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APPLY AI STRATEGY
POLICY WATCH

NOVEMBER 2025

LUXEMBOURG AI FACTORY

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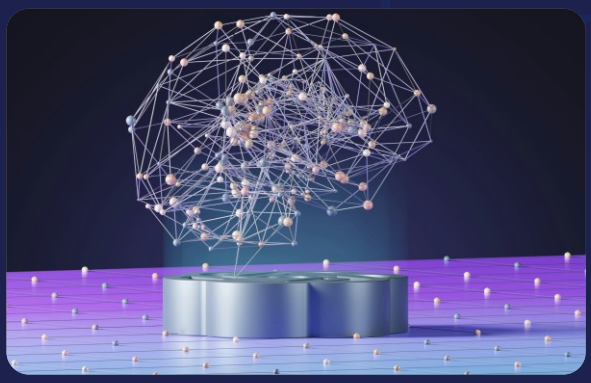
Context



The European Commission's Apply AI Strategy, adopted on 8 October 2025, represents the EU's comprehensive roadmap to accelerate artificial intelligence (AI) deployment across strategic sectors. Building on the **AI Continent Action Plan** (*find briefing on our Knowledge Hub*), the **AI Act** (*find briefing on our Knowledge Hub*), and the Digital Europe Programme, the strategy operationalises the EU's vision for human-centric and trustworthy AI. It responds to Europe's low AI adoption rate (currently 13.5% among businesses and 12.6% among SMEs) and aims to scale AI use across industries and the public sector.

The strategy introduces sectoral flagships, addresses cross-cutting challenges (skills, trust, SME access), and establishes a unified governance mechanism. It is complemented by the AI in Science Strategy and the forthcoming Data Union Strategy, ensuring alignment between AI development, data availability, and industrial competitiveness.

The Apply AI Strategy's core objective is to **mainstream an "AI-first" approach across the European economy**. It promotes the integration of European-developed AI solutions to strengthen technological sovereignty, productivity, and competitiveness while ensuring compliance with EU values and the AI Act.

The strategy identifies three main pillars:

- Sectoral flagships for priority industries
- Cross-cutting enablers addressing adoption barriers and skills
- A single governance mechanism

Governance is anchored in the AI Office and coordinated through the new Apply AI Alliance, which brings together policymakers, industry, civil society, and research actors. An AI Observatory will monitor uptake, trends, and impact across sectors, feeding into policy development and investment targets within the Digital Decade framework.

The governance structure links closely with existing initiatives such as the AI Board, the European Data Innovation Board, and RAISE (Resource for AI Science in Europe).

Together, these mechanisms ensure coherent policy execution and data-driven monitoring.

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Key verticals identified in the strategy

HEALTHCARE & PHARMACEUTICALS

The healthcare and pharmaceutical sectors are among the most strategically important for AI deployment in the EU.

The strategy highlights AI's role in early diagnosis, prevention, administrative efficiency, and improved patient outcomes. Despite the potential, uptake remains uneven due to fragmented infrastructure, lack of skills, and limited trust.

Key flagship actions include:

- Establishing **European AI-powered screening centres for early detection** (notably for cardiovascular diseases and cancer)
- Building a **European Network of Expertise on AI Deployment in healthcare** to standardise best practices
- Launching an **AI drug discovery challenge** to accelerate therapeutic innovation
- Proposing measures to streamline the market entry of **AI-based medical devices**

These initiatives leverage existing frameworks such as the European Health Data Space (EHDS), Europe's Beating Cancer Plan, and the Life Sciences Strategy.

INDUSTRIAL SECTORS: ROBOTICS, MANUFACTURING, ENGINEERING & CONSTRUCTION

The strategy prioritises AI integration into Europe's industrial base to enhance productivity and resilience.

In robotics, Europe leads with over 90,000 industrial robots installed in 2023 and 400 service robotics producers. The Commission will establish a **Catalyst for the uptake of European Robotics**, linking developers and user industries to foster adoption through **Acceleration Pipelines**.

In manufacturing and construction, **AI-powered digital twins** and **data-driven automation** will enable predictive maintenance and process optimisation. The Commission will fund **frontier AI models** tailored to manufacturing, foster **secure data sharing** through the Manufacturing Data Space, and bridge **research-to-deployment gaps**.

These actions align with broader industrial policy instruments, including the Data Union Strategy and the Industrial Accelerator Act, to reinforce Europe's industrial sovereignty.

