

AI **IN** SCIENCE

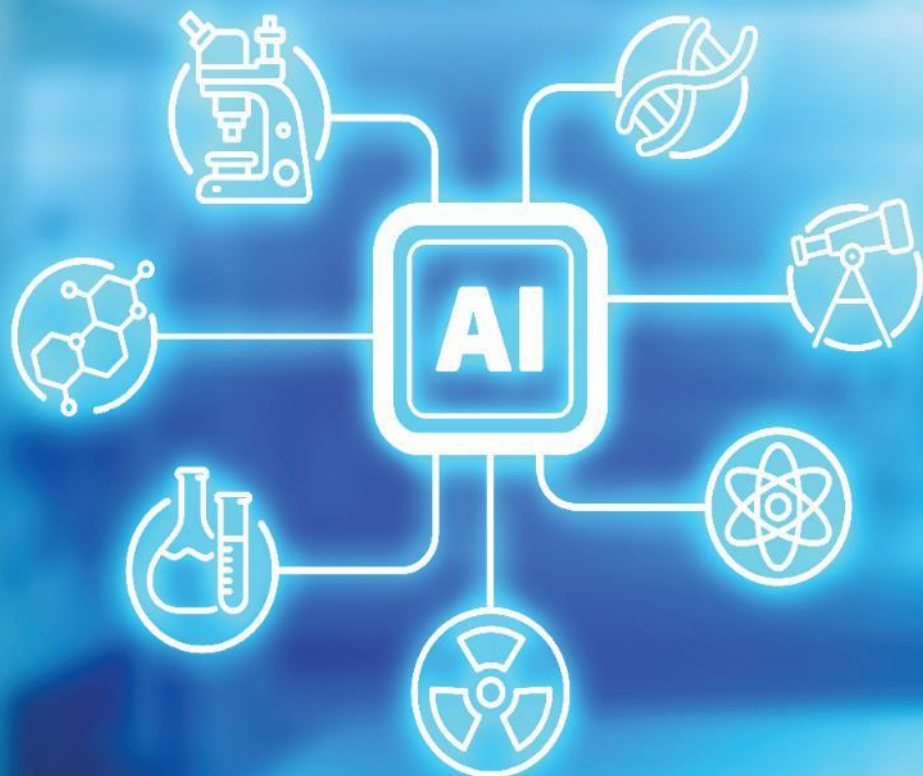
Empowering researchers with
Artificial Intelligence for
scientific discovery

e-IRG workshop - Session I: AI in Research and Science

Towards a European Strategy for AI in
Science

Mario Gómez Geisler – DG RTD at European
Commission

24 June 2025



Framework of AI EU initiatives

AI Continent

Apply AI
Strategy

AI in Science
Strategy

RAISE
(Resource for AI Science in Europe)

