



The European ecosystem for Artificial Intelligence

From strategy to opportunities for research and innovation in Horizon Europe

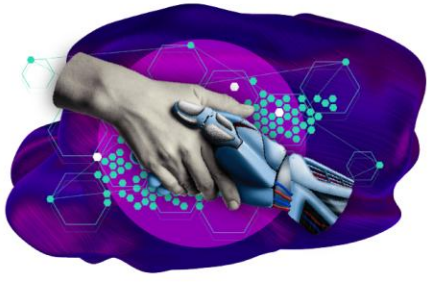
Francesca Paola CARLI, PhD
Artificial Intelligence Office
European Commission

Horizon Europe 2026-2027: Strategic Priorities for Europe, Digital Technologies and Artificial Intelligence

Confindustria | 26 June 2026

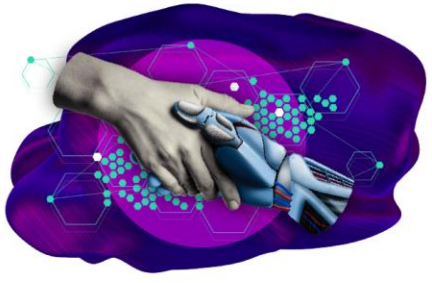


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Outline

1. From Regulation to Innovation
A new phase for AI in Europe
2. EU Policy and Support for AI
From the AI Act to driving competitiveness and innovation in Europe
3. Building Europe's AI Capabilities
From foundational research (RAISE) and frontier-model development (Frontier AI) to a sovereign, industry-driven AI ecosystem (IPCEI-AI)
4. Opportunities in Horizon Europe
Turning initiatives into calls: Horizon Europe WP 2026-2027 and access routes for SMEs (FSTP)



From Regulation to Innovation

A new phase for AI in Europe

The European AI Office



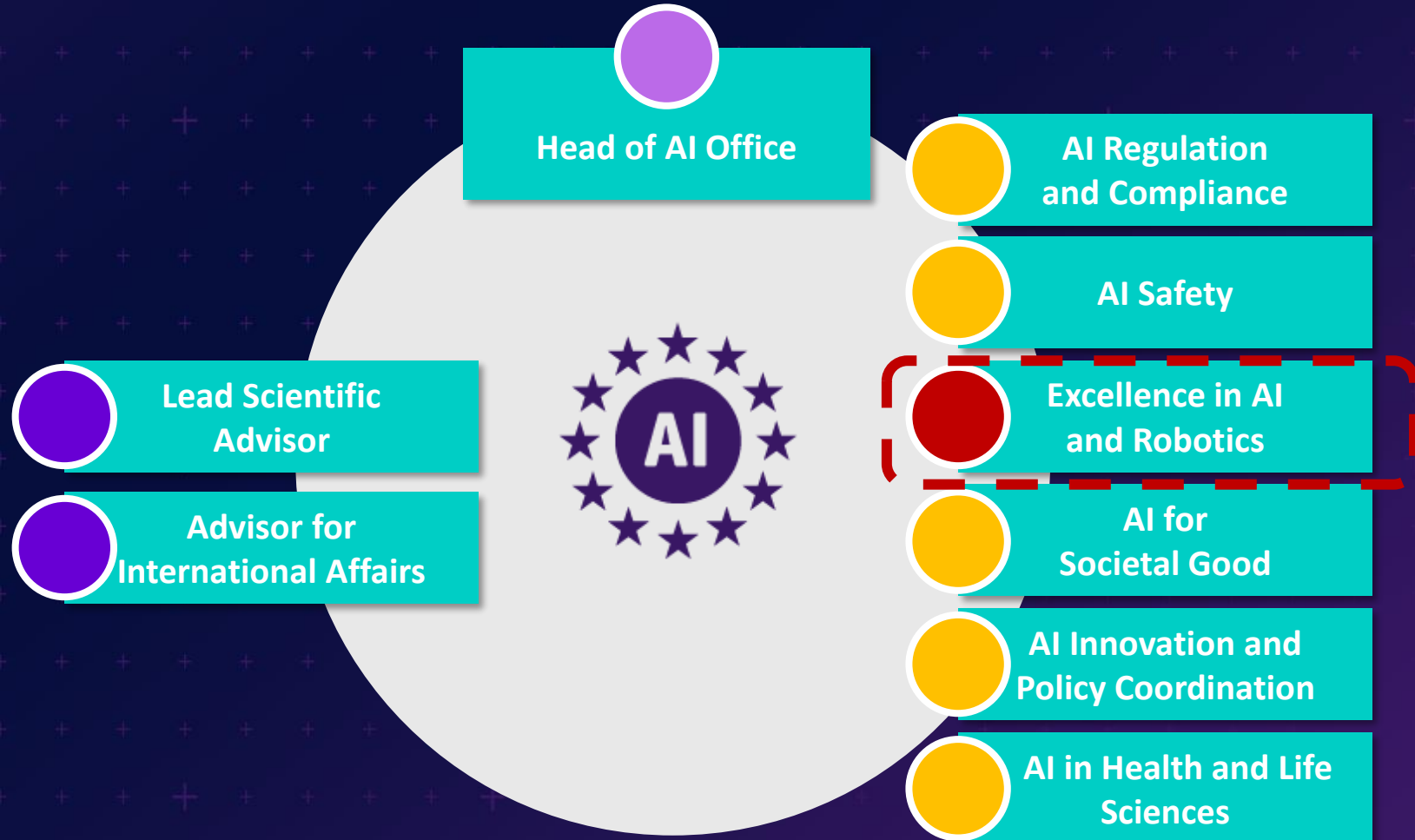
key role in the implementation of the AI Act



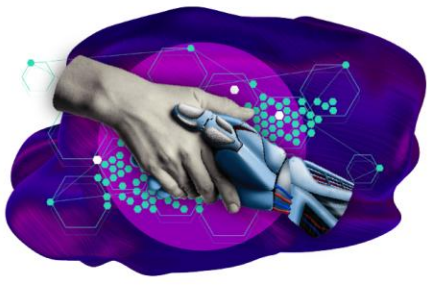
fosters research and innovation in trustworthy AI



positions the EU as a leader in international discussions and contributor to AI for good



