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EU single market embracing industrial policy: trade-offs and policy challenges towards a new model of governance

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Radosevic, S.

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Contents

Abstract

This paper examines the evolving role of the EU Single Market (SM) as it integrates industrial policy objectives, particularly green growth and strategic autonomy, into its traditionally rule-based framework. The SM, once a liberalisation mechanism focused on competition and market integration, now faces tensions between its foundational principles and new political imperatives. These include balancing internal openness with external strategic autonomy, aligning competition policy with ecosystem-based industrial strategies, and managing industrial coordination with limited EU fiscal capacity. The analysis presents three critical trade-offs and outlines four future scenarios shaped by fiscal strength and coordination levels. Ultimately, the paper argues that the EU is moving toward a governance model best described as "integrated orchestration": a hybrid of regulatory flexibility, conditionality, and multi-level coordination tailored to address systemic industrial challenges without full fiscal federalism.

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Authors

Prof. Slavo Radosevic (UCL)

Executive summary[1]

The paper explores the profound transformation in the European Union's Single Market (SM), moving from a liberal rules-based mechanism to a strategic platform increasingly shaped by industrial policy imperatives. Historically centred on removing internal trade barriers and enforcing competition, the SM must now deliver the EU's green transition and strategic autonomy goals. This evolution introduces fundamental tensions and raises questions about the coherence, effectiveness, and institutional viability of the SM in its emerging form.
We identify three central trade-offs which need to be reconciled:

1. **Competition Policy vs. Industrial Policy**: Traditional competition policy favours non-discriminatory competition, while industrial policy often involves selective support to specific sectors or alliances. Compatibility requires reframing competition law to include dynamic, long-term goals such as resilience and decarbonisation. A three-dimensional concept of compatibility—instrumental, objective, and institutional—is proposed.
2. **Internal Openness vs. Strategic Autonomy:** Strategic autonomy in key technologies may clash with Single Market principles of openness. The EU's challenge is leveraging its market size to manage dependencies without becoming protectionist. New trade instruments and joint ventures suggest a blended approach.
3. **Firm-Level Competition vs. Ecosystem-Level Governance**: Traditional regulation targets firms, while modern policies support entire ecosystems. Initiatives like IPCEIs require governance frameworks that account for cross-sectoral interdependencies.

A key constraint is the EU's limited fiscal capacity. Without centralised fiscal tools, industrial policy leans heavily on regulation. The paper outlines four scenarios based on EU fiscal strength and coordination combinations. The current state is a hybrid marked by fragmented governance and uneven investment.
To move forward, the EU must adopt an investment-centred policy mix. Investment in close substitutes, followed by tax credits and targeted regulations, forms the optimal sequence for green transformation. Coordination between regulation, investment, and innovation policy is essential.
We propose a governance model of 'integrated orchestration'—a blend of regulatory tools, soft coordination, and multi-level governance to align national and EU actions. Conditionality and accountability are key to preventing political capture and ensuring strategic outcomes.In conclusion, the Single Market is gradually evolving into a strategic platform. Whether it succeeds depends on the EU's ability to orchestrate policies across levels and instruments while preserving its core principles. The concept of integrated orchestration offers a viable path forward.

[1] This paper builds up on Radosevic S. (2024) "EU Single Market Embracing 'Green' Industrial Policy: Paradigm Shift and Challenges," DG GROW EU Single Market Papers, EB 2024/6.

1 Introduction

The European Union (EU) Single Market has historically functioned as a rule-based framework designed to eliminate barriers to intra-EU trade and foster competition. In recent years, however, we have witnessed a major shift in how the Single Market (SM) operates. Rather than simply remaining an open, rules-based mechanism for economic integration, it is increasingly tasked with supporting broader strategic goals. These include promoting green growth and achieving "strategic autonomy"—concepts that extend far beyond the traditional mandate of a free-trade bloc.