Data Union Strategy

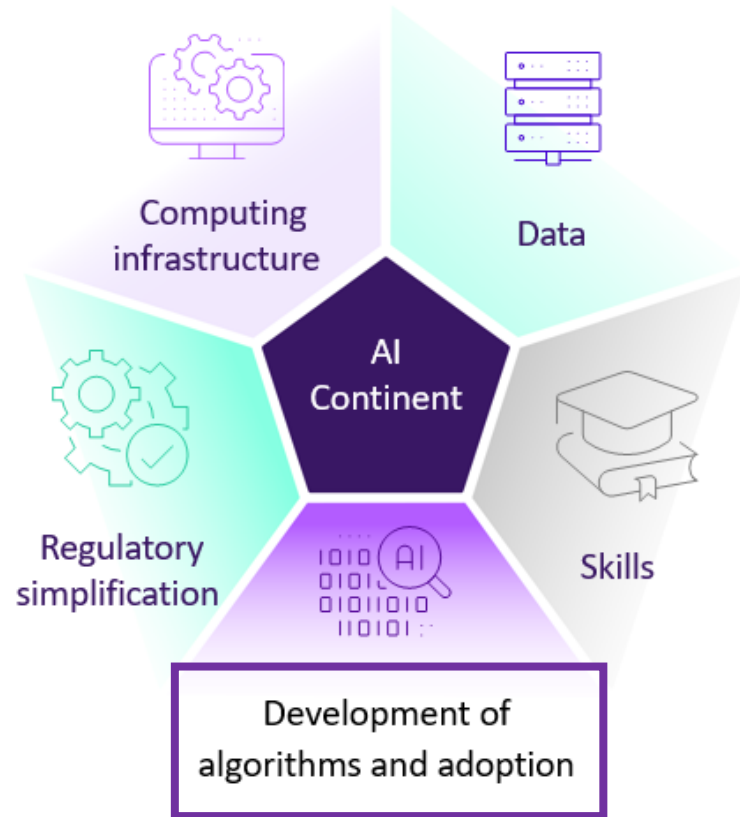
Cloud and AI
Development Act

AI Gigafactories

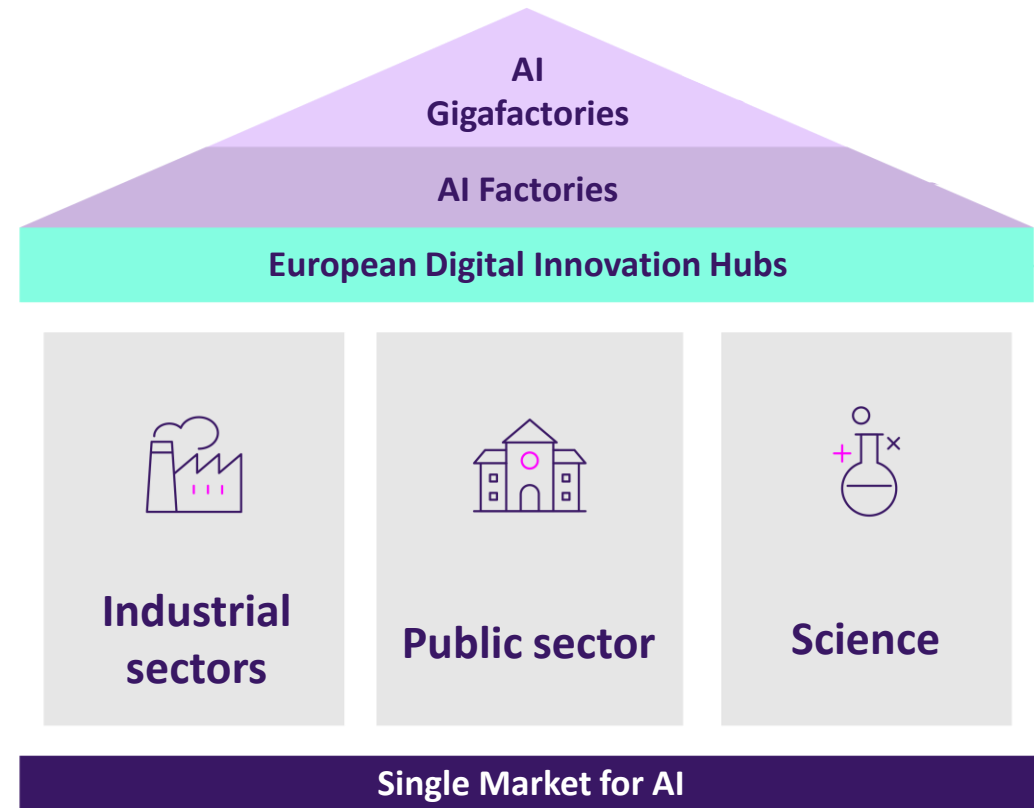
...



From a strategic vision to concrete sectoral actions



AI Continent Action Plan = plan to accelerate and intensify our efforts in 5 key domains



Apply AI Strategy = the blueprint to support the adoption of AI in EU's strategic sectors

Political mandate 2024-2029

“[...] set up a European AI Research Council where we can pool all of our resources, similar to the approach taken with CERN.”

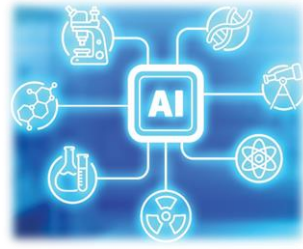
Political guidelines of the European Commission 2024-2029

“[...] put forward a strategy to increase the uptake of AI by European scientists and help set up a European AI Research Council where we can pool all of our resources.”

Mission letter from President Von der Leyen to the Commissioner for Startups, Research and Innovation



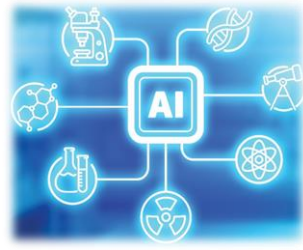
The 'AI in science' opportunities for the EU



- **Science** is one of the areas with more **potential benefits in the application of AI**: accelerate scientific discovery, tangible societal benefits, new business opportunities...
- **The EU is well placed in science to capitalise AI** (scientists, research infrastructures and scientific data ecosystem, open science...)
- In the use of AI in science, there is room for major technical innovations in AI. **Complex and challenging problems requiring new approaches.**
- **Leadership in AI in science** could keep the EU as a scientific leader and a key actor in the global AI race.



Goals of the 'AI in science' strategy



Use AI to make EU science more impactful and productive

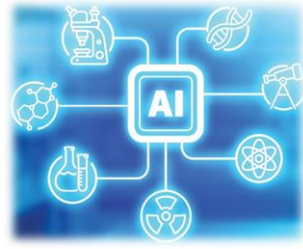
- The EU will produce more and better science
- Accelerate and advance science facilitating innovations to drive economic growth and tackle societal benefits (health, climate change...).
- Keep the EU as a leader in science.

Accelerating the uptake: More researchers using AI as a tool, and more advanced and complex research with AI

Managing the impacts on the scientific process



AI in science recent activities



Past activities:

- Roundtable AI in science experts with Commissioner and EVP (12th Dec, follow-up 26th June), EP STOA event, JRC workshops with stakeholders, events with scientific communities,..
- **AI For Science**, Polish presidency event (20-21 March)
- **Council Conclusions on AI in Science (23rd May)**
- **ERA Action on AI in Science in the new ERA Policy Agenda (23rd May)**
- **Mutual Learning Exercise (MLE) on AI in Science** closed 10th June and a final report will be published soon.