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Key verticals identified in the strategy

DEFENCE, SECURITY & SPACE

AI's strategic value for defence, security, and space is a core focus. Building on the White Paper for European Defence – Readiness 2030, the strategy underlines **AI's role in situational awareness, unmanned systems, and dual-use technologies**. The European Readiness Roadmap 2030 aims to embed AI and other disruptive technologies into defence capabilities, supported by EU funding, computational infrastructures, and Member State initiatives like SAFE.

In the space sector, AI is critical for designing, operating, and managing space systems, including megaconstellations and ground infrastructure, enhancing performance, efficiency, and security.

To support those sectors, the Commission will:

- Support **AI-enabled Command and Control systems** (C2) via the European Defence Fund (EDF)
- Deploy **secure computing infrastructure** (AI Factories and Gigafactories) for defence and space AI models
- Support AI compliance for **border and critical infrastructure protection**

The EU will foster sovereign frontier AI systems for space applications and improve security and efficiency through advanced robotics and edge computing. These efforts link to the Vision for the European Space Economy and the ProtectEU Internal Security Strategy, ensuring consistency between defence innovation and cybersecurity resilience.

The EU encourages the development of **AI solutions for internal security purposes** through the support of applied research, funds projects to deploy **cybersecurity tools** and supports **interoperability across security infrastructures**, including Cyber Hubs and dual-use systems.

Collectively, these measures advance the EU's "AI-first" policy, reinforcing defence readiness, space competitiveness, and internal security resilience.

MOBILITY, ENERGY & TELECOMMUNICATIONS

The strategy identifies mobility, energy, and electronic communications as critical enablers of the AI economy.

In mobility, the Commission will promote AI models for **automated driving via AI Factories and Gigafactories**, launch the **"Autonomous Drive Ambition Cities" initiative**, and expand real-world testing through the European Connected and Autonomous Vehicle Alliance.

In telecommunications, the strategy proposes a **European Telco AI Platform** to accelerate AI adoption across networks, alongside investments in edge AI capacities through the Smart Networks and Services Joint Undertaking.

In energy, AI will optimise grid management, renewable integration, and demand forecasting. The Commission will develop AI models for system balancing and efficiency, supported by a standardisation framework on AI energy consumption, including the Strategic Roadmap on Digitalisation for the energy sector.

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Key verticals identified in the strategy

ENVIRONMENT & AGRICULTURE

AI is central to Europe's climate resilience and sustainable transition. The Commission will deploy an **open-source AI Earth-system frontier model**, an evolution of Destination Earth, to enhance environmental forecasting and local resilience planning. The model integrates Copernicus data and supports local digital twins for disaster preparedness.

In agriculture, an **Agri-food AI platform** will promote AI-enabled precision farming and open-source tools to build trust among farmers. The initiative complements existing infrastructures such as the Common European Agricultural Data Space and the Horizon Europe Partnership Agriculture of Data.

CULTURE, CREATIVITY & PUBLIC SECTOR TRANSFORMATION

AI has the potential to enhance creativity in the creative and cultural sectors, though it also presents some compliance risks. To support this uptake, the Commission will foster the creation of **AI micro-studios for virtual production**, **multilingual AI platforms for media translation**, and **studies on copyright compliance of AI-generated content**. A dedicated AI study for culture and creativity will follow to explore legal challenges related to AI-generated outputs.

For the public sector, AI is seen as **a tool for modernisation and service efficiency**. The Commission will launch an **AI toolbox for administrations**, establish a **Public Sector AI & Interoperability Readiness Pathway** (PAIR Pathway), and promote the use of open-source AI in public services. A focus on responsible generative AI in education complements this, ensuring that public sector AI deployment adheres to transparency, trust, and ethical standards under the AI Act.

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Cross-cutting challenges: SMEs, skills, frontier AI & trust

The Apply AI Strategy builds on the AI Continent Action Plan to tackle systemic challenges that affect AI adoption across all strategic sectors, aiming to increase European technological sovereignty. It focuses on enhancing SME opportunities, preparing an AI-ready workforce, supporting AI as a production factor, ensuring trust, and establishing a robust governance mechanism.

