AI in Public Administration and Government: Benefits, challenges and risks

Luca Tangi and Sven Schade
European Commission, JRC

13 October 2023
Dublin

Agenda

- Recap from the Ljubljana meeting
- AI Benefits
- AI Challenges
- AI Governance
- Questions

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AI in the Public Sector: JRC research

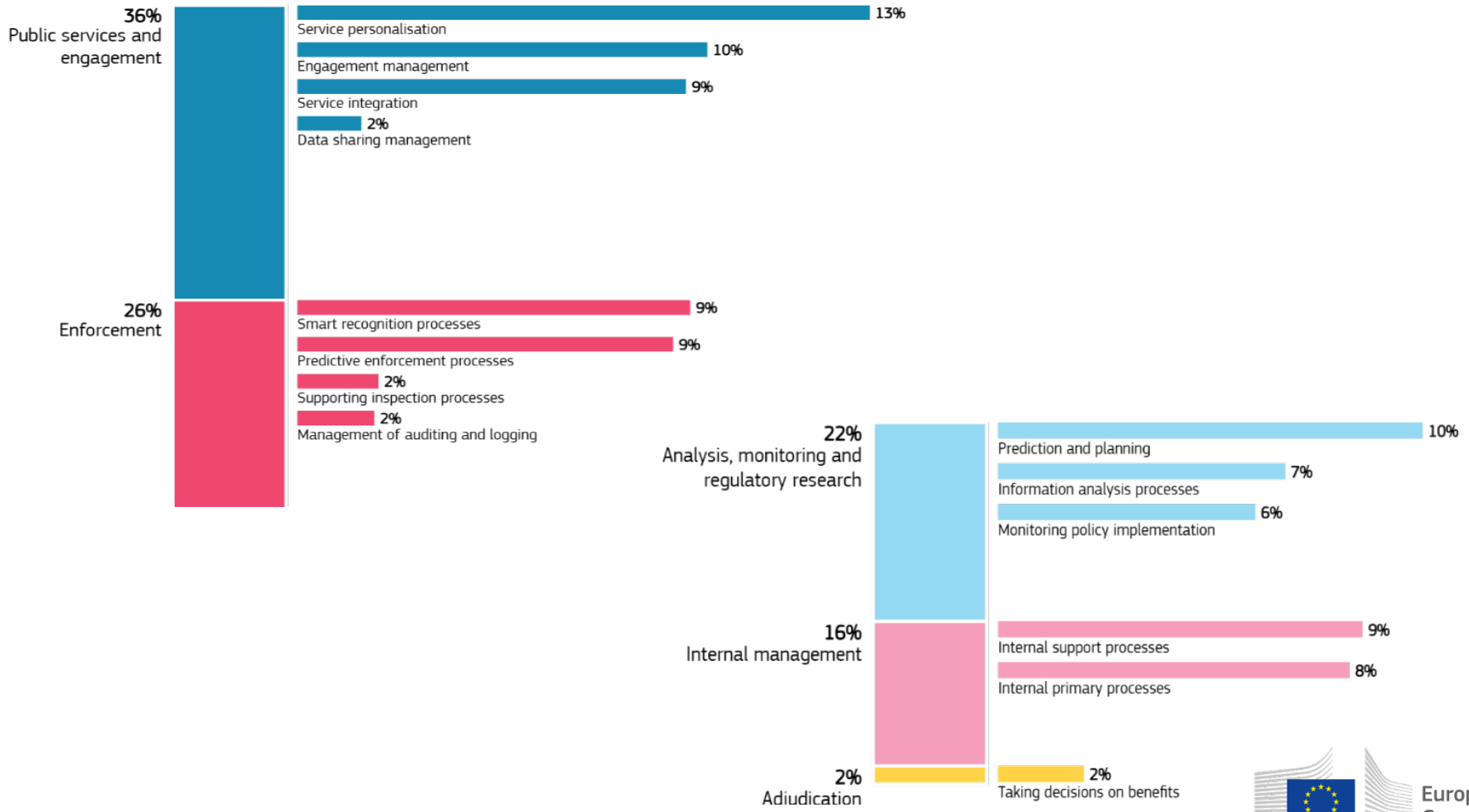
1

AI is used for many different processes

Benefits

Challenges

Governance



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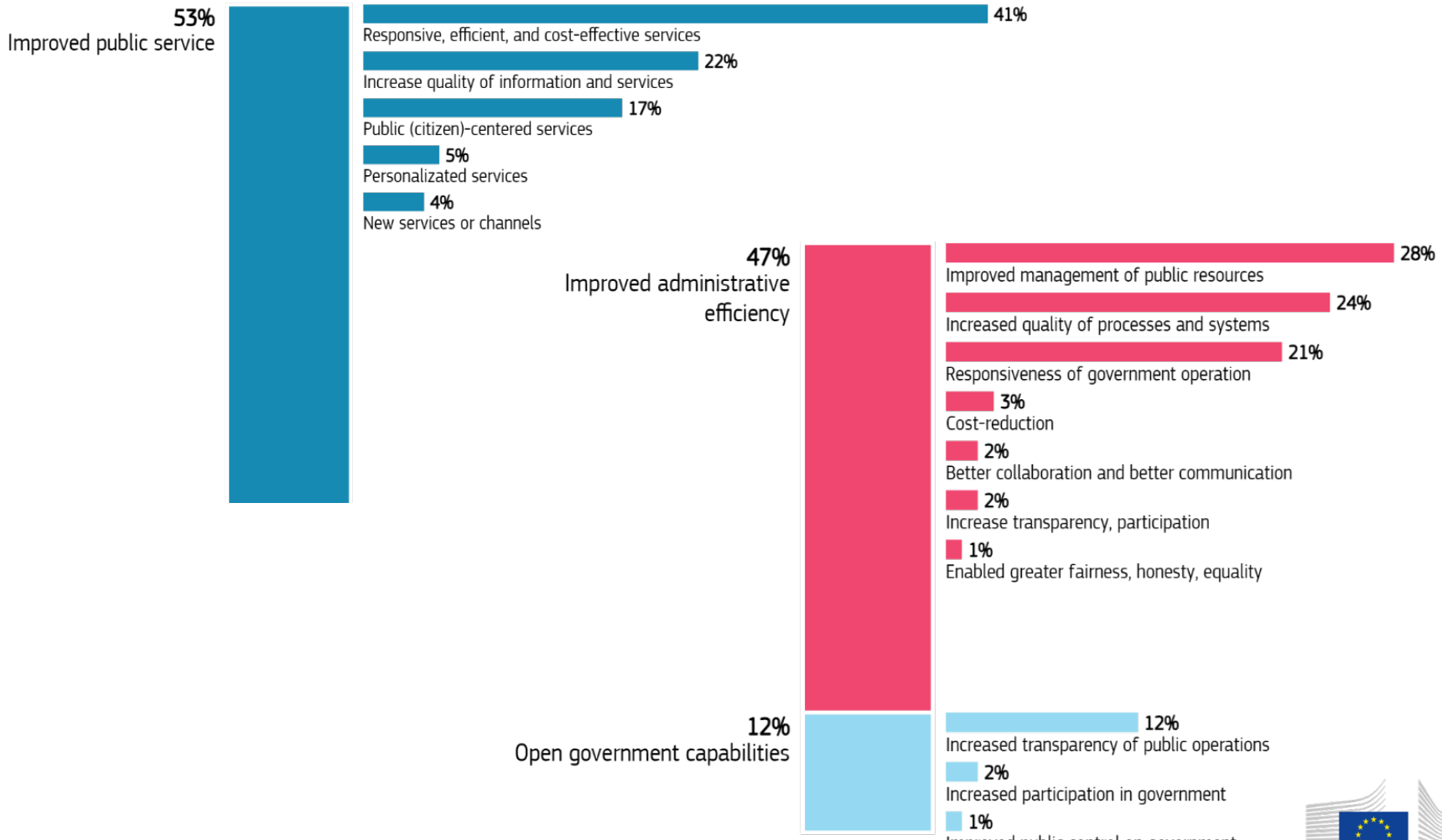
AI can improve public service delivery and efficiency

