Tech Sovereignty Package, part 2: Europe versus the US and China

The DeHavilland Guide

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/ Key takeaways

- The recent Tech Sovereignty Package marks a shift from regulating digital markets to actively building strategic capacity across cloud, AI, chips, open source, and energy-linked infrastructure.
- This is the second of two deep dive briefings on the package. Part 1 looked at how the Commission defines sovereignty, how the various parts of the package contribute to this, how it has been received, and where it risks coming up short.
- It also showed that there are concerns the package could fall short of achieving independence from the US or China at the same time as risking damaging relations with Washington and Beijing.
- Part 2 looks at how the regime the package will bring about compares with that of China and the US.
- Compared with the US and China, Europe has a distinctive but fragile model: it is strongest on trust, sustainability and rule-based safeguards, but weaker on capital scale, state-directed demand, and speed of deployment.
- Our analysis suggest that the US is best positioned to scale AI quickly, China to steer AI adoption systemically, and the EU to define a trusted and rule-based sovereignty model.
- The EU's attractiveness will ultimately depend on whether it can turn its regulatory identity into an industrial advantage. Trust, sustainability, and legal certainty can become selling points, but only if European solutions are available at scale, competitively priced, and supported by credible demand.

/ Europe vs competing AI governance models

The Union's efforts to achieve sovereignty through funding, regulatory adjustments, or capacity building, detailed in our breakdown of the Tech Sovereignty Package, are best assessed when appraised against other models. This briefing will look at the current governance models deployed by the three largest competitors in the global race for AI leadership.

The comparison between the EU, US, and China can be structured around three dimensions:

- **Enablers** capture the tools each system uses to scale AI development;
- **Limiters** identify structural bottlenecks; and
- **Regulatory** profiles show how each jurisdiction uses law, procurement, security, and sovereignty instruments to shape the AI ecosystem.

This framework is not a full assessment of AI governance in the broader societal sense. It focuses more narrowly on the conditions for AI development, infrastructure deployment, supply-chain resilience, and market uptake. It is therefore useful for assessing the relative strengths and weaknesses of each model as a vehicle for AI competitiveness.

These frameworks were pieced together by the US, China, and the EU over the last decade to support the take-off of new AI-led technologies. Whereas policy development started mainly on the software side supporting the development of new solutions, the three geographies have increasingly broadened their scope to create comprehensive supply-chain approaches. For a more detailed breakdown of the major milestones in the US, China, and EU's AI legislation journeys and how the different landmark strategies came about, see the appendix.

Enablers: each playing to their own strengths

The enabling models laid down by the US, China, and the EU all differ and tend to play to the strength of the individual systems. We compared them based on their approach to funding and scale-up, supply-side support, build-up of the demand-side, support for the R&I pipeline, and how they are positioned in the global ecosystem.

US: The US model, bolstered by rapid volleys of executive orders, is chasing a high pace of development to capitalise on the central role of its domestic actors. The width and depth of its capital market represent one of Washington's most prominent advantages. With clear market pull to fund new solutions, the US focus is on supporting scale up on the supply-side, with federal policy supporting data centres, compute, semiconductors, grid expansion, and AI exports. The Trump administration's deregulatory drive is also creating a more permissive environment for infrastructure deployment and private-sector scaling.

China: The Chinese model relies on strong centralisation and economic planning to drive its technology sector forward. While state funding and subsidies will play a role in supporting the development of AI, social and private capital are also important instruments in the Chinese approach. Where China shines is in its ability to support both supply and demand sides: it is organising infrastructure around state-backed hubs and domestic technology suppliers on the one hand, and leveraging large administration and state-owned enterprise networks to support demand-side uptake on the other.

EU: In comparison, the EU model balances public impulse with private sector levers. This is true of its financing solutions, which use EU budgets to leverage investments on the supply-side or the use of public procurement to generate demand-side pull. The sovereignty narrative building exercise is also an integral part of the Union's strategy, as its claims to sovereignty will only be fulfilled if European actors buy into Europe's signals and invest in the opportunities opened to create more capacity and new domestic AI solutions.

