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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

AI Continent Action Plan

Agence Europe

AI Continent Action Plan

The European Union is committed to becoming a **leading AI continent**. This requires a set of bold actions, which are set out in this Communication. The ambition is to shape the next phase of AI developments, harnessing the prospects AI provides for healthcare, education, industrial efficiency, sustainability, science, serving as a key driver of future **economic growth, competitiveness and sovereignty**.

The race for leadership in AI is far from over. Breakthroughs continue to redefine the boundaries of what is possible. From cutting-edge foundation models to specialised AI applications, the AI landscape in the EU remains dynamic, driven by research, emerging technologies, and a thriving startups and scaleups ecosystem.

Achieving leadership in AI requires leading both in developing and in using AI. It demands sustained investment in infrastructure (computing power, data, talent), alongside advancements in model development, and broad adoption across the economy. Both the private and the public sectors have a role to play: businesses must scale up their investments, while the public sector must enhance its capabilities through public procurement, promoting European preference for critical sectors and technologies, as proposed in the Competitiveness Compass¹. AI has only just begun to be adopted in the key sectors of our economy and to address the key challenges of our times. The outcome of this race is still taking shape, and those who push forward with ambition and vision will ultimately shape the future of AI.

The EU must establish **its own distinctive approach to AI** by capitalising on its strengths and what it does best. This includes: leveraging high-quality research and science, a substantial pool of engineers and of skilled professionals; a large single market with one single set of safety rules across the European Union ensuring AI is trustworthy and of highest quality; a thriving startup and scaleup scene, industrial knowhow and expertise, and; a solid foundation in computational power with data spaces accessible to all.

Indeed, the European brand of **open innovation** is showing results. Computing power in the EU is publicly accessible through the European network of cutting-edge supercomputers deployed under the **European High-Performance Computing Joint Undertaking** (EuroHPC²[\[1\]](#)). The network has been providing AI innovators and research organisations an open environment to access computing resources to train and finetune models, linking to data spaces and enabling broad participation in cutting-edge model development. Moreover, model development in the EU benefits from advances in open-source approaches, encouraging knowledge sharing, enabling collaboration, facilitating integration in specific applications and increasing transparency.

¹ COM(2025) 30 final

² The European High-Performance Computing Joint Undertaking (EuroHPC) was launched in 2018 and co-funded by the EU, Member States, and private actors. Notable examples of EuroHPC supercomputers include LUMI (ranked #8 globally), Leonardo (#9), and MareNostrum 5 (#11) which collectively enhance Europe's computational capabilities.

In this context, it is no surprise that Europe's AI start-up scene is booming, as reflected in the increased investments and the growing number of unicorns in few recent years. The EU is home to more than 6300 AI start-ups, with over 600 start-ups focused on generative AI, of which a third engaged in model development³. This **vibrant community of innovative AI startups and innovators** is advancing the frontier of AI models as well as applying them to industry-specific applications. While this European brand of AI is showing results, more needs to be done. Europe needs to be sure that its startups, industry and scientists at large - have what they need.

For the EU to become an AI Continent, **efforts must intensify in five key domains:**

First, computing infrastructure: a scaling of Europe's public AI infrastructure is necessary to enable innovators and academics to train and finetune frontier models. This includes strengthening the **network of AI Factories** –which are being launched to offer greater computing capacity for AI and related services - and establishing **Gigafactories**, integrating massive computing power into energy-efficient data centres. Inspired by the ambition of CERN, these Gigafactories will foster scientific collaboration around powerful and unique infrastructures, bringing together researchers, entrepreneurs and investors to tackle ambitious projects - "moonshots" - in areas like healthcare, robotics and scientific discovery. In this spirit, for example, the European AI Research Council could pool resources for AI scientists. Concurrently, private sector investment in cloud capacity and data centres, must be facilitated and scaled up.

Second, we need to take action to ensure more access to **high-quality data** for AI innovators. With this objective, the EU will work towards a dedicated Data Union strategy and will inter alia explore the development of Data Labs as integral components of AI Factories, to enable the provision, pooling, and secure sharing of high-quality data.

Third, we need to stimulate the further **development of AI algorithms and leverage their adoption in EU strategic sectors**. The upcoming Apply AI Strategy will launch concrete actions to boost new industrial uses of AI and improve public services. European Digital Innovation Hubs will reorient to support the adoption of AI by SMEs and the public administration, and further advances in strategic sectors will be supported by European funding programs in the next three years.

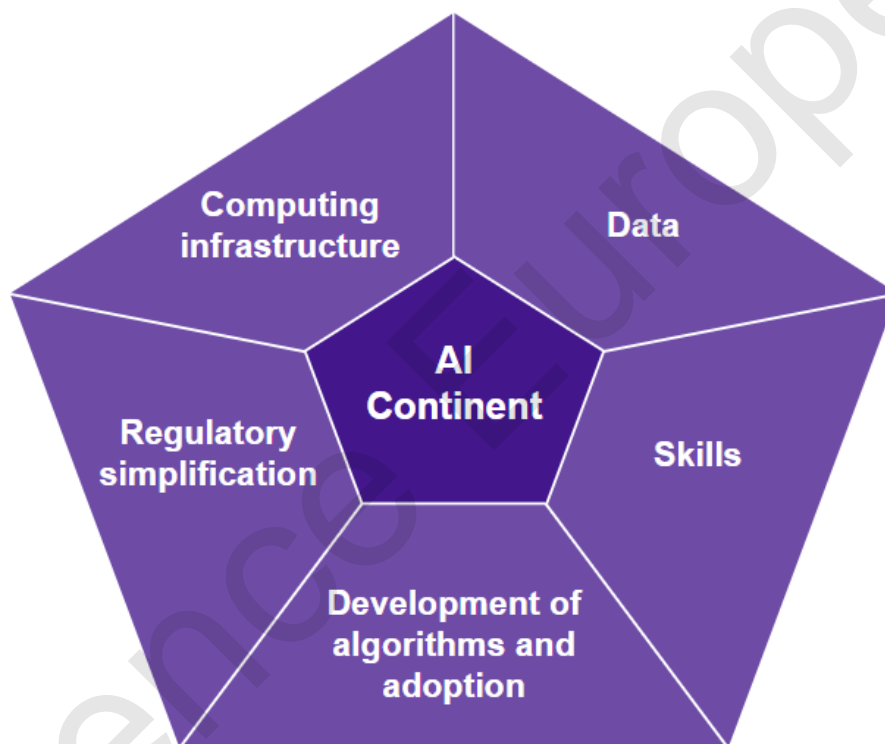
Fourth, Europe's **strong AI talent base** is a major asset. The EU needs to reinforce AI skills and talent across Europe by further developing excellence in AI education and research, by raising awareness on AI among the wider society, as well as by facilitating legal migration pathways for highly skilled workers. Talents of the world are welcome in Europe.