This emerging emphasis has prompted debates over whether the Single Market is effectively taking on elements of an "industrial policy," i.e., a coordinated set of policies to shape and steer specific industries or sectors. Such a transformation would be far from trivial: the Single Market was originally structured around principles of competition, non-discrimination, and a level playing field among Member States, not the proactive shaping of industrial ecosystems. Yet, many argue that policy goals like decarbonisation or technological sovereignty must now be integrated into the Single Market's (SM's regulatory framework to address climate change imperatives and geopolitical uncertainties.

This paper explores the key questions underpinning this potential paradigm shift. For example, can a set of rules originally designed for free and fair trade adapt to complex priorities like decarbonisation and strategic autonomy? Or are we on the brink of a fundamentally new model for European integration? To explore these issues, we examine the main trade-offs, hypothesise possible outcomes, and discuss the challenges of aligning industrial policy with the Single Market's foundational rules.

This paper is structured around a central analytical tension: the evolution of the EU Single Market from a rules-based liberalisation mechanism to a hybrid platform increasingly shaped by industrial policy objectives. We approach this evolution through a dialectical framework: first, presenting the established liberal model of market integration and its evolution (thesis); second, identifying the emergence of competing priorities such as strategic autonomy and green transformation (antithesis); and third, exploring the potential contours of a new synthe-sis — a reconfigured Single Market that integrates these priorities through orchestrated gov-ernance, selective regulatory flexibility, and coordinated investments.

The paper is structured as follows. Section 2 examines the evolving role of the Single Market, highlighting its expanding remit from a rules-based liberalisation mechanism to an instrument increasingly expected to deliver on green and strategic objectives. Section 3 discusses three central trade-offs shaping this transformation: between competition and industrial policy, internal openness and external strategic autonomy, and firm-level competition and ecosystem-level governance. Section 4 explores how the EU's limited fiscal capacity constrains its industrial policy instruments and outlines four scenarios for coordinating industrial policy under these constraints. Section 5 focuses on the challenges of incorporating conditionality and accountability into industrial policy, particularly through IPCEIs. Finally, Section 6 reflects whether these changes amount to a paradigm shift or represent adaptive layering within the existing Single Market framework. We conclude that we observe the ongoing and politically uncertain evolution towards a hybrid form of governance, which can be described as 'integrated orchestration'.

2 The Changing Role of the Single Market Figure 1: The ‘acceleration phase’ of net-zero transitions and its novel challenges

2.1 A Paradigm in Flux

Traditionally, the Single Market was lauded as a near-complete manifestation of free trade among EU Member States—a "holy grail" of openness. Today, it is being asked to fulfil a dual role as a market regulator and a tool of industrial policy. As a market regulator, the aim is to continue ensuring the smooth functioning of cross-border competition. As a tool of industrial policy, the objective is to use it as a lever to drive strategic initiatives such as green growth, climate transition, and strategic autonomy in critical sectors (e.g., energy, semiconductors, healthcare, and recently, defence).

Scholars and policy experts observe that this dual role remains unclear, uncertain, and contentious. The Single Market’s success has long hinged on its clarity of purpose—removing trade barriers and harmonising rules. Now, the addition of new regulatory layers and objectives is challenging clarity. Many ask whether it is feasible to superimpose industrial policy goals onto a mechanism born from liberal, market-based ideals without sacrificing policy coherence. We can very tentatively distinguish between the three views.