The upshot: Comparing the three models suggests that the US is best positioned to scale AI quickly, China to steer AI adoption systemically, and the EU to define a trusted and rule-based sovereignty model. The US benefits from the strongest private-sector ecosystem, deeper capital markets, and heavily pro-market administration. China benefits from the strongest alignment between industrial policy, infrastructure planning, and demand creation, allowing it to coordinate investment in compute, energy, chips, and AI adoption across public and state-linked actors. The EU, by contrast, is attempting to build capacity through a more conditional model based on public-private finance, procurement, standards, trusted-provider criteria, and sustainability requirements.

This makes Europe's position both distinctive and more fragile. Its approach can become a comparative advantage if it can sell trust, sustainability, and legal certainty as investment-attracting qualities. However, it is less naturally equipped than the US to mobilise private capital at frontier scale, and less able than China to engineer demand through direct state control. Europe's central challenge is therefore not only to expand supply-side capacity, but to ensure that European public authorities, firms, and investors translate the sovereignty agenda into concrete decisions.

Enablers	EU	US	China
Funding, investment and scale-up finance	Programme-based public-private financing model, using EU funds, co-investment tools, and targeted instruments, but constrained by fragmented capital markets and weak, late-stage scale-up finance.	Federal financing and incentives to leverage private investment from capital markets.	State-guided investment, combining public funding, SOEs, state-backed finance, and private capital.
Supply-side capacity and infrastructure	Strategic-capacity-building model across chips, cloud, data centres, open-source software, energy grids, and digital infrastructure, but without a complete domestic technology stack.	Broad definition of AI infrastructure, with federal action to accelerate private-sector buildout of compute, chips, data centres, energy, and grid capacity.	State-led, full-stack infrastructure buildout, including compute networks, data centres, chips, data resources, telecoms, and energy systems.
Demand creation and market pull	Public procurement and sovereignty requirements used to create demand, especially for cloud, AI, chips, and open-source solutions, but private-sector uptake remains uncertain.	Public procurement, federal adoption and export promotion used to support uptake, but continued reliance on private-sector demand.	Strong ability to drive AI uptake through SOEs, public-sector deployment, industrial policy, and AI+ programmes across sectors.
Research, testing and innovation pipeline	Strong R&I base with efforts to close the "lab-to-fab" and "pilot-to-deployment" gap through pilot lines, testbeds, competence centres, sandboxes, AI centres, and deployment-oriented projects.	Federally supported but decentralised R&D, standards, testing, and evaluation ecosystem, with strong role for universities, agencies, and private firms.	Vertically integrated innovation pipeline linking state research priorities, national labs, platforms, pilots, firms, and industrial deployment.
International partnerships and trusted supply chains	Open strategic autonomy model: cooperation with trusted partners remains central, but with stronger safeguards against high-risk dependencies and extraterritorial exposure.	Alliance-based and outward-facing model seeking global adoption of the American AI stack.	Selective openness combined with self-reliance and domestic substitution in critical supply chains.

Limiters: shared vulnerabilities and individual challenges

The models laid down by the US, China, and the EU all face structural limiters that may constrain their ability to turn AI ambition into lasting industrial advantage. We compare them based on their exposure to strategic dependencies, regulatory burden, sustainability and resource constraints, implementation fragmentation, demand-side weaknesses, and access to affordable energy for data centre and compute infrastructure.

US: Washington's deregulatory approach is designed to remove barriers to AI development, infrastructure deployment, and private-sector scaling. However, the US also faces fragmentation across agencies, instruments, and sector-specific regimes. Its AI policy is spread across procurement, permitting, export controls, defence adoption, education, and workforce measures, which can make implementation uneven. The US is also increasingly willing to protect its technological edge from foreign competition through export controls and restrictions on access to advanced AI models. This reinforces its leadership position but may also push partners to seek more predictable or less politically exposed alternatives.