Fifth, Europe's extensive internal market is a significant asset, with one set of clear rules, the AI Act, preventing market fragmentation and enhancing trust in the use of the technology.

³ <https://www.appliedaiinstitute.de/en/hub/2024-generative-ai-study>

Nevertheless, there is an opportunity to **minimise the potential compliance burden** of AI Act, particularly for smaller innovators.

These are the necessary pillars for Europe to become the AI Continent. This is the vision set out by the Commission President at the Artificial Intelligence Action Summit in February 2025 in Paris⁴ where she launched **InvestAI**, an initiative to mobilize EUR 200 billion for investments in AI and further developed in the political priorities of the Competitiveness Compass.



⁴ https://ec.europa.eu/commission/presscorner/detail/en/speech_25_471

1. Build large-scale AI data and computing infrastructures across Europe for the AI ecosystem

Infrastructure - particularly computing power - is fundamental to AI model development **all along the AI lifecycle**. From *training*, where the model learns from vast amounts of data and requires massive computational resources, often relying on high-performance advanced AI processors; *finetuning*, where it is optimised for specific applications; *testing*, where, once the model is trained and validated, it is tested to assess its performance; to *inference and deployment*, where the model output is integrated into real world applications.

The availability of powerful computing resources is an important indicator for attracting academic, technical and industrial talent and is essential for enhancing the AI ecosystem. Therefore, it is vital for the EU and the Member States to work together in ensuring an adequate supply of computational power across the AI continent.

1.1 Deploy and scale AI Factories

Most recently, the EU has been strengthening the EuroHPC network through the **AI Factories initiative**, as announced in the 2024 **AI Innovation Package**⁵. AI Factories are dynamic ecosystems that foster innovation, collaboration, and development in the field of AI. They integrate AI-optimised supercomputers, large data resources, programming and training facilities, and human capital to create cutting-edge AI models and applications. By connecting supercomputing centres, universities, start-ups, industry and financial stakeholders, AI Factories will enhance collaboration in AI across Europe. They will drive advancements in AI applications across multiple domains, ensuring Europe remains competitive in the global AI landscape. Moreover, AI Factories will enhance access to high quality data by linking to large national data repositories, EU Data Spaces and dedicated data labs (see section 2). Overall, investments in supercomputing infrastructures and AI Factories in the EU will reach EUR 10 billion over the 2021-2027 period.

The AI Factories initiative has been a huge **success, demonstrating the strong commitment and support of Member States**. Following the first AI Factories deadline on 1 November 2024, seven consortia - spanning 15 Member States⁶ and two associated EuroHPC Participating States⁷ - were selected to host the first AI Factories, representing a EUR 1.5 billion joint investment from the EU and national governments. Building on this momentum, six additional AI Factories were selected in March 2025⁸. With a total of 13 AI Factories across 17 Member States and two EuroHPC Participating States, today the initiative AI Factory Initiative represents a EUR 2 billion investment in European AI excellence. In this context, **nine new AI**

⁵ [AI Innovation Package](#)

⁶ https://ec.europa.eu/commission/presscorner/detail/en/ip_24_6302

⁷ Non-EU Member States who are participating in the EuroHPC Joint Undertaking:

[Discover EuroHPC JU - EuroHPC JU](#)

⁸ <https://digital-strategy.ec.europa.eu/en/news/second-wave-ai-factories-set-drive-eu-wide-innovation#:~:text=This%20follows%20the%20first%20selection.of%20around%20%E2%82%AC485%20million.>

optimised supercomputers will be procured and deployed across the EU in 2025/26, and an existing supercomputer will be upgraded with AI capabilities⁹. This will more than triple the current EuroHPC AI computing capacity.

AI Factories bring unique strengths and specialised focus areas, playing a pivotal role in advancing AI applications across strategic sectors as follows:

Key Sectors	AT	BG	DE	EL	ES	FI	FR	IT	LU	PL	SE	SI
Health & Life Sciences	●		●	●	●	●	●	●		●	●	●
Technology & Digital		●		●	●	●	●	●	●	●	●	●
Environment & Sustainability		●	●	●	●		●	●	●	●	●	●
Education & Culture	●	●	●	●	●		●	●			●	●
Manufacturing & Engineering	●	●	●			●	●				●	●
Finance & Business	●		●		●		●	●	●		●	
Agriculture & Food	●				●		●	●			●	●
Cybersecurity & Dual use							●	●	●			
Space & Aerospace		●					●		●	●		
Public Sector	●		●		●					●		

A summary of the 13 selected EuroHPC AI Factories is included in Annex I.

The interest and confidence from Member States continues to grow, with further countries signalling their willingness to participate in a third call foreseen for May 2025, underlining the success of the initiative and its strategic importance for Europe's AI future.

Additionally, Participating States can establish **AI Factory Antennas** to support services to their national AI/HPC ecosystem without the need for dedicated supercomputer infrastructure. AI Factory Antennas will provide remote access to AI-optimised supercomputing resources of the linked AI Factory located in another Member State.

By end 2025, all selected AI Factories and AI Factories Antennas will be fully operational, networked together and connected to other major AI support initiatives, such as the Testing and Experimentation facilities for AI (TEFs)¹⁰, offering dedicated resources for testing AI solutions, and the network of European Digital Innovation Hubs.

The EuroHPC Joint Undertaking will serve as the single-entry point for users across the EU, providing access to computing time and support services offered by any EuroHPC AI Factory. The AI Factories are open to European¹¹ users from various sectors, including industry, research, academia and public authorities. **New tailored access modes will prioritise AI innovators - startups, scaleups, SMEs - and selected EU-funded research projects,** ensuring streamlined fast access to computing resources with minimal administrative overhead. The Governing Board of the **EuroHPC Joint Undertaking** plans to have this Access Policy adopted on 9th April, together with the publication of the AI Continent Action Plan.