Benefits

Challenges

Governance



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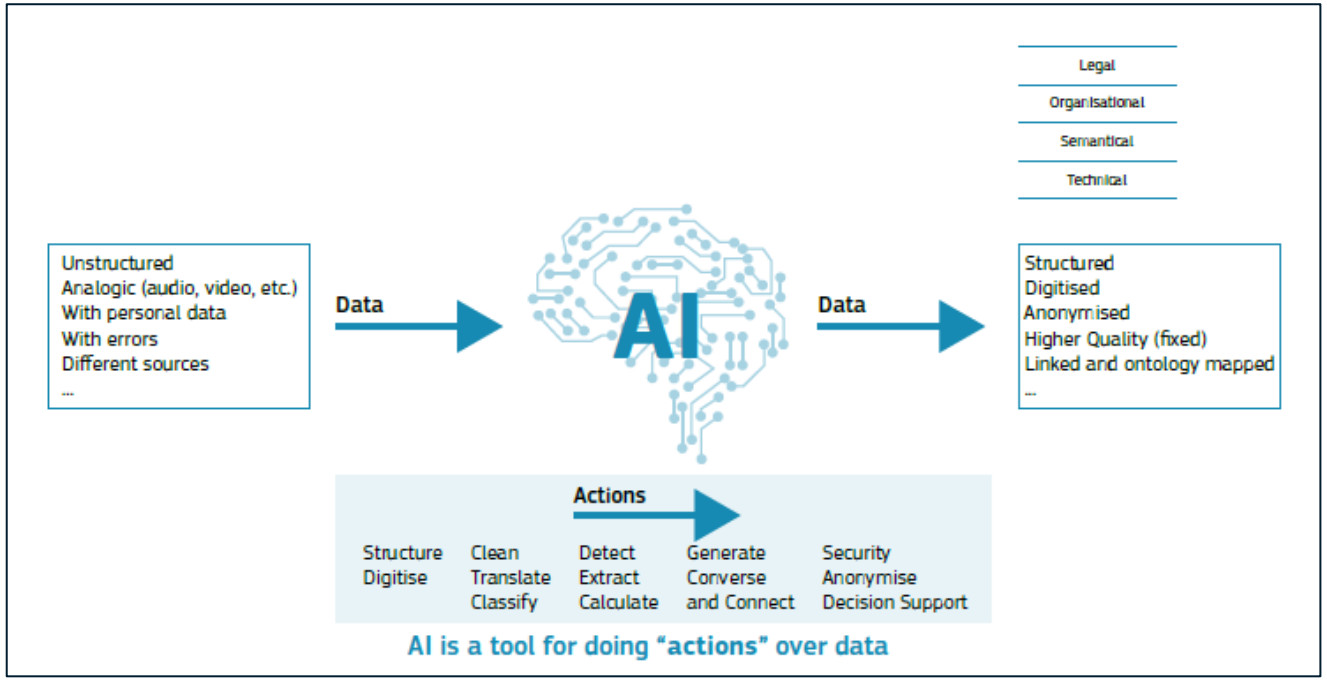
AI as a tool to enhance interoperability

Benefits

Challenges

Governance



Tangi, L., Combetto, M., Martin Bosch, J. and Rodriguez Müller, P., Artificial Intelligence for Interoperability in the European Public Sector, Publications Office of the European Union, Luxembourg, 2023, doi:10.2760/633646, JRC134713.

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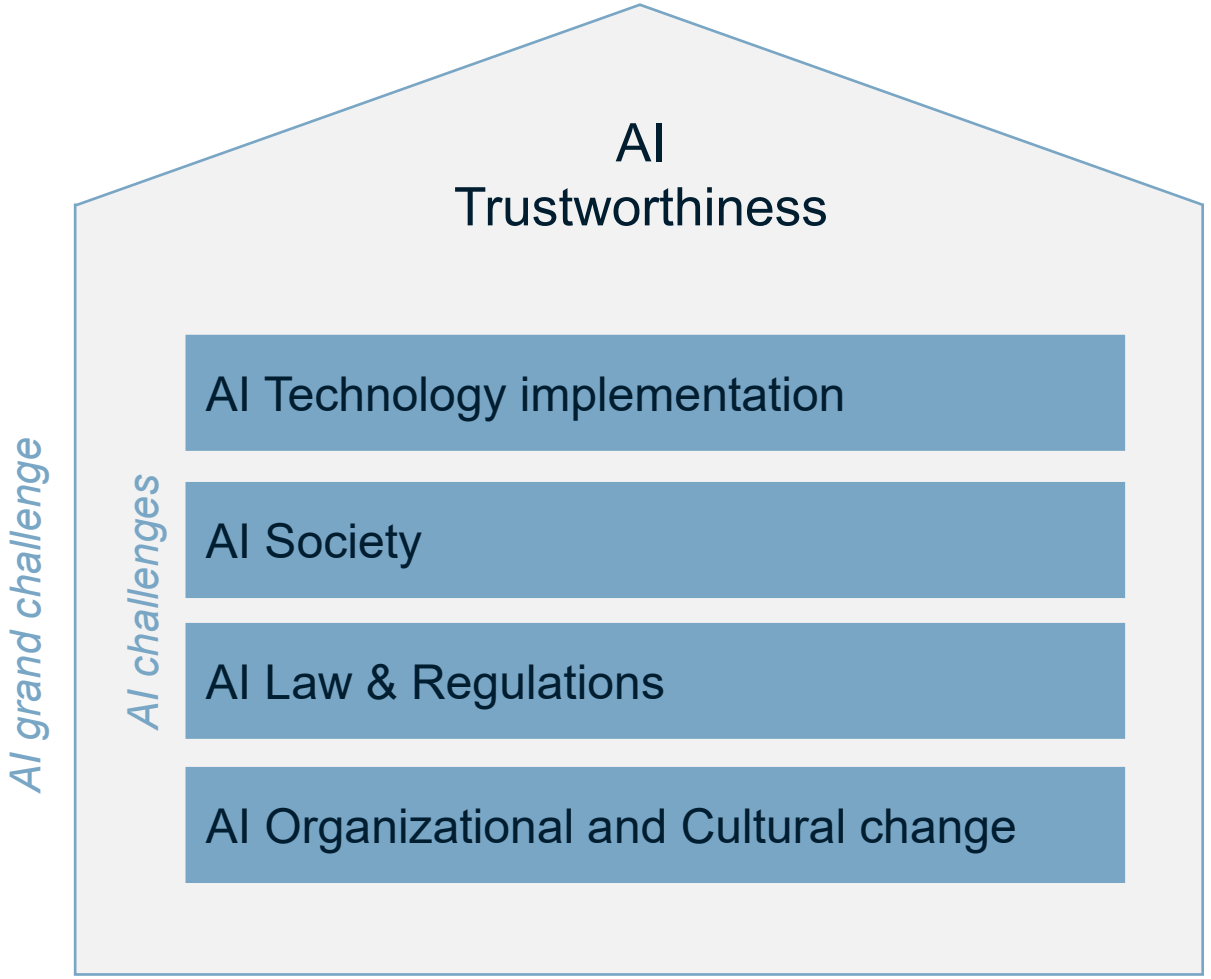
1 Need of trustworthy AI

