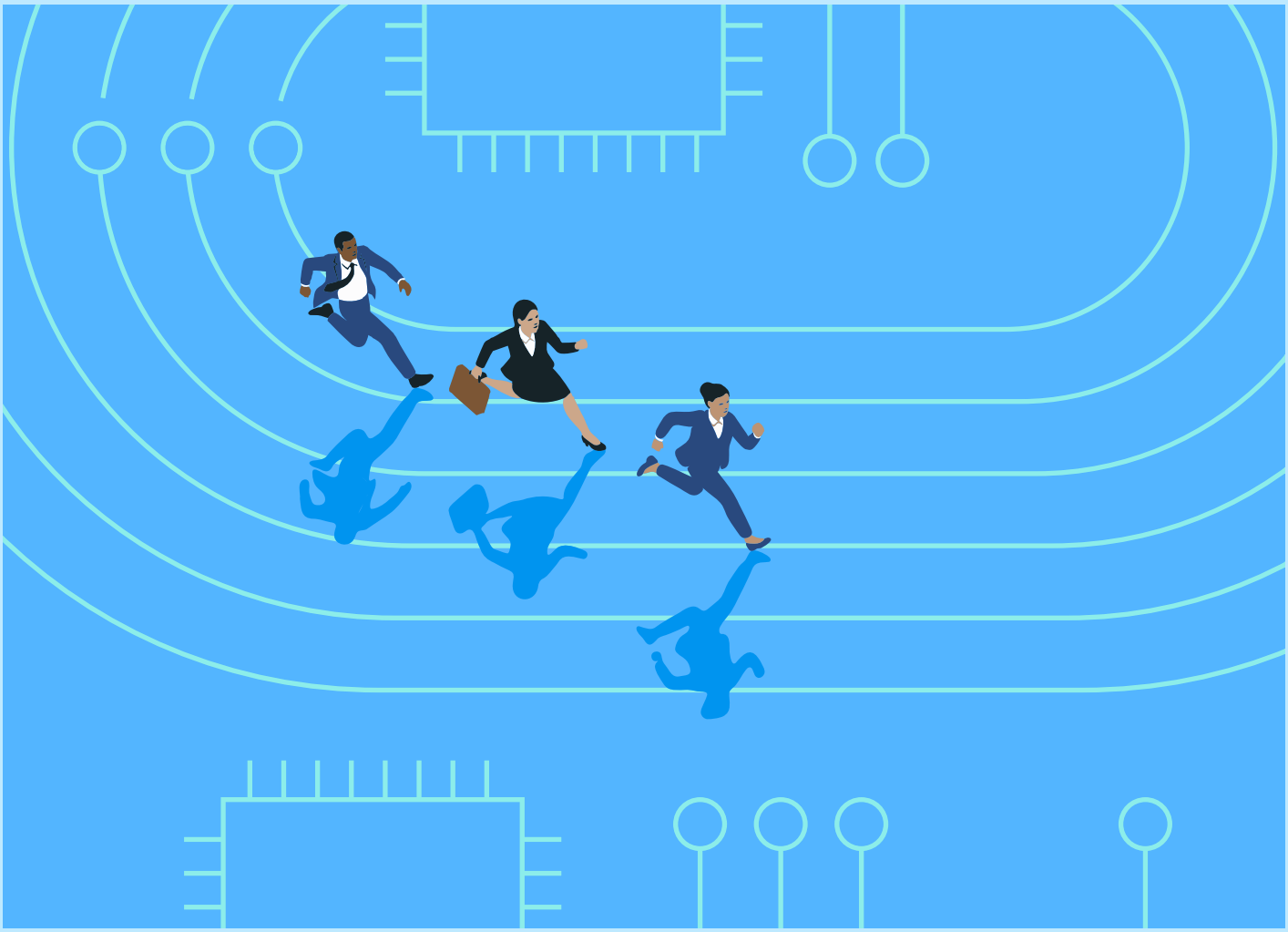
FRIEDRICH NAUMANN FOUNDATION For Freedom.
Europe

Policy Report | Draghi Observatory
March 2026



Antonios Nestoras

Competitiveness the European Way

Implementing the Draghi Agenda on AI and Advanced Technologies

Imprint

Publisher

Friedrich Naumann
Foundation for Freedom
Europe
Rue d'Idalie 11-13
1050 Brussels
Belgium

www.freiheit.org/european-union
Facebook: fnf.europe
X: fnfeurope

In collaboration with the European Policy Innovation Council (EPIC)

Author

Antonios Nestoras

Editor

Jana Moritz

Date

March 2026

Contact

Phone: +32 2 282 09 30
Fax: +32 2 282 09 31
E-mail: brussels@freiheit.org

Notes on using this publication

This publication is an information offer of the Friedrich Naumann Foundation for Freedom.

It is available free of charge and not intended for sale. It may not be used by parties or election workers for the purpose of election advertising during election campaigns (federal, state or local government elections, or European Parliament elections).

Table of Contents

Table of Figures

EPIC is an independent Brussels-based think tank dedicated to connecting research with policy. Its mission is to strengthen Europe's competitiveness through forward-looking, evidence-based dialogue between academics, policymakers, and industry leaders.

The Draghi Observatory & Implementation Index, launched by EPIC in September 2025, follows up on the implementation of the Report on the Future of European Competitiveness, tracking reforms and identifying new ideas to sustain Europe's growth model. Our Index has been covered by global media, including the Financial Times, The Economist, and Politico, and has quickly become the reference point for evaluating the progress of reforms across the EU.

Executive Summary

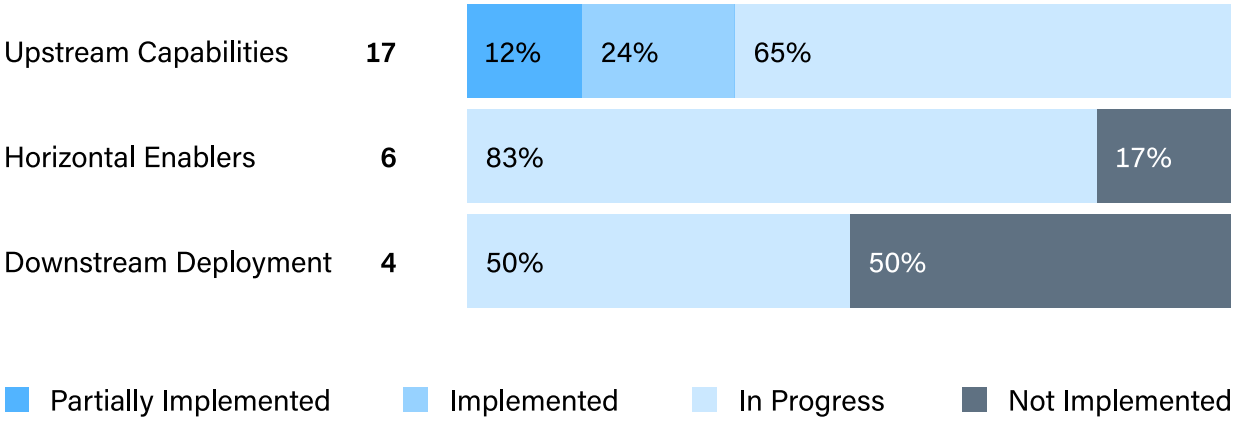
Artificial intelligence and advanced technologies are increasingly central to economic competitiveness. Their economic impact does not stem primarily from frontier breakthroughs, but from their diffusion across firms and sectors, where they reshape production, services, and value chains. For the European Union, this dynamic is particularly consequential. Europe's competitiveness challenge is closely linked to weak productivity growth and slow, uneven adoption of digital technologies—especially among small and medium-sized enterprises (SMEs), which form the backbone of the European economy.