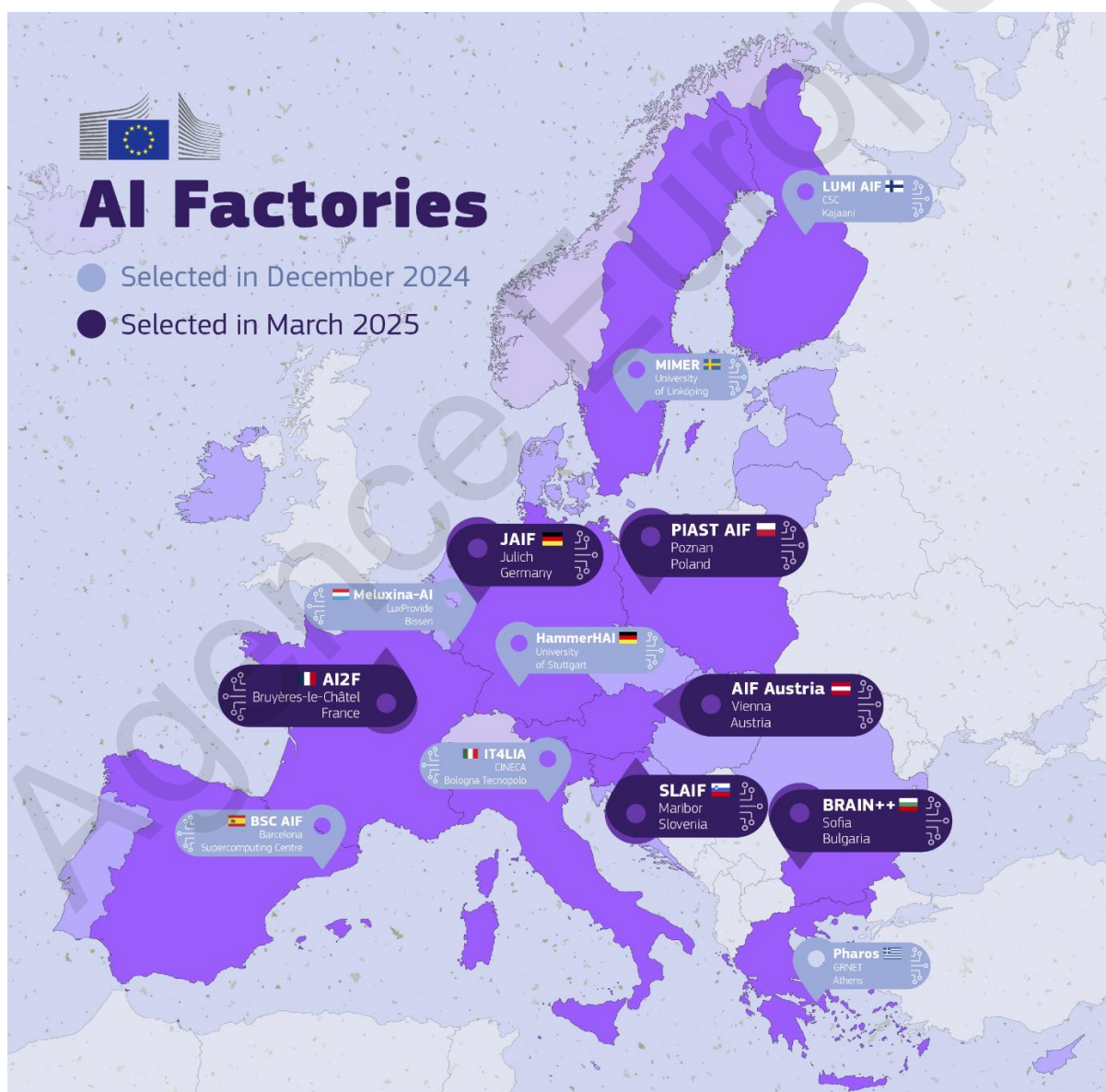
⁹ See details in annex I

¹⁰ <https://digital-strategy.ec.europa.eu/en/policies/testing-and-experimentation-facilities>

¹¹ established or located in an EU Member State or in a Participating State or in a third country associated to the Digital Europe Programme or to Horizon Europe

Key Commission / EuroHPC Actions:

- Set up and deploy selected AI Factories and their services (Q2 2025)
- Set up a single-entry point (a unique guichet) for all users across Europe for access to AI Factories and their services (Q2 2025)
- Launch procurement of the first AI-optimised Factory supercomputers (Q2/Q3 2025)
- Launch the Third call for AI Factories (May 2025)
- Launch the Call for Proposals to establish AI Factories Antennas (Q2 2025)
- Launch a Call for networking all the AI Factories and AI Factories Antennas activities (Q2 2025)



1.2 Invest in AI Gigafactories

While recent advancements in training techniques and architectural optimisation have made AI models more efficient, the pursuit of frontier AI models still requires vast amounts of computing and data capacity.

Over the last two years, **AI models have become increasingly complex, evolving from text processing to reasoning, multimodal capabilities and agentic behaviour**. This trend will continue, with the next generation of frontier AI models expected to unlock a leap in capabilities, towards Artificial General Intelligence (AGI) capable of tackling highly complex and diverse tasks, matching human capabilities.

Currently, the most performant AI Factories' supercomputers, equipped with up to 25,000 advanced AI processors, play an essential role in developing and training the current generation of AI models. Leading the next wave of advanced AI models requires significantly greater computing power, data energy and water resources. As announced in the Competitiveness Compass, the EU will **invest in AI Gigafactories**.

AI Gigafactories will be **large-scale facilities that develop and train complex AI models at an unprecedented scale**, with hundreds of trillions of parameters. They will integrate massive computing power, **exceeding 100,000 advanced AI processors**, and focus on power capacity, supply chain, cutting-edge networks, energy-efficiency, water consumption and AI-driven automation. These facilities are essential for Europe to compete globally and maintain its strategic autonomy in scientific progress and critical industrial sectors. They will be federated with the EuroHPC network of AI Factories, ensuring seamless integration and knowledge sharing across the European AI ecosystem. This should also stimulate the design – and in due course the manufacturing – of AI processors in Europe. It will allow to reduce our dependencies for this type of component and strengthen our sovereignty in cutting edge semiconductors¹². High energy-efficiency and security should feature among the key requirements for European AI chips. While activities in this area have already started under the Chips and EuroHPC Joint Undertakings, this should be a key priority for the review of the Chips Act, which is foreseen in 2026.

