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European Strategy for Artificial Intelligence in Science

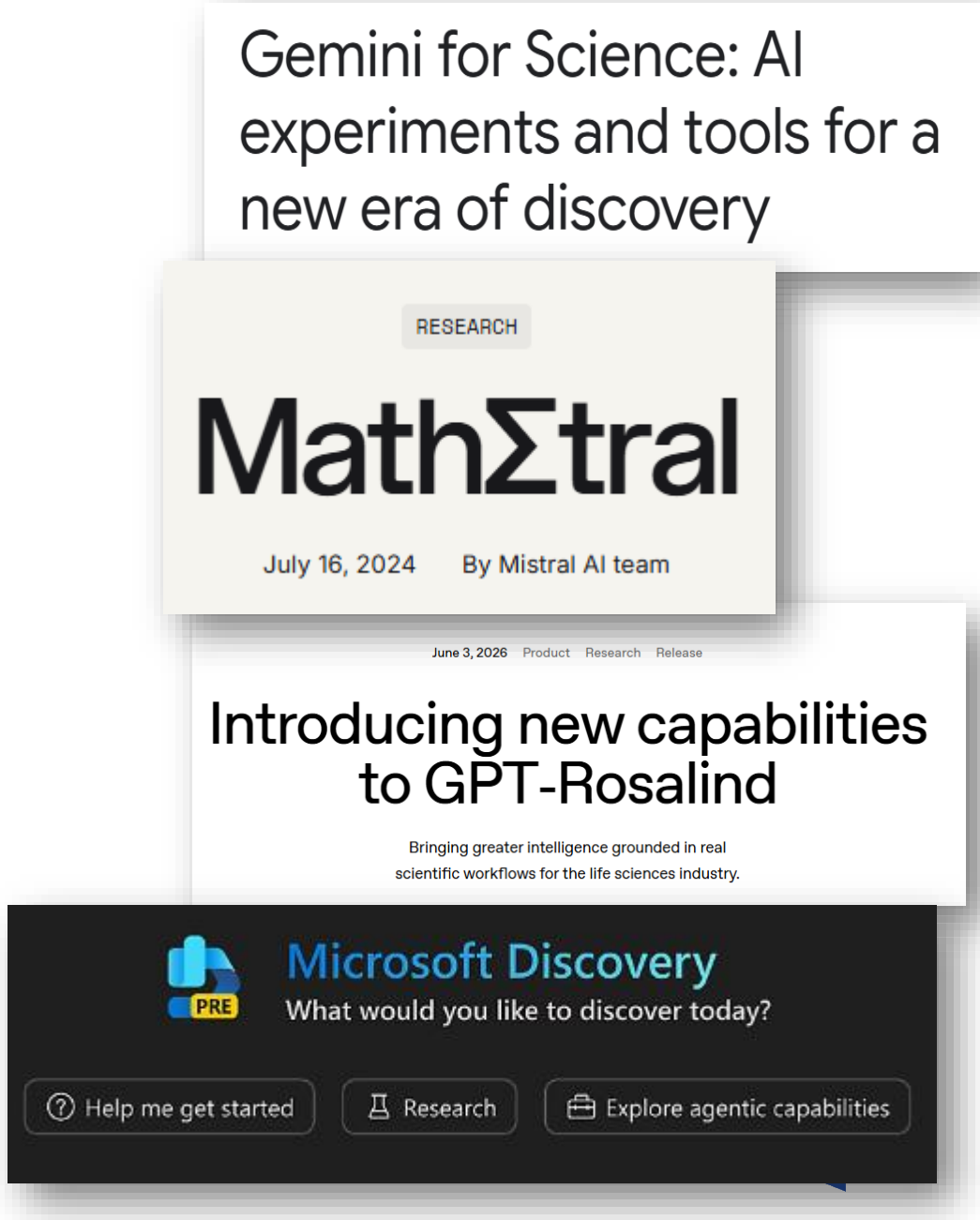
Paving the way for the Resource for AI Science in Europe (RAISE)

Liviu Stirbat, Head of Unit for AI in Science and Critical Technologies, DG Research & Innovation