Upcoming:

- **Adoption of strategy** (September, TBC)
- **AI in Science Summit**, Danish Presidency event (3-4 November, Copenhagen)



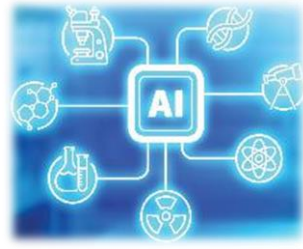
PUBLIC CONSULTATION



Results of the public consultation on the AI in Science strategy



Public Consultation for feedback



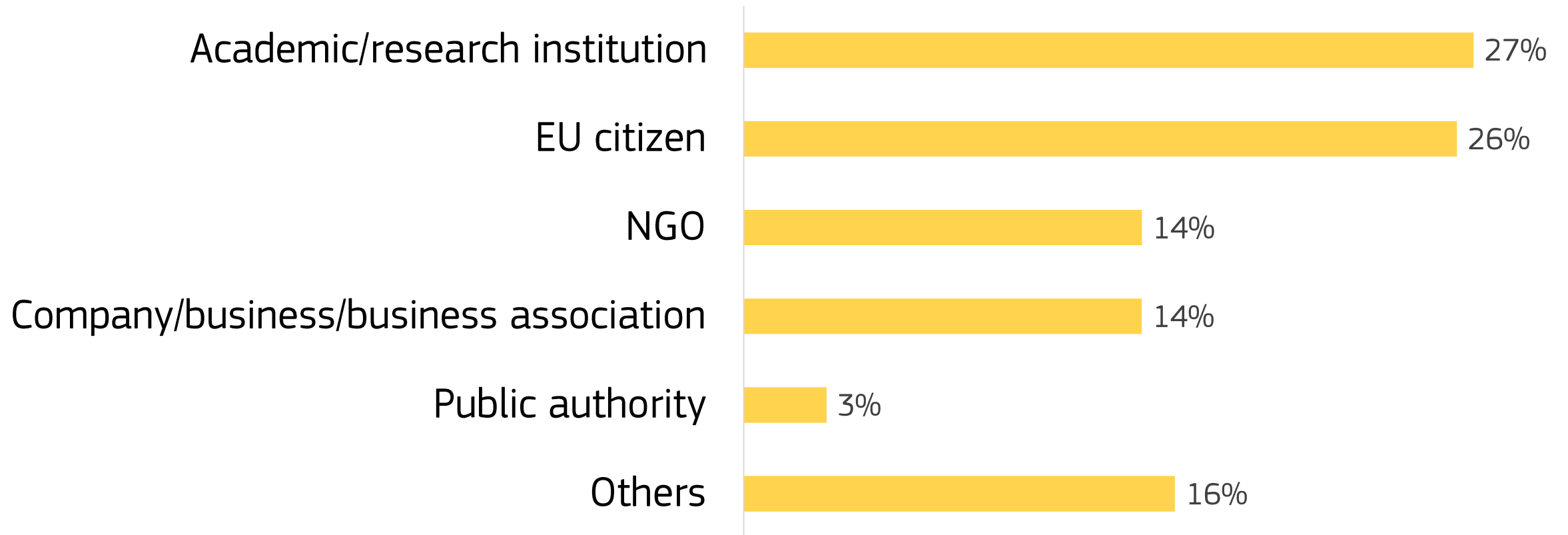
- **Targeted consultation:** workshops, meetings, webinars.
- **Online consultation** – responses from **43 countries** from the EU and beyond
 - A **Call for Evidence** was open for eight weeks on the “**Have your Say**” portal. It received **166 responses** including **73 position papers**. This includes input from academic and research institutions, companies, public authorities, non-governmental organisations and citizens.
 - In addition, **almost 600 respondents** from scientific community answered a **targeted questionnaire** to gather their specialist input.

The feedback gathered will help define the priorities of the European Strategy for AI in Science, including on funding, infrastructure, talent development and policy coordination on AI in Science across the EU.



