AI in the European public sector

Insights from the JRC research

The views expressed are those of the author and may not in any circumstances be regarded as stating an official position of the European Commission.

Policy background – Coordinated plan

COORDINATED PLAN ON ARTIFICIAL INTELLIGENCE 2021

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Policy background – AI Act

*not mutually exclusive

Unacceptable risk
e.g. social scoring

— **Prohibited**

High risk
e.g. recruitment, medical devices

— **Permitted** subject to compliance with AI requirements and ex-ante conformity assessment

AI with specific transparency obligations
'Impersonation' (bots)

— **Permitted** but subject to information/transparency obligations

Minimal or no risk

— **Permitted** with no restrictions

Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0206

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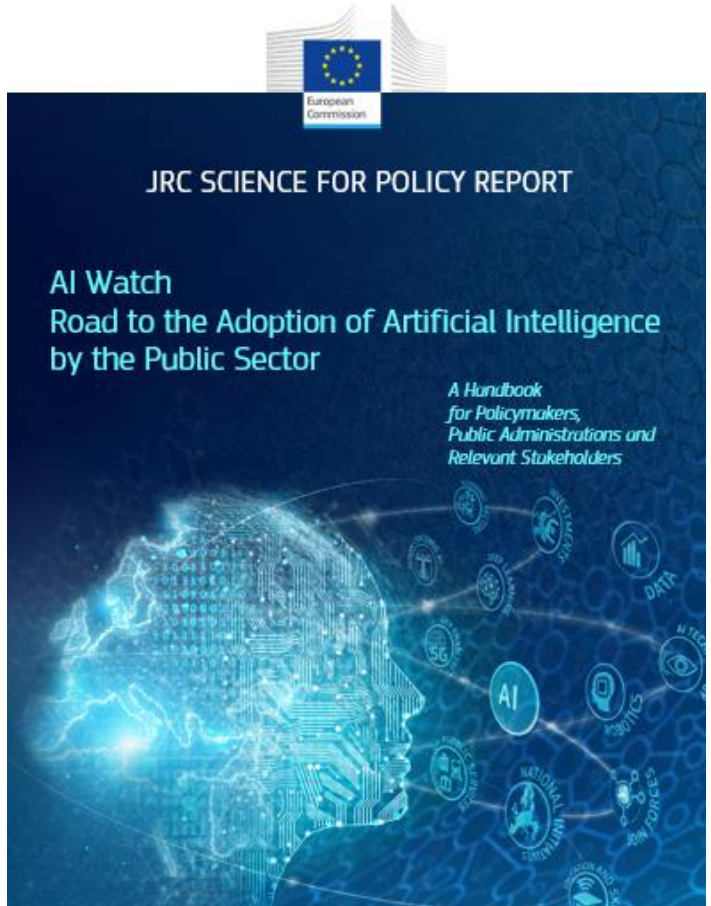
AI in the Public Sector – JRC research

