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AI IN SCIENCE STRATEGY

POLICY WATCH

NOVEMBER 2025

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Policy context

AI CONTINENT ACTION PLAN → APPLY AI → AI IN SCIENCE

The AI Continent Action Plan (published 9 April 2025 – *see our briefing*) sets out a comprehensive framework to make Europe a "leading AI continent" by acting across five pillars: computing infrastructure, data, skills, adoption, and regulatory simplification. It foreshadows building at least 13 AI Factories on EuroHPC supercomputers and up to 5 AI Gigafactories and announces a forthcoming Data Union Strategy to improve access to large, high-quality datasets.

On 8 October 2025, the Commission presented twin strategies: **the Apply AI Strategy and the AI in Science Strategy**. Apply AI aims to accelerate adoption in strategic sectors and the public sector, establishes an Apply AI Alliance and an AI Observatory, and upgrades European Digital Innovation Hubs into "Experience Centres for AI".

The AI in Science Strategy, financed through Horizon Europe, complements Apply AI by focusing on **scientific excellence and uptake of AI within research**. It proposes **RAISE** (The Resource for AI Science in Europe) to pool resources and coordinate actions such as excellence and talent development, access to compute, strategic datasets, and targeted funding.

Together, the two strategies operationalise core elements of the AI Continent Action Plan for both science and deployment.

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Resource for AI Science in Europe

RAISE: SCOPE, OBJECTIVES & MECHANISMS

RAISE (Resource for AI Science in Europe) is conceived as a **virtual European institute** that aligns and coordinates essential **AI resources for science**: computational power, high-quality datasets, excellence and talent, and research funding.

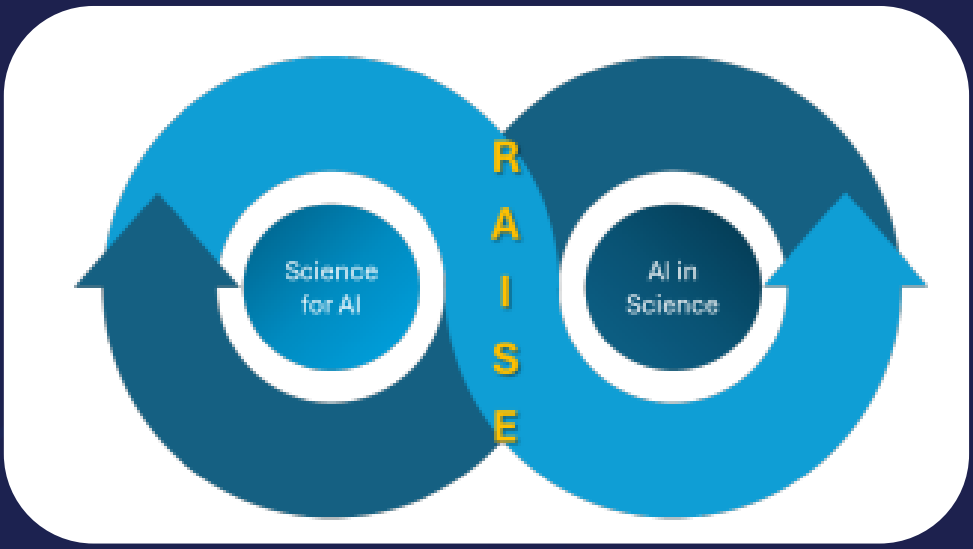
It pursues two complementary objectives:

- Promoting cutting-edge research in AI itself ("**science for AI**"), including robust, safe and trustworthy models
- Catalysing the uptake of AI across scientific disciplines ("**AI in science**"), from literature synthesis to discovery and automated experimentation

To reduce fragmentation and reach critical mass, RAISE will group researchers into **Thematic Networks of Excellence**, with shared access to compute, data and enabling services.

An illustrative example is a network for materials science, envisaging AI-ready datasets, foundation models, and automated laboratories to accelerate the design and manufacturing of advanced materials, with pathways for spin-offs and regulatory sandboxes where relevant.