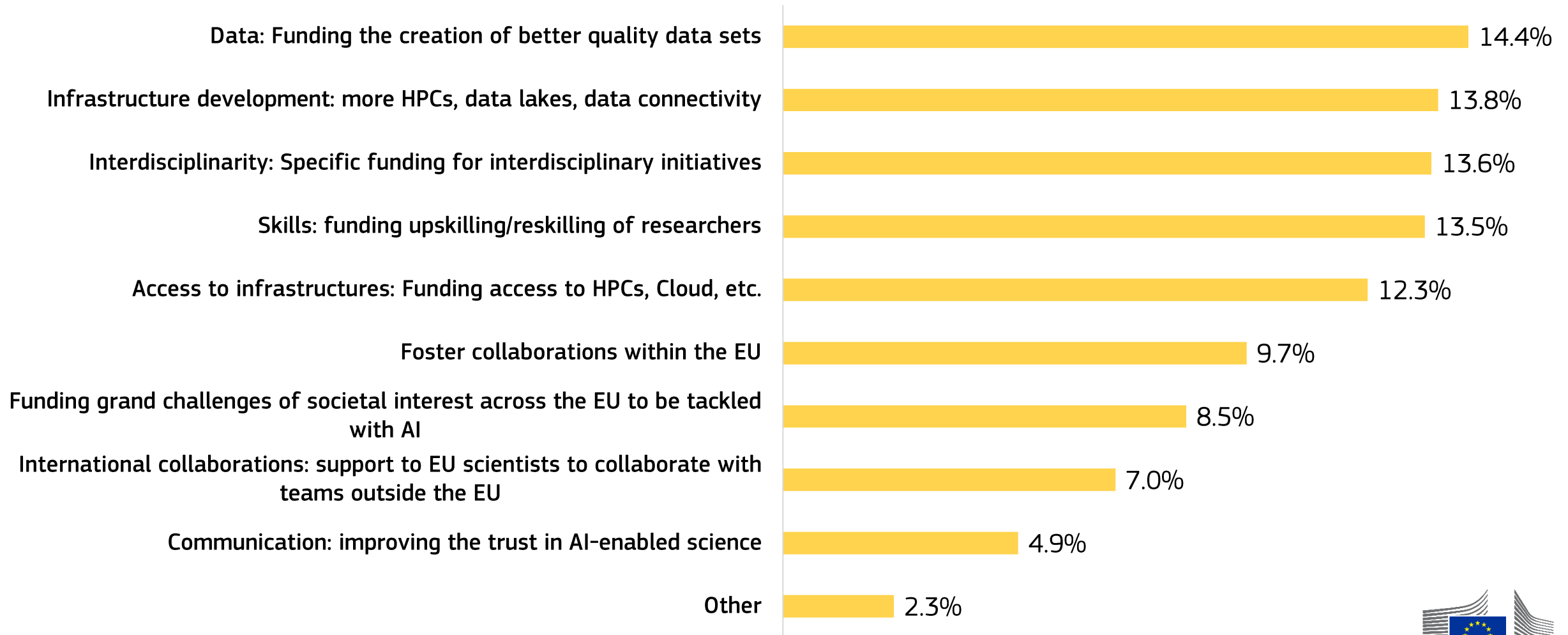
Call for evidence – preliminary results

By **category of respondent**



Targeted questionnaire – preliminary results

Which are the **key issues with the funding of scientific projects using AI?**



Call for evidence – preliminary results

Nine priority areas:

Boost access for scientists to cutting-edge tools like AI algorithms and supercomputers



Build a trusted, innovation-friendly data ecosystem for AI science



Foster interdisciplinary partnerships between computer and domain scientists



Upskill researchers on AI across all disciplines



Attract and retain top AI talent in and for science



Align AI and science strategies across EU Member States



Drive global dialogue on ethical & technical AI standards, including for research



Provide hands-on guidelines on how researchers may address the AI Act requirements



Strategic funding: target scientific foundation models, secure health data access, explainable AI and domain-specific applications



Targeted questionnaire – preliminary results

Some insights:



Funding and Framework Conditions for AI in Science

- The majority advocate for prioritising funding for **AI-focused research positions and interdisciplinary AI-enabled research**, and to encourage joint AI in science projects between industry and academia.
- Several respondents refer to the need for **clearer regulatory frameworks**, including the translation of those frameworks to practical do's and don'ts.



Infrastructures

- Respondents refer mainly to the need for **more public infrastructure** with access policies (e.g. supercomputers), but also for **more local resources/data centres** in national organisations
- There is a need for developing **AI-ready networked infrastructure** and improving **access to computing resources**.



Talent

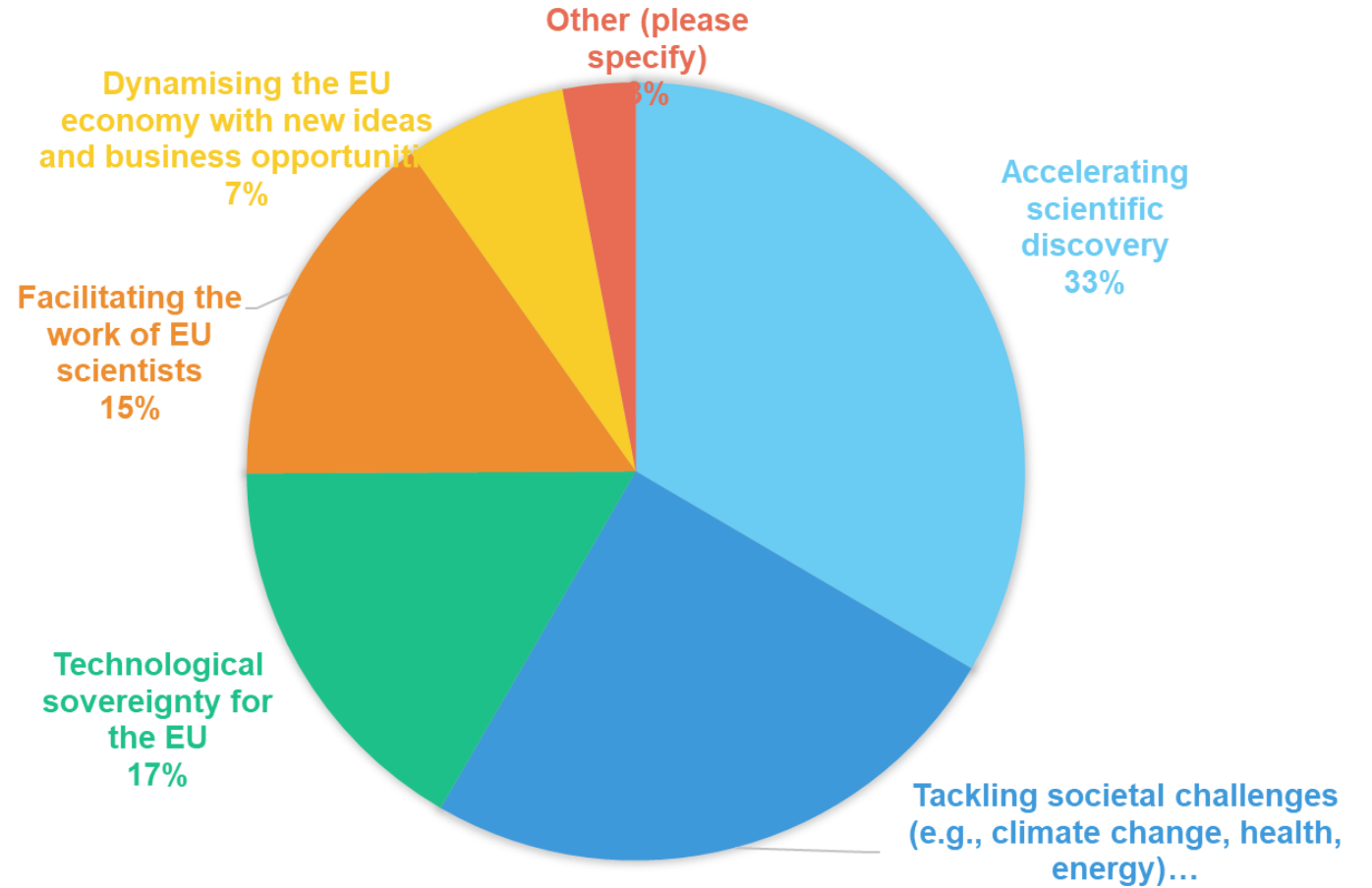
- The majority of respondents call for more funding and support for **AI research**, emphasising the need for simpler regulation, and to ensure also small seed-type funding for young AI researchers.
- Scientists mention that they find difficult finding the **right training resources** for their needs, notably due to the dispersion of the offer: there are too many options and unclear content quality.