Benefits

Challenges

Governance



Luca Tangi, Colin van Noordt, and A. Paula Rodriguez Müller. 2023. The challenges of AI implementation in the public sector. An in-depth case studies analysis. In Proceedings of the 24th Annual International Conference on Digital Government Research (DGO '23). Association for Computing Machinery, New York, NY, USA, 414–422. https://doi.org/10.1145/3598469.3598516

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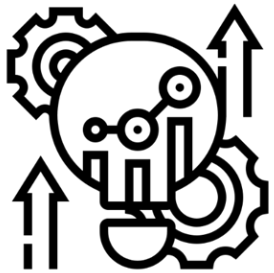
Challenges changes over time

Benefits

Challenges

Governance



Development / piloting

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Use

Luca Tangi, Colin van Noordt, and A. Paula Rodriguez Müller. 2023. The challenges of AI implementation in the public sector. An in-depth case studies analysis. In Proceedings of the 24th Annual International Conference on Digital Government Research (DGO '23). Association for Computing Machinery, New York, NY, USA, 414–422. https://doi.org/10.1145/3598469.3598516

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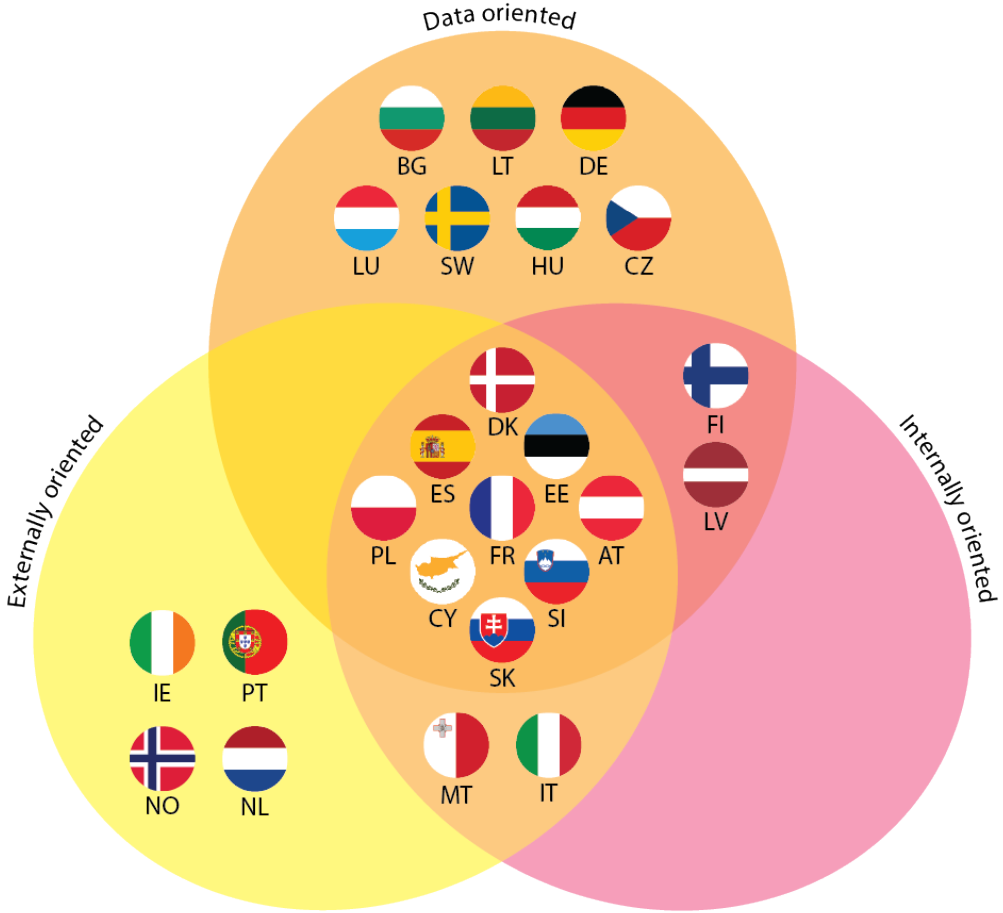
Governance **of AI**: Strategies are essentials