China: The Chinese model faces a different set of limiters. Its centralised governance model gives Beijing a strong ability to align industrial policy, infrastructure planning, and public-sector adoption. This helps address fragmentation and allows the state to engineer demand across SOEs, public services, and industrial sectors. However, China remains exposed to weaknesses in high-end chips, advanced semiconductor manufacturing equipment, foundational software, and parts of the global developer ecosystem. Its response is to double down on technological self-reliance, including domestic chips in state-funded data centres, national compute infrastructure, and stronger integration between AI, energy, and industrial policy. China also retains leverage over rare earths and critical raw materials, which gives it influence over upstream dependencies in the global semiconductor supply chain.

EU: The EU's vulnerabilities are broader and more diffuse. Europe is dependent on non-EU providers and producers across critical hardware, software, and raw materials. At the same time, it faces internal constraints from fragmented capital markets, uneven Member State implementation, divergent procurement behaviour, high energy costs, and different grid conditions. The Commission's diagnosis correctly identifies the need to expand supply-side capacity, but this will not be sufficient on its own. European providers will not scale unless public authorities, regulated sectors, and private firms create sustained demand for trusted European or partner-based alternatives.

The upshot: Energy is emerging as a shared constraint across all three models. The US frames energy and grid capacity mainly as an infrastructure bottleneck to be removed. China treats AI-energy integration as part of state-led planning, linking compute, power grids, renewables, nuclear power, data, and algorithms around national targets. The EU embeds energy into its sustainability and resilience model, focusing on efficiency, clean power, data-centre standards, and integration with the energy system. New limiters are also emerging that go beyond energy prices such as the rising people rejection of new data centre projects in the US, whereas the acceptance is much higher in the EU, which may balance out other structural limiters.

Overall, the US is strongest on private-sector scale but exposed to policy fragmentation and strategic protectionism. China is strongest on state coordination but still constrained by critical technology dependencies. Europe is strongest on trust, sustainability, and rule-based safeguards, but faces the widest combination of supply-side gaps, demand-side uncertainty, and internal fragmentation. This makes the EU's challenge especially complex: it must reduce external dependencies while also overcoming its own internal barriers to scale.

Limiters	EU	US	China
Strategic dependency and third-country exposure	High exposure to non-EU providers in cloud, AI infrastructure, advanced chips, EDA/IP, hyperscale compute, GPUs, and some critical raw materials.	Strategic concern focused on adversary access to US technology and allied dependence on non-US AI stacks.	Strategic concern focused on dependence on foreign chips, software, and critical AI infrastructure.
Regulatory attractiveness and compliance burden	Competitiveness model seeks simplification, faster permitting and more investment-friendly conditions, but still operates through dense regulatory, sustainability and assurance requirements.	Deregulatory approach aimed at reducing barriers to AI development, deployment, and infrastructure buildout.	Regulatory enablement under political-security supervision.
Sustainability and resource constraints	Sustainability is built into the governance model through energy efficiency, water use, environmental standards, data-centre ratings, clean energy integration, and resource accountability.	Environmental and permitting rules mainly treated as potential hurdles to rapid AI infrastructure deployment.	Broad green-development commitments, but AI expansion is pursued through energy-system planning rather than demand restraint.
Fragmentation and implementation gaps	Fragmentation risk from Member State implementation, divergent procurement decisions, uneven permitting, different grid conditions, and fragmented digital markets.	Fragmentation risks from federalism, state-level AI legislation, and decentralised administration.	Central planning and national integration used to bridge fragmentation across regions, sectors, and infrastructure systems.
Weak demand or adoption gap	Persistent adoption gap: EU supply-side investment may not scale without stronger aggregated demand from public authorities, regulated sectors, and private firms.	Promotion of a "try-first" culture through sandboxes, federal adoption and sectoral pilots to support uptake.	State-engineered adoption through AI+ deployment, SOE demand and public-sector use can bridge weak demand.
Energy costs / data-centre operational costs	High and volatile energy costs are a major competitiveness constraint for fabs, cloud and data-centre scale-up, making affordable clean electricity a core condition for AI infrastructure.	Energy and grid constraints recognised as major barriers to data-centre scale-up.	Large-scale energy and grid planning integrated with national compute and data-centre expansion.