First, proponents of strong EU industrial policy argue for common financing, common governance, and common conditionalities as the best way to address tensions within the Single Market and its competition policy (Eisl, 2024). This centralised approach is appealing, though unrealistic given the EU’s limited fiscal capacity. Within this perspective, as long as EU industrial policy is pro-competitive, there is no tension between the two. A conflict between competition and industrial policy only arises when industrial policy is ‘deployed destructively’ (Scott Morton, 2024[2])

Second, most agree on the need for industrial policy; the real debate concerns its form (Hodge et al., 2024; Baquie et al., 2025). In the case of the EU battery industry, there is an argument against vertical industrial policy and the case for horizontal measures, such as general tax incentives and regulations (Grafström, 2024). From this perspective, the argument is that the paramount task is completing the Single Market, which is considered overly fragmented. For example, a tech company wanting to operate in France and Germany might still face different data protection laws, licensing rules and tax systems. Restrictions on professional qualifications, licenses, and establishment rights persist. Due to differences in legal systems, insolvency laws and investor protections, capital and investment flows are still heavily national. This view argues that the EU's Single Market is fragmented due to policy inconsistencies and misdirected approaches to competition policy (Bauer, 2023). Recent industrial policy initiatives may exacerbate this fragmentation, hindering companies' ability to scale and compete internationally. The current "one Directive + 27 different Member State laws" model is considered detrimental to European innovation and growth (ibid).

The third perspective is the most present and can be labelled as 'realists' as it acknowledges the need for a new type of industrial policy that goes beyond the past's horizontal policies, but also

[2] Scott Morton, 2024 The three pillars of effective European Union competition policy , Bruegel Policy brief, https://www.bruegel.org/policy-brief/three-pillars-effective-european-union-competition-policy?utm_source=chatgpt.com

recognises that the EU industrial policy lacks full fiscal capacity, and thus, coordination is the major challenge. Letta and Draghi's reports also reflect this 'realists' perspective.

So far, EU-level industrial policy has been adopted based on 'exemptions' to the Single Market (SM) rules. This raises the question of how long this exceptionalism can last. For example, the Temporary Crisis and Transition Framework (TCTF) is currently in effect until December 31, 2025. The Recovery and Resilience Facility (RRF) officially expires in 2026, and all investments must be completed by then. Also, the Chips Act and Net-Zero Industry Act have introduced targeted exemptions or derogations from standard EU procedures, especially regarding State aid control, Public procurement, Permitting timelines and Competition neutrality. These exemptions are justified politically and legally as necessary to achieve strategic autonomy, green transition, and resilience in key sectors. However, the more these exceptions multiply, the greater the strain on the traditional model. Policy coherence is at stake, and the Union will likely need to clarify whether it remains a purely rules-based system or becomes a more active industrial policy vehicle.

In assessing this shift in the nature of SM, it might be useful to consider two competing hypotheses.

Hypothesis 1 is about **Extending and Broadening the Role of the Single Market, Yet Remaining Rule-Based**. Under this hypothesis, the SM continues as an open, rule-driven system. New objectives—such as decarbonisation—are grafted onto it but do not fundamentally alter its foundational logic. The main policy instruments remain competition rules, state-aid restrictions, and harmonised standards. Hypothesis 2 is about a **Fundamental Paradigm Shift Toward Industrial Policy**. The Single Market is transformed into an active tool for steering industrial development and strategic autonomy. This would involve more than small adjustments; the entire market framework would become intertwined with political and economic objectives (e.g., targeted investments, alliances, and sector-specific interventions).

Which of these paths will dominate is uncertain. While H1 suggests continuity, H2 implies a genuinely new model that may clash with the original premises of the Single Market.

2.2 New challenges

The Single Market and the approach to its governance over the last 30 years have evolved. A standard rationale for SM is gains due to large economies of scale, allocative efficiencies, and removal of trading and legal barriers[3]. However, there seems to be emerging agreement that *the single market policy should not only be about reducing barriers,* though its new scope is still a 'work in progress'[4]. While we acknowledge that its roles are a matter of normative policy decisions, its scope is also an empirical issue, as can be detected by the portfolio of instruments used to regulate the market and promote or protect specific activities. A cursory look at the range of the EU strategies, policies, regulations and funding instruments would reveal the huge complexity of the

[3] EP (2014) The Cost of Non- Europe in the Single Market ('Cecchini Revisited'), European Parliamentary Research Service