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AI Act - for trustworthy AI in Europe

Risk-based rules for AI systems:

Rules Into effect in
Aug 2026 and Aug
2027

Rules Into effect
in Aug 2026

AI with unacceptable risk is prohibited
e.g. social scoring, biometrics

Requirements for high-risk AI
e.g. AI in employment, medical devices

Disclosure for AI with transparency risks
e.g. chatbots who impersonate humans

No rules for AI with minimal risk
e.g. AI enabled videogames, spam filters

Rules for General-Purpose AI models



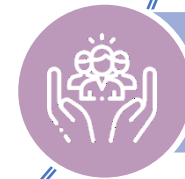
Product safety regulation



Complementarity with other EU law



Fostering responsible innovation

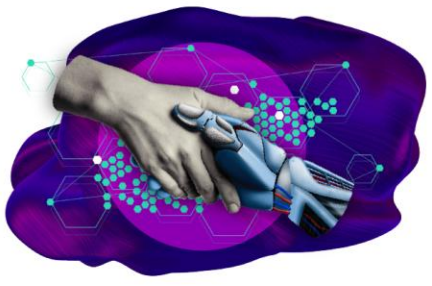


Involving stakeholders through standards,
codes of practice and advisory groups

Rules Into effect
in Aug 2025



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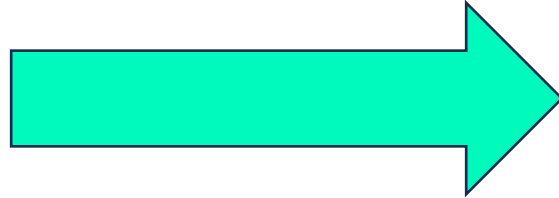


From regulation to innovation and uptake

Regulatory Framework

AI Act (June 2024)
[Regolamento UE
1014/1689]

Shifting towards
implementation and impact



Innovation and uptake

AI Continent Action Plan (April 2025)

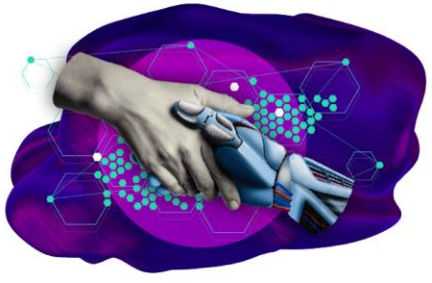
Apply AI Strategy (Oct 2025)

AI in Science Strategy (Oct 2025)