Regulation: solving the attractiveness equation

The regulatory profiles of the US, China, and the EU show three different ways of solving the attractiveness equation. The Trump administration has made intensive use of executive acts to open the way for AI projects, deregulating existing frameworks where necessary. The scale of the US market also supports the scaling of AI projects. In opposition to the US model, Chinese political-administrative alignment, industrial planning, and state involvement in the economy creates a highly certain regulatory environment supporting AI projects. Meanwhile, the EU seeks to create attractiveness by cultivating a certain degree of openness and creating sound legislative frameworks that provide legal certainty. Through the recent wave of omnibuses, the EU has also attempted to deregulate or tame down legislation that could create barriers to AI projects.

US: The US approach is the most direct in its support for rapid AI scale-up. Federal policy is increasingly oriented towards reducing regulatory barriers, accelerating permitting, expanding data centre and grid capacity, protecting frontier capabilities, and exporting the American AI stack. Its regulatory model is modular rather than horizontal, relying on procurement rules, export controls, agency guidance, permitting reform, and sector-specific instruments.

China: China's attractiveness model is based on the ability of the state to align permits, funding, standards, procurement, infrastructure, and security reviews with national industrial objectives. Its planning-led model allows Beijing to organise AI adoption and infrastructure buildout around national priorities, including AI+ deployment, national compute networks, domestic chips, and AI-energy integration. This can create strong implementation momentum. However, regulatory enablement remains inseparable from political-security supervision, and openness is increasingly subordinated to self-reliance and domestic substitution in critical parts of the supply chain.

EU: The EU's model is more balanced but also more difficult to operationalise. It does not seek full European-only preference, nor does it follow the US in relying mainly on private-sector scale or the Chinese model of direct state mobilisation. Instead, the Union is trying to build a rule-based strategic autonomy model through sovereignty assurance, trusted-provider criteria, public procurement, open-source tools, standards, cybersecurity, data confidentiality, and sustainability requirements. This approach can be attractive where firms and public buyers value resilience, interoperability, legal certainty, and protection from extraterritorial exposure.

The upshot: The difficulty is that Europe's sovereignty model will only work if it changes market behaviour. CADA and the wider Technology Sovereignty Package can create a framework for trusted cloud and AI services, but the decisive test will be whether they lead public authorities and private buyers to choose credible European or trusted alternatives. If procurement decisions continue to default to incumbent hyperscalers, the EU may end up with a sophisticated assurance framework without sufficient industrial impact.

Origin criteria and openness to partners are therefore central to Europe's attractiveness equation. A hard European-only preference would risk undermining openness, competition, and cooperation with trusted partners. But a purely neutral model may fail to build European capacity. The more realistic EU approach is indirect preference: Union added value, resilience, security assurance, data control, reduced exposure to third-country laws, and trusted access. This would allow Europe to preserve openness while giving strategic weight to dependency reduction.

Security is becoming the bridge between industrial policy and regulation. In the US, security is used to protect frontier capabilities and restrict adversary access. In China, it is integrated into data, algorithm, infrastructure, and supply-chain control. In the EU, security is increasingly framed as part of sovereignty through cloud assurance, operational continuity, extraterritorial-risk controls, cybersecurity, and supply-chain mapping. This gives Europe a route to strengthen its position without fully closing its market.