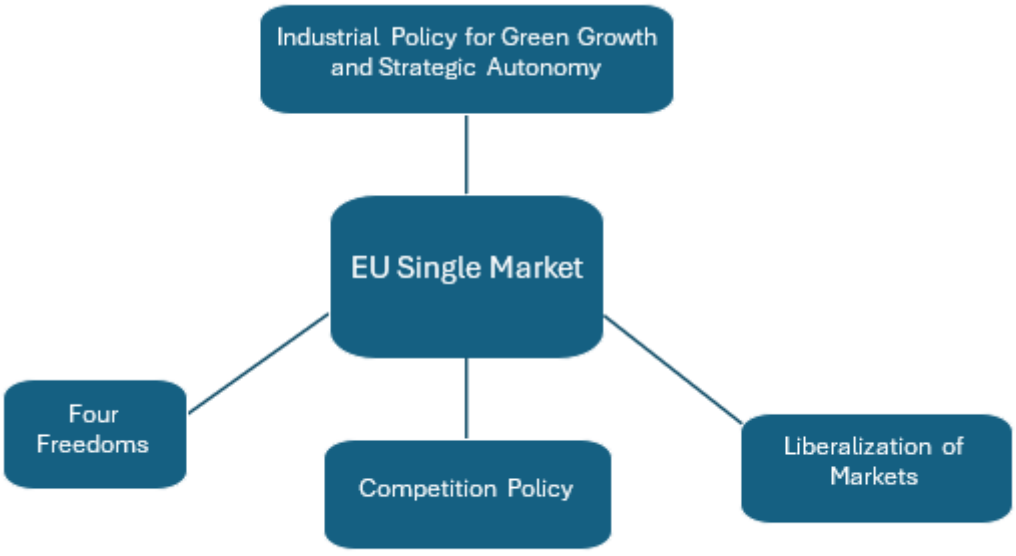
[4] In a statement on the 30th anniversary of the single market, Anna Cavazzini (Greens/EFA, Germany), the chair of Parliament's internal market committee, called for further steps to develop the rules on which the single market is based. "The single market has to become a tool to implement our policy goals and values, from fighting the climate crisis to defending our democracy online". https://www.europarl.europa.eu/news/en/headlines/economy/20230112ST066302/30-years-of-eu-single-market-benefits-and-challenges-infographics#ssh

SM machinery, whose boundaries have blurred well beyond *acquis communautaire*. It is also a continuous process of adjustments and responses to emerging challenges, which suggests that there seems to be a gradual paradigmatic shift in understanding the role of SM.

Until recently, the dominant view was that the unfettered SM with its corrective mechanisms (Common Agricultural Policy - CAP, Cohesion funds, state aid) is the best way to achieve economic growth and prosperity. The challenges of the last 15 years have questioned that logic, as the direction of economic growth has been questioned. Until recently, the logic 'market knows the best' also permeated the policy logic, where the role of policy was to support the functioning of the market. In Figure 1, the focus is on factors of SM in the lower quadrants (four freedoms, liberalisation and competition policy). Adding green growth and strategic autonomy as two major objectives means that only support to SM as practised so far, is insufficient. Instead, how to shape SM so that the EU can achieve its strategic goals is the centre of policy attention.

The emerging challenge of green growth requires shifting from solely static, efficiency-driven aims towards sustainability and resilience as strategic goals. The EU Single Market is expected to promote green digital transformation and social sustainability and support the EU's open strategic autonomy policy. This represents a paradigmatic shift from focusing on static market efficiencies as criteria towards promoting structural transformation and stability (resilience)

Figure 1: Old and New Pillars of the Single Market



Source: author partly based on Breuss (2023[5])

[5] Fritz Breuss (2023) EU's Single Market at 30 Policy Brief No. 57, January 2023 FIW Policy Briefs

economic systems while also responding to geoeconomic challenges leads to further extension of the scope and nature of the market and its blurring boundaries with different forms of industrial policy.