The establishment of a **single AI Gigafactory is estimated to require significant investments**, encompassing both capital expenditures and operational expenses. Given the magnitude of the necessary investment, these AI Gigafactories will be implemented through **public-private partnerships** and innovative funding mechanisms. In this regard, Commission President von der Leyen announced at the AI Summit in Paris¹³ the launch of the **InvestAI Facility**, with a view to mobilise EUR 20 billion investment for AI infrastructure, targeting up

¹² EuroHPC has launched the DARE initiative with a budget of EUR 240 million to develop a full HPC ecosystem based on open RISC-V processors (general purpose and accelerators, including AI-specific chips) and their integration into exascale and post-exascale European supercomputers. This initiative will strengthen the EU's strategic technological sovereignty, producing competitive HPC technology to power the future European supercomputers, with a critical impact in other areas like AI, cloud and data centres or automotive.

¹³ https://ec.europa.eu/commission/presscorner/detail/en/speech_25_471

to 5 AI Gigafactories across the Union. The facility, to be developed in collaboration with the European Investment Bank group, aims at facilitating and crowding in private investment, reducing risk through equity, loans or guarantees.

For example, in the framework of such public private partnership, the **EU and Member States would contribute direct grants**, while private proponents would be responsible for financing the remaining amount – with the possibility of derisking investment through the InvestAI Facility.

In line with this vision:

- **a call for expression of interest for consortia interested in setting up AI Gigafactories is launched together with the adoption of this Action Plan.** The aim is to enter in a dialogue with individual proponents. The dialogue will include the partnership, the proposed budget, the geographical location and a feasibility analysis of their AI Gigafactory.
- Following the outcome of the discussions in the preliminary calls of interest with interested parties, including Member States, industry, and financial institutions, **the official call for the establishment of AI Gigafactories will be published in Q4 2025 by the EuroHPC Joint Undertaking.**

Further advancing the frontier of AI models, including towards Artificial General Intelligence (AGI), also requires facilitating the scale up of companies. **To secure substantial capital investment for the development of new AI models**, investment funds, or funds of funds, could step in, for example through the European Tech Champions Initiative (managed by the EIB) or the InvestEU guarantee (by the EIF). What is more, EU public procurement, accounting for over 14%^{14[11]} of our GDP, could create an enormous market for innovative products and services. In that context, the Competitiveness Compass promotes **European preference in public procurement for critical sectors and technologies.**

Dedicated solutions will be explored by the **Startup and Scale Up Initiative** announced by the European Commission in the Competitiveness Compass.

Key Commission / EuroHPC actions:

- Issue a call for expression of interest to invest in AI Gigafactories (9 April 2025)
- Launch the official call on AI Gigafactories under the EuroHPC Joint Undertaking (Q4 2025)
- Address the financing of startups and scaleups in the Startup and Scale Up Initiative (Q2 2025)

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1.3 Establish the support framework for boosting EU cloud and data centre capacity

The EU also needs further **instruments to enable the private sector to close other capacity gaps along the computing continuum**, which would serve all phases of an AI model's lifespan. These gaps notably include: **general cloud capacity**, which is typically delivered from large data centres; and **edge capacity** that delivers similar services but with a much lower response time (latency) from a very decentralised infrastructure, for example deployed in a telecom environment (telco edge)¹⁵. In relation to AI, cloud and edge computing are key enablers of smaller fine-tuning operations and of inference.

The EU currently lags behind the US and China in terms of available data centre capacity, relying heavily on infrastructure installed in other regions of the world, which EU users access via the cloud. This **dependence on non-EU infrastructure is a concern** for European industry but also for public authorities. To adequately serve the AI and general computing needs of businesses and public administrations across the entire EU, and to ensure competitiveness and sovereignty, it is **essential for the EU to increase its current cloud and data centre capacity** in a geographically balanced manner.

The **Cloud and AI Development Act** will create the adequate conditions for the EU to incentivise large investments in cloud and edge infrastructure capacity. Today, the average time to obtain a permit and the related environmental authorisations for building a data centre in Europe often lies upwards of 48 months, which go by before the capital-intensive construction process can begin. The data centre industry struggles to identify suitable sites, and to obtain access to sufficient energy to power their facilities. The Cloud and AI Development Act will address these obstacles, with a **view to at least tripling the EU's data centre capacity within the next 5-7 years and bringing it to a level that meets the needs of EU businesses and public administrations by 2035**. To this end, data centre projects that meet requirements related to resource efficiency, with a specific focus on energy and water usage, and requirements related to innovation will benefit from simplified permitting and other public support measures.

For highly critical use cases, including AI applications, sovereignty and operational autonomy can only be preserved by relying on **highly secure EU-based cloud capacity**. The Cloud and AI Development Act will ensure that the public sector in the EU can rely on such capacity for these use cases, thus laying the basis for the public sector to adopt AI in an environment of trust. More generally, to enable the entry into the market of a more diverse set of cloud service providers, the Cloud and AI Development Act will explore establishing a **common marketplace for cloud capacity and services**.

The Commission invites stakeholders to share their views on the **Cloud and AI Development Act** as part of a public consultation, which accompanies this Action Plan.

¹⁵ The term telco edge describes edge computing environments offered by telecom operators as a service to third parties. These are today's most prominent edge computing offerings. For more details, see: <https://digital-strategy.ec.europa.eu/en/library/white-paper-how-master-europes-digital-infrastructure-needs>.

The Commission's actions in this area will complement efforts from Member States, which are currently designing two possible new Important Projects of Common European Interest (IPCEI) in this area. One initiative focuses on advancing the research and first industrial deployment of solutions in a continuum of federated and distributed AI services. And another initiative focuses on the infrastructure deployment of large-scale computing infrastructure and services.

Key Commission actions:

- Launch a public consultation on the Cloud and AI Development Act, 9 April 2025
- Adopt the Cloud and AI Development Act (Q4 2025)
- Support Member States in their work on designing possible future IPCEIs in the field of AI and data processing infrastructure

2. Data for AI

For Europe to unlock the full potential of AI, access to reliable, well-organised data is essential. To address this, the European Commission will present a new **Data Union Strategy** in the second half of 2025, with the goal of making more data available to support AI development and innovation.

The **Data Union Strategy** will focus on strengthening Europe's data ecosystem by enhancing interoperability, data availability, improving data sharing across sectors and borders, and ensuring governance structures are efficient and effective. It will aim to better align data policies with the needs of businesses and society. Particular attention will be given to streamlining existing data legislation to reduce complexity and administrative burden.