The Report on the Future of European Competitiveness, prepared by Mario Draghi in 2024, identified digitalisation, AI, and advanced technologies as key enablers of productivity and growth. Crucially, the Draghi Report framed Europe's problem not as a lack of ambition, but as a failure of implementation, coordination, and scale. One year on, this diagnosis remains valid.

This study assesses how far the Draghi agenda on AI and advanced technologies has been translated into concrete policy action. Drawing on the Draghi Observatory & Implementation Index, it examines 27 measures directly relevant to AI, digital infrastructure, and frontier technologies, structured across three pillars: upstream capabilities, horizontal enablers, and downstream deployment.

Europe Builds Capacity. It Does Not Yet Scale.

Implementation status of 27 Draghi recommendations on AI and advanced technologies, grouped by policy pillar. Progress is strongest where delivery is anchored in legislation and capital mobilisation, and weakest where coordination and demand-side reform are required.



"Implemented" refers to binding legislative frameworks with operational delivery.
"In progress" captures political commitment or preparatory action without full market impact.

Chart: European Policy Innovation Council (EPIC)
Source: Draghi Observatory & Implementation Index (EPIC)
December 2025, Created with Datawrapper

The implementation profile reveals a clear structural imbalance (Table 2). Progress is strongest where delivery is anchored in binding legislation and capital mobilisation—most notably in semiconductor policy. By contrast, measures that depend on coordination, Single Market integration, or demand-side reform remain largely in progress or unimplemented. In other words, Europe advances more easily where it can build capacity than where it must enable scale.

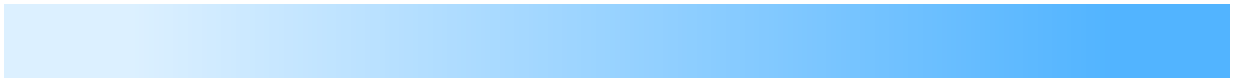
This imbalance has direct implications in an SME-driven economy. To test the competitiveness impact of current delivery patterns, the paper applies an SME stress test across the three pillars. The cross-pillar synthesis (Table 6) shows that while upstream infrastructure is expanding, access remains complex; horizontal enablers are weakened by fragmentation and high fixed compliance costs; and downstream adoption suffers from weak demand coordination and limited diffusion mechanisms. Partial implementation systematically disadvantages smaller firms.

SME Constraint Map Across the Draghi AI Agenda

SME stress test of the Draghi AI and advanced technologies agenda across upstream capacity, regulatory enablers, and downstream diffusion.

Pillar	Access to Infrastructure	Regulatory Burden	Demand Predictability	Regulatory Burden
Upstream Capabilities				
Horizontal Enablers				
Downstream Deployment				

SME Operating Environment Score



Low High

Scores reflect qualitative assessment based on the Draghi Observatory & Implementation Index (December 2025). They capture the degree to which current policy delivery enables small and medium-sized enterprises (SMEs) to access, scale, and adopt AI and advanced technologies.

Table: FNF | European Policy Innovation Council (EPIC)
Source: Draghi Observatory & Implementation Index (EPIC), December 2025, Created with Datawrapper

The central finding is therefore structural. Europe is investing in technological capacity without fully converting that investment into broad-based productivity gains. Infrastructure exists, but access is uneven. Rules exist, but markets remain fragmented. Pilot projects exist, but scaling mechanisms are weak. In such conditions, diffusion—the main channel through which AI drives productivity—remains constrained.

Looking ahead, the EU's forthcoming legislative agenda offers a narrow but significant opportunity to correct this imbalance. Initiatives announced in the Commission Work Programme for 2026—including the Cloud and AI

Development Act, the Quantum Act, procurement reform, and horizontal simplification measures—can serve as delivery vehicles for the Draghi agenda if they are designed with scale, usability, and SME participation in mind. Alignment will depend less on the volume of legislation than on whether these instruments restore Single Market functionality and create predictable demand conditions.

If properly aligned, the Draghi agenda offers a distinct European path to competitiveness. Rather than replicating the concentration-driven model of the United States or the state-led model of China, Europe can build competitiveness through dense innovation ecosystems, integrated markets, and widespread adoption by SMEs. But this requires coherence between investment, regulation, and demand.

Europe does not need new strategies for AI and advanced technologies. It needs to implement the strategy it already has—fully, coherently, and in a way that reflects the realities of an SME-driven economy.

1. Introduction

Why AI and Advanced Technologies Matter for Europe's Competitiveness

Artificial intelligence and advanced technologies are increasingly shaping the competitive position of advanced economies. They influence how firms produce, how services are delivered, and how value chains are organised. Their economic importance, however, does not primarily stem from spectacular technological breakthroughs. It stems from their capacity to diffuse across the economy and raise productivity in everyday economic activity.

This distinction matters for Europe. The European Union's competitiveness challenge today is less about technological potential than about weak productivity growth and slow diffusion of innovation. Europe invests heavily in research, infrastructure, and regulation, yet struggles to translate these efforts into broad-based economic gains. In this sense, AI and advanced technologies are not just another policy domain. They are a test case for Europe's ability to convert policy ambition into economic outcomes.

Evidence consistently shows that the productivity impact of AI depends on adoption and integration at firm level. Where AI is embedded in core business processes, gains can be substantial. Where adoption remains limited or uneven, the macroeconomic impact is modest. For Europe, this creates a stark risk: strong upstream investment without downstream uptake produces technological capacity without competitiveness.

Europe's Competitive Position: Strong Capabilities, Weak Outcomes

Europe's current position in AI and advanced technologies reflects this imbalance. The EU retains significant strengths: world-class research institutions, specialised industrial know-how, and growing public investment in digital and frontier technologies. Yet adoption across the economy remains low, particularly among small and medium-sized enterprises.

Only a small share of European firms currently use AI in a meaningful way, and uptake among SMEs lags far behind that of large firms. This matters because SMEs form the backbone of the European economy. They account for the majority of employment and a large share of value creation, and they are central to Europe's industrial ecosystems. When SMEs do not adopt new technologies, productivity gains fail to diffuse, regardless of how advanced upstream capabilities may be.

The barriers SMEs face are well known: limited access to skills and finance, uncertainty about returns on investment, difficulties navigating complex regulatory environments, and high costs of scaling across fragmented markets. These obstacles are not primarily technological. They are structural and institutional, and they interact directly with the way Europe's Single Market functions—or fails to function—for advanced technologies.

A Dense Policy Landscape, Fragmented Delivery

In response to these challenges, the EU has developed an extensive policy and investment framework covering regulation, research funding, infrastructure, industrial policy, and skills. AI and advanced technologies feature prominently in European strategies and legislative initiatives. On paper, ambition is high.

In practice, however, delivery remains uneven. Regulatory frameworks prioritise legal certainty and risk mitigation, often at the cost of flexibility and speed. Investment instruments are spread across multiple programmes and governance levels, limiting their capacity to support scale and cross-border deployment. Single Market fragmentation persists in areas that are critical for AI adoption, such as data use, cloud services, procurement, and digital infrastructure.

The result is a familiar pattern: Europe builds assets, but struggles to make markets work. Upstream capacity expands, while downstream adoption and diffusion lag behind.

The Draghi Diagnosis: A Problem of Implementation and Scale

The Report on the Future of European Competitiveness, prepared by Mario Draghi, captures this problem with unusual clarity. Its core argument is not that Europe lacks strategies, funding, or regulatory frameworks. It is that Europe lacks effective implementation, coordination, and scale.

In Draghi's diagnosis, digitalisation and advanced technologies—including AI—are essential enablers of productivity growth. Yet Europe's main weakness lies in translating political intent into market outcomes. Fragmented rules, slow coordination, and insufficient demand-side mechanisms prevent innovation from spreading across the economy.

Subsequent assessments confirm that this diagnosis remains valid. Despite increased policy activity, adoption remains low, and the gap between ambition and impact persists. The Draghi agenda therefore places particular emphasis on accelerating diffusion, enabling scale, mobilising investment, and making the Single Market function effectively for advanced technologies.