Driven by Europe's competitiveness agenda

Competitiveness Compass - Jan 2025

Draghi Report "The future of European Competitiveness" - Sept 2024

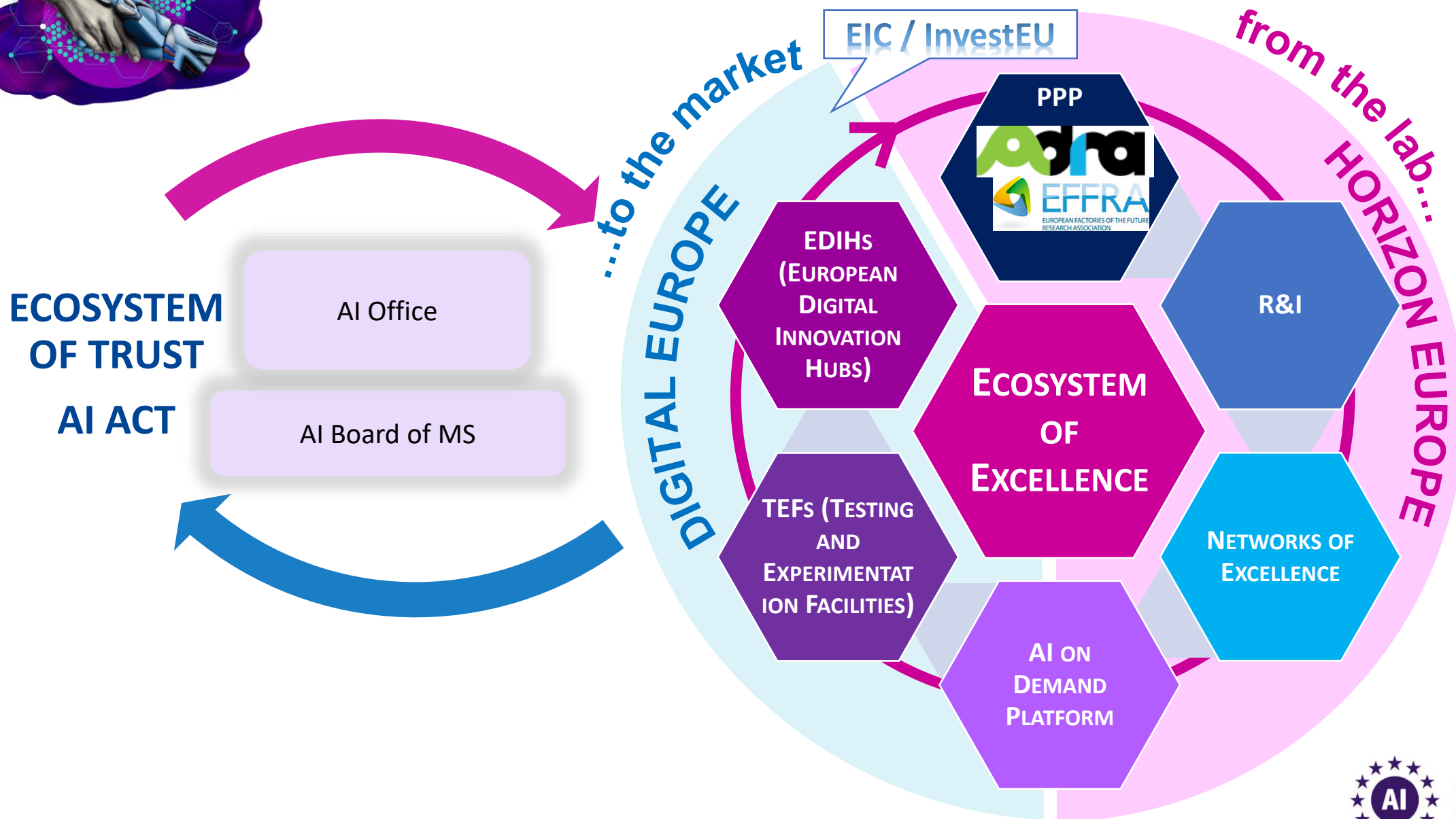


EU Policy and Support for AI

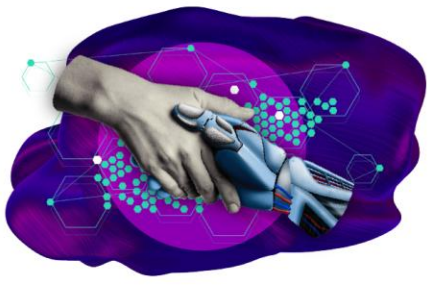
From the AI Act to driving competitiveness and innovation in Europe



Trustworthy AI: Building on Today's Ecosystem

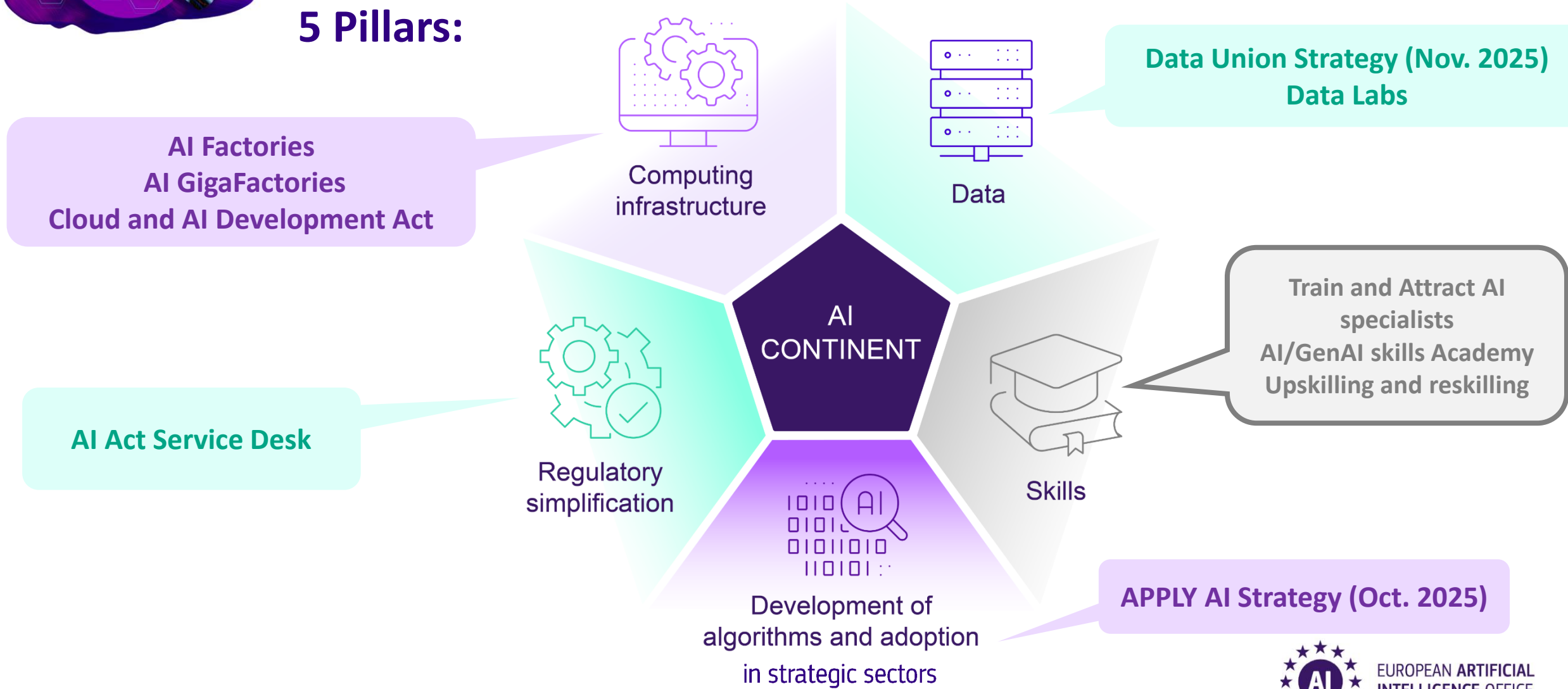


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AI Continent Action Plan - 9 April 2025

5 Pillars:



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EuroHPC AI Factories (AIFs) and Antennas (AIFAs)

will enable European startups, SMEs, and researchers to develop, train and deploy AI solutions, and boost EU competitiveness and sustainable prosperity.



AI Factories

- **19 AI Factories** and **13 AI Factory Antennas** that offer free, customised support to SMEs, Startups, and researchers