- Road to the adoption of AI by the Public Sector



- European landscape on the use of Artificial Intelligence by the Public Sector

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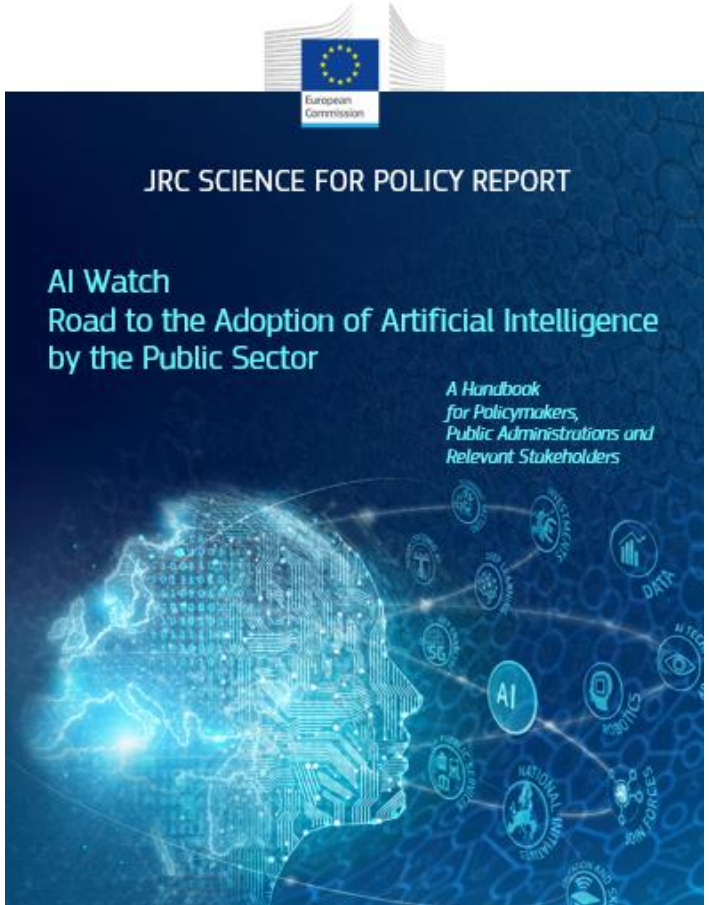
Road to the adoption of AI by the public sector

4 Areas of interventions



16 Recommendations

Over *50* Actions

at different levels of operational governance

link: https://europa.eu/!jNQg8p

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Road to the adoption of AI by the public sector

1. Provide an **educated picture of the State of the Art of AI in Europe**
2. **Identify challenges and opportunities**, areas of intervention and potentials
3. **Outline Initiatives and activities** in support to progress of AI in the public sector
4. **Provide a dedicated framework** and possible actions **for key stakeholders at all levels**
5. Identify **policy options** and **research avenues** for the future

an ***actionable plan*** based on *concrete evidence* supported by *examples*, ruled by *common needs and opportunities*, supported by *initiatives and policies* at all levels

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Road to the adoption of AI by the public sector

Area 1:
Promote an EU value-oriented, inclusive, human-centric and trustworthy AI in the public sector

Area 2:
Enhance coordinated governance, convergence of regulations, and capacity building

Area 3:
Build a shared and interactive AI digital ecosystem

Area 4:
Apply and monitor sustainability through value-oriented AI impact assessment co-created frameworks

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European landscape on the use of Artificial Intelligence by the Public Sector

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1. Analysis of the AI national strategies with a focus on the public sector

2. Inventory of use cases of AI in the public sector

3. In-depth case studies

link: https://europa.eu/!dK7jk6

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AI Case Inventory

686 AI cases collected and validated

How we collect cases?

- Country repositories or research studies
- News articles
- Responses to our AI Survey

n.b. the cases are not statistically representative. No comparison can be done among the different countries

Published cases: Joint Research Centre Data Catalogue - Selected AI cases in the public sector - European Commission (europa.eu)