What This Paper Does

This paper takes the Draghi diagnosis as its starting point and applies it specifically to AI and advanced technologies. Its purpose is not to propose new strategies or add to Europe's already dense policy landscape. Instead, it asks a more practical question: how far has the Draghi agenda been implemented in this domain, and what would it take to make it deliver competitiveness outcomes?

Building on the Draghi Observatory & Implementation Index, the paper pursues three objectives. First, it assesses the current level of implementation of the Draghi agenda in AI and advanced technologies, identifying where progress has occurred and where gaps persist. Second, it examines how Draghi's recommendations align with upcoming and ongoing EU legislative initiatives, and what these initiatives could realistically deliver. Third, it analyses the expected competitiveness effects—upstream and downstream—with particular attention to the role of SMEs in both innovation and adoption. A detailed list of data sources, surveys, policy documents, and literature used in this analysis is provided in **Annex C**

The central argument is simple but demanding: in an economy dominated by small and medium-sized enterprises, competitiveness cannot be built through capacity alone. It requires policies that enable diffusion, scale, and adoption across firms. Whether Europe can achieve this in AI and advanced technologies will determine not only its technological standing, but the future performance of its economic model.

2. From Ambition to Delivery: Assessing Europe's Progress

The central question raised by the Draghi Report is not whether Europe has identified the right priorities for competitiveness, but whether those priorities are being delivered in practice. Across digitalisation, industrial policy, and advanced technologies, policy ambition is high. What remains uncertain is how far this ambition translates into concrete, operational outcomes.

Assessing delivery requires moving beyond declarations, strategies, and individual initiatives. It requires a structured view of implementation: where progress is occurring, where it is slowing, and how different policy efforts interact across the value chain. Only through such an assessment is it possible to understand whether Europe's competitiveness agenda is balanced and effective.

From recommendations to implementation patterns

The Draghi Report contains a wide-ranging set of recommendations covering multiple policy domains. Taken individually, many of these recommendations are familiar and widely supported. The challenge lies not in their content, but in their collective execution.

Some areas of policy delivery advance quickly, particularly where legislative mandates are clear and financial resources are concentrated. Others depend on coordination across Member States, regulatory alignment, or the creation of shared markets. These areas tend to progress more slowly, even when political commitment is strong.

Understanding these patterns is essential for assessing competitiveness. An agenda that advances unevenly—strong upstream, weak downstream, or fragmented across markets—risks producing technological capacity without economic impact.

A structured view of delivery across the value chain

To capture these dynamics, Europe's progress in AI and advanced technologies is best understood along the full value chain.

- Upstream capabilities refer to the technological and industrial foundations of AI and advanced technologies: computing infrastructure, semiconductors, frontier research, and skills. These elements determine whether Europe can generate and host advanced technological capacity at scale.
- Horizontal enablers shape how these capabilities can be used and combined. Regulatory coherence, data governance, trust frameworks, and Single Market integration determine whether firms can deploy technologies across borders and sectors without prohibitive costs or uncertainty.
- Downstream deployment is where competitiveness ultimately materialises. Adoption by firms, diffusion across sectors, demand-side instruments, and integration into real economic activity determine whether upstream investment translates into productivity growth.

This structure reflects a simple but critical logic: technological capacity alone does not generate competitiveness. It must be enabled, scaled, and adopted.

Why patterns of delivery matter in an SME economy

The importance of delivery patterns is magnified by Europe's economic structure. Europe is not an economy dominated by a small number of large firms capable of internalising regulatory complexity and fragmented markets. It is an economy built primarily on small and medium-sized enterprises.

For SMEs, the difference between full and partial delivery is decisive. Fragmented rules, uncertain access conditions, and weak demand signals impose fixed costs that smaller firms struggle to absorb. As a result, uneven implementation does not merely slow competitiveness gains—it can prevent them altogether.

Assessing Europe's progress therefore requires more than tracking legal adoption or budgetary commitments. It requires asking whether delivery is likely to work for the firms that make up the bulk of the European economy.

Scope of the assessment

The assessment that follows concentrates on a defined set of measures related to AI and advanced technologies, drawn from the broader Draghi agenda. These measures span upstream capabilities, horizontal enablers, and downstream deployment, allowing progress to be evaluated across the full chain from technology creation to economic use.

The emphasis in the main text is on interpretation and implications rather than technical measurement. Detailed scoring rules, implementation categories, and methodological choices are documented separately to ensure transparency and replicability.

By focusing on delivery patterns rather than individual initiatives, this approach provides a clearer view of whether Europe's competitiveness agenda in AI and advanced technologies is moving in a coherent direction—and whether it is aligned with the realities of an SME-driven economy.

The detailed methodological design of the Draghi Observatory, including coding criteria, implementation categories, sectoral clustering, and index construction, is presented in **Annex A.** The next section turns to the substance of the Draghi agenda itself, outlining the key elements of Europe's competitiveness strategy for AI and advanced technologies before examining how far it has been implemented.

3. The Draghi Agenda in AI and Advanced Technologies

The Draghi Report approaches artificial intelligence and advanced technologies not as standalone policy areas, but as core components of Europe's broader competitiveness challenge. Its central premise is that technological capability only translates into economic strength when it is deployed at scale, diffused across firms, and embedded in functioning markets.

In this sense, the Draghi agenda is not primarily about inventing new technologies or announcing new strategies. It is about ensuring that Europe's existing strengths in research, industry, and regulation are connected in ways that produce measurable productivity and competitiveness gains.

Across AI and advanced technologies, the Draghi agenda can be understood as addressing three interdependent dimensions: building technological capacity, enabling scale through markets and rules, and ensuring widespread adoption and diffusion. Together, these dimensions define the conditions under which technological ambition can turn into economic outcomes.

Building Europe's technological base

A first set of priorities concerns Europe's ability to develop and host advanced technological capabilities. This includes the infrastructure, industrial assets, and human capital required for AI and other frontier technologies to exist and evolve within Europe.

The Draghi agenda places particular emphasis on computing capacity, data infrastructure, and semiconductors as strategic inputs for AI development. Without sufficient access to high-performance computing, secure and interoperable cloud environments, and reliable hardware supply chains, Europe's technological ambitions remain dependent on external providers.

Beyond infrastructure, the agenda also highlights the importance of frontier and emerging technologies, such as quantum technologies, which are expected to generate significant spillovers for AI and advanced industrial applications over time. Investment in these areas is framed not as an end in itself, but as a way of securing long-term technological options and strategic autonomy.

Human capital is an integral part of this upstream dimension. Skills development, talent attraction, and mobility are treated as prerequisites for sustaining advanced technological ecosystems. Without a sufficient pool of skilled researchers, engineers, and practitioners, infrastructure and funding alone cannot deliver competitiveness.

Yet Europe's skills challenge is not limited to frontier research. The more immediate constraint lies in the diffusion layer. While the EU produces high-quality graduates and retains strong research capacity, digital and AI-related skills remain unevenly distributed across Member States and firm sizes. SMEs in particular face structural disadvantages in attracting and retaining advanced talent, competing with larger incumbents and global firms that can offer higher wages, stronger career pathways, and international mobility.

Moreover, the skills gap increasingly concerns not only specialist AI engineers, but also managerial and operational capabilities required to integrate AI into business processes. Adoption requires complementary skills in data management, cybersecurity, compliance, and change management. Where these are missing, even accessible infrastructure fails to translate into productivity gains.

In this sense, human capital is not merely an upstream input. It is a decisive enabling condition for downstream diffusion. Without

a broad base of digitally capable firms, Europe risks maintaining pockets of excellence while the majority of SMEs remain technologically under-equipped.

Taken together, these priorities define a vision in which Europe possesses the technological foundations necessary to compete in AI and advanced technologies on its own terms.