One important tool in this context will be the **Data Labs** which will be set up as part of the broader AI Factory initiative. These Data Labs would act as the engine room for AI Factories - bringing together, organising, and curating data from different sources. Most importantly, they would connect the wealth of sector-specific data available through Europe's Common Data Spaces with the specific needs of AI developers. By tapping into structured, high-quality datasets - whether in health, energy, or other sectors - the Data Labs would ensure that AI Factories have steady access to reliable and diverse data, always in line with the rules that apply to each data space.

In addition to ensuring access to **Common European Data Spaces**, Data Labs could offer a range of services: cleaning and enriching datasets, providing technical tools such as standardised formats or synthetic data, and fostering interoperability across sectors and borders. They might also offer competition-law-compliant data pooling services, helping companies to share data while adhering to antitrust rules, drawing on the **Data Governance Act framework** for trusted data intermediaries. In short, they would turn fragmented data sources into a trusted and accessible resource for AI development.

Supporting these efforts, the Commission is also promote **the development of a shared cloud software to make it easier to manage and connect data spaces**¹⁶. Acting as a common layer, this software will help participants in a data space work together more smoothly. By offering ready-to-use tools - such as secure ways to exchange data, manage access, and verify identities - it will reduce technical complexity and costs, helping more organisations join and expand data spaces across Europe.

A clear example of how pooling data from different Member States can deliver tangible results is the area of language data. Language data is the basis for large language models. Its availability is essential for breaking down language barriers in the internal market and enhancing multilingual AI applications, potentially boosting intra-EU trade by up to EUR €360 billion. The **Alliance for Language technologies (ALT-EDIC)**, a large-scale, Commission-supported effort to pool European language data was launched on 20 March 2025. It addresses the long-standing gap in accessible, multilingual data. Bringing together 17 EU Member States, it will create a vast repository of high-quality language resources, building also on the data resources already collected, for example as part of the language data space initiative.

Beyond making more data available, the **Data Union Strategy** will also focus on cutting unnecessary bureaucracy. It aims to simplify how businesses can meet EU data rules, making it easier for them to share and use data for AI. At the same time, the strategy will look at how Europe can attract more valuable data while ensuring that sensitive European data is protected when shared internationally.

To shape this strategy, the Commission will launch a public consultation to gather input from businesses, researchers, and other stakeholders. This will help identify specific data needs, fine-tune proposed actions, and make sure the strategy supports a strong, competitive, and innovative AI ecosystem in Europe.

Key Commission actions:

- Launch a public consultation on the Data Union Strategy to understand the data needs of industry better (Q2 2025)
- Present the Data Union Strategy (Communication, Q3 2025)
- Setting up Data Labs associated to the AI Factories
- continue the support for the deployment of Common European Data Spaces, including the use of a common software to ensure interoperability; and foster their link with AI Factories (Digital Europe Programme 2025-2027)

¹⁶ <https://digital-strategy.ec.europa.eu/en/policies/simpl>

3. Foster innovation and accelerate AI adoption in strategic EU sectors

Today many European companies, especially midcaps and SMEs, struggle with AI adoption. As of 2024, only 13.5% of companies in the EU had adopted AI¹⁷. Accelerating the uptake of AI across all sectors fosters innovation and is essential to enhance competitiveness and economic growth.

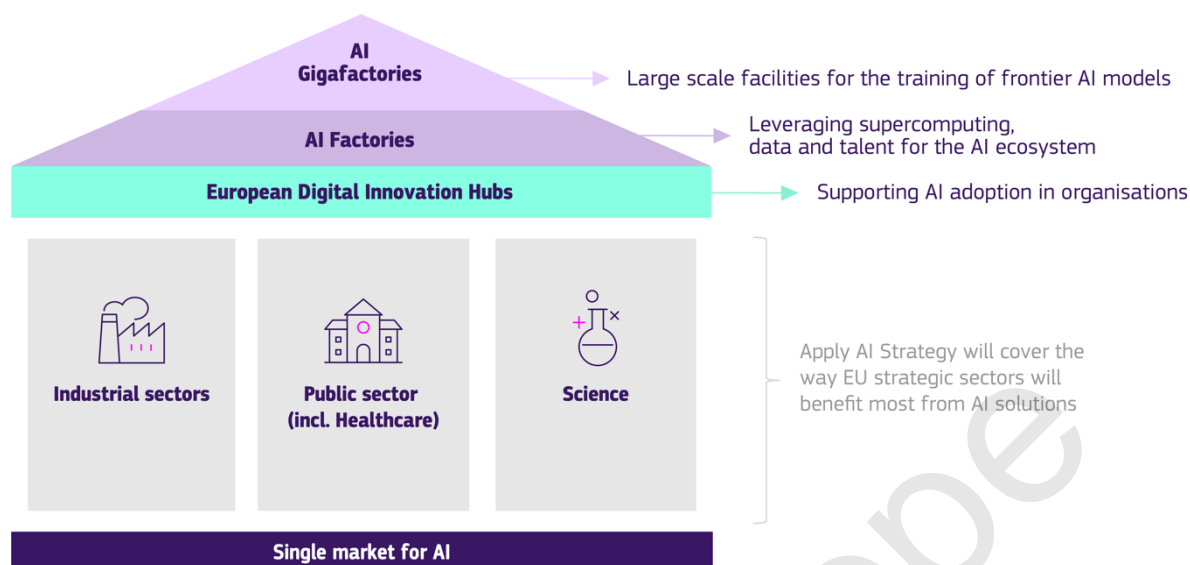
This is the objective of the upcoming **Apply AI Strategy**, the EU approach to accelerate AI adoption and drive innovation while leveraging AI solutions “made in Europe”. It will focus on industry sectors where EU know-how could contribute to further increasing competitiveness gains. It will also address adoption by the public sector, where AI in areas like healthcare can bring transformative benefits to wellbeing.

A use-case based approach in key industry sectors and the public sector

In line with the Draghi report, the Apply AI Strategy will target the **key European industrial sectors where the EU has a strong leadership**. These sectors are of strategic importance and hold the largest untapped potential regarding AI adoption and include, amongst others, **advanced manufacturing; aerospace and defence; agriculture; energy; environment and climate; mobility and automotive; pharmaceutical; robotics; telecom**. Furthermore, the **public sector** will be a leading strategic driver of the Apply AI Strategy. The Strategy will ensure that AI is used to improve the quality and the efficiency of public services, in areas such as **healthcare, justice, education and public administration**.