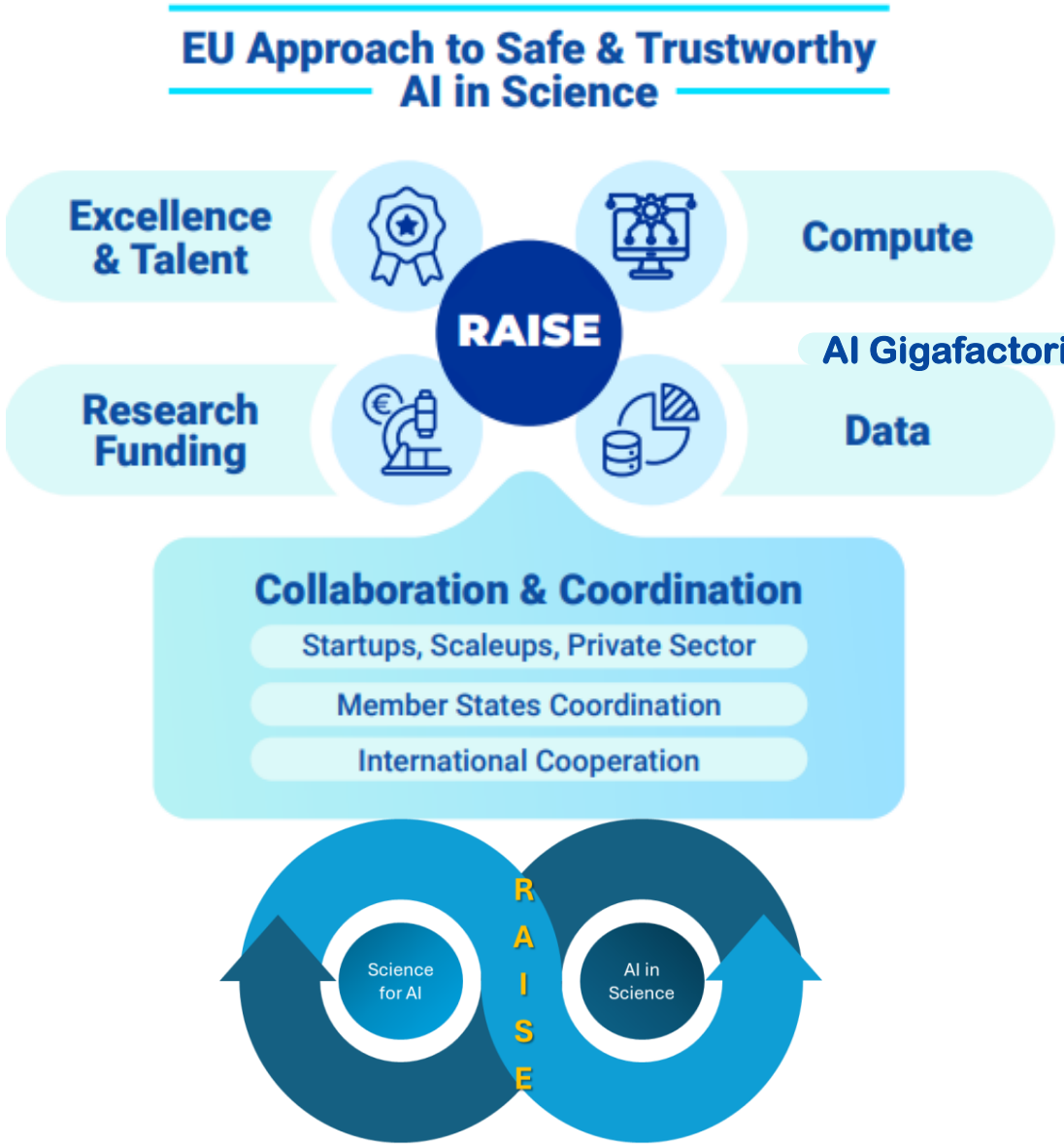
20 October 2026

AI in Science: The pace is accelerating

- OpenAI introduced **GPT-Rosalind** to accelerate scientific research and drug discovery (April 2026)
- Google DeepMind launched **Gemini for Science and Co-Scientist** (May 2026)
- **NVIDIA's BioNeMo Agent** toolkit integrates with Claude Science for advanced protein structure prediction (June 2026)
- Mistral launched **Mathstral** model for math reasoning
- **Claude Science** & **Claude Team subscription plan** (August 2026)
- Microsoft is powering US's Genesis Mission with $60 million investment and setting up a coordination hub: **Scientific Partnership Advancing Research & Knowledge (SPARK)**.



