (ISG) on **SECURING AI** (SAI), Experiential Networked Intelligence (ISG ENI)
- **Collaboration with H2020 StandICT project**

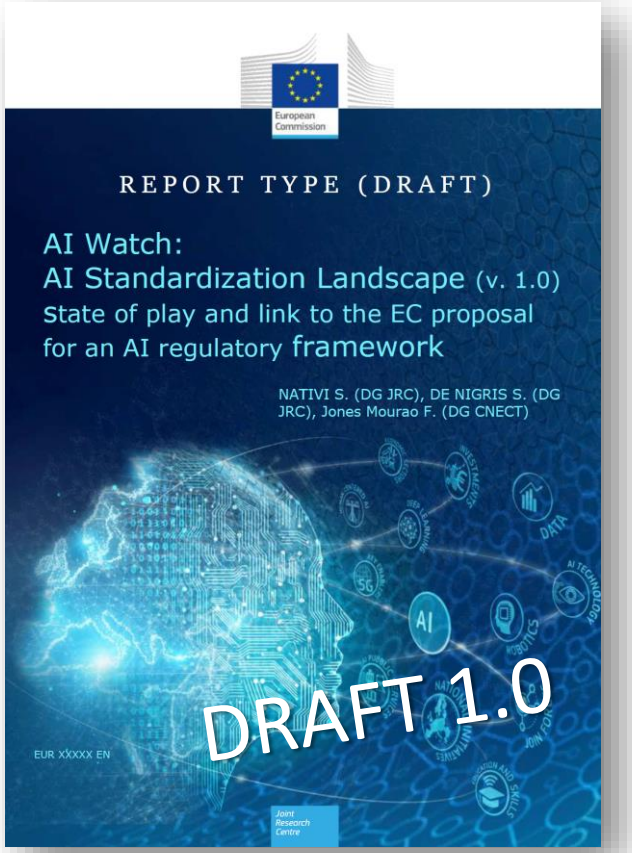
# ITU-T FG-AI4EE

- Focus Group on Environmental Efficiency for Artificial Intelligence and other Emerging Technologies –related to SDGs
- JRC role:
  - Vice-chair of the Focus Group and co-chair of the WG3: “Implementation Guidelines of AI and Emerging Technologies for Environmental Efficiency” along with China Telecom
  - Leader of the technical report specification “Computer Processing, Data management and Energy perspective”



# Mapping the AI standardization landscape on the AI Regulation proposal

- Provide a survey of the relevant international standards, technical specifications and working items dealing with AI, as **to high risk applications and systems**
  - ethics, transparency, privacy, quality, accuracy, testing, and monitoring aspects
- Link them to the **requirements of the future EU regulatory framework on AI**
- **Analyze the results** and **provide some initial recommendations**



Contact: stefano.NATIVI@ec.europa.eu

AI Watch Webpage

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

Thanks from

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