Enabling scale through markets and rules

Technological capacity, however, does not automatically translate into economic impact. A second dimension of the Draghi agenda therefore focuses on the institutional and market conditions that determine whether technologies can be deployed, combined, and scaled across the European economy.

This dimension addresses regulatory coherence, Single Market integration, and trust frameworks. Fragmented rules, inconsistent enforcement, and legal uncertainty increase the cost of deploying AI and advanced technologies, particularly across borders. For firms seeking to scale, these frictions can outweigh the benefits of technological innovation itself.

The Draghi agenda emphasises the need for regulatory environments that protect fundamental values while allowing experimentation and deployment. This includes the use of testing environments, proportionate compliance mechanisms, and consistent application of rules across Member States and market actors.

Data governance and trusted digital infrastructure also feature prominently. Access to data, clarity on its lawful use, and confidence in secure hosting environments are treated as enabling conditions for AI deployment. Without them, firms are reluctant to invest, and cross-border activity remains limited.

In this sense, the Draghi agenda treats the Single Market not as a background condition, but as an active competitiveness instrument. Making it function effectively for AI and advanced technologies is essential for turning Europe's market size into a real advantage.

Ensuring adoption, diffusion, and demand

A third dimension of the Draghi agenda focuses on what ultimately determines competitiveness outcomes: whether AI and advanced technologies are adopted and used across the economy.

The Draghi Report stresses that productivity gains depend on diffusion, not concentration. If advanced technologies are deployed only by a small number of large actors or confined to specific sectors, their macroeconomic impact remains limited. Broad-based adoption is therefore a central objective.

To support diffusion, the agenda highlights the role of demand-side instruments, including public procurement and coordinated purchasing. By creating predictable demand and reducing market uncertainty, such instruments can encourage firms to invest in AI-enabled solutions and integrate them into their operations.

The agenda also points to the importance of embedding AI and advanced technologies within broader industrial and innovation ecosystems. Adoption is more likely when technologies are aligned with sectoral needs, supported by complementary skills and services, and integrated into existing value chains.

This downstream focus reflects a pragmatic understanding of competitiveness: innovation only matters if it changes how firms operate and compete.

Pillar	What it covers	Number of measures
Upstream capabilities	Compute and AI infrastructure; cloud and data capacity; semiconductors and hardware; frontier technologies; talent and skills	**17**
Horizontal enablers	Regulation and sandboxes; Single Market integration; data governance; same service / same rules; security and international coordination	**6**
Downstream deployment	AI use-case prioritisation; public procurement and demand aggregation; diffusion and integration into industrial ecosystems	**4**
Total		**27**

Table 1 Summary of the Draghi AI & Advanced Technologies agenda

A competitiveness agenda shaped by Europe's economic structure

Underlying all three dimensions of the Draghi agenda is an implicit recognition of Europe's economic structure. Europe is characterised by dense industrial ecosystems and a high share of small and medium-sized enterprises. In such an economy, competitiveness cannot be achieved solely by creating technological champions or concentrating capacity.

Instead, the Draghi agenda points toward an ecosystem-based model, in which many firms contribute to innovation, adoption, and value creation. This requires policies that lower barriers to entry, reduce fixed costs, and enable firms to scale across borders.

Seen in this light, the Draghi agenda in AI and advanced technologies is less about technological leadership for its own sake and more about restoring Europe's capacity to generate productivity growth through widespread diffusion and effective markets.

The following section examines how far this agenda has been translated into concrete policy action, and where gaps between ambition and delivery remain.

4. From Ambition to Action: How Much of the Draghi Agenda Is Being Delivered?

The Draghi agenda for AI and advanced technologies sets out a clear and coherent vision for strengthening Europe's competitiveness. The critical question, however, is not whether this vision is well formulated, but how far it has been translated into concrete policy action.

This section examines the current state of delivery of the Draghi agenda in AI and advanced technologies. It does not assess intentions or political declarations, but focuses on observable implementation outcomes. The aim is to understand where progress has occurred, where it remains partial, and where gaps persist between ambition and delivery.

To clarify how implementation differs across the three pillars of the Draghi agenda, the table below summarises the status of the 27 measures on AI and advanced technologies at an aggregate level. Rather than listing individual actions, it groups measures by upstream capabilities, horizontal enablers, and downstream deployment, showing how many measures in each pillar are implemented, partially implemented, in progress, or not implemented. A complete list of the 27 Draghi measures on AI and advanced technologies, together with their individual implementation status and assessment rationale, is provided in **Annex B**. This overview is intended to help the reader identify patterns of delivery before turning to a qualitative assessment of what these patterns imply for Europe's competitiveness.

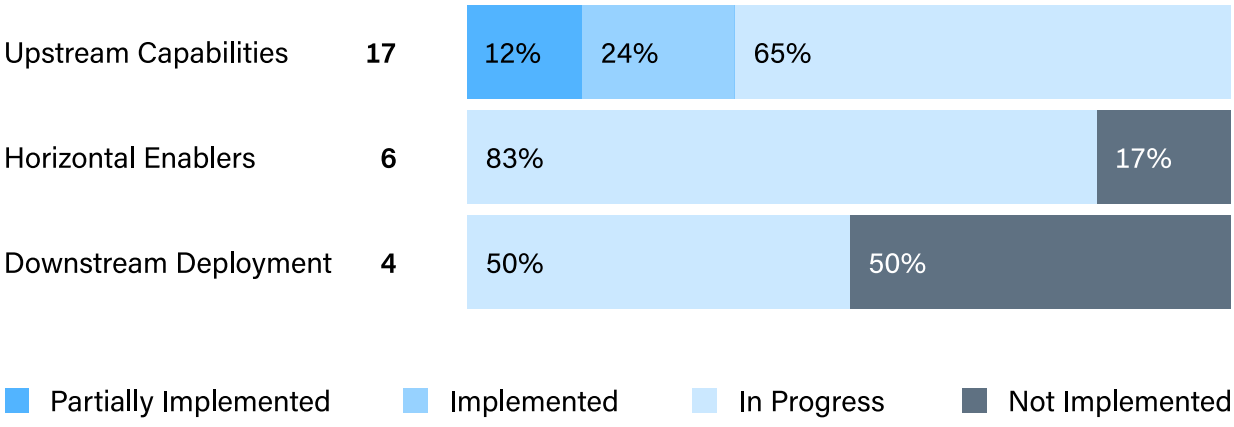
Pillar	Total measures	Implemented	Partially implemented	In progress	Not implemented	Overall implementation profile
Upstream capabilities	17	2	4	11	0	Capacity-building advancing, delivery uneven
Horizontal enablers	6	0	0	5	1	Coordination-heavy reforms largely stalled
Downstream deployment	4	0	0	2	2	Demand and diffusion weakest
Total	**27**	**2**	**4**	**18**	**3**	**Strong bias toward "in progress"**

Table 2 Implementation of the Draghi Agenda on AI & Advanced Technologies

Note: "Implemented" refers to measures with binding legislative frameworks and operational delivery. "In progress" captures political commitment or partial execution without full market impact.

Europe Builds Capacity. It Does Not Yet Scale.

Implementation status of 27 Draghi recommendations on AI and advanced technologies, grouped by policy pillar. Progress is strongest where delivery is anchored in legislation and capital mobilisation, and weakest where coordination and demand-side reform are required.



"Implemented" refers to binding legislative frameworks with operational delivery.
"In progress" captures political commitment or preparatory action without full market impact.

Chart: European Policy Innovation Council (EPIC)
Source: Draghi Observatory & Implementation Index (EPIC)
December 2025, Created with Datawrapper

Progress where policy is anchored in investment and legislation

Overall, implementation of the Draghi agenda in AI and advanced technologies remains limited. Only a small share of the agenda has been fully delivered, while the majority of measures are still in progress or only partially realised.

The most visible progress has occurred in areas where policy action is supported by binding legislation and substantial financial commitments. In particular, measures related to semiconductor capacity and certain forms of digital infrastructure have advanced more rapidly than others. This reflects the impact of initiatives such as the EU Chips Act, which combines legal certainty, dedicated funding, and a clear governance framework.