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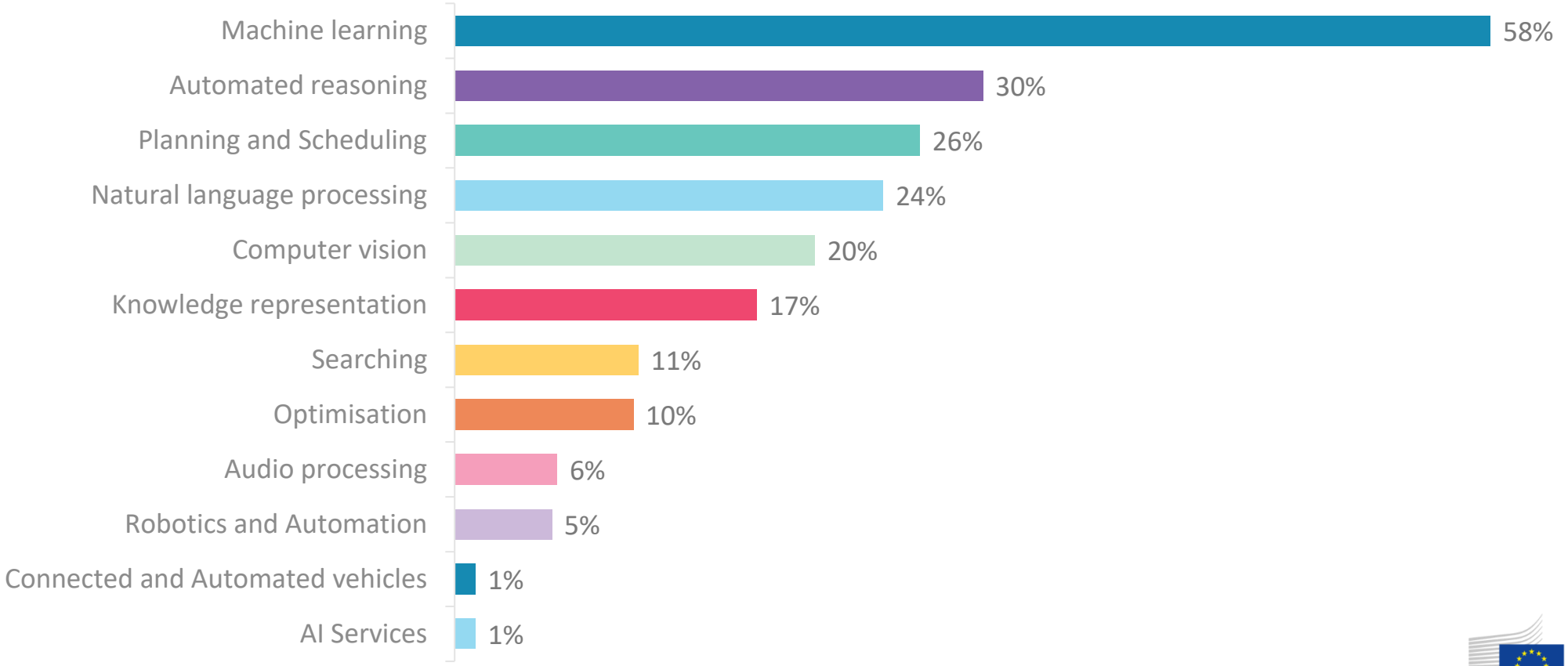
AI Cases by Technology

ML is the main AI technology, even though the spectrum of opportunities is variegate



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AI Cases by Status

Several cases are already in use in daily operations

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AI Cases - Open Data & Explorer

ID	Name	Website
1	AMS - public empolyment service	https://www.fronti
2	Mona - Public chatbot for companies	https://www.usp.gv.a
3	CitizenLab - Youth for Climate	https://youth4climat
4	Walloon - Agricultural subsidy	https://inspire.ec.eur
5	AcPaas - Technical procurement	https://acpaas.digip
6	Flemish Infoline - Automatic	https://www.innov
7	ILVO - List of multiple AI projects in	https://ilvo.vlaandere
8	Belgium - Detection batch numbers	https://www.kindeng
9	Verontrustingen - Enabling accurate	
10	Camera System - Mobile phone	https://baseline.vias.
11	PaveAI 2.0 - Interprets the figures in	https://flemishmaste

