

IPCEI-AI

Making Europe an AI continent

Briefing – 22-09-2025

As the global race to harness the power of artificial intelligence (AI) accelerates, the European Union has set the objective of becoming a leading AI continent. The adoption of the Artificial Intelligence Act in 2024 was a milestone in establishing a comprehensive regulatory framework for AI in the EU, but regulation alone cannot make the EU a technological leader. In April 2025, the European Commission published an AI continent action plan, a communication that attempts to look beyond rules and combine regulatory oversight with investment, infrastructure and skills development. It also aims to increase the use of AI in both the private and public sector. The plan illustrates the Commission's growing attention to competitiveness, moving away from its previous focus on setting usage rules. Despite progress in some areas, the EU is still far from being a global leader in AI, in terms of scale, investment, and uptake of AI. Structural weaknesses such as a fragmented single market, limited private investment, and reliance on foreign cloud and semiconductor technology continue to hinder progress. Stakeholders are divided on the road to follow. While industry representatives call for simplifying regulation to boost innovation, civil society warns against sacrificing democratic safeguards. The EU's prospects of becoming an AI continent depend not only on its ability to implement the AI continent action plan but also on its decisiveness in acting on other fronts such as making progress on the Savings and Investments Union, and its progress in reducing reliance on foreign technologies. The European Parliament will play a central role in scrutinising the Commission's activities and shaping legislation such as the forthcoming Cloud and AI Development Act.

Briefing

 [EN](#) (PDF - 294 KB)

Establish the **EU as the global “AI Continent”** — a leader in AI-enabling technologies, sustainable infrastructures, and digital sovereignty

EU Cloud & AI Development

Pillar 1

R&D

Lead in sustainable, resource-efficient data processing, software and services that enable development & adoption of AI

Pillar 2

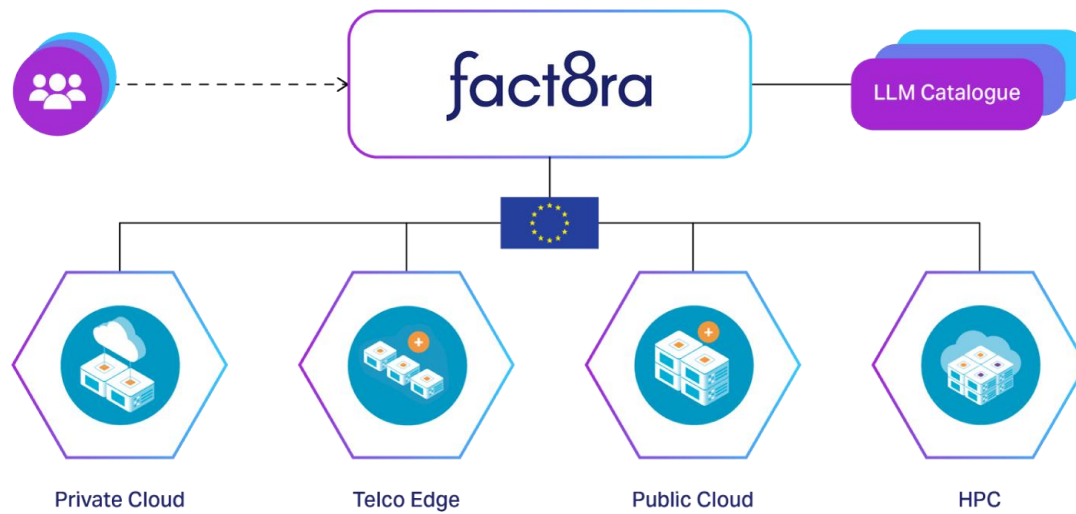
Deployment

Triple EU data processing capacity by 2035 with green data centers

Pillar 3

Autonomy

Build secure EU-based cloud capacity. Diversify providers and reduce non-EU dependencies



Mistral AI	EURELLM	Barcelona Supercomputing Center	iGenius
Mistral Nemo 12B LLM built in collaboration with NVIDIA that offers a large context window of up to 128k tokens. It has been trained with quantisation awareness, enabling FP8 inference without any performance loss. License: Apache 2.0	EuroLLM 9B LLM trained on over 4 trillion tokens of multilingual data across 35 different languages, including all official EU languages, and fine-tuned for instruction following and chat capabilities. License: Apache 2.0	Salamandra 7B Transformer-based decoder-only language model pre-trained from scratch on 12.875 trillion tokens of highly curated data. The pre-training corpus contains text in 35 European languages and code. License: Apache 2.0	Italia 9B Foundational LLM trained from scratch in Italian on trillions of tokens, in collaboration with CINECA, and designed for companies operating in highly regulated sectors. License: MIT