Public Consultation preliminary results

– Questionnaire

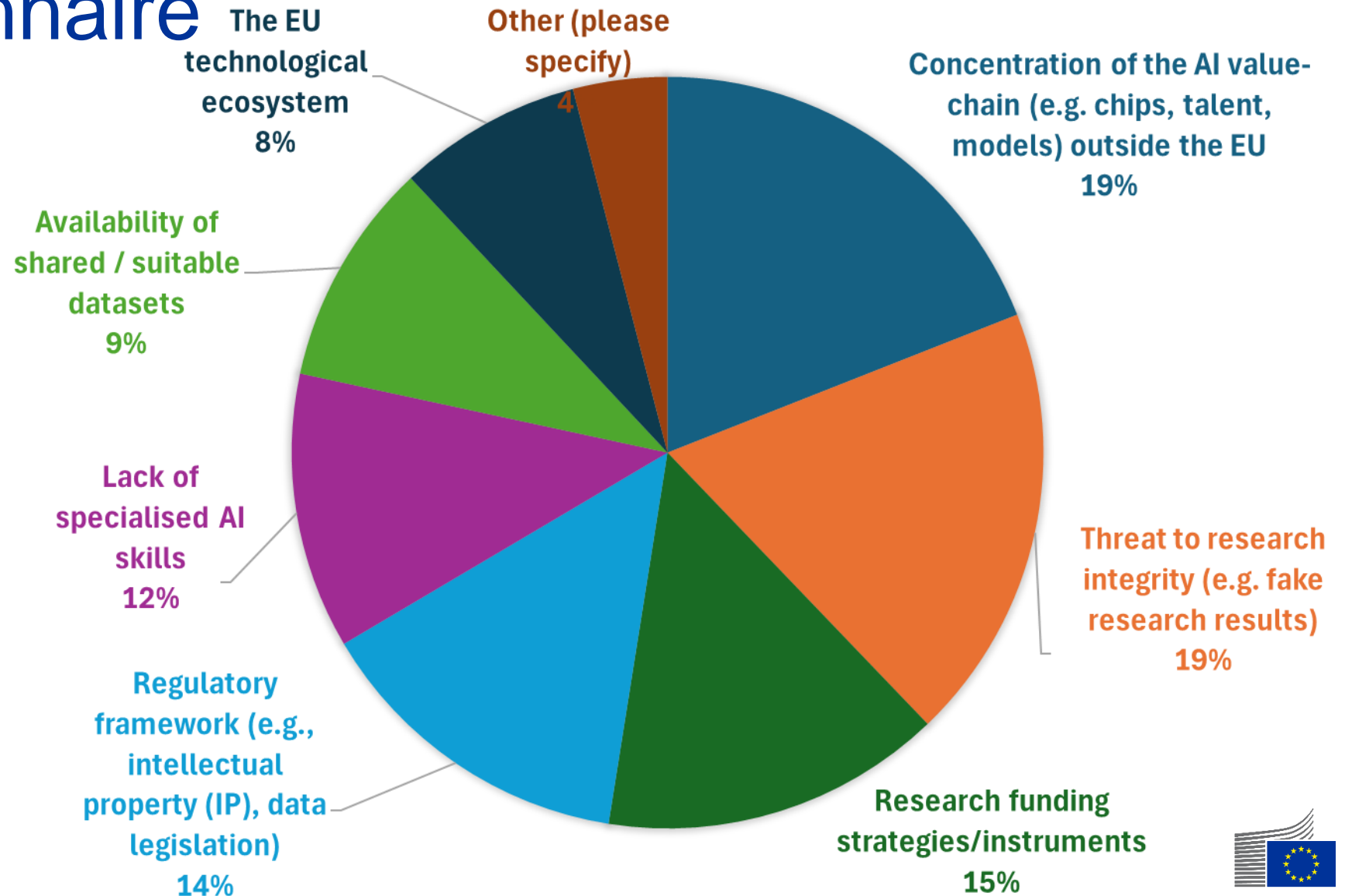
Which is the main benefit that the EU should obtain from the general uptake of AI in science?