https://data.jrc.ec.europa.eu/dataset/7342ea15-fd4f-4184-9603-98bd87d8239a

https://ipsoeu.github.io/ips-explorer/case/

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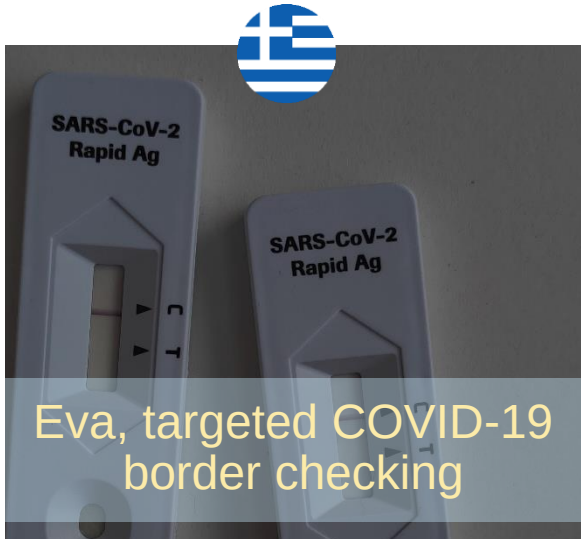
Intelligent Control Platform

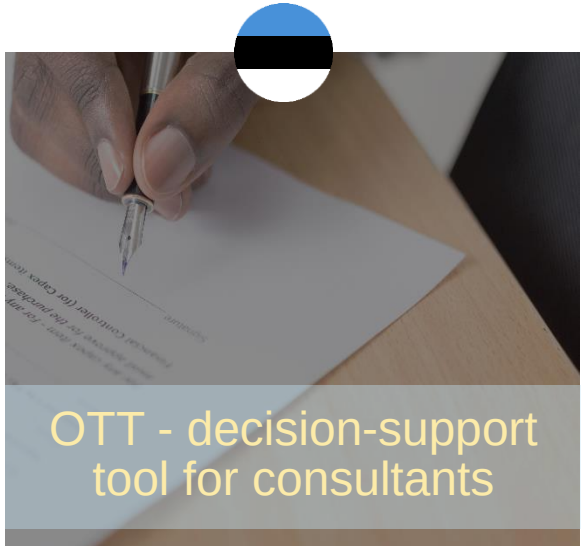


Eva, targeted COVID-19 border checking

Reducing night noise through nudging

Unlocking digitised documents and correcting OCR

Object Detection Kit



OTT - decision-support tool for consultants

Automation of subtitling videos and audios

Estimation of income for those paying by modules

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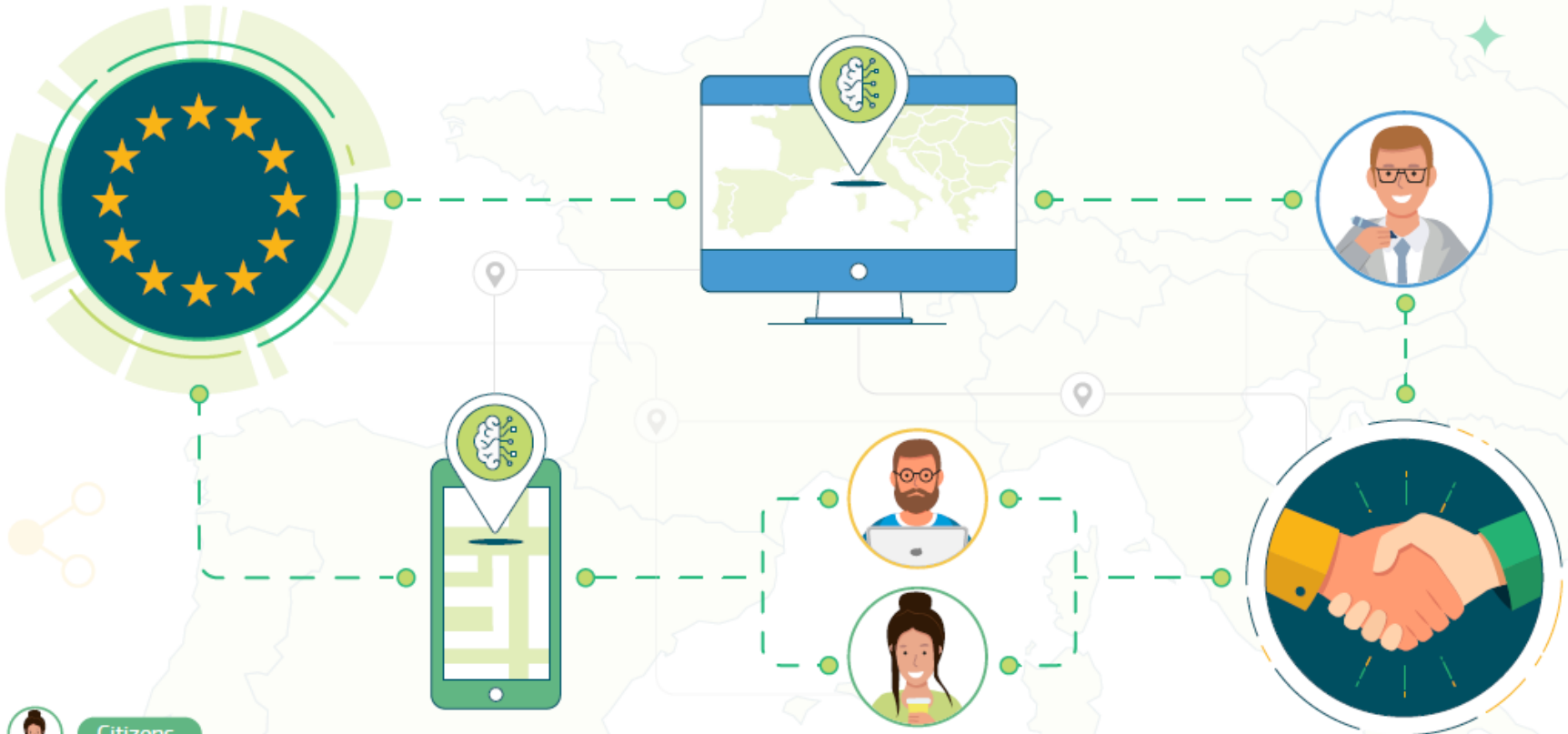
LOCATION INTELLIGENCE

Public administrations in Europe increasingly rely on **location data** and **technologies** to deliver better and more tailored public services. That allows them to make better decisions and thus better policymaking, while making life easier for businesses and citizens.



Citizens

Businesses

Public Administrations

With **Location Intelligence**, modernised public administrations can solve "Where?" questions and derive meaningful insights on important socioeconomic and environmental challenges.

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Lesson learned

_ AI is widespread

Public organisations should start considering AI not only as a research and innovation area but also as a set of solid and available technologies for improving the administrative machine. Moreover, they should start preparing themselves for a diffuse and common usage of AI in all public sector areas

_ Need of in-house expertise