From this evolving context, three policy challenges arise[6]:

1. Is it viable to keep stacking new regulatory ambitions on top of the old rules-based architecture without encountering fundamental inconsistencies?
2. How can industrial policy be established, given the trade-off between the limited fiscal capacity of the EU and the challenges of industrial policy coordination?
3. What are the challenges of incorporating criteria of conditionality and accountability into the EU industrial policy, and what governance model emerges as a response to new challenges?

In continuation, we will address each of these issues individually.

[6] Here we do not address the primary question: How does pursuing both green growth and strategic autonomy reshape the boundaries and nature of the Single Market? Further on this Radosevic (2023) EU Single Market as a Tool of 'Green' Socioeconomic Transformation (Green Growth): Oxymoron or Strategic Advantage?, mimeo, prepared for DG Grow within DG Growth Fellow 2023 program

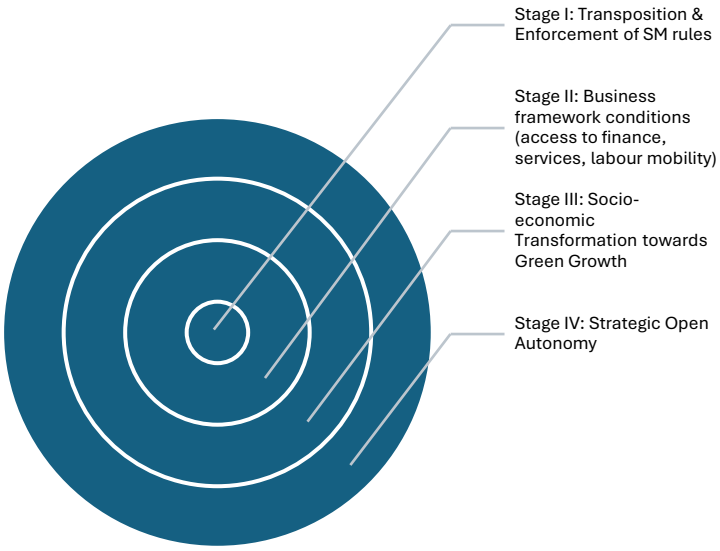
3 Emerging Trade-Offs in the Single Market's Emerging Paradigm

Elsewhere (see Radosevic, 2024[7]), we have considered key dimensions of the shifting paradigm of the SM as the two distinct worldviews or models of market and policy. The old/current paradigm reflects the established view of the SM as the mechanism which, if run by *a.c.,* is sufficient to generate growth and welfare for consumers.

Figure 2 simplifies graphically the shift in the paradigm as the changing boundaries of the institutionalisation of the Single Market, in which a new layer comes on top of the old one. This raises the question of whether it is realistic or feasible to add one regulatory layer on top of the other without producing a very inconsistent architecture of the SM. Or whether adding one layer on top of the other is not only conceptually incompatible but practically not feasible. In a nutshell, are we creating an oxymoron that will morph into something that will not generate market order as envisaged by the original SM plan, but also not achieve structural transformation towards green growth as envisaged by the new plan for the SM? Is the emerging paradigm indeed the paradigm, or will it fail under the burden of its paradoxes or contradictions?

From the perspective of the politics of the policy, adding layers is the most convenient political solution, which generates support for change, but in which nobody seems to lose. This is possible by not addressing the trade-offs between the old and widely accepted and the new and still contestable paradigm of the SM. However, these trade-offs or seeming contradictions will emerge or are already emerging. We address the most significant trade-offs: first, between competition and industrial policy; second, between focus on consumers and individual firms vs focus on ecosystems (value chains, alliances, regions); and third, between the openness of SM and its strategic autonomy.