In these areas, Europe has demonstrated that it can move decisively when objectives are clearly defined, resources are mobilised at scale, and delivery responsibilities are concentrated. Where these conditions are met, implementation has been faster and more tangible.

Slower delivery where coordination and integration are required

By contrast, progress has been markedly slower in areas that depend on coordination across Member States, market integration, or demand-side reform. Measures related to regulatory harmonisation, Single Market functionality, and cross-border deployment of AI and advanced technologies remain largely incomplete.

This pattern is particularly visible in areas where implementation requires changes in how markets operate rather than the construction of new assets. Harmonised regulatory environments, consistent application of

rules, and integrated demand mechanisms have proven more difficult to deliver than capital-intensive investments.

As a result, Europe continues to face fragmentation in areas that are critical for scaling AI and advanced technologies. Firms operating across borders encounter differing regulatory interpretations, duplicated compliance requirements, and limited opportunities to benefit from Europe's market size.

The weakest link: adoption and diffusion

The most pronounced implementation gap concerns the adoption and diffusion of AI and advanced technologies across the economy. While pilot projects, innovation hubs, and targeted funding schemes exist across Member States, they often remain fragmented, time-limited, and weakly connected to scaling mechanisms.

In practice, demonstration projects are rarely followed by systematic procurement, coordinated demand, or cross-border replication. Public procurement remains risk-averse, legally complex, and highly decentralised, limiting its role as a scale engine for innovative SMEs. Diffusion instruments are dispersed across programmes, regions, and funding cycles, preventing the emergence of predictable market pull.

The result is not a lack of experimentation, but a lack of continuity. Europe pilots extensively, but scales selectively. Without structured pathways from experimentation to adoption at market scale, productivity effects remain localised and temporary.

This imbalance risks limiting the economic impact of upstream investments. Without widespread adoption, AI and advanced technologies remain confined to a narrow set of actors, reducing their contribution to overall competitiveness.

A structural pattern, not a sectoral exception

Importantly, the implementation profile observed in AI and advanced technologies is not an isolated case. It closely mirrors Europe's broader experience with delivering the Draghi agenda across policy domains.

The pattern is consistent: Europe advances more quickly where policy action can be framed as investment and anchored in legislation, and more slowly where outcomes depend on coordination, market integration, or behavioural change. AI and advanced technologies therefore illustrate a systemic challenge rather than a sector-specific failure.

What the implementation gap reveals

Taken together, the current state of delivery reveals two structural insights:

First, Europe's policy system is better equipped to build capacity than to enable scale. Infrastructure, funding instruments, and industrial assets can be mobilised relatively effectively. By contrast, reforms that require aligning rules, integrating markets, or shaping demand face greater institutional and political obstacles.

Second, this imbalance has direct implications for Europe's economic structure. Europe's economy is not dominated by a small number of large firms capable of navigating fragmentation and absorbing high fixed costs. It is characterised by a large number of small and medium-sized enterprises, for whom access, predictability, and scale are decisive.

When implementation advances primarily where capital can be deployed, but stalls where diffusion and coordination are required, the result is a growing mismatch between policy delivery and market reality. Technological capacity expands, but its benefits remain unevenly distributed and limited in scope.

This observation provides the rationale for the next section. To understand whether the Draghi agenda, as currently implemented, can realistically deliver competitiveness in an SME-driven economy, it is necessary to examine its effects through the lens of small and medium-sized enterprises. The following section applies an SME stress test to assess where current delivery patterns succeed, and where they fall short.

5. The SME Stress Test: Why Partial Delivery Fails to Produce Competitiveness

The implementation snapshot shows a clear pattern: Europe is making progress in building technological capacity, but struggling to convert this capacity into widespread economic impact. To understand why, this section applies an SME stress test to the Draghi agenda in AI and advanced technologies.

The stress test starts from a simple premise. Europe's economy is structurally different from those of its main global competitors. It is not dominated by a small number of large firms, but by a dense fabric of small and medium-sized enterprises. Any competitiveness strategy that does not work for SMEs will therefore fail to deliver economy-wide results.

The question, then, is not whether Europe is investing in AI and advanced technologies, but whether current implementation patterns enable SMEs to participate, adopt, and scale.

SMEs and upstream capacity: access matters more than existence

From an SME perspective, upstream competitiveness depends less on whether infrastructure exists than on whether it can be accessed on predictable and affordable terms.

Europe has made tangible progress in expanding compute capacity, trusted cloud environments, semiconductor production, and frontier research. Yet for many SMEs, these assets remain distant. Access to high-performance computing, advanced cloud services, or specialised facilities often involves complex eligibility criteria, uncertain costs, and administrative burdens that smaller firms struggle to manage.

As a result, SMEs tend to participate in upstream value chains only at the margins, as niche suppliers or subcontractors, rather than as scalable innovators. While Europe's technological base is expanding, its integration into SME-driven ecosystems remains limited.

In practice, this means that upstream investments risk benefiting a relatively narrow set of actors, unless access conditions and scaling pathways are explicitly designed with SMEs in mind.

Upstream theme	What policy delivers	SME stress-test question	Stress-test outcome
Compute & AI infrastructure	HPC, AI factories, federated compute	Can SMEs access compute at predictable cost and scale?	Access exists in principle, but cost, eligibility, and complexity favour large users
Cloud & data infrastructure	Trusted hosting, compliant environments	Can SMEs deploy without lock-in or heavy compliance costs?	Switching and compliance costs remain high, awaiting simplification outcomes of the Digital Omnibus
Semiconductors & hardware	Chips Act funding, pilot lines, fabs	Can SMEs scale beyond niche roles in value chains?	SMEs present upstream, weak scaling pathways
Frontier technologies	Quantum, advanced R&D	Can SMEs commercialise spillovers?	Weak transmission from R&D to SME markets
Talent & skills	Training, mobility, attraction schemes	Can SMEs attract and retain advanced talent?	SMEs structurally outcompeted by incumbents; managerial and complementary AI skills gap further limits adoption capacity

Table 3 Upstream × SME stress test

Regulatory and market conditions: fragmentation hits SMEs hardest

The second dimension of the SME stress test concerns regulatory and market conditions. For large firms, fragmented rules can often be absorbed through legal teams, compliance departments, and parallel market strategies. For SMEs, fragmentation acts as a direct barrier to growth.

Partial harmonisation, divergent national interpretations, and complex compliance requirements translate into high fixed costs. Even when regulatory frameworks aim to support innovation—through sandboxes or experimentation regimes—the lack of cross-border coherence limits their usefulness for firms seeking to scale.

In this context, the Single Market does not function as a single market for AI and advanced technologies. For SMEs, it often resembles a collection of adjacent national markets, each requiring separate adaptation. This significantly weakens Europe's ability to turn market size into a competitive advantage.

Enabler theme	What policy delivers	SME stress-test question	Stress-test outcome
Regulatory sandboxes	National experimentation frameworks	Does experimentation reduce cross-border compliance?	No — fragmentation persists
Same service / same rules	Partial harmonisation	Can SMEs scale without legal duplication?	No — national gold-plating remains
Data governance	Data intermediaries, access rules	Are compliance costs proportionate for SMEs?	Fixed costs disproportionately high
Cloud rules & trust	Security and certification frameworks	Are rules usable without large compliance teams?	Favour incumbents
Single Market integration	Soft coordination	Does the Single Market function as a market for AI?	No — fragmentation remains

Table 4 Enablers × SME stress test

Adoption and diffusion: where competitiveness is won or lost

The most decisive part of the SME stress test concerns adoption and diffusion. SMEs adopt AI not because it is technologically impressive, but because it improves productivity, reduces costs, or opens new markets. Adoption decisions are therefore shaped by risk, expected returns, and demand visibility.