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Europe's First Federated AI Factory

About

LLM Catalogue

Sovereign Cloud

Infra Providers

Join Us

Value Chain Description

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



Projects must demonstrate **innovation beyond the global state of the art**, collaboration across borders, and measurable impact on Europe's competitiveness



Foster **technological sovereignty** so that Europe controls its AI stack

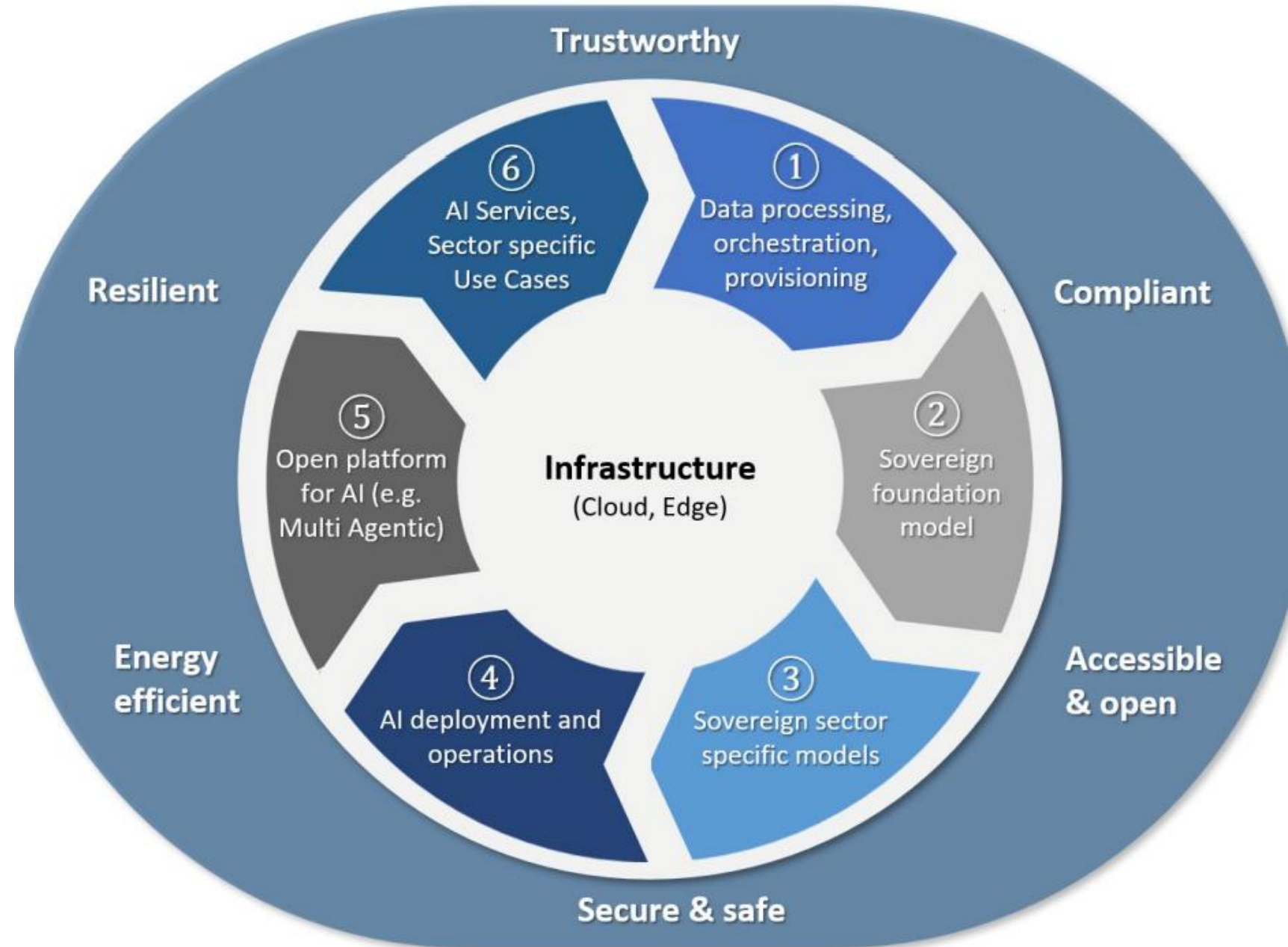
Enable **cross-border collaboration** and integration between Member States