Public administrations should consider in-house knowledge on AI for the – partial or complete - internal development of AI, for the direction and adjustment of the system developed by external suppliers and/or for ensuring proper management of procurement activities.

_ General awareness

Public administrations should start considering AI as a technology that will affect the daily routines of most employees, hence start thinking about the wide diffusion of basic knowledge on how the algorithm works and how to deal with systems that use AI techniques.

Lesson learned

_ Balance of in-house vs external development

Given that most likely a public organisations would need support for developing an AI system, they should carefully select the proper partner(s) and/or suppliers and balance internal and external development.

_ Need of trustworthy AI

Risks should be systematically assessed with a structured and well-defined procedure, avoiding any form of discriminatory and unfair use of the AI system. Proper mitigation measures should be identified for ensuring a human-centric use of AI. This needs to become a routine for public organisations.

_ Technology is only half of the story

Public administrations should be aware that the technical effort for coding an AI system is only a small portion of the effort needed for the implementation thereof. Introducing an AI solution requires a general awareness of AI but also new task allocation and, when needed, new roles and positions within the organisation.

What might this mean for NMCAs?

In your view, which kind of AI technology is most relevant for NMCAs

Thinking about the (future) use of AI by NMCAs, which risk levels do you envisage?

Which geospatial issues should AI policy take into account?

Thank you

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