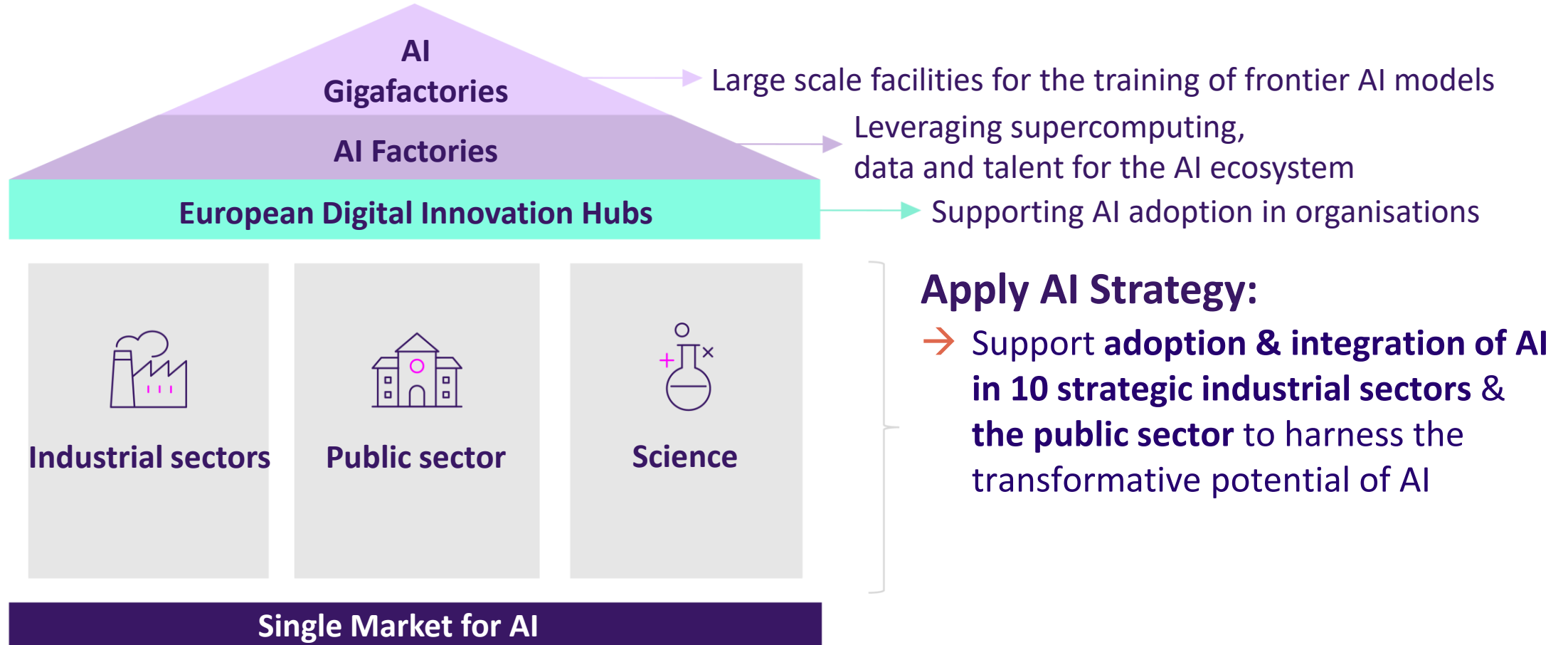
Up to 5 AI Gigafactories

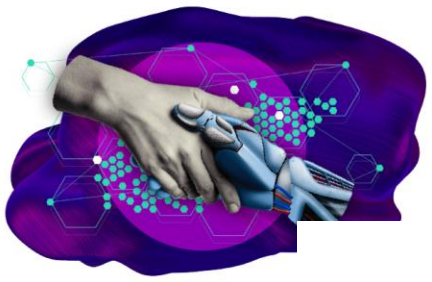
- Massive computing power (over **100,000 advanced AI processors compared to 25,000 in the largest AI Factory**)
- **InvestAI Facility** to mobilise **EUR 20 billion** for AI GigaFactories
- The **call for expressions of interest** received **76 submissions** to establish AI Gigafactories across 60 different sites in 16 Member States, significantly exceeding expectations



Apply AI Strategy: Integration of AI in key sectors

To enhance competitiveness and further develop EU's technological sovereignty





Apply AI: Key Actions for Strategic Sectors



Healthcare and pharma

Deploy AI-powered screening centres to improve detection and diagnosis.



Agrifood

Create an Agri-food AI platform for specialised farming apps to reach the market.



Robotics

Establish a Catalyst for the Uptake of European Robotics to boost innovation.



Manufacturing, engineering and construction

Develop advanced AI models and agents for manufacturing.



Mobility, transport and automotive

Launch an Autonomous Drive Ambition Cities initiative to accelerate the use of self-driving vehicles.



Electronic communications

Create an AI platform for telecoms operators to build AI elements.



Cultural and creative sectors, and media

Foster EU micro-studios specialising in AI-enhanced virtual production.



Climate and environment

Deploy an AI-Earth model for better weather forecasts, Earth monitoring, and prediction.



Energy

Support a generative AI-enabled backbone to better balance energy generation and demand.



Public sector

Build an AI toolbox with open-source reusable tools and solutions.