At present, these conditions are weak. Demand-side instruments remain fragmented, public procurement is rarely structured to support innovative SMEs at scale, and diffusion mechanisms are scattered across programmes and jurisdictions. For many SMEs, investing in AI remains a high-risk decision with uncertain payoffs.

The consequence is a slow and uneven diffusion of AI across the economy. Productivity gains remain concentrated among early adopters and larger firms, while the majority of SMEs lag behind. This undermines the central promise of AI as a general-purpose technology capable of lifting overall productivity.

Downstream theme	What policy delivers	SME stress-test question	Stress-test outcome
Vertical AI priorities	Strategic sector identification	Are priorities linked to real market demand?	Mostly declaratory
Public procurement	Fragmented coordination	Can SMEs realistically bid and scale?	High transaction costs
Demand aggregation	Limited coordination	Is there predictable SME-accessible demand?	No
Diffusion mechanisms	Fragmented support tools	Is there end-to-end adoption support?	No coherent framework

Table 5 Downstream × SME stress test

What the SME stress test reveals

Taken together, the three SME stress-test tables reveal a consistent pattern across the Draghi agenda. Upstream policies succeed in expanding technological capacity, but fail to ensure predictable and affordable access for SMEs. Horizontal enablers remain the weakest link, with fragmentation and fixed compliance costs preventing firms from scaling across borders. Downstream, the absence of coordinated demand and diffusion mechanisms leaves SMEs without clear incentives to adopt AI and advanced technologies. Across all three pillars, partial implementation translates into limited participation, constrained scaling, and weak diffusion, preventing upstream investment from delivering economy-wide competitiveness gains. Across all three dimensions—upstream capacity, regulatory conditions, and downstream adoption—the SME stress test reveals the same structural issue. Partial implementation produces partial competitiveness.

Pillar	What policy currently delivers	Core SME bottleneck	Competitiveness implication
Upstream capabilities	Expansion of infrastructure, funding, and technological capacity	Limited access, high complexity, weak scaling pathways	Capacity growth without broad diffusion
Horizontal enablers	Partial regulatory frameworks and coordination	Fragmentation, high fixed compliance costs	Single Market fails to function as a scale engine
Downstream deployment	Isolated initiatives without demand coordination	Uncertain returns on adoption	Low SME uptake and weak productivity gains

Table 6 SME Stress Test: Cross-Pillar Synthesis

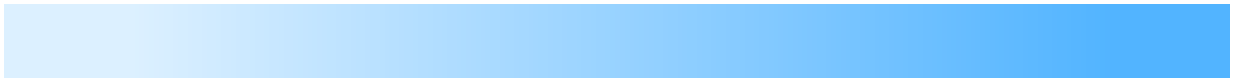
Europe is advancing where policies can be delivered through investment and legislation, but stalling where outcomes depend on access, coordination, and demand. In an SME-driven economy, these latter conditions are not secondary; they are decisive. The structural bottlenecks facing SMEs can be summarised as follows:

SME Constraint Map Across the Draghi AI Agenda

SME stress test of the Draghi AI and advanced technologies agenda across upstream capacity, regulatory enablers, and downstream diffusion.

Pillar	Access to Infrastructure	Regulatory Burden	Demand Predictability	Regulatory Burden
Upstream Capabilities				
Horizontal Enablers				
Downstream Deployment				

SME Operating Environment Score



Low High

Scores reflect qualitative assessment based on the Draghi Observatory & Implementation Index (December 2025). They capture the degree to which current policy delivery enables small and medium-sized enterprises (SMEs) to access, scale, and adopt AI and advanced technologies.

Table: FNF | European Policy Innovation Council (EPIC)
Source: Draghi Observatory & Implementation Index (EPIC), December 2025, Created with Datawrapper

This does not mean that Europe's approach is flawed in principle. On the contrary, Europe's strength lies precisely in its diversified economic base and dense network of SMEs. But this strength can only be leveraged if policies are implemented in a way that aligns with this reality.

The implication is clear. Competitiveness in AI and advanced technologies cannot be achieved by building capacity alone. It requires that upstream investments, regulatory frameworks, and demand-side instruments work together to enable SMEs to participate, adopt, and scale.

The next section examines whether upcoming EU legislative initiatives offer a realistic opportunity to correct this imbalance and translate the Draghi agenda into outcomes that work for Europe's economic structure.

6. Turning Policy Momentum into Delivery: Aligning the Draghi Agenda with Upcoming EU Legislation

The Draghi Report does not call for new strategies. It calls for delivery. The central question, therefore, is whether the next wave of EU legislation is capable of translating existing ambition into outcomes that matter for competitiveness—especially in AI and advanced technologies.

This section examines the EU's upcoming legislative agenda through that lens. It asks a simple but demanding question: do forthcoming initiatives address the implementation gaps identified in the previous sections, or do they risk reinforcing the same asymmetries between capacity-building and diffusion?

A window of opportunity, not a blank slate

The Commission Work Programme for 2026 marks a decisive moment. Unlike earlier cycles focused primarily on rule-setting, the current agenda is explicitly framed around competitiveness, scale, and implementation. Several forthcoming initiatives—on AI infrastructure, quantum technologies, digital networks, innovation, procurement, and regulatory simplification—map directly onto the Draghi agenda.

This creates a genuine opportunity. But alignment is not automatic. The contribution of these initiatives will depend less on their titles than on their internal design choices: who can access them, how costs and risks are distributed, and whether they support scale across borders.

Upstream legislation: from strategic assets to usable capacity

Upcoming initiatives such as the Cloud and AI Development Act and the Quantum Act are central to Europe's upstream ambitions. Their stated objective is to consolidate Europe's investments in compute, data infrastructure, and frontier technologies.

Focus area	Main bottleneck	Relevant legislation	Alignment challenge
AI & compute infrastructure	Limited SME access; high uncertainty	**Cloud & AI Development Act**	Turn public infrastructure into usable market capacity
Trusted cloud & data hosting	High compliance costs	**Cloud & AI Development Act**	EU-wide recognition of compliant hosting
Frontier technologies	Weak R&D-to-market pathway	**Quantum Act**	Industrial scaling and testbeds
Semiconductors	SME integration into value chains	**Chips Act (ongoing)**	Linking capacity to downstream demand

Table 7 Upstream alignment with the Draghi agenda

From a Draghi perspective, the key issue is not whether Europe builds capacity, but whether this capacity becomes usable across the economy. If infrastructure remains accessible primarily to large firms, public bodies, or a narrow group of beneficiaries, its competitiveness impact will be limited.

Alignment with the Draghi agenda therefore requires upstream legislation to treat infrastructure not only as a strategic asset, but as a market enabler. Access conditions, interoperability, portability, and predictable pricing are the mechanisms through which capacity turns into innovation and growth, not just technical details.

The experience of the Chips Act is instructive. Where legislation combined funding, legal certainty, and clear governance, implementation accelerated.

The challenge now is to replicate this delivery logic across AI and frontier technologies without reproducing access bottlenecks.

Horizontal enablers: where alignment will be decided

The largest gap between ambition and delivery lies in horizontal enablers—Single Market integration, regulatory coherence, and simplification. This is also where upcoming legislation will be most consequential.

Focus area	Structural issue	Relevant legislation	Alignment challenge
Single Market fragmentation	Legal duplication	**28th Regime**	Genuine cross-border operating rules
Innovation diffusion	Fragmented support	**European Innovation Act**	EU-level scale-up pathways
Research-to-market gap	Limited access to R&D	**ERA Act**	Applied collaboration and mobility
Regulatory burden	High fixed costs	**Digital Omnibus**	Simplification without loss of trust

Table 8 Enablers alignment with the Draghi agenda

Initiatives such as the proposed 28th Regime for innovative companies directly touch the core of the Draghi agenda: enabling firms to scale across borders under coherent rules. For SMEs, the difference between symbolic coordination and genuine cross-border operability is decisive.