- Benefits
- Challenges
- Governance



Tangi, L., Van Noordt, C., Combetto, M., Gattwinkel, D. and Pignatelli, F., AI Watch. European landscape on the use of Artificial Intelligence by the Public Sector, Publications Office of the European Union, Luxembourg, 2022, doi:10.2760/39336, JRC129301

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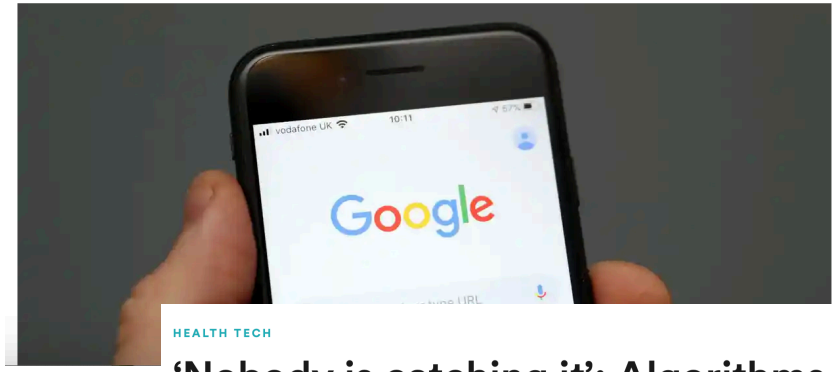
Governance **of AI**: Risk management approach

- Benefits
- Challenges
- Governance

Doctors fear Google skin check app will lead to 'tsunami of overdiagnosis'

There are nearly 10bn Google searches for skin, nail and hair issues each year, prompting the tech giant to create a 'dermatology assist tool'



HEALTH TECH

STAT+

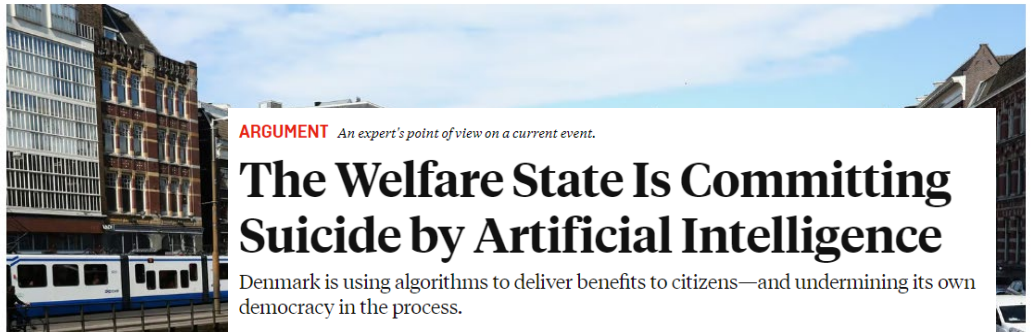
'Nobody is catching it': Algorithms used in health care nationwide are rife with bias

By Casey Ross June 21, 2021

Reprints

Dutch scandal serves as a warning for Europe over risks of using algorithms

The Dutch tax authority ruined thousands of lives after using an algorithm to spot suspected benefits fraud – and critics say there is little stopping it from happening again.