The AI in Science Strategy



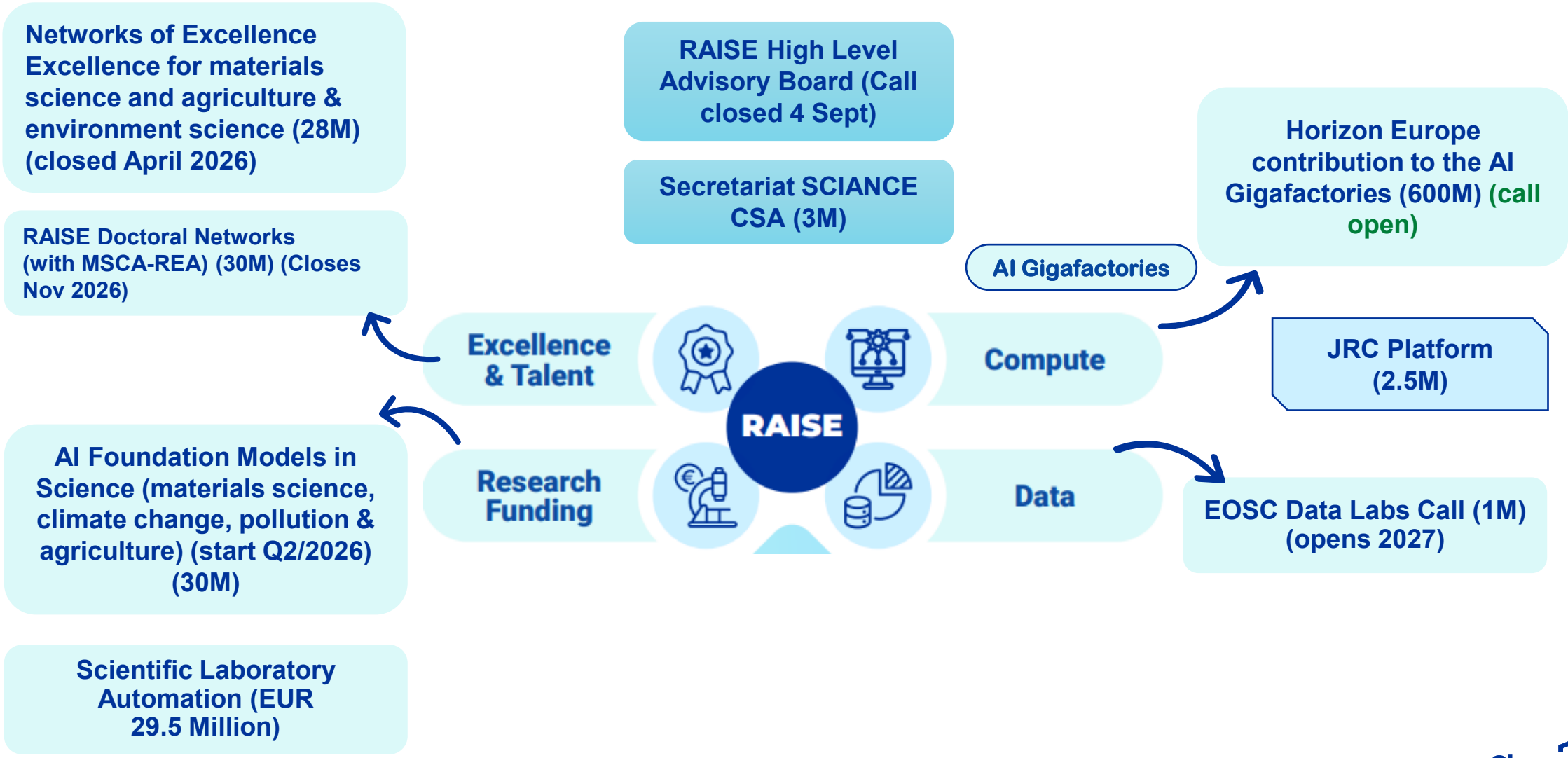
Our goals

- Integrating AI in science to reinforce European competitiveness by accelerating scientific discovery
- Supporting and accelerating the responsible adoption of AI by scientists in all disciplines
- Ensure European scientific leadership, and strategic autonomy

How?