Translation to impact is embedded by design: **RAISE will cooperate closely with AI Factories and AI Gigafactories** to facilitate model development, validation and scaling, thereby strengthening links between academic excellence and industrial uptake while maintaining scientific integrity and transparency.



AI in Science Strategy, EU Commission

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BUILDING & GOVERNING RAISE

The Commission plans a phased build-up. First, an initial pilot has been launched at the AI in Science Summit in Copenhagen on 3 and 4 November 2025, under the Danish Presidency of the Council of the EU, with EU funding of €108 million from Horizon Europe Work Programme 2026–27.

In parallel, a Coordination and Support Action (Horizon Europe WP 2025) will establish initial RAISE coordination and a secretariat.

A high-level academic advisory board will provide scientific guidance, with representation from "science for AI" and "AI in science" communities as well as Member States and the private sector.

RAISE will link to the AI Board set up by the AI Act for coherence of governance.

Longer-term sustainability, including governance and pooled resources, is to be secured under the next Multiannual Financial Framework (2028–34).

The Commission also foresees close cooperation with higher education institutions, research stakeholders and industry to evolve RAISE as partners, contributions and needs grow over time.

EXCELLENCE, TALENT & RESEARCH INTEGRITY

Excellence and talent are central pillars. The RAISE Thematic Networks of Excellence will convene leading groups to advance AI capabilities and domain applications, with access to compute and curated datasets at EU scale.

Complementing this, **RAISE Doctoral Networks** modelled on Marie Skłodowska-Curie Actions will train the **next generation of researchers** who work at the intersection of AI and scientific disciplines, as well as hybrid profiles such as research engineers and data stewards.

Responsible use is explicitly addressed. The Commission will continue its "ethics by design" approach in Horizon Europe, request an opinion on AI in science from the European Group on Ethics in Science and New Technologies (EGE), and regularly update the co-created "Living guidelines on the responsible use of generative AI in research". The Joint Research Centre (JRC) will establish a Scientific AI Hub to monitor and evaluate AI models and systems for strategic scientific research, closely aligned with the European AI Office.

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COMPUTE & INFRASTRUCTURE FOR AI IN SCIENCE: EUROHPC, AI Factories AND ACCESS

The strategy recognises the structural compute gap between academia and industry and sets out measures to expand public compute access.

In 2025-26, the EU will deploy **AI-optimised EuroHPC supercomputers as the backbone of new or upgraded AI Factories**, which will more than triple EuroHPC AI computing capacity available to European users, including researchers. AI Factories will offer enabling services such as algorithmic optimisation, model training and validation, and "supercomputer-friendly" programming toolchains; several will focus on specific scientific fields.

A new EuroHPC access mode entitled "AI for Science and for Collaborative EU Projects" is introduced to facilitate access by the research community and collaborative initiatives.

The Commission also warns of vendor lock-in risks when relying on proprietary, foreign stacks, reinforcing the need for publicly supported compute infrastructure for science.

DATA FOR AI IN SCIENCE: STRATEGIC GAPS, CURATION AND INTEGRATION

High-quality data are a prerequisite for powerful AI models. The strategy announces support for scientists to identify strategic data gaps and to gather, curate and integrate datasets needed for AI-enabled research.

This will align with the forthcoming Data Union Strategy and leverage Data Labs within AI Factories, as well as relevant Common European Data Spaces where appropriate.

FUNDING & TIMELINE

Key milestones and instruments are as follows: (1) adoption of the Communication on 8 October 2025; (2) RAISE pilot launch on 3–4 November 2025 in Copenhagen with €108 million from Horizon Europe WP 2026–27, and an initial CSA under WP 2025; (3) 2025–26 deployment of AI Factories on EuroHPC supercomputers to expand access for science.