The Strategy will propose actions to address sector-specific challenges, including access to data and talent, upgrade of skills, research questions, testing opportunities. The approach ultimately seeks to determine the most effective policy instruments to facilitate the adoption of AI solutions within and across sectors. This includes the strategic positioning of appropriate support instruments, such as AI Factories/Gigafactories, European Digital Innovation Hubs, Testing and Experimentation Facilities, data strategy and the AI Skills Academy. Additionally, the strategy will propose an observatory to monitor developments.

¹⁷ https://ec.europa.eu/eurostat/databrowser/view/isoc_eb_ai/default/table?lang=en



To gather a wide range of views and contributions, identify stakeholder priorities and challenges, and assess the relevance of potential solutions, the European Commission invites stakeholders to share their views on the Apply AI Strategy, as part of the **public consultation** which accompanies this Action Plan.

The Commission is also initiating **structured dialogues with industry** representatives as well as the public sector. These dialogues aim to identify relevant examples of untapped potential regarding the adoption of AI technologies in specific sectors, the current integration in business and production processes, as well as the potential for their scale-up in the sector and the wider economy.

European Digital Innovation Hubs as the key drivers for advancing AI deployment

A key role to support effective AI integration will be carried out by the network of **European Digital Innovation Hubs present in all EU Member States** and ten other European countries, covering 90% of European regions. European Digital Innovation Hubs aim to ensure a successful digital transformation of SMEs, mid-caps and public sector organisations. In their second phase, European Digital Innovation Hubs will **become Experience Centres** for AI: their focus on AI uptake will be strengthened to ensure that they can effectively support the adoption of sector-specific AI solutions, while continuing to provide flanking services such as funding advice, networking and training. The Network of European Digital Innovation Hubs will also facilitate access by companies to other AI-initiatives such as Testing and Experimentation Facilities or to computing resources in the case of AI Factories.

For instance, a company willing to implement an AI-driven energy consumption forecasting model within an existing manufacturing system might need specific staff training and upskilling. European Digital Innovation Hubs can provide such trainings, and they will also support the company by providing clear training paths depending on the needs of employees.

Moreover, European Digital Innovation Hubs will link to the main actors of the ecosystem, such as AI Factories. They will work in close collaboration with the Testing and Experimentation Facilities, which provide large-scale, real-world environments to test and refine AI, ensuring the model is validated, optimised, and prepared for deployment. Testing and Experimentation Facilities operate in particular in the areas of health, manufacturing, smart cities and agriculture^{18[5]}. A new facility will be launched in 2026.

The following examples showcase how European Digital Innovation Hubs have been assisting SMEs already in applying AI solutions:

AI Algorithms and Sensor Integration for Robotic Vessels (Estonia)¹⁹

Mindchip OÜ, a micro-sized maritime technology start-up in Estonia, faced challenges in developing an effective AI-based machine vision system for autonomous ships. Collaborating with the AI & Robotics Estonia EDIH, which provided assistance through the test before invest initiative and helped in finding funding, they integrated a cutting-edge AI-based machine vision system that significantly enhanced their autonomous navigation capabilities. This system significantly reduced costs and environmental impact, while improving safety and operational efficiency.

ARACNE - Machine Vision for needles and sinkers control for zero defect manufacturing: From Proof of Concept to Spin-off company (Spain)²⁰

CANMARTEX, a small enterprise in Spain, targeted inefficiencies in textile production due to fabric defects. By partnering with Eurecat through the DIH4CAT European Digital Innovation Hub, they developed the ARACNE solution, incorporating advanced AI and machine vision technologies. This predictive quality control system detects and addresses potential defects in knitting machinery in real-time, significantly reducing waste and increasing productivity. The innovative approach led to the creation of a spin-off company and earned CANMARTEX several prestigious awards, including the “Best AI solution applied to industrial manufacturing” at the Factories of the Future event in 2023.

Supporting Gas Grün GmbH's success in AI, marketing and prototyping using 3D printing (Germany)²¹

Gas Grün GmbH, a small biogas start-up in Germany, was struggling to optimize the energy yield of its biogas plants. With the help of a Digital Innovation Hub, which provided the opportunity to test technologies such as 3D printing before investing in them and connected Gas Grün with specialised partners, the company developed an AI-based control system that maximised energy production and minimised waste. This helped them grow their business and showcase their work at industry events.

¹⁸ <https://digital-strategy.ec.europa.eu/en/policies/testing-and-experimentation-facilities>

¹⁹ <https://european-digital-innovation-hubs.ec.europa.eu/knowledge-hub/success-stories/ai-algorithms-and-sensor-integration-robotic-vessels>

²⁰ <https://european-digital-innovation-hubs.ec.europa.eu/knowledge-hub/success-stories/aracne-machine-vision-needles-and-sinkers-control-zero-defect>

²¹ <https://european-digital-innovation-hubs.ec.europa.eu/knowledge-hub/success-stories/supporting-gas-grun-gmbhs-success-ai-marketing-and-prototyping-using>

AI “made in Europe” from research to the market

With the goal of deploying AI solutions, it is essential to ensure a continuous process that spans across the technology’s development cycle, from research to the market. **Fostering R&I efforts is hence vital.** The Commission already initiated efforts in this direction with the **AI Innovation package** launched in January 2024, financially supporting research and innovation in generative AI under the **GenAI4EU initiative**, which supports applied research and sets the cornerstones for a strong European AI ecosystem.

The GenAI4EU initiative takes a sectorial approach and has thus far **allocated close to EUR 700 million in planned Horizon Europe and Digital Europe Programme calls**^{22[6]} for the development of advanced AI models and solutions in a wide range of sectors. Among others, projects will develop generative AI for the optimization of production lines in manufacturing, to improve robot autonomy and human-robot collaboration in complex tasks, as well as to enhance our cyber-defence and medical imaging capabilities.

Furthermore, within the public sector, a dedicated budget of EUR 21 million will support **up to four pilot projects aimed at accelerating the deployment of European generative AI solutions in public administrations.** These pilots will focus on enhancing decision-making, streamlining internal administrative processes, and improving citizen interactions by making public services more accessible. By leveraging public purchasing power, the call drives innovation procurement, fostering the development and deployment of novel solutions, accelerating adoption and improving public services. Building on the GenAI4EU initiative, support to the European AI R&I and solution development will continue through 2026 and 2027 as an integral part of the Apply AI strategy. Emphasis will be put on the most promising use cases identified by the Strategy. An additional 4 million funding is made available via the GovTech Incubator. 21 GovTech actors from 16 countries will co-pilot and develop AI solutions for public procurement, evidence processing and accessibility assistants.