Similarly, the European Innovation Act and reforms linked to the European Research Area can either remain largely institutional or become practical tools for diffusion—by improving access to facilities, testbeds, and applied collaboration across Member States.

Regulatory simplification, notably through the Digital Omnibus, plays a cross-cutting role. Properly designed, it can reduce fixed compliance costs that disproportionately burden SMEs. Poorly calibrated, it risks undermining legal certainty and trust, which are essential for AI adoption. Alignment here is therefore a matter of balance, not deregulation.

Demand and diffusion: the missing link

The weakest alignment today concerns demand-side instruments. This is where competitiveness is ultimately won or lost.

Draghi's agenda treats public procurement not as an administrative process, but as a lever for scale and diffusion. The forthcoming Public Procurement Act is therefore pivotal. Its impact will depend on whether it enables coordinated purchasing, lowers transaction costs for innovative suppliers, and creates predictable demand for AI-enabled solutions.

Focus area	Core problem	Relevant legislation	Alignment challenge
AI adoption	Lack of demand pull	**Public Procurement Act**	Procurement as a scale engine
Demand aggregation	Fragmented purchasing	**Public Procurement Act**	Coordinated EU demand
Connectivity	Infrastructure fragmentation	**Digital Networks Act**	Single Market for digital networks

Table 9 Downstream alignment with the Draghi agenda

Without such mechanisms, SMEs face persistent uncertainty about returns on investment, slowing adoption and reinforcing fragmentation. Procurement reform is not about favouring specific technologies or firms; it is about creating market conditions in which innovation can spread.

The Digital Networks Act, while not AI-specific, also matters in this context. Connectivity and network investment shape the foundation on which cloud and AI services operate. Its contribution to competitiveness will depend on whether it strengthens Single Market integration and long-term investment incentives.

What alignment really means

Taken together, the forthcoming legislative cycle offers a credible but conditional opportunity to advance the Draghi agenda in AI and advanced technologies.

Upstream capacity-building is progressing. The real test lies elsewhere: in restoring Single Market logic, reducing fragmentation, and creating demand conditions that allow SMEs to adopt and scale.

Alignment does not require reinventing Europe's policy framework. It requires writing legislation with delivery constraints in mind—access, scale, diffusion, and usability in an SME-driven economy. For SMEs, alignment with forthcoming legislation should translate into tangible changes. In practical terms, this means:

- → access to AI infrastructure under transparent and predictable conditions;
- → the ability to operate across borders without duplicative compliance procedures;
- → simplified regulatory obligations proportionate to firm size and risk profile;
- → public procurement frameworks that lower transaction costs and enable SME participation;
- → coordinated demand signals that reduce uncertainty about returns on AI investment.

Without such operational effects at firm level, legislative alignment remains institutional rather than economic. The Draghi agenda will only deliver competitiveness if SMEs experience these reforms as lower costs, clearer rules, and stronger market opportunities.

If these constraints are taken seriously, the next cycle can move Europe from policy density to competitive outcomes. The final section explores what those outcomes would look like if alignment succeeds.

7. Competitiveness the European Way

Debates on artificial intelligence and advanced technologies in Europe often focus on speed or rivalry. The deeper challenge is coherence. Europe has built an extensive framework of policies and investments, yet struggles to translate them into sustained productivity gains. In AI and advanced technologies, capacity-building and rule-making have advanced faster than adoption, diffusion, and scale.

Any credible competitiveness strategy must reflect Europe's economic structure. The EU is an SME-driven economy. Competitiveness therefore depends not on a few dominant firms, but on the ability of many companies to innovate, adopt new technologies, and operate across borders. AI can reinforce this model—if policy delivery enables broad participation rather than concentrating benefits.

Upstream investment in compute, data infrastructure, semiconductors, frontier technologies, and skills is necessary but not sufficient. Its impact depends on access and usability. Likewise, restoring Single Market functionality for AI and advanced technologies is not an institutional refinement; it is a competitiveness imperative. Fragmentation, legal duplication, and high compliance costs undermine scale in an economy built on smaller firms.

Ultimately, competitiveness materialises downstream. Productivity gains arise when firms integrate AI into everyday activity. For SMEs, adoption requires predictable demand, manageable risk, and proportionate regulation. Procurement reform and coordinated diffusion mechanisms are therefore as important as industrial policy.

The Draghi agenda offers a clear benchmark. Delivering it does not require new strategies, but coherence between investment, regulation, and demand. If forthcoming legislation reflects this logic, Europe can translate technological capability into competitiveness on its own terms.

Five Takeaways

1. Capacity without diffusion
does not generate productivity.

2. Single Market fragmentation
remains the central constraint.

3. Skills gaps limit adoption
more than infrastructure gaps.

4. Procurement reform is
as important as industrial policy.

5. In an SME-driven economy, scale
must be designed—not assumed.

Europe does not need a different model. It needs its existing model to function coherently from infrastructure to adoption.

8. Annexes

Annex A — Methodology and Analytical Framework of the Draghi Observatory

A.1 The Draghi Observatory

This analysis is based on the Draghi Observatory, a structured research framework developed to monitor how European Union policies reflect and implement the recommendations of the *Report on the Future of European Competitiveness* prepared by Mario Draghi in 2024.

The Draghi Observatory systematically compiles and evaluates EU-level policy measures across multiple domains relevant to competitiveness, including digitalisation, industrial policy, finance, energy, and advanced technologies. In total, the Observatory tracks **383 distinct policy measures** identified in the Draghi Report. This enables a comprehensive assessment of whether, how, and to what extent Draghi's recommendations are being translated into policy action.

The Observatory is designed to support longitudinal monitoring, cross-sectoral comparison, and policy benchmarking, rather than to provide a descriptive inventory of initiatives.

A.2 Coding structure of the dataset

Each measure in the Draghi Observatory dataset is coded along three core dimensions.

First, implementation status. Each measure is classified into one of four categories:

- → **Implemented**: a binding legal or regulatory framework is in place and operational.
- → **Partially implemented**: elements of the recommendation have been delivered, but implementation remains incomplete or uneven.
- → **In progress**: political commitment or preparatory action exists, but no operational delivery has yet occurred.
- → **Not implemented**: no meaningful policy action has been taken.

Second, time horizon. Measures are assigned a time horizon (short, medium, or long term), reflecting the sequencing and urgency indicated in the Draghi Report.

Third, institutional responsibility. Each measure is attributed to the responsible Directorate-General(s) and includes a qualitative summary of political, regulatory, and institutional developments relevant to implementation.

This multi-dimensional structure allows the Observatory to combine **quantitative tracking** of delivery with **qualitative interpretation** of implementation dynamics.

A.3 Baseline findings: first Draghi Observatory audit

The first full audit of the Draghi Observatory, published in September 2025, established a baseline assessment across all policy domains covered by the Draghi Report.

At the aggregate level, the findings indicate that **11.2% of the 383 recommendations** had been fully implemented one year after publication. When partially implemented measures are included, the share rises to **31.4%**, indicating that the majority of the agenda remains either in progress or unaddressed.

Overall implementation scoreboard

Category	% of total	Number of measures
Implemented	11.2%	43
Partially implemented	20.1%	77
In progress	46.0%	176
Not implemented	22.7%	87
Total	**100%**	**383**

Two complementary indices are used throughout the Observatory:

- a **Strict Index**, counting only fully implemented measures (11.2%);
- a **Partial Index**, implemented and partially implemented measures (31.4%).

These indices provide conservative and more permissive readings of implementation progress, respectively.

A.4 Sectoral benchmarking

Beyond aggregate tracking, the Draghi Observatory enables sectoral benchmarking by grouping measures into policy-relevant clusters, such as energy, defence, clean technologies, digitalisation and advanced technologies, and others.

This sectoral lens serves two analytical purposes:

- to distinguish systemic implementation bottlenecks from sector-specific ones; and
- to situate performance in AI and advanced technologies within the broader context of EU policy delivery capacity.