Accompanying Commission material indicates a broader investment ambition: **€600 million from Horizon Europe to enhance and expand access to computational power for science** (securing dedicated access to AI Gigafactories for EU researchers and startups), an aim to **double Horizon Europe's annual investments in AI** to above €3 billion (including doubling funding for AI in science), and **€58 million under the RAISE pilot for Networks of Excellence and Doctoral Networks**. These figures are reflected in the Commission's news explainer and the R&I strategy page.

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COLLABORATION & COORDINATION

Accelerating the uptake of AI in science in Europe requires coordinated action across public, private, and international spheres. The European Commission's approach focuses on collaboration with the private sector, policy alignment with Member States, and international cooperation.

By building on the EU Startup and Scaleup Strategy (*see our Briefing*), the EU aims to strengthen its innovation ecosystem for AI-driven scientific companies. The European Innovation Council (EIC) and the European Institute of Innovation and Technology (EIT) already play key roles by funding and supporting AI startups, while the AI Act (*see our Briefing*) provides legal certainty and safeguards innovation, notably through research exemptions and regulatory sandboxes.

The current strategy aims to go further by launching a **targeted campaign at the private sector** to help mobilise additional resources and investments in AI, and by incentivising startups and other companies to participate actively in EU-funded AI research projects.

At the national level, Member States are central to implementing this strategy, as most public research funding is managed nationally. Coordination under the European Research Area (ERA) framework will ensure that actions are aligned, best practices shared, and progress monitored through key indicators such as publications, skills, and datasets. This alignment will help integrate AI more effectively into national R&I systems and promote shared governance across Europe.

Internationally, the EU seeks to shape a global, human-centric approach to AI in science rooted in openness, trust, and scientific excellence. Cooperation with trusted partners through Horizon Europe, science diplomacy, and global forums like the G7 and OECD will help promote EU values and standards while safeguarding research security.

Together, these efforts aim to position Europe as a leader in responsible, collaborative, and strategically autonomous AI for scientific advancement.

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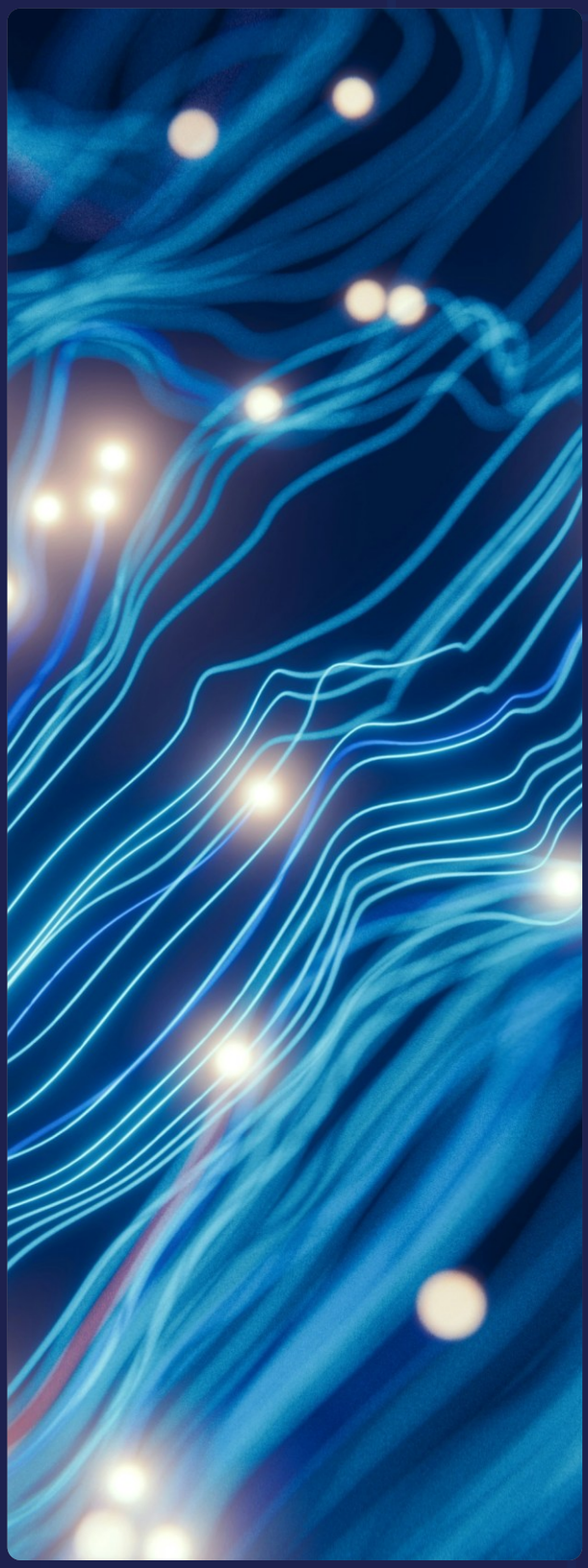
Conclusion