- Pursuing the EU way for AI in science – fair research, trustworthy results
- Building, attracting and retaining AI scientific talent in Europe
- Funding for excellence in AI Science
- Pooling AI resources by:
  - collaborating with private sector
  - coordinating with Member States
  - cooperating internationally

RAISE Implementation Milestones



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RAISE Secretariat: SCIANCE CSA



Map the European AI in Science Landscape

- Consolidate evidence on AI use in and for scientific research in Europe
- Deliver comprehensive cross-disciplinary and thematic reviews



Co-Define Strategic Research & Innovation Priorities

- Co-creation workshops and broader consultations
- AI in Science challenges across scientific pilot areas
- AI for Science applications
- Interdisciplinary cooperation



Assess Research & Innovation Infrastructure Scenarios

- Identify gaps in computing, data access, governance, and skills for AI-enabled science
- Co-design upgrade scenarios and cooperation mechanisms, and evaluate their feasibility
- Develop a roadmap aligned with EU strategic initiatives



Enable AI in Science Community Building and Sustainability

- Pilot for RAISE Secretariat, Digital Hub and Academy
- Organise community events at AI in Science summits (AIS)

SCIANCE Newsletter

CSA project
Budget: EUR 3 million
Duration: 30 months

SCIANCE established 10 Thematic Working Groups

Scientific Pilot Areas

- Astronomy and Fundamental Physics
- Materials Science
- Life Sciences
- Earth Sciences
- Social Sciences and Humanities

Cross-cutting topics

- AI Research and Experimental Design
- Data Science and Advanced Analytics
- Open Science and Trustworthy AI
- AI and Computing Infrastructures
- Industry, Innovation and Frugal AI)

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RAISE High-Level Academic Advisory Board

Call closed on 4 September

230 applied



A fully integrated component of the RAISE governance structure, announced in the European Strategy for AI Science



Up to 15 leading Academics in the field of AI Science.



Independent scientific advice on the implementation of the AI in Science Strategy and the development of RAISE for the Commission



Applications are currently being evaluated by the selection committee (ensuring as far as possible a geographical, gender and discipline balance).



The experts will be appointed in a personal capacity.

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ERA Action on AI in Science



Main items for discussion:

- Presentation by Domyn/Europa Consortium
- International scope: EU China AI Observatory report
- Taking stock of Joint Roadmap implementation
- ‘AI in Science briefing’ by European University Association
- Discussion on funding agenda/licenses/sovereignty and tools
- Next steps for RAISE

23 EU MS: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden

7 AC: Bosnia and Herzegovina, Iceland, Moldova, Norway, Türkiye, Ukraine, United Kingdom

19 Stakeholder Orgs.: ALLEA, Aurora, CESAER, Coimbra, EEASH, EARTO, ENRIO, ECIU, ERIC Forum, EUA, EU-LIFE, IFLA, Individual researchers, Science Europe, SPARC Europe, STM, The Guild, UAS4EUROPE, YERUN

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The EU AI Act - impact on research

AI Act's specific research exceptions to promote scientific progress & innovation

- General research exception for *AI systems for research, testing and development activities before they are placed on the market. /*Article 2(8) + Recital 25
- *AI systems and models solely devoted to scientific R&D /*Article 2(6) + Recital 25

Addressing regulatory uncertainty

- Working with JRC scientists and broader community on clarifications – Digital Omnibus.
- Engage with scientists on identified fields and collect questions (focus group; expert group; AI Act Service Desk).
- The AI Office will publish guidelines on the interpretation of the research exception of the AI Act in early 2027

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First RAISE projects: Foundation Models in science

GenMat: foundation model in materials science

Coordinator: Politecnico di Torino, IT



SimuLingua: foundation model in materials science

Coordinator: Flowphys, NO



AgriScience: foundation model in agricultural sciences

Coordinator: Wageningen University, NL



EarthGenerator: foundation model for Earth system modelling

Coordinator: Fondazione Centro Euro-mediterraneo sui cambiamenti climatici, IT



Evelyn: foundation model for pollution

Coordinator: Information Technologies Institute, EL

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Thematic Networks of Excellence for AI in Science – Evaluation results (27.8M RIA)

Topic ID	Topic short name	Field	Budget	Proposals	Above threshold
HORIZON-RAISE-2026 01-01	Thematic Networks of Excellence for AI in Science	AdMat	15M	5	4
HORIZON-RAISE-2026 01-02	Thematic Networks of Excellence for AI in Science – Agriculture and Environmental Pollution	Agri & Pollution	12.8M	6 (1 ineligible)	5

Automated scientific discovery Self-driving Labs Call (30M)

In the areas of Materials and Food



Living ERA Guidelines on the use of Gen AI in research

- Developed in ERA Action on AI in Science
- Most recent version last week !
  - Use of AI in evaluations of proposals
  - Use of AI in peer review
  - Impact of Agentic AI
  - Declaring use of AI in research



Read the May 2026 version!