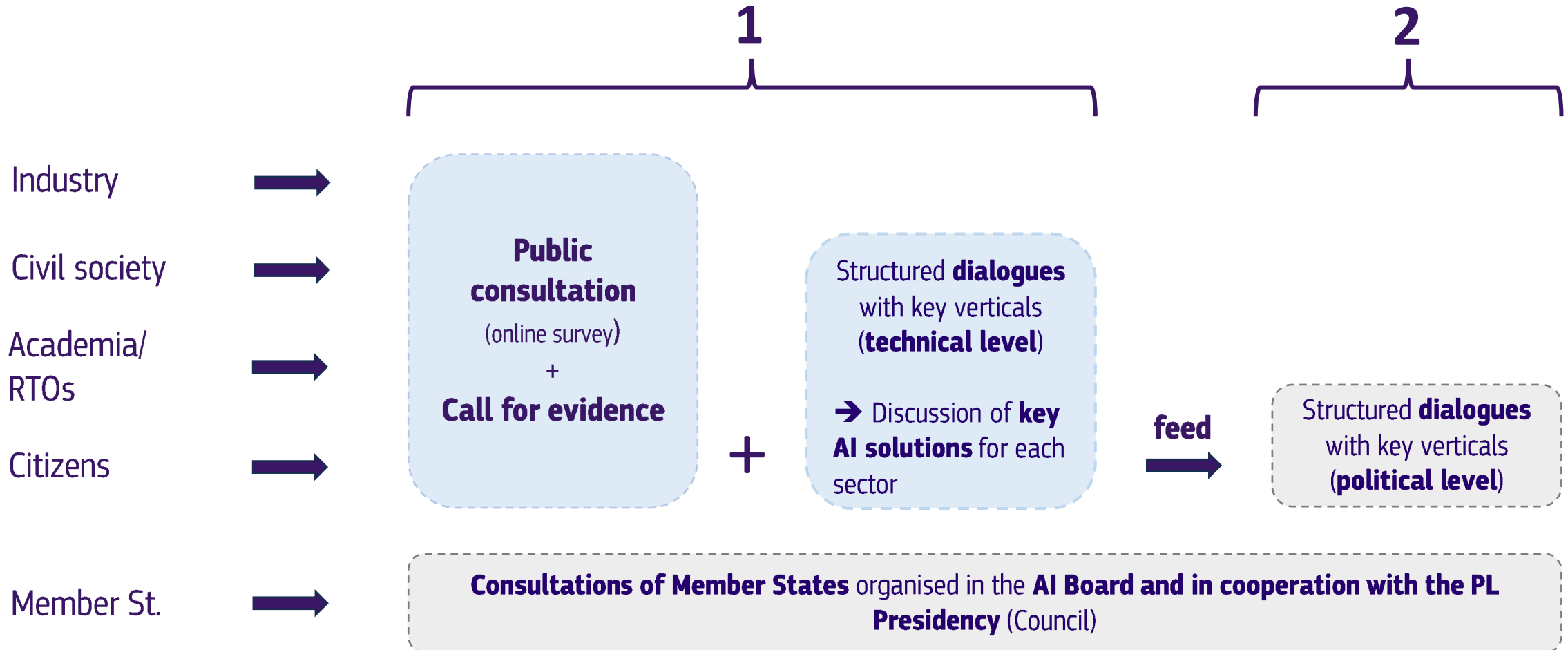


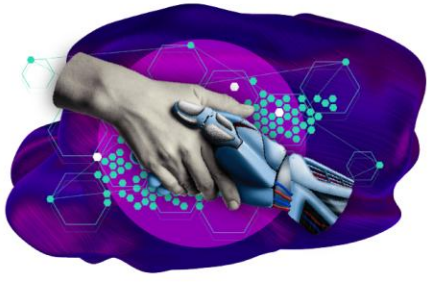
Defence, security and space

Deploy secure infrastructure for the development and training of defence AI models.



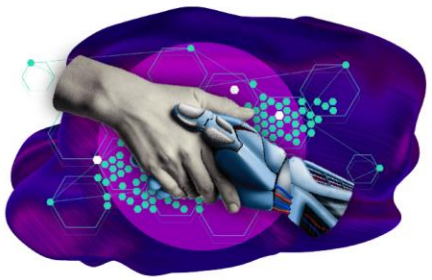
Apply AI Strategy





Building Europe's Capabilities in AI

From foundational research (RAISE) to large-scale AI development (Frontier AI)



Research and Innovation in AI

Europe can rely on solid foundations:

€70 Million

Already invested via **Horizon Europe & Digital Europe** for **large AI models**, including the flagship OpenEuroLLM

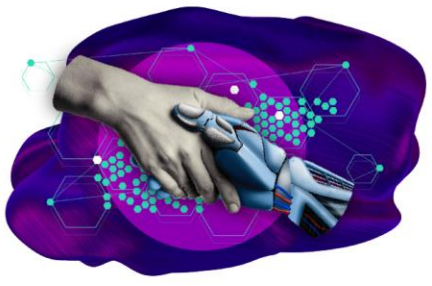
€100 Million

Additional dedicated funding planned (2026-2027) to develop the **next generation of AI systems**

€100 Million

Networks of centres of excellence, involving **1,000 researchers** in over 20 European countries, with nearly 4,000 publications, many in high-ranking journals.
(ELIAS, dAIEDGE, ELSA, ENFIELD)

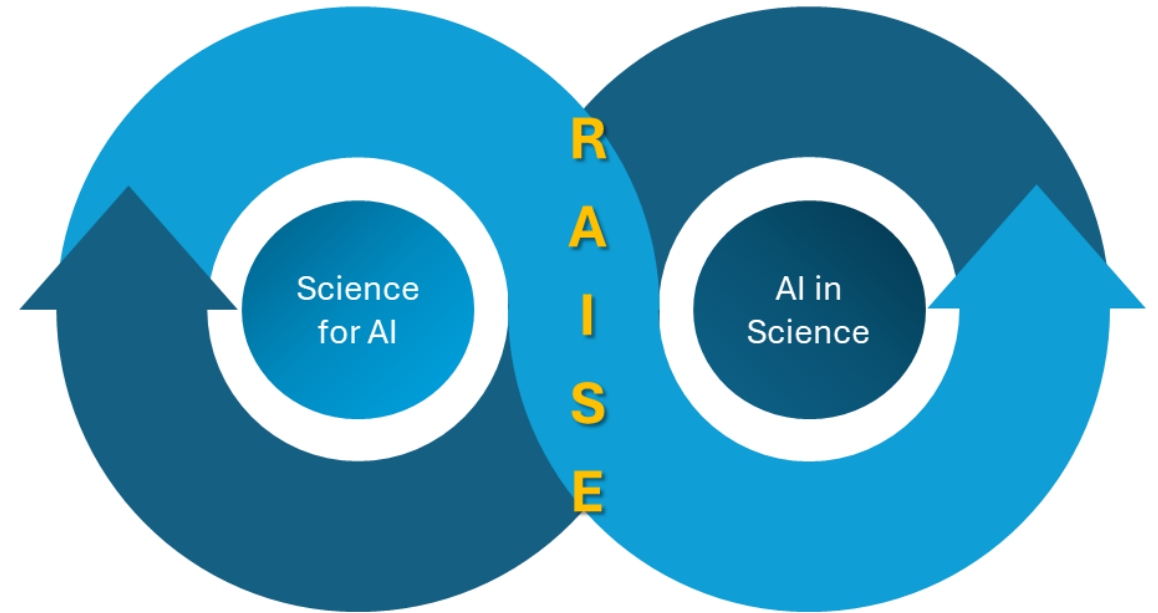
These initiatives constitute the basis for the next scale-up...