To complement and enhance the initiatives above, substantial investment in foundational research is crucial. This is essential **to sustain Europe’s AI excellence, leveraging on world-class expertise in Member States**, joining forces at European level to stimulate collaboration, retain and attract the best research talents, and accelerate the next generation of technology and scientific breakthroughs, that support both industry and society. The **European AI Research Council**, announced in the Political Guidelines for 2024-2029, in the form of a **Resource for AI Science in Europe (RAISE)**, will pool resources that push the technological boundaries of AI and tap into its potential to facilitate scientific breakthroughs. It will support both “Science for AI,” driving the development of next-generation AI technologies, and “AI in Science,” fostering the use of AI for discovery and exploration across a range of scientific disciplines, unlocking cross-pollinations between AI and domain sciences.

²² Amount for current and planned calls: for the period 2024-2025 under the Horizon Europe Programme and for the period 2024-2027 under the Digital Europe Programme

The upcoming Apply AI Strategy will therefore include science as a vertical sector and link to the **European Strategy for AI in Science** (to be adopted at the same time). This Strategy will aim to facilitate **responsible** and **swift adoption** of AI by scientists, supported by the **Resource for AI Science in Europe**. It will introduce an action plan to overcome identified barriers for scientists, empowering the scientific community, and encourage collaboration and scientific excellence. It will link to the computing power of Gigafactories and provide an open environment for scientific collaboration to take place.

Key Commission actions:

- Launch a public consultation and Call for Evidence to identify stakeholders' priorities and inform the Apply AI Strategy (Q2 2025)
- Organise structured dialogues with industry representatives to identify sector specific AI-related deliverables and KPIs and inform the Apply AI Strategy (Q2-Q3 2025)
- Adapt the mission of European Digital Innovation Hubs to ensure they fully support the adoption of relevant AI solutions in strategic sectors (Q2-Q3 2025)
- Adopt the Apply AI Strategy jointly with AI in Science Strategy (Q3 2025)
- Adopt R&I work programme Horizon Europe 2026-2027 further boosting development and deployment of AI/GenAI in strategic sectors (Q4 2025)
- Launch the GenAI4EU R&I projects from Horizon Europe and Digital Europe Programme – in health, cybersecurity, energy, pharma/drug, telecom, aerospace, robotics, manufacturing, public sector, science etc. – reaching close to 700 M€ investment for GenAI4EU (Q1 2026)
- Launch preparatory actions to set up RAISE, the European AI Research Council (XXX)

4. Strengthen AI skills and talent

As highlighted in the **Union of Skills**²³, a skilled population is essential to respond to today's rapid technological transformations and ensure prosperity and competitiveness for Europe's future. With AI increasingly affecting the job profiles and skillsets of workers and citizens, the EU needs to address the risk of talent shortage and skill mismatch across sectors, in alignment with the goal of the Apply AI Strategy. In this context and in line with the four objectives²⁴ of the Union of Skills, the AI Continent will focus on actions to enlarge the EU's pool of AI specialists and adequately upskill and reskill EU citizens on the use of AI.

²³ [Union of Skills - European Commission](#)

²⁴ Building skills for quality lives and jobs; Regular upskilling and reskilling; Helping the free movement of workers; Attracting, developing, and retaining talent

Enlarging the EU's pool of AI specialists

To keep up with the increasing demand for AI-related expertise, especially in relation to AI application development and industry-specific skills²⁵, the EU needs to enlarge its AI talent pool. To do so, the Commission will focus on actions aimed at:

- facilitating legal migration pathways for highly skilled third-country nationals, including researchers;
- incentivizing the return of European AI talent to the EU and;
- educating and training the next generation of AI experts based in the EU.

Relying on the EU legal framework, the Commission will **facilitate international recruitment of non-EU jobseekers residing outside the EU**, and having the skills required to work in EU-wide shortage occupations, including in sectors relevant for AI, such as ICT. This will be done via the future **EU Talent Pool** as well as the potential setting up of a Multiple Purpose Legal Gateway Offices in key partner countries (e.g. India) to increase the support to Member States and employers in attracting skilled workers. In addition to this, the Commission will strengthen Talent Partnerships to boost the cooperation on international labour mobility and skills development between the EU, Member States and partner countries, and develop measures to support the **arrival of top PhD students and researchers from third countries**, including in the AI sector. These measures include improving the implementation of the Students and Researchers Directive and the **BlueCard Directive** via the Visa Strategy²⁶, as well as through piloting the **Marie Skłodowska-Curie Action 'MSCA Choose Europe'**²⁷. This pilot could also address international AI researchers, enabling them to work on long-term projects and link their MSCA grants to competitions for permanent positions in universities and research institutions.

The **AI Skills Academy** and **the AI Factories** will also be an important for leveraging excellence in AI education and research. The Academy will support the **AI fellowship schemes** allowing highly skilled international and European PhD students and young professionals living in third countries to work in EU-based entities. AI fellowships will also ensure that top-level experts in Generative AI can educate and train the AI Skills Academy's students, while advancing their own research in the field. For this purpose, the AI Skills Academy will **develop a pilot of a generative AI-focused degree**. **AI Factories** will be pivotal for creating a highly dynamic environment for top-level researchers and foster innovation and collaboration on the development and deployment of AI solutions for strategic sectors.

Besides the **educational programs** offered via the AI Skills Academy, the Commission will focus on preparing the next generation of AI experts by significantly increasing the overall offering of **joint European Bachelors, Masters and PhDs in key technologies, including AI**. Virtual study fairs and scholarships will support the promotion of such programmes. At the same time, the Commission will enhance hands-on training, creating virtuous circles between academia and industry via the **European Advanced Digital Skills Competitions** and **the AI**

²⁵ LeADS, D1.3 Final ADS demand and forecast report, 2023

²⁶ Part of the Union of Skills

²⁷ Part of the Union of Skills

apprenticeship programme. The European Advanced Digital Skills Competitions will engage young people in the co-creation of AI driven solutions addressing key societal and industrial challenges, while fostering creative and innovative thinking. Under the AI Skills Academy, the pilot **AI apprenticeship programme** will prepare a pipeline of AI specialists trained on real-world projects and ready to (re-)enter the EU labour market. **Returnship schemes** for female professionals are foreseen.