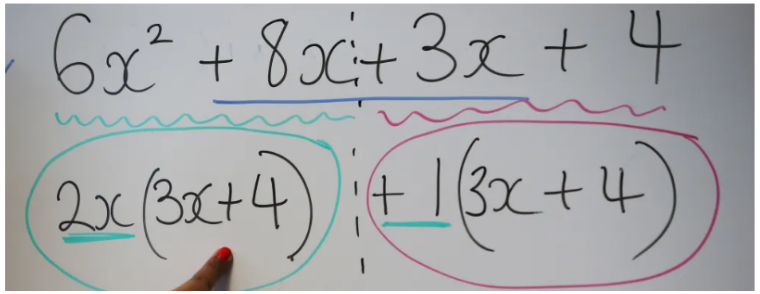


ARGUMENT *An expert's point of view on a current event.*

The Welfare State Is Committing Suicide by Artificial Intelligence

Denmark is using algorithms to deliver benefits to citizens—and undermining its own democracy in the process.

By Jacob Mchangama, CEO of The Future of Free Speech, and Hin-Yan Liu



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Governance **of AI**: Risk management approach

Benefits

Challenges

Governance

Risk to:

- Health
- Safety
- Fundamental rights

Need for a risk management approach

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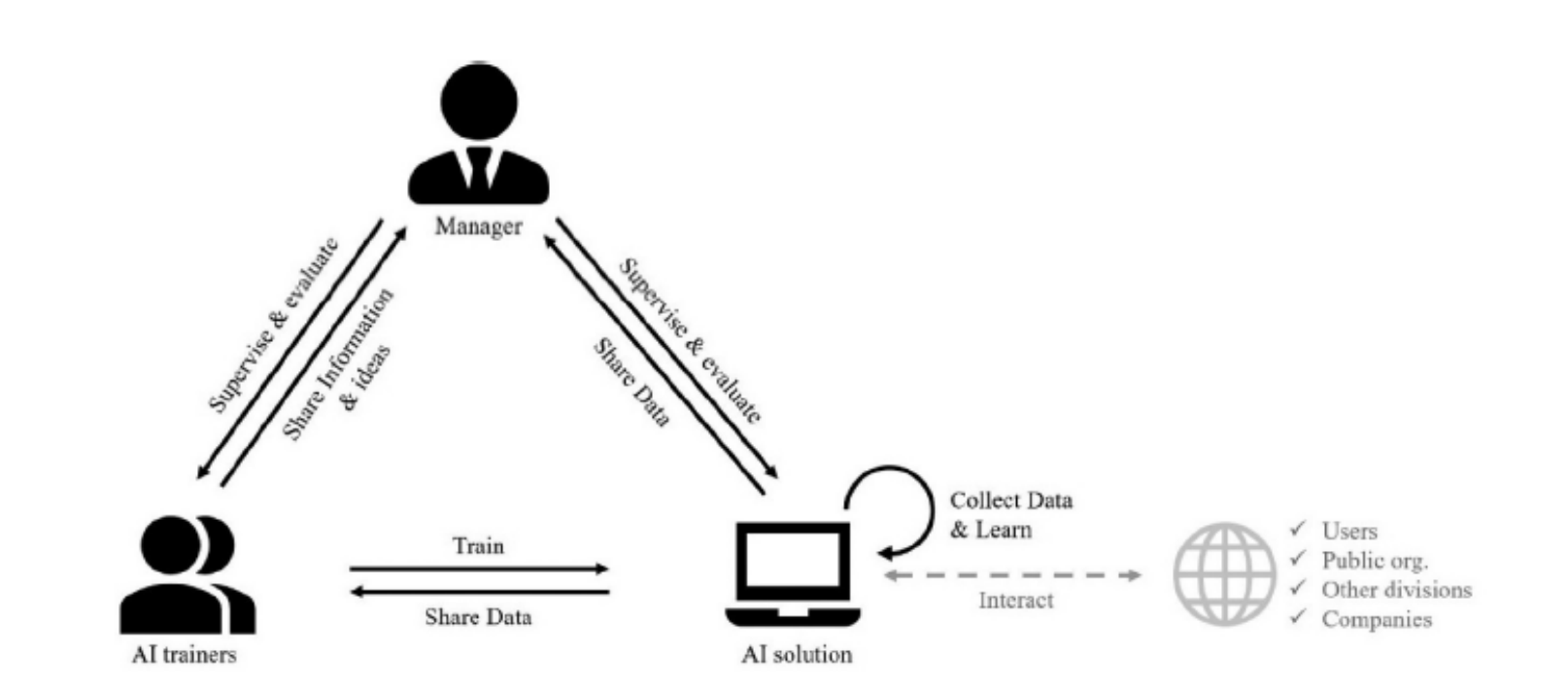
Governance **with AI**: AI as an organizational agent example