Public Consultation preliminary results

– Questionnaire

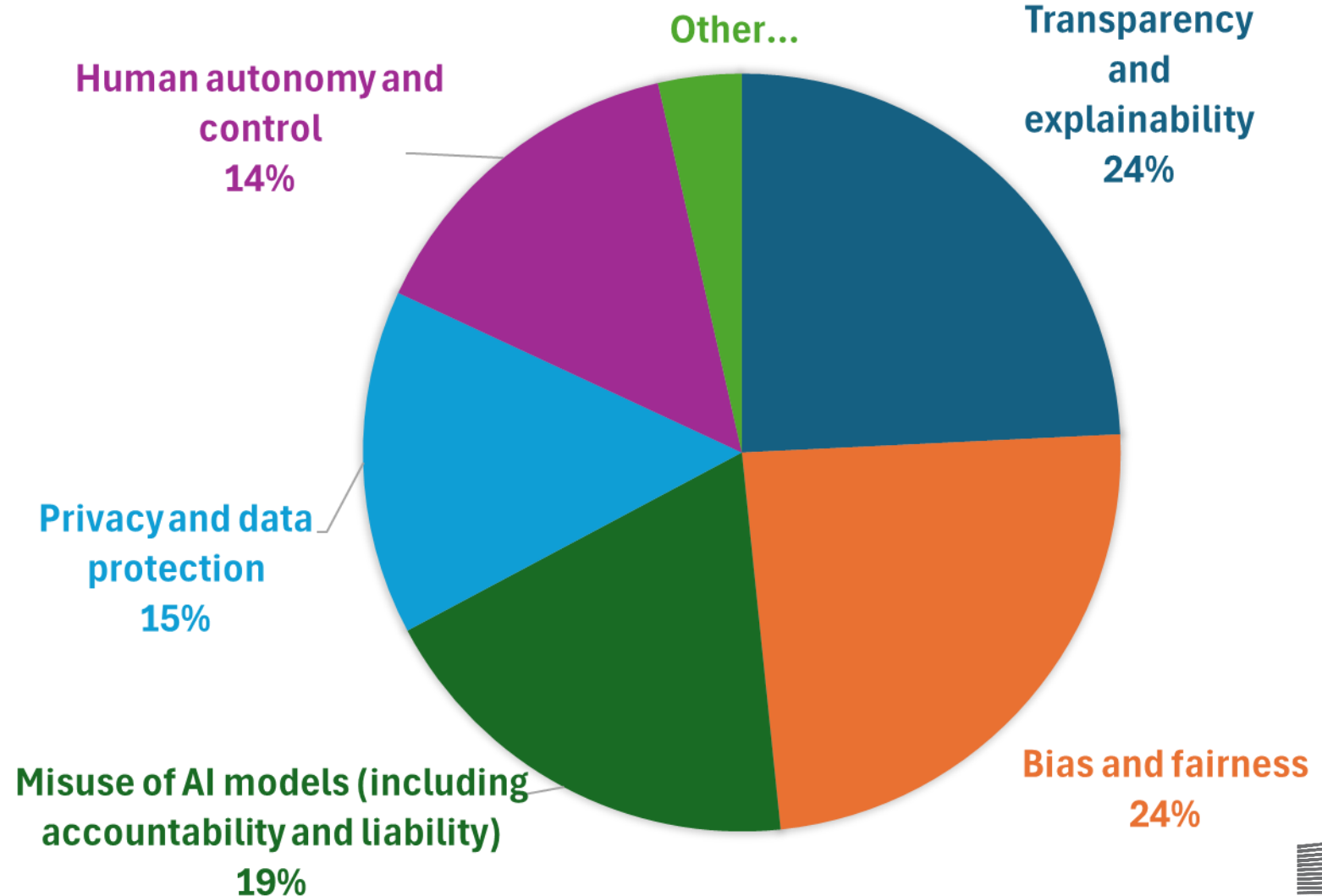
Which are the challenges that you consider the most important in relation to the uptake of AI in science in the EU?



Public Consultation preliminary results

– Questionnaire

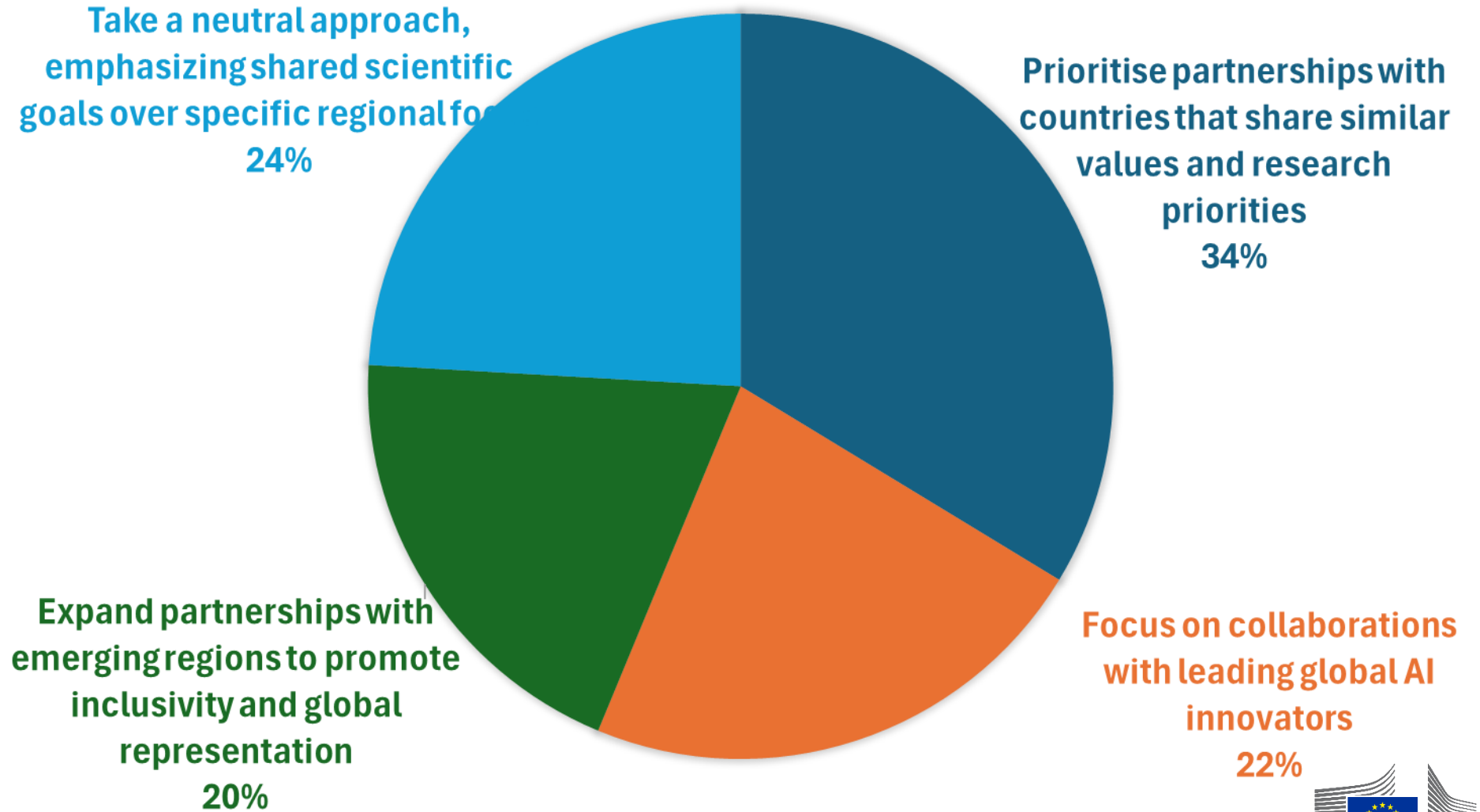
Which ethical implications do you consider more important when designing and using AI systems?