The EU's attractiveness will ultimately depend on whether it can turn its regulatory identity into an industrial advantage. Trust, sustainability, and legal certainty can become selling points, but only if European solutions are available at scale, competitively priced, and supported by credible demand. The Union does not need to copy the US or China, but it must ensure that its rule-based model is compatible with speed, investment certainty, and deployment. Otherwise, Europe risks defining the most sophisticated sovereignty framework while remaining dependent on the infrastructure and technology stacks of others.

Regulatory	EU	US	China
Scope of actors covered	System-wide but rule-based scope covering semiconductor firms, cloud providers, data-centre operators, AI developers, public authorities, grid actors, open-source communities, and critical sectors.	Modular scope covering actors across the AI stack, depending on instrument: agencies, vendors, infrastructure developers, exporters, and critical-infrastructure operators.	Whole-of-system scope covering public and private actors across research, infrastructure, industry, platforms, public services, and security.
Permitting, authorisation and administrative design	Rule-based coordination model using one-stop shops, fast-track permitting, assurance frameworks, audits, procurement criteria, sandboxes, and EU-level coordination mechanisms.	Patchwork of procurement, permitting, export-control, standards and agency-guidance mechanisms across the AI supply chain.	Planning-led administrative model aligning permits, funding, standards, and security reviews with national economic objectives.
Sovereignty model	Strategic autonomy and resilience model focused on reducing critical dependencies while preserving openness, competition, and trusted international cooperation.	American-led global AI dominance through private-sector innovation, domestic infrastructure buildout, allied adoption, and adversary denial.	Techno-sovereign model aimed at self-reliance, industrial upgrading, security, and national development.
Origin criteria, domestic preference and openness to partners	No full European-only preference; preference is indirect through Union added value, sovereignty assurance, trusted-provider criteria, and resilience-based procurement.	Domestic preference increasingly explicit, while maintaining openness to allies and trusted partners.	Clear domestic preference to support missing elements in the supply chain, combined with selective openness to international partners.
Security, confidentiality, and resilience requirements	Security is treated as part of sovereignty through cloud assurance, data confidentiality, operational continuity, supply-chain mapping, extraterritorial-risk controls, cybersecurity, and resilience requirements.	National-security framing used to control exports, protect frontier capabilities, and secure critical AI infrastructure.	Strong AI security supervision, data/algorithm controls and reliance on domestic software, hardware, and infrastructure.

Conclusion

The publication of the Tech Sovereignty Package is just the start of the process. The Chips Act 2.0 and CADA legislation are now in the hands of the co-legislators, and the actions outlined in the strategies will need time before they are implemented. Despite this delay between announcement and action, the package's publication will have clarified the framework that will take root in the continent and shaped expectations for investors and economic actors.

This package has notably improved the Union's policy framework to tackle upstream hardware and raw material dependencies, provided incentives for the development of European-led software solutions, embedded open source as an enabler to the emergence of new solutions, and outlined how it intends to solve the energy issues posed by the development of data centres.

The package makes it easier to understand where Europe stands compared to the US and China. The uptake of AI has posed similar challenges across the three geographies: How to finance the upfront development cost of AI solutions? How to ensure the supply of critical hardware to run AI? How to power and scale the data centre capacity? Yet, the three jurisdictions have faced different constraints that shaped the legislative solutions proposed.