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Brief overview of the ERA living guidelines on the use of AI in research:



- Responsiblity for scientific output
  - Researchers are responsible for integrity of content
  - Maintain a critical approach
  - No fabricated material
  - AI cannot be authors
- Continuously learn how to use generative AI tools
  - Share best practices with colleagues
  - Keep learning about evolving AI tools
- Refrain from using AI in sensitive activities
  - Avoid using AI in peer review
  - Safeguard unpublished work from exposure
- Use generative AI transparently
  - Ensure transparency
  - Discuss limitations like bias and inaccuracies
  - Detail AI tools used substantially
  - Ensure reproducibility
- Pay attention to privacy, confidentiality, and intellectual property rights
  - Ensure personal data protection and comply with EU rules
  - Protect unpublished or sensitive work
  - Researchers understand the technical and ethical implications regarding privacy, confidentiality and intellectual property rights.
  - Not to provide third parties' personal data to online generative AI systems without consent
- Respect applicable national, EU, and international legislation
  - Handle personal data in compliance with rules
  - Pay attention to plagiarism
  - Respect others' authorship

ERA Guidelines on the use of Generative AI in research: informative and practical

For Researchers

Consider whether AI is the right and best tool for a particular task

Refrain from using generative AI tools substantially in sensitive activities that could impact other researchers or organisations.



For Funding Organisations

Review the use of generative AI in their internal processes (…)

Generative AI could be used to improve internal processes for funders, but it cannot take a role in the assessment or evaluation of the scientific content of projects.

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Fourth revision of the ERA Guidelines on the use of Generative AI in research

Use of AI in the evaluation of proposals

- *Role and judgement of the evaluator cannot be delegated to AI*
- *Use of such tools may entail substantial confidentiality risks*

Use of AI in peer review

- *AI use also entails substantial risks and requires careful consideration and safeguards*

Greater emphasis on agentic AI

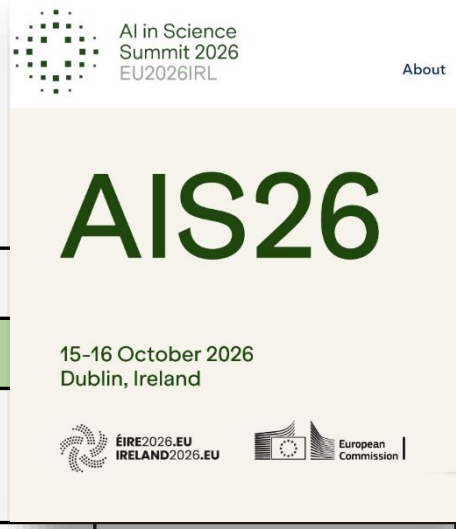
- *Guidelines apply also to the use of AI agents with generative AI*

Declaring the use of AI in research

- *Transparency remains one of the central pillars of the Guidelines*

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AIS26, Dublin, UCD, 15-16 October



Concept:

- **convene** scientists, industry leaders, investors, and policymakers to **explore** the transformative **impact** of **AI on scientific discovery** and how Europe can **lead** with a **distinctive** approach.

Part of **AI Innovation Month**

:

14 October: VIP Reception, Museum of Literature MoLi						
15 October: AIS26 Day 1, UCD						
High-level opening: Irish PCY, EC; **AI in Science pledge:** fire-starters by pledgers **Scientific keynote** (DeepMind) + **high-level panel**						
Lunch & Side Activities						**RAISE desk & tutorials**
Thematic workshops curated by partner organisations						
Physics&Maths (CERN)	**OneHealth (WHO)**	**AI Science (ELLIS)**	**Data (RDA)**	**Culture (EASSH)**	**Policy (EC)**	
16 October: AIS26 Day 2, UCD						
ERA Action meeting **Thematic workshops** curated by partner organisations						**RAISE desk & tutorials**
Physics&Maths	**OneHealth**	**AI Science**	**Data**	**Culture**	**Policy**	
Formal closing by the Irish presidency						
Lunch & Side activities						

Launch of RAISE Pledging Campaign:
Starting with Google DeepMind, NVIDIA, Elsevier, Frontiers, Mistral, Sanofi

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The future of RAISE

RAISE needs a **long-term structure** capable of pooling resources with the Public and Private sector at scale.

A dedicated **EU-wide AI-for-science capability (an EU discovery engine)**

Enabling **cross-Policy Window funding in Horizon Europe** for applications of AI in Science

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EU-AI-IN-SCIENCE@ec.europa.eu

Stay in touch and find out about our latest news:
https://ec.europa.eu/eusurvey/runner/AIinScience

Thank you!

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