Benefits

Challenges

Governance



Giulia Maragno, Luca Tangi, Luca Gastaldi & Michele Benedetti (2022): AI as an organizational agent to nurture: effectively introducing chatbots in public entities, Public Management Review, DOI: 10.1080/14719037.2022.2063935

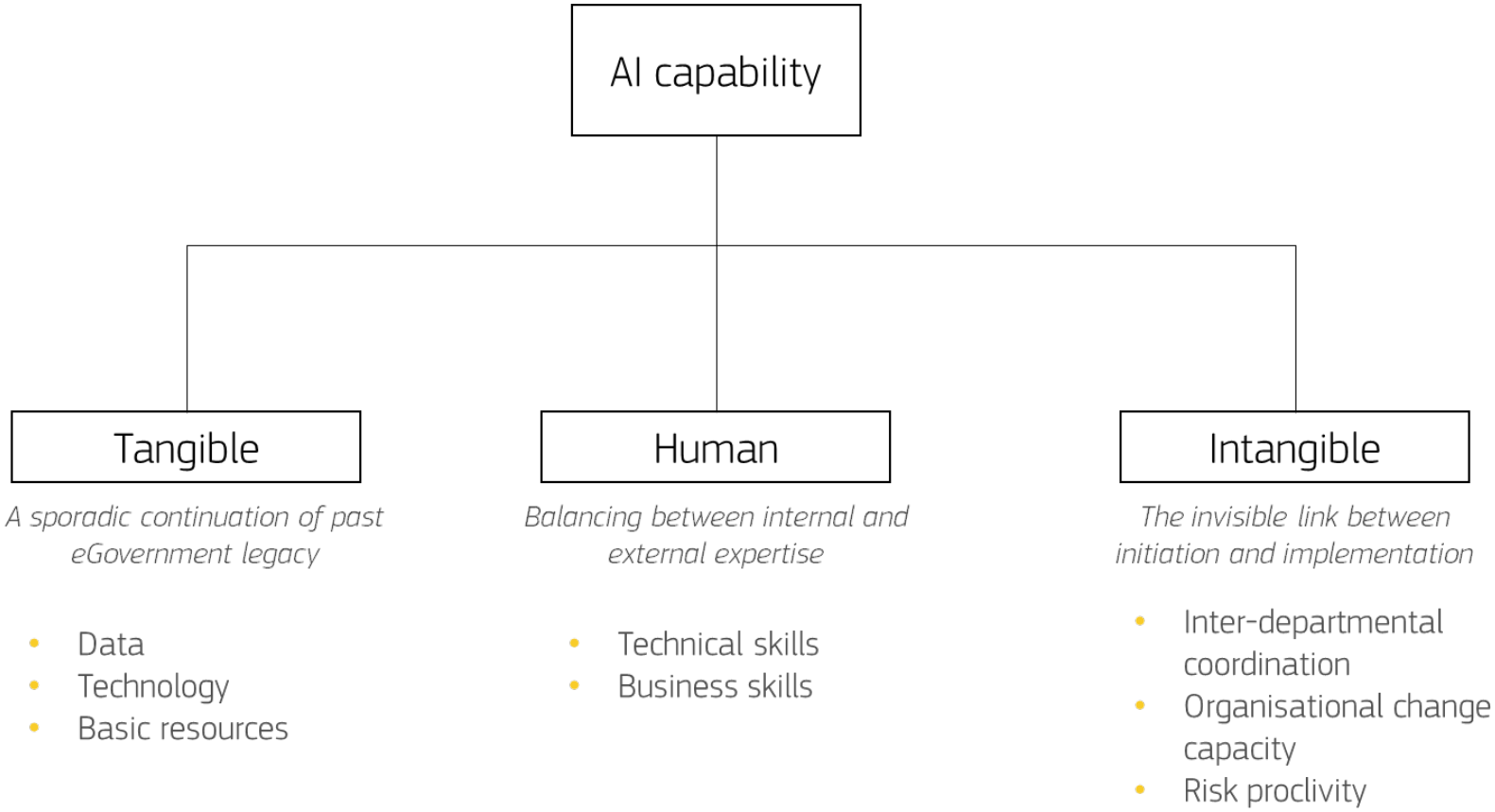
4

Governance **with AI**: AI capability

Benefits

Challenges

Governance



van Noordt, C., Tangi, L., 2023. The dynamics of AI capability and its influence on public value creation of AI within public administration. Government Information Quarterly 101860. https://doi.org/10.1016/j.giq.2023.101860