Develop **interoperable, secure, and energy-efficient AI systems** aligned with EU values

Create **positive spillover effects** across the economy

Value Chain Description

Important Project of Common
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Data Processing, Orchestration, Provisioning

Concerns the data layer:

Acquisition, annotation, preprocessing, integration, and orchestration of datasets

Focus:

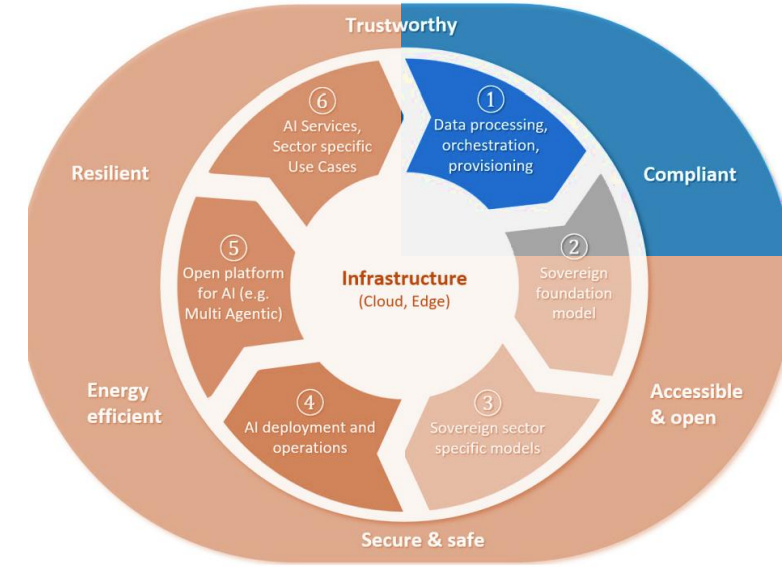
Ensure high-quality, trustworthy, and **sovereign data availability** for training and fine-tuning AI models

Includes:

Data marketplaces, interoperability standards, semantic annotation, and federated data exchange

Supports:

Data governance compliant with EU data spaces and the Data Governance Act



Sovereign Foundation Model (LLM / LRM)

Development:

Large-scale **foundation models** like Large Language Models (LLMs) or Large Representation Models (LRMs)

Aim:

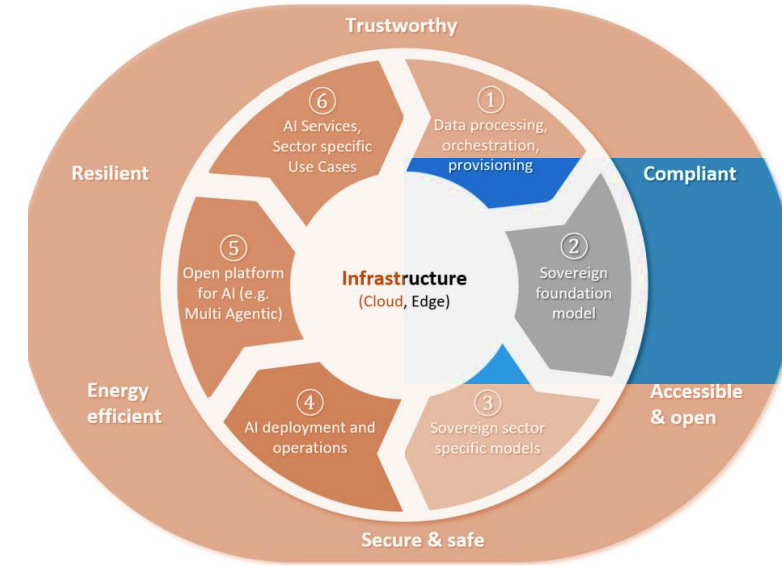
Create **European-sovereign base models**, trained on European data, multilingual, culturally aligned, and compliant with EU AI Act requirements

Covers:

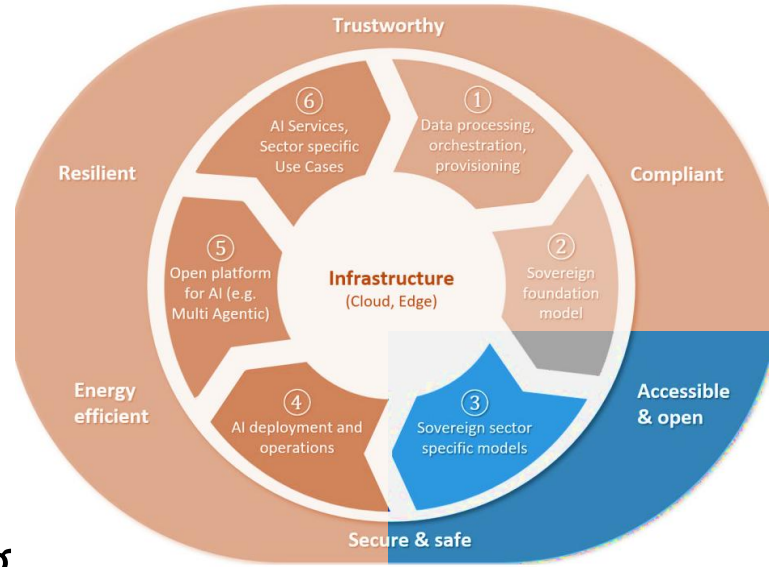
Training, evaluation, compute optimization, and open-weight or controlled-access governance strategies

Provide:

Core building blocks for downstream **adaptation** into **specific sectors**



Sovereign Industry-Sector-Specific Foundation Model (SFM)



Adaptation and fine-tuning:

Base **foundation models** for **specific industrial sectors**.

This includes, for example, health, mobility, manufacturing, energy, telecommunications, finance, agriculture, public administration

Focus:

Domain-specific data, performance, trust, and explainability

Encourages:

Cross-border **collaboration** between industrial ecosystems and AI researchers

Aim:

Bridge research and applied industrial AI through **federated** or **hybrid approaches**

AI Deployment and Operations

MLOps / AIOps layer:

Deployment pipelines, lifecycle management, monitoring, retraining, versioning, and continuous integration

Ensure:

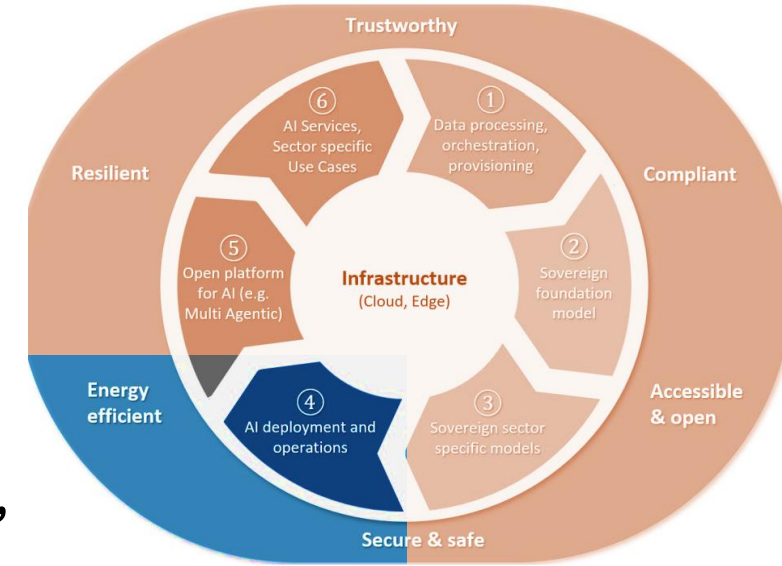
Operational reliability, transparency, and security of deployed AI systems

Includes:

infrastructure for testing, validation, and **compliance** (e.g., AI sandboxes)

Links:

Close with cloud/edge infrastructure (e.g., IPCEI-CIS)



Open Platform for AI

Federated platform environment:

For **access** to foundation models, data, and tools

Utilization:

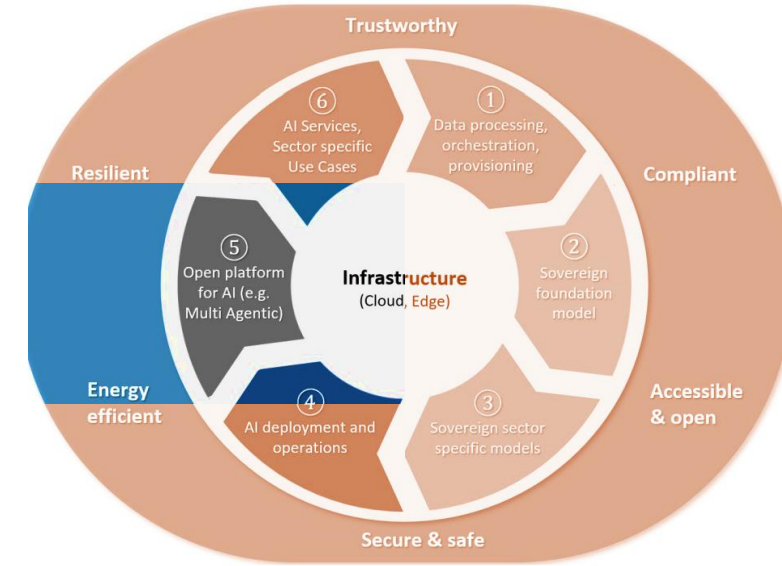
Serves as a **collaborative environment** for **European** developers, researchers, and SMEs