RAISE (Resource for AI Science in Europe)

RAISE

- **Virtual European institute**
- **Pools AI resources**
- **Promote cutting-edge research in AI & the uptake of AI for scientific progress.**
- **Will operate on two pillars:**
 - **Science for AI**
 - **AI in Science**



Launch of Call for Experts to join the RAISE High-Level Academic Advisory Board:



OPEN			
Publication	Deadline	CALL FOR APPLICATIONS FOR THE SELECTION OF MEMBERS OF THE EXPERT GROUP 'RAISE HIGH-LEVEL ACADEMIC ADVISORY BOARD'	
15 JUNE 2026	04 SEPTEMBER 2026	DG: DG Research and Innovation	
		Call RAISE_Final 📄	SEE GROUP
		Annex I-EG RAISE High-level Academic Advisory Board 📄	
		Annex II-EG RAISE High-level Academic Advisory Board 📄	
		Annex III-EG RAISE High-level Academic Advisory Board 📄	



Frontier AI Initiative

To accelerate European Progress in frontier AI capabilities

Frontier AI Undertaking

led by Germany and France

A **non-profit public-private structure supported by the European Commission**

To pool resources for high-risk, high-reward **research sitting between fundamental science and commercial startups**

Executes strategic 'research bets' until technologies are ready for commercial spinoff

Frontier AI Expert Forum

April 23, 2026

Brought together AI developers, industry leaders, investors, and independent experts.

To strategically **map existing efforts in Frontier AI** and **identify bottlenecks and opportunities** for Europe's competitiveness, sovereignty and security in the field.

Frontier AI Grand Challenge

Launched February 13, 2026

Flagship EU-wide competition targeting innovative companies building sovereign 'Made in Europe' large-scale models.

Rewards the winner with massive supercomputing access

19 June 2026 - EUROPA, led by Italy's Domyn, wins the EC Grand Challenge to build an open-source European frontier AI model in all 24 EU official languages.



Important Project of Common European Interest on AI (IPCEI-AI)

A sovereign, industry-focused AI ecosystem for Europe

What is an IPCEI?

An integrated, large-scale **cross-border project** involving **at least four EU Member States**. Member States may grant **State aid** - exceptionally allowed under **Art. 107(3)(b) TFEU** - **to fund breakthrough innovation that carries high technological or financial risk and that the market alone would not deliver**, creating European ecosystems and positive cross-border spillovers.

THE IPCEI-AI VALUE CHAIN

A holistic approach across the full AI model lifecycle

Data processing, orchestration & provisioning

Collection, curation, storage and provisioning of high-quality structured and unstructured data - including data orchestration, vector databases and knowledge graphs - as the foundation that feeds model training and inference.

Sovereign foundation model (LLM / LRM)

Large Language Models (LLM) and Large Reasoning Models (LRM), independent from non-EU providers and aligned with EU laws, values and regulations.

Sovereign industry-specific foundation model (SFM)

Foundation models built from the ground up for an industrial domain - encoding its physical laws, operational constraints and regulations - and trained natively on industrial data modalities.

AI deployment & operations (AI Ops)

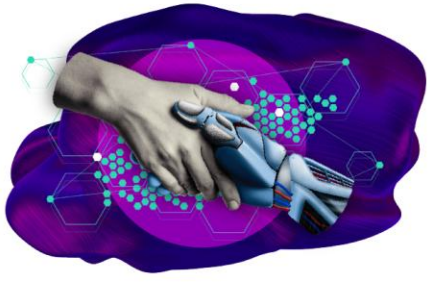
Bringing models into production and managing them across the full lifecycle: inference, monitoring, automated retraining and updates - with efficiency and CO₂-footprint optimisation.

Open platform for AI

An open-source, extensible ecosystem to build, deploy, share and orchestrate models, tools and (multi-)agentic systems - plug-and-play, no vendor lock-in.

AI services & sector-specific use cases

Turning models into deployed operational services: integrating the sector-specific models into real industrial systems (ERP/MES, ICS) with human oversight, resilience to operational drift and built-in auditability



Opportunities in Horizon Europe

Turning initiatives into calls: Horizon Europe WP 2026-2027 and access routes for SMEs (FSTP)



Horizon Europe (FP9)

€93.5 billion for 2021-2027 in current prices, including €5.4 billion top-up from NextGenerationEU

SPECIFIC PROGRAMME: EUROPEAN DEFENCE FUND

*Exclusive focus on
defence research
& development*

Research
actions

Development
actions

SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT*

Exclusive focus on civil applications



Pillar I EXCELLENT SCIENCE

European Research Council

Marie Skłodowska-Curie

Research Infrastructures



Pillar II GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Clusters

- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- **Digital, Industry & Space**
- Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre



Pillar III INNOVATIVE EUROPE

European Innovation
Council

European Innovation
Ecosystems

European Institute of
Innovation & Technology*

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation & spreading excellence

Reforming & Enhancing the European R&I system

* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme



Horizon Europe WP 2026-2027 - Cluster 4

AI Science

“To ensure openness, during the first year, the project will establish a **call for expressions of interest to identify additional leading European AI research labs and individual experts** that may collaborate with the project”

Apply AI: Pilot of the **“Science for AI” Pillar of RAISE** (“Resource for AI science in Europe”) (RIA)
HORIZON-CL4-2026-04-DIGITAL-EMERGING-01 | Calls for proposals
Opening date: 15 January 2026 | Deadline date: 15 April 2026 | **Total Budget € 17 M | Projects funded: 1**

EU Frontier AI Initiative: Developing **frontier AI** solutions that are **safe and computationally efficient** within Apply AI (RIA)
HORIZON-CL4-2027-04-DIGITAL-EMERGING-11 | Calls for proposals
Opening date: 17 November 2026 | Deadline date: 18 March 2027 | **Total Budget € 44 M | Projects funded: 1**

Legend:  Forthcoming  Closed  Closed - participation still possible



HORIZON-CL4-2027-04-DIGITAL-EMERGING-11: EU Frontier AI Initiative: Developing **frontier AI solutions** that are **safe and computationally efficient** within Apply AI (RIA)

Expected Outcomes:

- Strengthened European capabilities in the development of frontier AI models.
- Improved computational efficiency of frontier AI models, resulting in reduced computational costs.
- Enhanced safety of advanced AI systems based on frontier AI models through the development and implementation of safe-by-design principles and/or AI agents acting as safety evaluators.