Enhancing opportunities for European SMEs

European SMEs, representing over 90% of EU enterprises, face barriers to AI adoption due to complexity, cost, and market offerings geared toward larger companies. To address this, the Commission and Member States have refocused over 250 European Digital Innovation Hubs (EDIHs) into **AI Experience Centres**, which:

- Provide tailored AI solutions and impartial advice
- Offer upskilling opportunities for the workforce
- Promote the European AI Stack and open-source, multi-language solutions
- Serve as a bridge between AI supply and demand, supporting wide-scale deployment across strategic sectors

The strategy includes **calls for European companies to share AI models with these Hubs**, fostering adoption and promoting domestic AI innovation.

Enabling an AI-ready workforce across sectors

AI adoption is transforming work by automating tasks, enhancing efficiency, and enabling innovation and creativity across professions, including healthcare, education, and engineering. While 67% of European workers report that AI helps them perform tasks faster, concerns about job displacement remain.

The strategy addresses these challenges by:

- Providing sector- and job-specific AI literacy and training through the AI Skills Academy, including micro-credentials.
- Engaging industry via the Pact for Skills and Skills Guarantee to support reskilling and upskilling, especially in sectors at risk of AI-driven disruption.
- Funding executive programs and hybrid-profile education (e.g., AI engineers) through the Digital Europe Programme and Erasmus+.
- Establishing an AI Entrepreneurs Lab to connect talented graduates with mentors and companies, fostering AI start-ups and partnerships.
- Monitoring labour market impacts to guide inclusive policies addressing gender, generational, and regional disparities

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Cross-cutting challenges: SMEs, skills, frontier AI & trust

Supporting AI as a production factor

AI is increasingly recognised as a fundamental input in the economy, alongside labour, capital, and traditional technology. Key points include:

- General-purpose AI models: flexible, multi-task models forming the foundation for many AI applications.
- Specialised AI models: domain-specific tools (e.g., healthcare, legal) trained for expert tasks and efficiency.
- Digital twins: virtual replicas of real-world processes augmented with AI for simulation, prediction, and synthetic data generation.
- Frontier AI and AGI potential: cutting-edge AI architectures and agents are seen as strategic assets for European sovereignty and competitiveness.

The Commission will launch the **Frontier AI Initiative** to coordinate Europe's top industrial and academic actors, support strategic AI projects, provide access to EuroHPC supercomputers, and run EU-wide competitions to develop open frontier AI models.

These efforts complement the European Startup and Scaleup Strategy (*find briefing on our Knowledge Hub*), Industrial Accelerator Act, and Horizon Europe programs.

The RAISE (Resource for AI Science in Europe) initiative will integrate "Science for AI" and "AI in Science" pillars, fostering co-evolution of AI technology and scientific discovery (*learn more in our "Ai in Science" briefing*).

Ensuring trust in the European market

Trust is central to the EU's AI vision. Despite the AI Act and supporting initiatives like the General-Purpose AI Code of Practice and AI Pact, stakeholders still face uncertainty about compliance.

To address this, the strategy includes:

- AI Act Service Desk: a hub providing guidance, interactive tools, and compliance support.
- Additional guidelines on high-risk AI systems and the interaction of the AI Act with sectoral legislation.
- Strengthening the establishment of national competent authorities to ensure effective enforcement.

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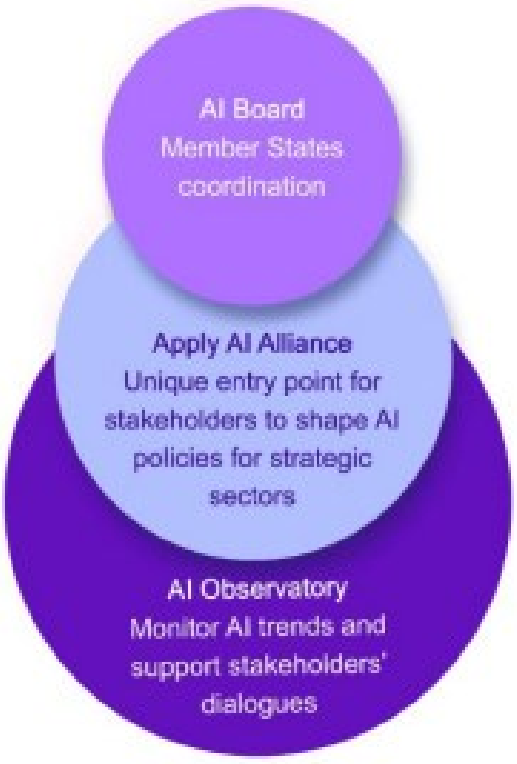
Cross-cutting challenges: SMEs, skills, frontier AI & trust

Establishing a single governance mechanism

The Apply AI Strategy is designed as an inclusive, participatory framework. Key governance measures include:

- AI Board: continues as the main forum with Member States for strategy alignment, innovation monitoring, and exchange of best practices.
- Apply AI Alliance: a coordination forum connecting stakeholders with policymakers, facilitating dialogue, networking, and sectoral participation.
- AI Observatory: monitors AI adoption, trends, and labour market impacts, providing data to guide public and private investment targets.