Upskilling and reskilling the EU workforce and population

To support effective AI diffusion across the Union, while ensuring a human-centric digital transition at the workplace and in society, the Commission needs also to support the upskilling and reskilling of general professionals and the wider population in the use AI²⁸. With the aim of ensuring the continuous learning of workers, especially in small- and medium-sized enterprises, mid-caps and startups, as highlighted earlier, the Commission will rely on the network of the European Digital Innovation Hubs, which will increase their skills and training services, offering hands-on courses on AI for different technical and non-technical profiles and for specific sectors. In addition, the Commission will **promote access to AI literacy** and **foster dialogue on AI for all**²⁹, notably by keeping a living repository of AI literacy and promoting further dissemination activities.

Key Commission actions:

- Contribute to legal migration pathways for highly skilled non-EU workers, including in the AI sector (Q4 2025-2026)
- Launch the AI Skills Academy (Q2 2025), including:
 - o AI fellowship schemes to attract international and European PhD students, researchers and young professionals living abroad
 - o a pilot, together with AI Factories, of a certified generative AI-focused degree to facilitate top-level teaching and research of AI fellows
 - o a pilot AI apprenticeship programme with industry, scholarship and returnship schemes for female professionals
- Increase the offering of joint European Bachelors, Masters and PhDs focusing on key technologies, including AI (Q2 2025)
- Offer Advanced Digital Skills Competitions in key technologies, including AI (Q2 2025)
- Support continuous learning of workers in SMEs and start-ups with the European Digital Innovation Hubs (Q2 2025)
- Promote AI and digital literacy via the living repository and dissemination activities (Q2 2025)

²⁸ In the coming years, 61% of adult workers will need new skills to deal with the impact of AI on their work, but currently only 15% of them have already participated in trainings for using AI tool ([Cedefop, AI skills survey, 2025](#))

²⁹ In line with the AI Act and the European Declaration of Digital Rights and Principles

5. Regulatory simplification

A workable and robust regulatory framework is crucial to create a positive and competitive environment for EU AI companies to thrive and for the European AI ecosystem to innovate. The Union has adopted the **AI Act to create the conditions for a functioning internal market** for AI, ensuring free circulation across borders and harmonised conditions for access to the EU's market. At the same time, it ensures that "AI made in Europe" is safe, trustworthy and of highest quality, which will be a selling point for European providers. The AI Act has entered into force on 1 August 2024, with its rules starting to apply in stages until 2 August 2027.

The AI Act's success will depend on how workable its rules are in practice. The current preparatory phase is crucial to achieve a **successful implementation**. Member States and the Commission must step up their efforts to facilitate a smooth and predictable application of the AI Act. As a first step, the Commission is launching the **AI Act Service Desk**, which will be a central information hub on the AI Act, allowing stakeholders to ask for help and receive tailor-made answers in return. This initiative will provide straightforward and free access to information and guidance on the regulatory framework, which will serve in particular the needs of smaller AI solution providers and deployers. The AI Act Service Desk will be provided by a dedicated team in the AI Office. It will offer an interactive platform where businesses and other stakeholders will be able to ask questions, get answers and have access to technical tools that help them in applying the AI Act, for example, decision-trees and other self-assessment tools.

The AI Act Service Desk will complete the Union ecosystem of support where stakeholders will find 1) first information through the European Digital Innovation Hubs, 2) in-depth advice via the AI Act Service Desk and 3) the possibility to cooperate during the development process of a high-risk AI system in a national AI regulatory sandbox. In addition, stakeholders can already directly engage with the AI Office by participating in the **AI Pact**³⁰, which encourages and supports them, by sharing experiences and knowledge, to plan for the implementation of AI Act measures. In addition, the Commission will continue its efforts in providing guidance on the AI Act's application, both by preparing guidelines, implementing and delegated acts as well as steering co-regulatory instruments like the Code of Practice on general purpose AI³¹. Moreover, the Commission will continue to work with the **AI Board**³² of Member States, which assists in providing such guidance on the application of the AI Act in particular within the context of **sectoral legislation**.

As a next step, the Commission aims to build on the first learnings from the current implementation phase and **identify further measures that are needed to facilitate a smooth and simple application of the AI Act**. Therefore, the Apply AI Strategy public consultation also includes a section with specific questions on the AI Act that aim to understand challenges in the implementation process, to identify where regulatory uncertainty creates obstacles to the development and adoption of AI and how the Commission and Member States can support

³⁰ <https://digital-strategy.ec.europa.eu/en/policies/ai-pact>

³¹ <https://digital-strategy.ec.europa.eu/en/policies/ai-code-practice>

³² <https://digital-strategy.ec.europa.eu/en/policies/ai-board>

stakeholders better. The Commission will take the results from the stakeholder consultation into account and provide templates, guidance, webinars and trainings, aiming at streamlining procedures accordingly. The results of this public consultation will form the basis for further actions to ensure that the AI Act's rules are clear, easy to apply and deliver on their objectives.

Key Commission actions:

- Launch of an AI Act Service Desk (July 2025)
- Launch, as part of Apply AI Strategy's public consultation, of a process to identify stakeholders' regulatory challenges and inform possible further measures in support of the AI Act implementation (April 2025)

6. Conclusion

The AI Continent Action Plan aims to boost EU AI policies by **investing in large-scale AI computing infrastructures, improving access to data, accelerate AI adoption in strategic EU sectors, strengthen AI skills and talent and promote regulatory simplification**. To achieve this goal, EU institutions, governments, companies, researchers, and developers must work together, committing to a joint endeavour that takes cooperation to a new level.

International engagement is an integral part of the strategy, and it is aimed at strengthening the EU position and influence in AI. The EU seeks – through proactive bilateral and multilateral engagement – to lead global efforts on artificial intelligence by supporting innovation, ensuring trust through guardrails and developing the global governance on AI. The upcoming **Communication on International Strategy for Digital Sovereignty, Security and Democracy** will outline the EU international approach further.

The AI Continent Action Plan must combine its actions with set of initiatives aimed Europe more broadly at positioning at the forefront of innovation in tech sectors. By investing in key areas like AI, quantum computing, and chip design, Europe can enhance its productivity and competitiveness, ensure its tech sovereignty, and provide high-quality public services to its citizens. **This is a unique opportunity for Europe to shape the future of AI and create a better tomorrow for all Europeans, ultimately becoming a leading AI Continent.**