Scope:

- **Frontier Model Development:** develop and train state-of-the-art models optimised for agentic capabilities, focusing on reasoning, autonomous problem-solving, and sophisticated tool use.
- **Computational Efficiency:** To mitigate environmental impacts and lower barriers to entry, the research prioritises innovations that significantly reduce resource demands during pre-training, post-training and inference.
- **Advanced AI Safety and Security:** Addressing sophisticated misbehaviour and misalignment while strengthening robustness against adversarial attacks.

Indicative budget: EUR 44 million

EU contribution per project: EUR 44 million

Type of Action: Research and Innovation Action (RIA)

Technology Readiness Level (TRL): Start from TRL 2 and achieve TRL 4 by the end of the project



Horizon Europe WP 2026-2027 - Cluster 4

Apply AI

- Aerospace
- Pharma/drug development
- Telecommunications

Challenge-Driven GenAI4EU Booster in **Apply AI prioritised sectors** (RIA) (AI/Data/Robotics Partnership)
HORIZON-CL4-2026-04-DIGITAL-EMERGING-19 | Calls for proposals
Opening date: 15 January 2026 | Deadline date: 15 April 2026 | **Total Budget € 45 M | Projects funded: 3**

Apply AI: Challenge-Driven AI Innovation Booster in **Apply AI prioritised sectors** (RIA) (Partnership in AI, Data and Robotics)
HORIZON-CL4-2027-04-DIGITAL-EMERGING-04 | Calls for proposals
Opening date: 17 November 2026 | Deadline date: 18 March 2027 | **Total Budget € 42 M | Projects funded: 3**

Beneficiaries must provide Financial Support to Third Parties (FSTP)

- Healthcare
- Advanced manufacturing (including AI-powered robotics)
- In-vehicle autonomous driving

Legend:  Forthcoming  Closed  Closed - participation still possible (FSTP)



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HORIZON-CL4-2027-04-DIGITAL-EMERGING-04: Apply AI: Challenge-Driven AI Innovation Booster in Apply AI prioritised sectors (RIA)

Expected Outcomes:

- Significant technological progress and innovation in Apply AI Strategy's prioritised sectors driven by challenge-oriented, AI-powered solutions.
- Increase competitiveness and visibility of the relevant AI community within key application domains and promote collaborative approaches for AI development in these domains, fostering the ecosystem.
- Increase adoption of AI technologies across the three key application domains below

Strategic Domains (one proposal focusing on each sector):

- **Healthcare:** advanced AI will accelerate diagnostics and treatment plans, enhance robotic surgery, or improve patient care through predictive analytics.
- **Advanced manufacturing (including AI-powered robotics):** advanced AI will optimize production processes, improve quality control and product design, or enable predictive maintenance.
- **Autonomous driving:** advanced AI will enhance vehicle safety, improve navigation systems, or optimize traffic management.

Indicative budget: EUR 42 million

EU contribution per project: EUR 14 million

Type of Action: Research and Innovation Action (RIA)

Technology Readiness Level (TRL): Start from TRL 2 and achieve TRL 5 by the end of the project



HORIZON-CL4-2027-04-DIGITAL-EMERGING-04: Apply AI: **Challenge-Driven** AI Innovation Booster in Apply AI prioritised sectors (RIA)

- Industries from the targeted sector join forces to define challenging problems to solve with advanced AI solutions
- The consortium organizes a **multi-staged competition** with an increasing level of complexity
- Industry partners define the use-cases and success criteria and provide the data to build on

3 user-driven challenges - 3 × €14M (one per sector: healthcare · advanced manufacturing · in-vehicle autonomous driving):

Stage 1 — Open call (free to enter, open to all)

- Any SME — alone or in a small team led by an SME — submits a solution plan
- The 10 highest-ranked proposals are selected for Stage 2



Stage 2 — Competition among the 20 finalists

- Each of the 10 teams receives a €300,000 FSTP grant (light, SME-friendly process)
- The 4 highest-ranked solutions advance to Stage 3



Stage 3 — Grand finale (the 4 best compete)

- Each of the 4 teams receives a €2,250,000 FSTP grant
- The best-performing solution wins; the winner is offered a contract/partnership with the user industries, plus exploitation & business support



Financial Support to Third Parties (FSTP) - Cascade Funding

A fast, low-barrier route to EU funding for start-ups, SMEs and scale-ups: funded consortia redistribute part of their EU grant through open calls, published on the EU Funding & Tenders Portal.

What it is

- A consortium funded by Horizon redistributes part of its grant through its own open calls (“cascade funding”).
- Recipients are third parties outside the consortium – typically SMEs and start-ups.
- Legal basis:
EU Financial Regulation (Reg. (EU, Euratom) 2024/2509), Art. 217 + Horizon Europe Model Grant Agreement · WP 2026-27 General Annexes + each topic’s “Specific conditions”.

Why it matters for SMEs

- Low-barrier entry: no full Horizon proposal, no consortium membership, no PIC (Participant Identification Code) required.
- Lighter administration and reporting; the contract is with the project, not the EC.
- A fast, accessible route into EU R&I funding for smaller players.

How much

- Default ceiling: € 60,000 per third party (standard MGA rule).
- **A topic may set higher amounts** when duly justified.



Financial Support to Third Parties (FSTP) - Cascade Funding

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Home

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Home > Funding > Calls for proposals

Calls for proposals

Calls for proposals are funding opportunities issued by the European Union institutions, agencies and bodies. These are direct financial contributions, known as grants, which are awarded to third-party beneficiaries (e.g., research organisations, public entities, non-governmental organisations, and private companies) to engage in activities that serve EU policies.

[More details](#)

Filters

Quick search

Select...