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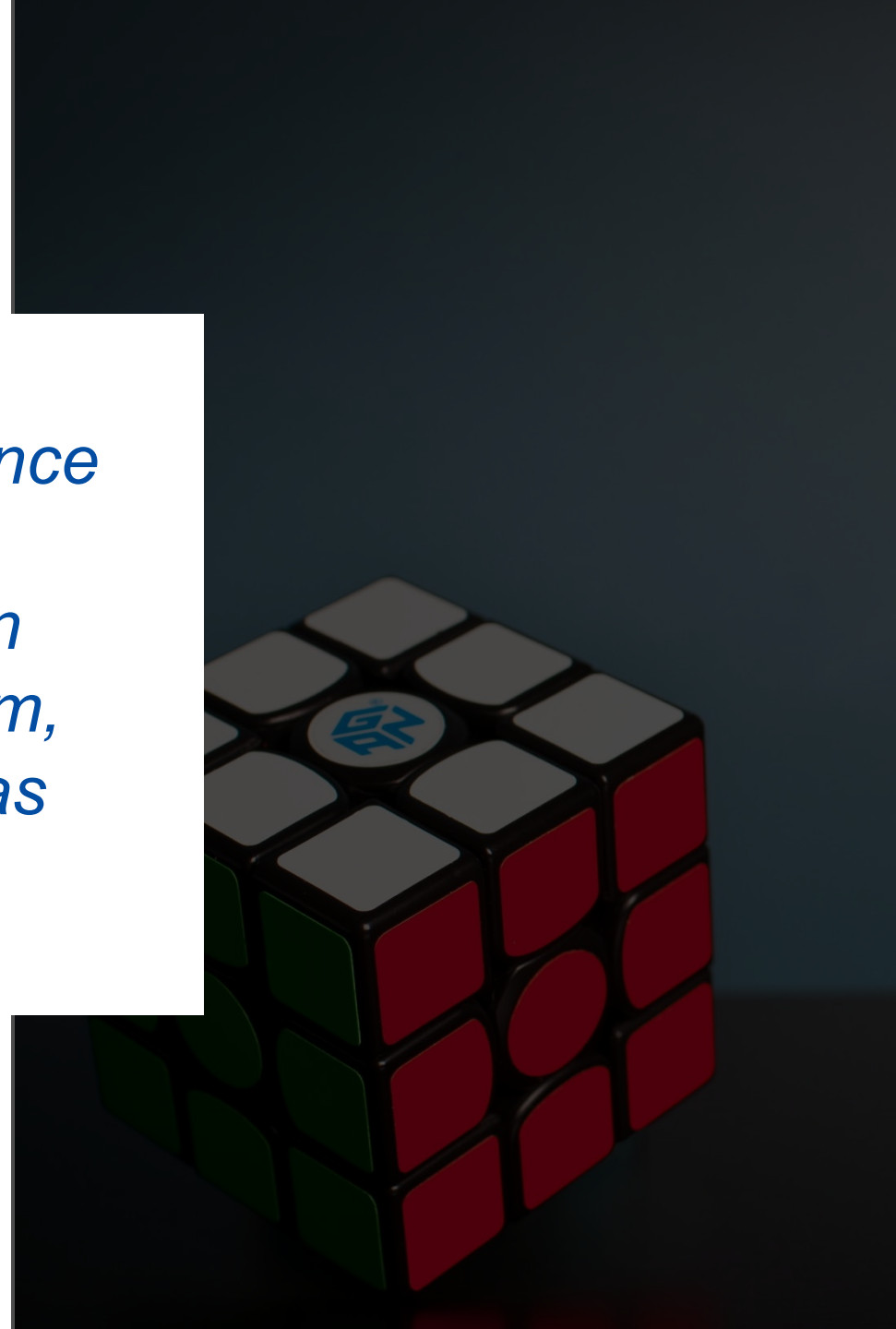
AI is only half of the story. *The governance system surrounding the system strongly defines its success. In fact, the use of AI in this challenge was not solely an AI problem, but an operational and logistic challenge as well.*



Selected questions

Benefits

1. What are the opportunities of AI in public administration?

Challenges

2. Which challenges are you facing, if any, with the use of AI in public administration?

Governance

3. Governance **of AI**: How to establish trustworthiness and human centricity as cross-cutting principles to respect lawful and safe use of AI?
4. Governance **with AI**: How to manage the implementation and integration of AI in public administration?

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Thank you

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