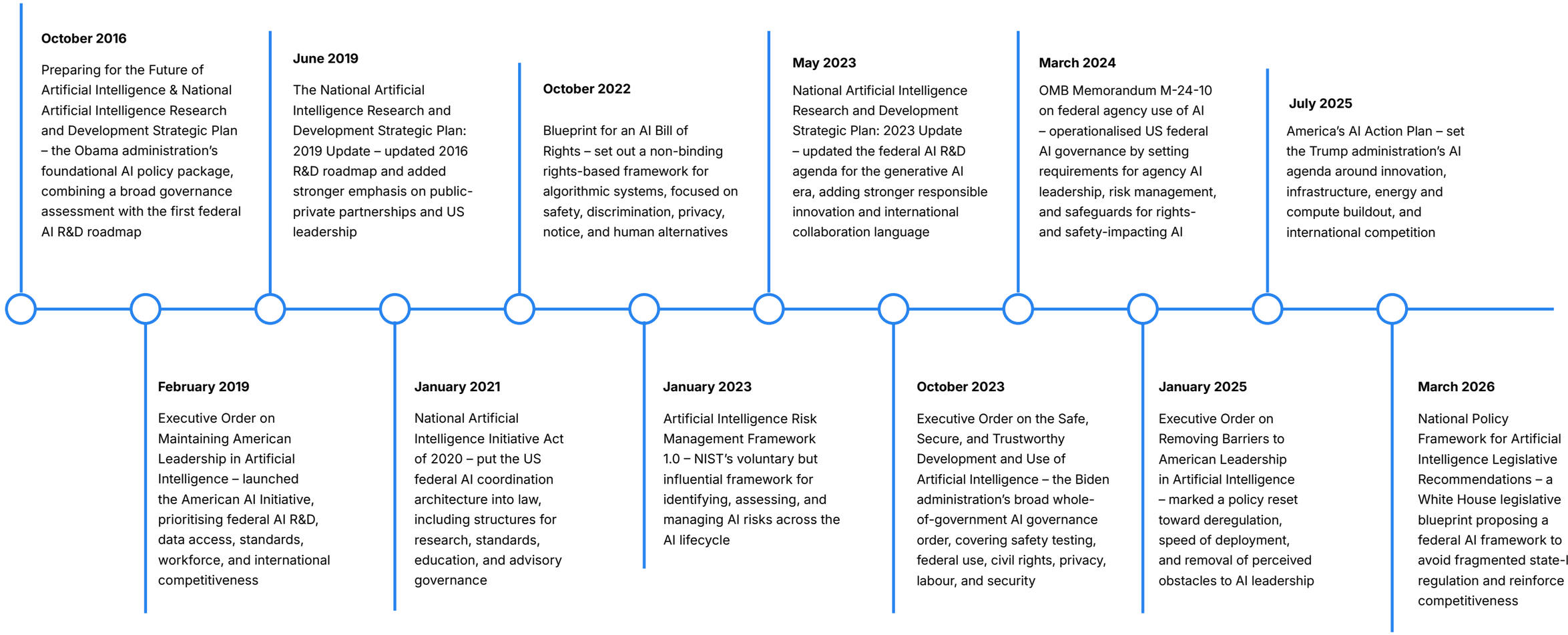
The comparison between the EU, the US, and China provides a good framework to critically appraise the Union's efforts to hold its own in the global AI race. While not yet clearly overtaken by its counterparts, it is struggling to address structural issues and create clear market conditions for scaling the AI supply chain. It is seeking to do so by developing its own model that is playing to its strength as a global rules-based actor and standard-setter.

Europe's model remains fragile. Its success will depend on the institutions' ability to deliver those new rules swiftly and enforce them harmoniously across Europe to adequately address fragmentation risks. Its success will also depend on its ability to mitigate geopolitical headwinds that currently weighs on Europe's credibility. The build-up of Europe's toolbox will only become credible to investors and economic actors if it is seen using its shiny new tools.