Q

Programming period

Programme

Call

Submission status

All filters 1

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106 item(s) found

[InnoNext - Next Generation Innovation Talents' Initiative](#)
InnoNext | Cascade funding
Opening date: 17 March 2025 | Deadline date: 01 August 2026 | Single-stage
Programme: **Horizon Europe (HORIZON)** | Type of action: -

[OSCARS 2nd Open Call for Open Science Projects and Services](#)
OSCARS | Cascade funding
Opening date: 14 March 2025 | Deadline date: 14 May 2025 | Single-stage
Programme: **Horizon Europe (HORIZON)** | Type of action: -

[SORBANO Open Call - Industry Demonstrators of the SORBANO Technologies](#)

TYPE OF GRANTS CALLS

☐ Direct calls for proposals (issued by the EU)

☐ EU External Actions

☒ Calls for funding in cascade (issued by funded projects) 106 2

PROGRAMMING PERIOD

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PROGRAMME

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Citizens, Equality, Rights and Values Programme (CERV) 4

3

Clear all

View results



Horizon Europe WP 2025 - Cluster 4

Closed - participation still possible (FSTP)

Robust and trustworthy GenerativeAI for Robotics and industrial automation (RIA) (AI/Data/Robotics & Made in Europe Partnerships)

HORIZON-CL4-2025-03-DIGITAL-EMERGING-07 | Calls for proposals

Opening date: 10 June 2025 | Deadline date: 2 October 2025 | **Total Budget € 85 M** | **Projects funded: 2**

Funded projects:

GRAIL Generative Robotics & AI for EU Industrial Leadership

From: 1 June 2026 to: 31 May 2031

euroFMX European TrUstworthy GeneRative AI & AutonOmisation Frontier Models for Manufacturing-X Competitiveness

From: 1 June 2026 to: 31 May 2030

FSTP:

- Each project must channel **at least €10 million** through FSTP to fund **fine-tuning mini-projects** that adapt the foundation model to industry use-cases
- **Ceilings:** up to **6 use-cases per project**, with **up to €2 million per use-case** and **up to €500,000 per individual third party** (a derogation from the standard €60,000 limit)



Horizon Europe WP 2026-2027 - Cluster 4

Robotics

Apply AI: **Robotics for Manufacturing**: Advancing Core Skills through Technical Challenges (RIA) (Partnership in AI, Data and Robotics)

HORIZON-CL4-2026-04-DIGITAL-EMERGING-08 | Calls for proposals

Opening date: 15 January 2026 | Deadline date: 15 April 2026 | Total Budget € 18 M | Projects funded: 1

Apply AI: Next-Generation **Agile and Intelligent Robotics Platforms for Industrial and Service Applications** (Partnership in AI, Data and Robotics) (RIA)

HORIZON-CL4-2026-05-DIGITAL-EMERGING-03 | Calls for proposals

Opening date: 15 January 2026 | Deadline date: 15 April 2026 | Total Budget € 25 M | Projects funded: 2

Apply AI: **AI-Driven Robotics for Industry**: Enabling System Integration and Adoption (IA) (Partnership in AI, Data and Robotics)

HORIZON-CL4-2027-04-DIGITAL-EMERGING-05 | Calls for proposals

Opening date: 17 November 2026 | Deadline date: 18 March 2027 | Total Budget € 18 M | Projects funded: 1



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HORIZON-CL4-2027-04-DIGITAL-EMERGING-05: Apply AI: **AI-Driven Robotics for Industry: Enabling System Integration and Adoption (IA)**

Expected Outcomes:

- Wider and faster deployment of robotics, bridging the gap between technology providers and end-users.
- Development and implementation of modular and interoperable integration frameworks and solutions, including standardized protocols for data, training and safety testing, evaluation and validation of robotic solutions in key use cases
- Improved competitiveness of European industries, notably SMEs via the development of advanced robotics systems, intelligent planning and control systems, user feedback rendering techniques and cutting-edge AI innovations

Project is expected to deliver:

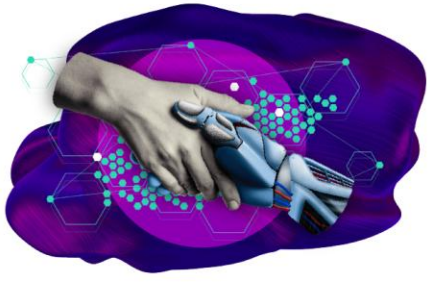
- A deployable, modular integration framework.
- An Integration Kit, building on this framework.
- Where relevant, high-fidelity digital twin testbeds.
- Reusable, datasets and practical benchmark tasks.
- A clear step-by-step adoption guide.

Indicative budget: EUR 18 million

EU contribution per project: EUR 18 million

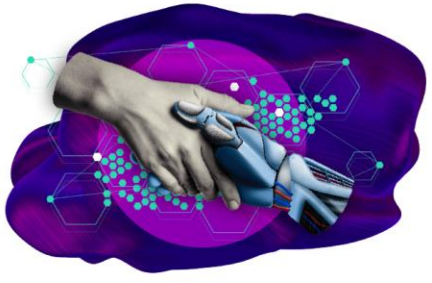
Type of Action: Innovation Action (IA)

Technology Readiness Level (TRL): Start from TRL 4 and achieve TRL 7 by the end of the project



Conclusions

- Europe is moving **from regulation to competitiveness in AI**
- A **comprehensive ecosystem is being built**, combining infrastructure, data and support mechanisms - with new initiatives spanning the full path from science to industry: **RAISE** for scientific excellence, the **Frontier AI Initiative** for large-scale AI capabilities, and **IPCEI-AI** for sovereign industrial deployment
- **Horizon Europe (WP 2026-2027)** turns this strategy into **concrete calls and funding opportunities**, with **FSTP (cascade funding)** as a low-barrier entry point for SMEs



Useful links

Digital Strategy portal:

<https://digital-strategy.ec.europa.eu/en/policies/artificial-intelligence>

Funding and Tenders portal:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>

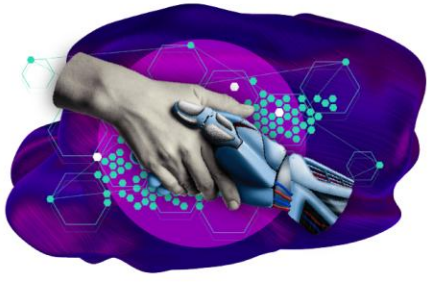
CORDIS portal - for information about EU Research & Development projects:

<https://cordis.europa.eu/>

THANK YOU



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