The AI in Science Strategy positions Europe to lead on trustworthy, high-impact AI-enabled research by pooling excellence, compute, data and funding in RAISE and by integrating science measures with the economy-wide adoption push under Apply AI.

Near-term priorities for stakeholders are to track the RAISE pilot implementation, prepare participation in Thematic Networks and Doctoral Networks, and tap into EuroHPC AI Factory capacity as it comes online in 2025-26.



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	Summary of actions & timeline
RAISE	• Launch the pilot of RAISE at the AI in Science Summit (Q4/25) • Establish initial RAISE coordination for AI in science (Q4/25) • Partner with Member States and private sector to build RAISE (2028) • Establish a high-level academic advisory board (Q4/25)
Excellence & talent	• Fund Doctoral Networks on AI in science to train the next generation of researchers (RAISE pilot) (Q4/25) • Fund Thematic Networks of Excellence on AI in science (RAISE pilot) (Q4/25) • Update the 'Living Guidelines on the responsible use of generative AI in research' and other ethics-related operational materials (on a regular basis) • Create an AI Evaluation Hub to monitor and evaluate AI models and systems in strategic scientific fields (2027)
Compute	• Secure dedicated access to AI Gigafactories for EU scientists and startups, including for Horizon Europe specific objectives. Horizon Europe will invest up to EUR 600 million (RAISE pilot) (Q4/25) • Develop the AI computing resources devoted to science through the AI Factories
Data	• Support the design of Data Labs and their linking with Common European Data Spaces, in particular EOSC, to ensure their suitability for scientific research (2026) • Support scientists to identify strategic data gaps and gather, curate and integrate the datasets needed through the RAISE Networks (RAISE pilot) (Q4/25) • Collect evidence on the need to improve access to and to reuse publicly funded research results and the use of publications and data for scientific purposes (Q4/25)
Research funding	• Incentivise and coordinate investments in AI in science through an investment agenda on AI in Science in Horizon Europe's Work Programme 2026-27 (RAISE pilot) (Q4/25) • Seek to double Horizon Europe investment figures in AI and AI in science by 2028 • Fund scientific laboratory automation and the development and update of scientific foundation models (RAISE pilot) (Q4/25)
Collaboration & Coordination	**Private sector collaboration** • Organise AI in science Summits, (First edition in Copenhagen 3-4 November 2025, under the Danish Presidency) (Q4/25) • Launch a campaign to encourage pledges from private companies (2026) • Analyse the implications of the AI Act for the scientific community (Q4/25) **Member States coordination** • Coordinate with Member States, Associated Countries and R&I stakeholders through the ERA Action on AI in science (Q4/25) • Monitor the uptake of AI in science with indicators and metrics. (2026) **International cooperation** • Address specific issues of AI in science with relevant third countries and regions (Q4/25) • Engage through existing regional policy dialogues on R&I (Q4/25) • Promote EU values and standards for responsible AI in science through multilateral fora (2026)

Ai in Science, EU Commission

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