Country	Pros	Cons
US	• The size of the US capital market and pre-existing tech giants has enabled the exponential growth of actors like Anthropic or OpenAI. • The use of executive orders enables the Trump Administration to swiftly act in support of the development of software, hardware, and network projects. • Although the US has not solved all its raw materials dependency issues, it has managed to build a strong and rather integrated American AI stack.	• Solving the demand-side challenge is probably one of the biggest thorns in the side of US AI development as it will rely mostly on the uptake of private actors. • The US legislative framework may also risk becoming fragmented across state lines, and the federal executive approach may struggle to bridge gaps in energy grids. • The strength of the AI stack may also become a doubled edged sword. Recent security concerns have pushed foreign agencies and companies to reconsider the use of US-based technologies.
China	• China's politico-administrative alignment and economic planning create a predictable environment as state coordination ensures a consistent roll-out of strategies and creates sound conditions for demand-side uptake. • This gives Beijing a powerful implementation engine, especially where AI is treated not only as a technology sector but as a whole-economy modernisation tool.	• China remains dependent on critical upstream technologies, especially high-end chips, although it aims to rapidly progress on this issue. • Its model offers less openness and flexibility, as regulatory enablement remains closely tied to political-security control.
EU	• The EU's strengths lie in its rules-based model and ability to set global standards. Paired with the Commission's ability to wield large public budgets to leverage private investments, this stable policy environment should create attractive conditions. • Europe's openness to trusted partners along with its flexible sovereignty model also holds the potential to become a comparative advantage to the US and Chinese political-security nexuses.	• Europe's fragmentation is an important limiter. The lack of integration of its digital and energy networks creates difficult settings for infrastructure projects — often marked by high energy prices. • The Union is experiencing a relatively deep upheaval of its rules-based environment. Intended to address key fragmentations in its single market, the simplification agenda has created conjunctural disruptions to legal certainty. • Europe retains dependencies across its supply-chains and technology stacks. Although targeted by recent legislation, these are still barriers to attractiveness.

Appendix: US, China, EU policy timelines

US timeline



China timeline

July 2017

New Generation Artificial Intelligence Development Plan – Beijing's landmark national AI strategy, setting the ambition to become a world-leading AI innovation centre by 2030

March 2021:

14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives Through 2035 – embedded AI into China's broader national modernisation, industrial upgrading, and technological self-reliance agenda

September 2021

Ethical Norms for New Generation Artificial Intelligence (China) – provided China's high-level AI ethics framework, covering fairness, privacy, controllability, accountability, and human well-being.

January 2022

Provisions on the Administration of Algorithmic Recommendation for Internet Information Services – one of the earliest binding regulatory frameworks for recommendation algorithms, covering transparency, user rights, and platform responsibilities

July 2023

Interim Measures for the Management of Generative Artificial Intelligence Services – Beijing's first major national rulebook for public-facing generative AI services, combining innovation support with content, data, and security obligations

March 2024

Report on the Work of the Government 2024 and launch of the "AI Plus" initiative – elevated "AI Plus" as a national deployment agenda, shifting emphasis toward embedding AI across the real economy and public services

August 2025

State Council Opinions on Deeply Implementing the "AI Plus" Action – provided the implementation blueprint for "AI Plus", setting priority domains and staged targets for AI diffusion through 2027, 2030, and 2035

October 2025

15th Five-Year Plan for Economic and Social Development of the People's Republic of China – elevates artificial intelligence to the foundational organising logic of the country's national and economic strategy

EU timeline

April 2018

Communication on Artificial Intelligence for Europe – Brussels' first major AI strategy, framing the European approach around investment, capacity-building, and trustworthiness

December 2018

Communication on a Coordinated Plan on Artificial Intelligence – established an EU-Member State roadmap to coordinate AI investment, skills, data, and uptake

February 2020

White Paper on Artificial Intelligence: A European approach to excellence and trust – crystallised the EU's "excellence and trust" model and previewed the risk-based regulatory logic later used in the AI Act

April 2021

Communication on Fostering a European approach to Artificial Intelligence, Coordinated Plan on Artificial Intelligence 2021 Review & AI Act Proposal – turned the EU's strategic approach into a proposed legal framework while refreshing the joint EU-Member State AI roadmap

January 2024

Communication on Boosting startups and innovation in trustworthy artificial intelligence – Brussels' AI Innovation Package, designed to complement regulation with compute access, startup support, and industrial uptake

September 2024

EU AI Pact voluntary pledges – a soft-law transition tool encouraging companies to prepare early for AI Act compliance through governance, system mapping, and AI literacy commitments

June 2026

Tech Sovereignty Package – proposals and strategies designed to enforce a supply-chain approach to scaling AI and technologies in Europe

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