Public Consultation preliminary results

– Questionnaire

What should the EU focus on to foster international collaborations in AI for Science?



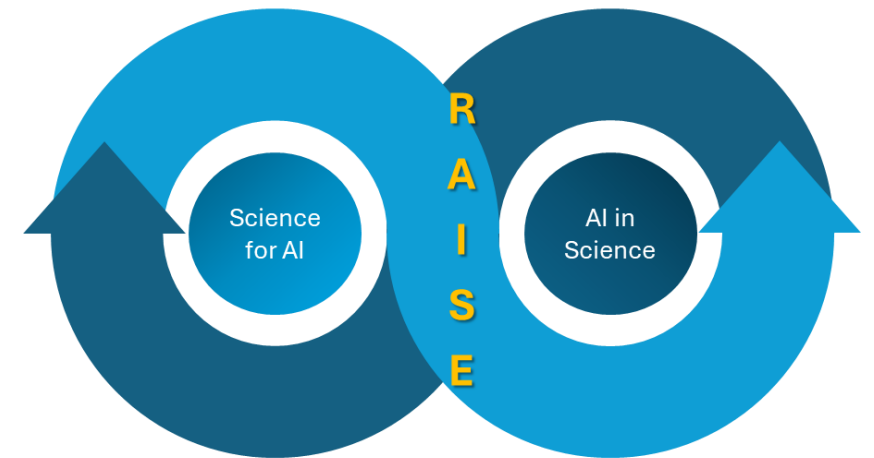
RAISE – Resource for AI Science in Europe

Resource for AI Science in Europe to support both

- **Science for AI:** fundamental (computer-scientific) research to advance AI itself
- **AI in Science:** use of AI for scientific progress across different disciplines

Principles:

- Interdisciplinarity
- Bottom-up element: spreading excellence, building community & networks
- Facilitated access to pooled resources
- Alignment of research agendas
- Organic structure & dynamic scaling