The EU also emphasises international engagement, promoting AI for public good, trusted cross-border data flows, and cooperation with allies and candidate countries. Strategic assets like talent, research, industrial capacity, and the single market are leveraged to build partnerships, address supply chain vulnerabilities, and ensure the EU's technological resilience.



Apply AI Strategy, EU Commission

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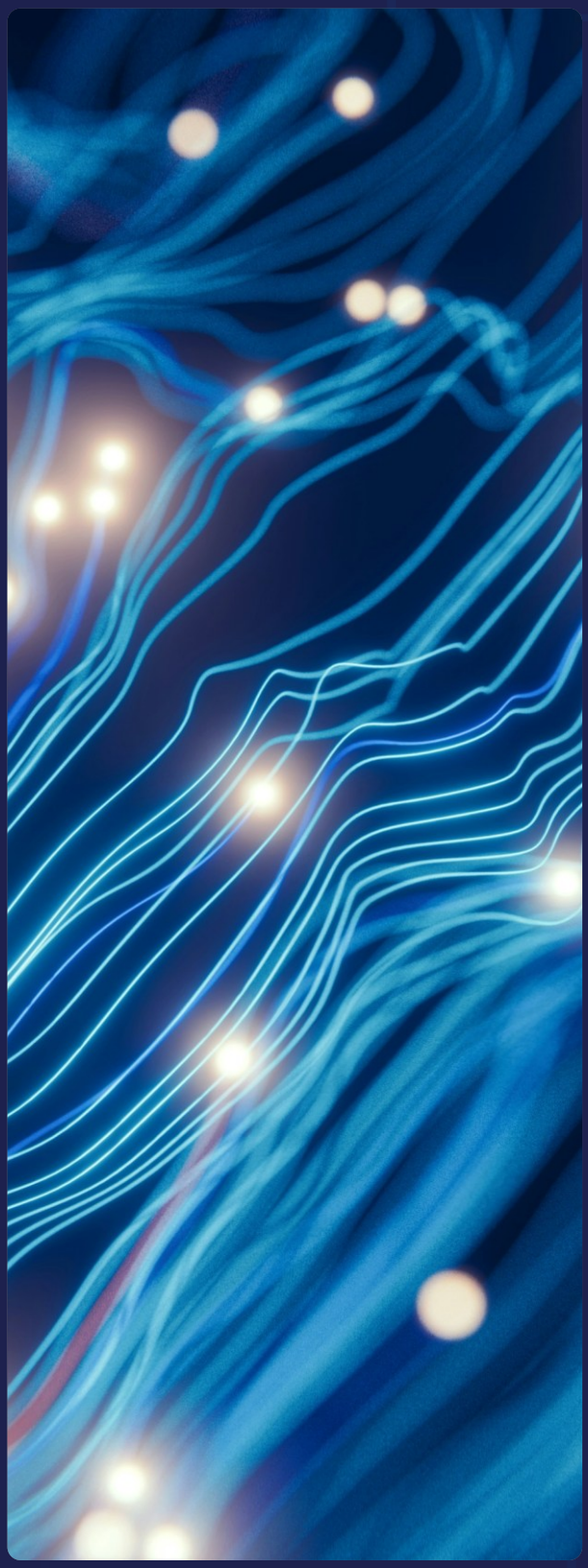
Conclusion



The Apply AI Strategy represents the EU's most comprehensive effort to date to **embed AI across all strategic sectors**, reinforcing Europe's technological sovereignty, competitiveness, and adherence to ethical standards.

By combining sectoral flagships, cross-cutting enablers, and a unified governance framework, the strategy addresses both adoption barriers and opportunities for innovation. It positions Europe as a proactive global actor in AI governance, secure data flows, and frontier AI development while fostering sustainable, inclusive, and trustworthy deployment domestically.

For policymakers, businesses, and research actors, the strategy signals a clear path toward large-scale AI integration, providing a foundation for Europe to realise the vision of an "AI Continent" capable of competing and cooperating on the global stage while safeguarding societal values and public trust.

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