Results by sector

Sector	Implemented	Partially implemented	In progress	Not implemented	Total	Sectoral Index (%)
Automotive	0 (0.0%)	11 (45.8%)	6 (25.0%)	7 (29.2%)	24	0.0%
Clean tech	1 (2.6%)	12 (30.8%)	16 (41.0%)	10 (25.6%)	39	2.6%
CRM	19 (33.3%)	2 (3.5%)	21 (36.8%)	15 (26.3%)	57	33.3%
Defence	0 (0.0%)	5 (35.7%)	5 (35.7%)	4 (28.6%)	14	0.0%
Adv. Tech	5 (10.6%)	6 (12.8%)	25 (53.2%)	11 (23.4%)	47	10.6%
Energy	0 (0.0%)	13 (15.7%)	55 (66.3%)	15 (18.1%)	83	0.0%
EIIs	7 (16.7%)	10 (23.8%)	16 (38.1%)	9 (21.4%)	42	16.7%
Pharma	0 (0.0%)	5 (27.8%)	10 (55.6%)	3 (16.7%)	18	0.0%
Space	0 (0.0%)	5 (27.8%)	8 (44.4%)	5 (27.8%)	18	0.0%
Transport	11 (26.8%)	8 (19.5%)	14 (34.1%)	8 (19.5%)	41	26.8%
Total	**43 (11.2%)**	**77 (20.1%)**	**176 (46.0%)**	**87 (22.7%)**	**383**	**11.2%**

A.5 Digitalisation, AI and advanced technologies in context

Within the Observatory, digitalisation and advanced technologies constitute a distinct policy cluster covering telecommunications, connectivity, data and cloud infrastructure, and frontier technologies relevant to AI development and deployment.

Implementation levels in this cluster closely mirror the overall baseline:

- → **10.6%** of measures are fully implemented;
- → **23.4%** are either implemented or partially implemented.

This confirms that AI and advanced technologies are not an outlier, but a representative case of the broader implementation challenge identified by Draghi: high ambition combined with limited delivery.

A.6 Scope and contribution

Through this methodological framework, the analysis operationalises the Draghi agenda for AI and advanced technologies in a transparent, replicable, and policy-relevant manner. The objective is not to propose new strategies or institutional architectures, but to clarify how existing policies can be better aligned to deliver measurable competitiveness outcomes.

In particular, the framework supports systematic tracking of implementation with respect to adoption and diffusion across firms, including small and medium-sized enterprises, responding to international calls for evidence-based benchmarking of AI policy delivery.

Annex B — Implementation Status of 27 Draghi Measures on AI & Advanced Technologies

This annex presents the full set of **27 recommendations from the Draghi Report** that are directly relevant to artificial intelligence and advanced technologies, together with their current **implementation status** as recorded in the Draghi Observatory.

Measures are grouped according to the three analytical pillars used in the main text:

- → upstream capabilities,
- → horizontal enablers, and
- → downstream deployment.

For each measure, the annex reports its implementation status (implemented, partially implemented, in progress, or not implemented) and provides a short rationale summarising the current state of delivery.

B.1 Upstream capabilities — implementation status (17 measures)

Theme	Measure	Status	Comment / rationale
Compute infrastructure	Expansion of EuroHPC to AI training, fine-tuning, and inference	In progress	AI Factories and EuroHPC upgrades are underway, but access to large-scale inference and fine-tuning capacity remains uneven.
Federated compute	Public–private AI compute federation	In progress	Pilot projects exist, but no systemic public–private integration framework is operational.

Theme	Measure	Status	Comment / rationale
Trusted hosting	Validation of compliant AI hosting as an EU competitive advantage	In progress	Initiatives exist, but no EU-wide certification formally recognises compliant AI hosting as a market asset.
Computing capital	Return-based public access to HPC	In progress	Subsidised access exists, but compute is not yet treated as an investment-like input.
Quantum–HPC integration	Integration of quantum nodes with HPC centres	In progress	Pilot projects are funded, but coordination and governance remain fragmented.
Semiconductor funding	Centralised EU funding for chips	Implemented	The Chips Act and Chips Joint Undertaking are operational.
Semiconductor demand coordination	R&D and demand aggregation mechanisms	In progress	Coordination mechanisms exist, but demand aggregation remains partial.
IPCEI acceleration	Fast-track approval procedures	In progress	Approval timelines have improved, but no formal fast-track mechanism exists.
Frontier chip labs	Testing and innovation laboratories	In progress	National centres exist, but no integrated EU-level network.
Fabless design	Support for fabless design firms	Partially implemented	Fragmented support exists, lacking EU-wide scale.
Strategic foundries	Targeted investment support	Partially implemented	Clear prioritisation, but uneven execution across Member States.
Mature-node chips	Support for >28nm technologies and chiplets	Implemented	Funding and pilot lines are operational.
Back-end processes	Advanced packaging and materials	In progress	Pilot projects exist, but industrial scale-up remains limited.
Equipment leadership	Support for semiconductor equipment	Partially implemented	Strong industrial base, but coordination and export-control alignment lag.

Theme	Measure	Status	Comment / rationale
Permitting	EU-wide acceleration of permitting	Partially implemented	Political commitment exists, but national procedures still dominate.
Talent visas	Special visa schemes for high-skill talent	In progress	Broader reforms exist, but no dedicated EU-level scheme.
Scholarships and internships	EU-wide training pipelines	In progress	Fragmented programmes, no unified framework.

B.2 Horizontal enablers — implementation status (6 measures)

Theme	Measure	Status	Comment / rationale
AI sandboxes	Harmonised EU sandbox regimes	In progress	National sandboxes exist, but EU-level harmonisation remains incomplete.
Cloud procurement	EU-wide cloud procurement coordination	In progress	Soft coordination exists, but no binding framework.
Sensitive data	Rules for cooperation with hyperscalers	In progress	Pilot frameworks exist, but no binding EU model.
Cloud passporting	Single Market passport for cloud services	Not implemented	No legal instrument establishes passporting.
Data intermediaries	Pre-approved data brokers	In progress	Data Governance Act provides a basis, recognised implementation gaps remain.
Transatlantic coordination	EU–US digital marketplace	In progress	Institutional dialogue exists, but market-access tools are absent.

B.3 Downstream deployment — implementation status (4 measures)

Theme	Measure	Status	Comment / rationale
Vertical AI priorities	Strategic prioritisation of AI use cases	Not implemented	No integrated demand-side strategy exists.
Public procurement	EU-aligned AI procurement	In progress	Coordination initiatives exist, but no binding framework.
Chips demand preferences	EU sourcing incentives	Not implemented	No certification or preference scheme introduced.
Diffusion mechanisms	Structured support for adoption	In progress	Fragmented support tools, no coherent diffusion strategy.

Annex C — Data Sources and References

1. OECD (2023), The Impact of Artificial Intelligence on Productivity, OECD AI Policy Observatory.
2. Implement Consulting Group (2024), The Economic Opportunity of AI in the EU.
3. OECD (2024), Artificial Intelligence, Productivity and Firm Performance.
4. HCSS (2025), The Draghi Report Revisited: Artificial Intelligence, citing Eurostat Community Survey on ICT Usage in Enterprises (2024).
5. OECD (2024), AI Adoption by Firms, OECD AI Policy Observatory.
6. OECD, BCG & INSEAD (2023), The Adoption of Artificial Intelligence in Firms.
7. CERRE (2024), Cloud Services, Competition and Regulation; OECD (2024), Competition in Cloud Computing.
8. European Commission (2024), The Future of European Competitiveness (Draghi Report).
9. HCSS (2025), The Draghi Report Revisited.
10. OECD (2024), Tracking Europe's Progress on AI: Insights from the Coordinated Plan on AI.

FRIEDRICH NAUMANN
FOUNDATION For Freedom.
Europe