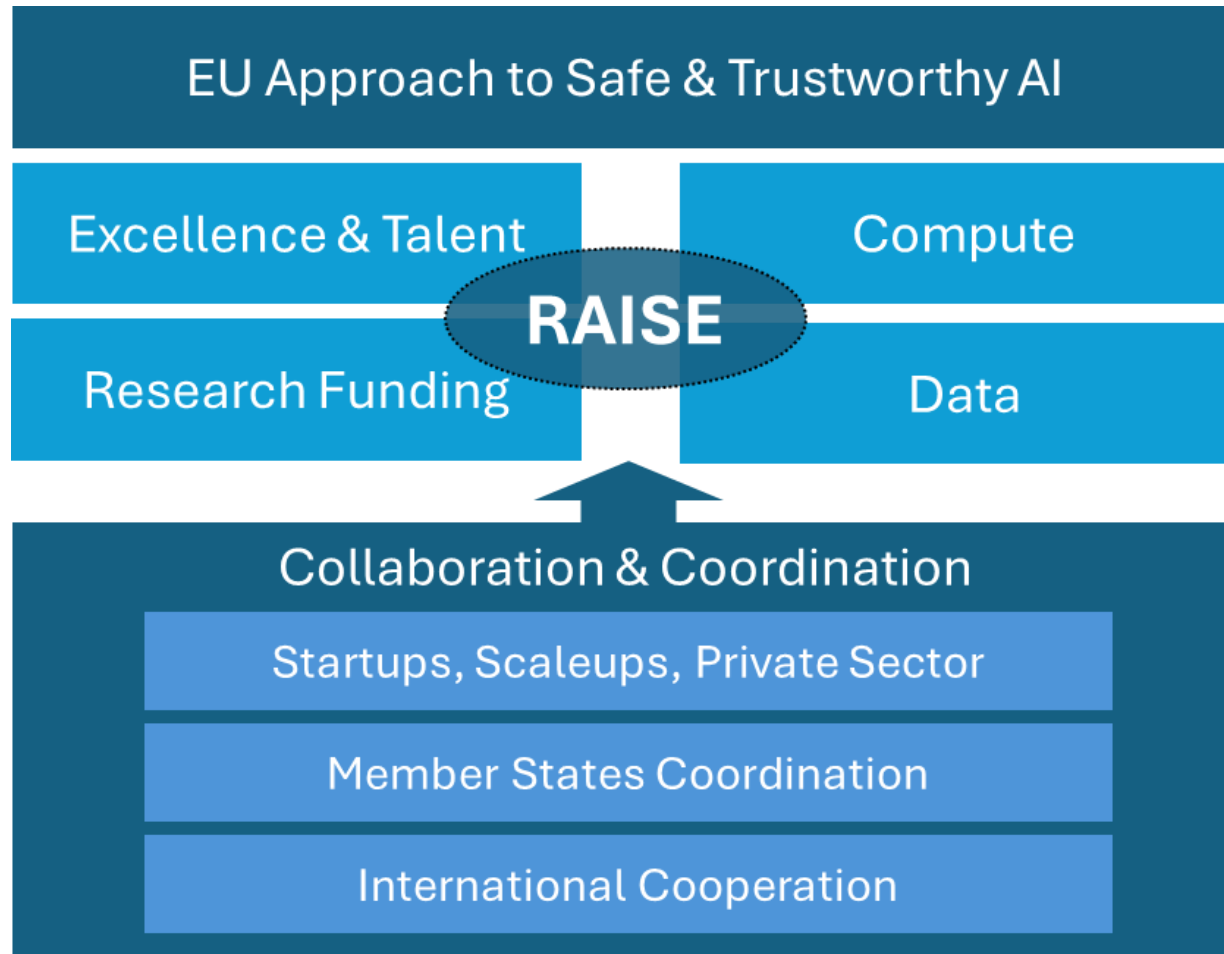




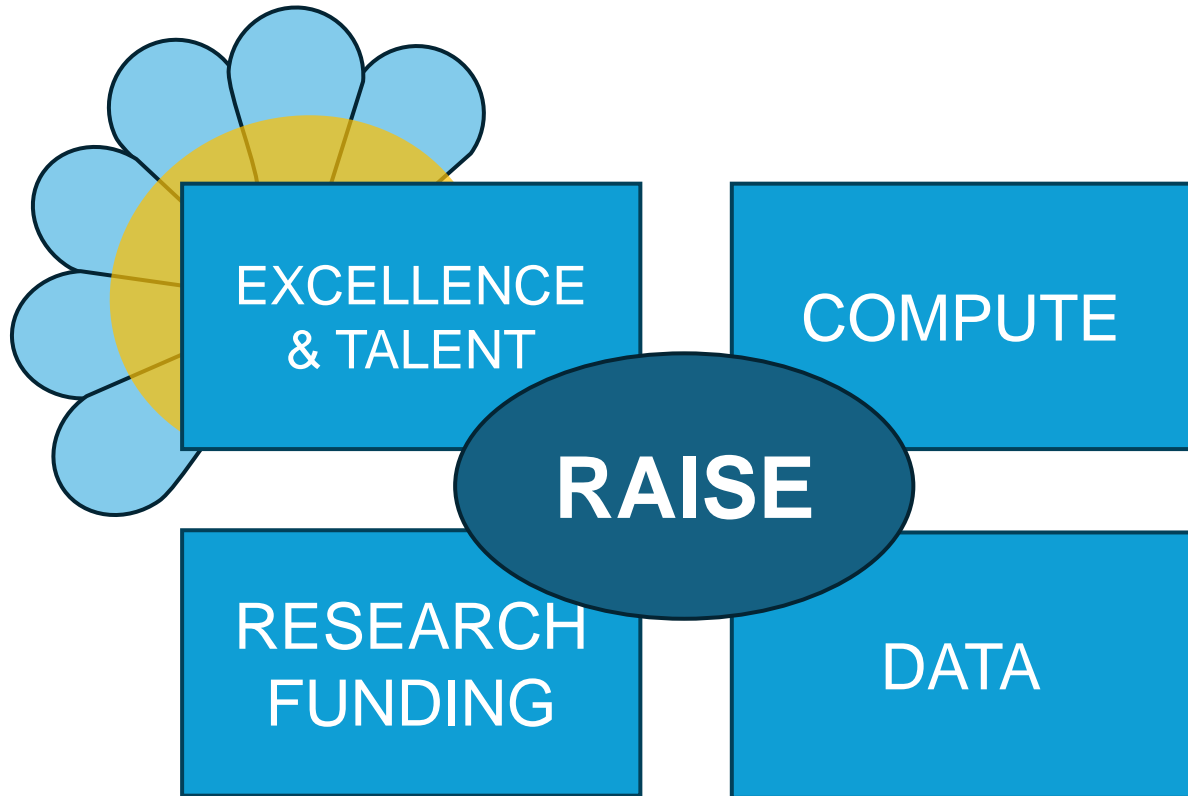
European Strategy on AI in Science: Overview



AI in Science strategy – Overview



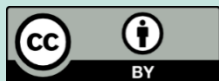
RAISE - Overview



- launch the pilot of RAISE during the first edition of the AI in Science Summit, taking place in Copenhagen 3-4 Nov. 2025, under the Danish Presidency of the Council of the EU
- launch a Partnership with the Member States and private sector
- establish a high-level RAISE academic advisory board



Thank you



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