Figure 2: Old and New Pillars of the Single Market



Source: author

[7] Slavo Radosevic (2024) EU single market embracing 'green' industrial policy: paradigm shift and challenges. DG GROW EU Single Market Papers, EB 2024/6 -https://ec.europa.eu/docsroom/documents/58214

3.1 Competition vs. Industrial Policy

The first major tension is between **competition policy** (focusing on fair market structures and preventing monopolies) and **industrial policy** (often favouring particular sectors, alliances, or national champions). Traditional EU competition law targets behaviour by individual firms and is relatively agnostic about whether certain sectors should flourish or fade. Industrial policy, by contrast, seeks to bolster ecosystems—entire networks of firms, research institutions, and supply chains.

If alliances or "European champions" receive special support, how does that square with rules that forbid preferential treatment? While exemptions can be granted for "Important Projects of Common European Interest" (IPCEIs), applying these too broadly risks eroding the level playing field principle.

The core of the SM is about ensuring fair competition and free movement of goods, services, people and capital. The SM relies on clear rules to promote economic integration and benefit citizens and businesses. In that context, the emergence of industrial policy and envisaged reform of the State Aid system seems a qualitative departure and contradictory to its original purpose. In particular, this applies to competition policy, which has been sacrosanct in relation to state aid rules. For example, the European Chips Act, which promises €43 billion in "*policy-driven investment*" up to 2030, opens the possibility of a national race for subsidies and generation of policy-induced inequalities among countries and regions (Poitiers and Weil, 2022; Herrero and Poitiers, 2022)[8]. On the other hand, the EU may face supply bottlenecks in key sectors, and there is no certainty that, in the global race for subsidies, the SM in microelectronics, as it is, will deliver what is required to ensure economic growth.

There is justified suspicion whether "*a system of open and competitive markets*" (Art. 130 of the EU Treaty[9]) will be able to foster the competitiveness of the European industry, especially given that the Treaty stipulates that '*title shall not provide a basis for the introduction by the Community of any measure which could lead to a distortion of competition*'[10]. The trade-off between competition and industrial policy is at the core of this concern. Are they incompatible with each other?

There is extensive academic literature of diverse methodological origins on industrial policy, which also has opposing views on **the compatibility of competition and industrial policies**. It is beyond our task here to try to summarise this work. Our view is that the question, when phrased in a generic or universalistic way, is impossible to answer without considering the context.

Among disparate views on the issue, we highlight the one which sees **competition policy as industrial policy**. On one hand, industrial policy aims to protect or subsidise domestic firms from foreign competition, but that may be effective only if it also bolsters competition between domestic firms (Brooks, undated)[11]. In other words, the issue is about **rivalry rather than single national or EU champion**. However, there are some areas where economies of scale are so large that the

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8 García-Herrero A. and N. Poitiers (2022) 'Europe's promised semiconductor subsidies need to be better targeted', Bruegel Blog, 17 October

9 https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:11992M/TXT

10 ibid

11 Douglas H. Brooks (undated) Industrial and Competition Policy: Conflict or Complementarity? ADBI Research Policy Brief No. 24, https://www.adb.org/sites/default/files/publication/157265/adbi-rpb24.pdf

issue boils down to individual investments. For example, the new Intel foundry in Magdeburg, which will receive a subsidy of €6.8 billion, is a case in point.

Resolving trade-offs would require a much broader understanding of competition policy, which would need to include long-term green growth objectives into competition laws and which would take into account dynamic and not only static market structure considerations. Also, reform of State Aid would need to be much more specific regarding exemptions, exceptions, and exclusions from competition law (Evenet, 2005[12]). In other words, the issue cannot be resolved only regarding the current SM; it would need to integrate key tenets of the EU pro-competition industrial policy in its framework**.** This would have **to differentiate anti-competitive from competitively neutral subsidies** in the context of the long-term socio-economic objectives (UNCTAD, 2009[13]).

Resolving the trade-off between competition and industrial policy would require a radical rethink of competition policy, which should go beyond its current narrow framework focused solely on the market structure.