Promote:

Interoperability with GAIA-X, EOSC, and EU **data spaces**

Include:

Open-source toolkits, APIs, model registries, and benchmark suites



AI Services and Sector-Specific Use Cases

Focus:

On **real-world deployments** of AI in verticals: health, manufacturing, logistics, energy, climate, etc.

Demonstrator projects:

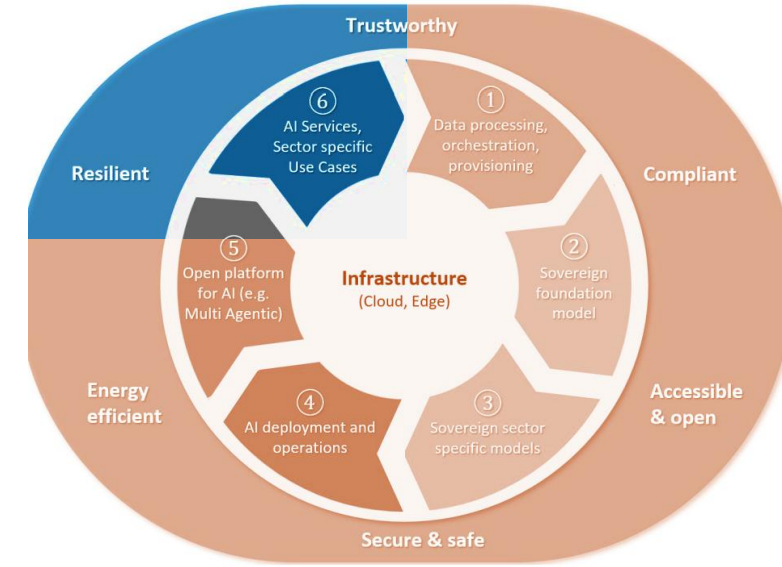
Validate the **utility of European AI models** in production contexts

Include:

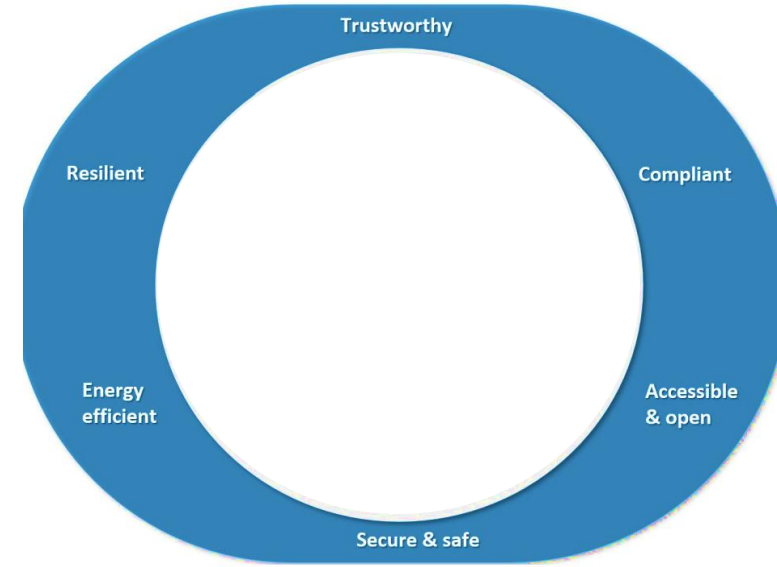
Co-creation with SMEs, public-sector partners, and test-bed activities

Expectation:

Show measurable impact (productivity, sustainability, resilience)



Transversal Descriptions



Cross-cutting elements
that **apply to all components**:

- **Ethics, trustworthiness, and compliance** (aligned with EU AI Act)
- **Sustainability and energy efficiency** of AI systems
- **Security, resilience, and interoperability**
- **Skills, training, and workforce development**
- **Standardization and certification** efforts

Ensure coherence across all value-chain components and
alignment with European policy priorities