This issue is well recognised by both Letta (2024[14]) and Draghi (2024[15]) reports. Letta rejects the idea that industrial policy and the Single Market are inherently in conflict. He sees industrial policy not as market distortion but as a strategic complement that needs the Single Market to function at scale and coherently. But also, the report is clear about the risk of distortions via uneven national subsidies (p.26) while pointing out that the new role of the Single Market means shaping market conditions, not just enforcing competition. It envisages structural changes which extend the boundaries of the Single Market by:

- enhancing free movement of knowledge, research, and innovation by facilitating mutual recognition and portability of grants, pensions, and social rights, removing barriers to scale-up and commercialising, etc.
- introducing the labour market union by mutual recognition of qualifications and common standards
- pushing for a fully integrated capital market to channel investment efficiently in industrial projects

However, it also proposes:

- EU level and cross-border public procurement, which will enable active shaping of markets and create demand for EU industry
- - New governance of the Single Market (SM), which will ensure that the SM is strategically governed and not just passively administered.

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12 Evenett, S. J. 2005. "Would enforcing competition law compromise industrial policy objectives?" pp. 47–70 in Brooks, D. H. and S.J. Evenett, Competition Policy and Development in Asia, London: Palgrave Macmillan

13 UNCTAD (2009) The relationship between competition and industrial policies in promoting economic development, Study by the UNCTAD secretariat Trade and Development Commission, Intergovernmental Group of Experts on Competition Law and Policy, Tenth session Geneva, 7–9 July 2009, ciclpd3_en.pdf (unctad.org)

14 Letta Enrico (2024) Much more than a market: Empowering the Single Market to deliver a sustainable future and prosperity for all EU Citizens, April,

15 EC (2024) The future of European competitiveness, Part B: In-depth analysis and recommendations, September

Traditionally, the SM has been about rules. Still, Letta argues that those rules are not neutral in their effects. They can and should be reshaped, updated and selectively mobilised to serve strategic, industrial, environmental and geopolitical objectives. However, this requires defragmentation of rules at the national level and in many areas, their harmonisation.

Draghi's report also points to the dual role of regulation. On one hand, it calls for more regulation to reduce fragmentation in the SM but less regulation to reduce the regulatory burden (Divissenko, 2025[16]). It calls for an ' innovation-prone regulatory framework', which is not clearly defined and, so far, confined to regulatory sandboxes at member states and calls for systematic use of 'experimentation clauses' for agile regulation, including sunset clauses.

We find both responses somewhat inarticulate and undeveloped. The compatibility between competition and industrial policy is not binary. However, this also does not mean that industrial policy must necessarily be market-friendly, non-discriminatory, horizontal, technology-neutral, and not distortionary for competition. Rather, compatibility refers to the strategic alignment of industrial and competition policy within the constraints of the SM, which may still allow for selective, even distortionary, interventions — provided they are justified by shared EU-wide objectives and governed by transparent, conditional rules.

In that sense, compatibility is three three-dimensional concept and we can distinguish between: instrumental, objectives and institutional compatibility[17].

Instrumental compatibility is about aligning policy tools such as state aid rules to support EU-wide industrial goals (Hornkol and Pelekis, 2025)[18] , Piechucka et al (2023)[19] (Editorial)[20]. For instance, Important Projects of Common European Interest (IPCEIs) exemplify how competition law can accommodate industrial policy: state aid exemptions are granted when national funding contributes to EU strategic objectives like battery production or semiconductors. Conversely, state aid for regional broadband [21] rejected in the past reveals where compatibility breaks down due to narrow interpretations of market distortion.

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16 Nikita Divissenko (2025) From Draghi report to the European Commission's regulatory agenda: regulatory transformation or deregulation? European Law Blog, https://www.europeanlawblog.eu/pub/88zaty7d/release/1?utm_source=substack&utm_medium=email

17 This tripartite framework of compatibility draws on insights from both EU institutional theory and recent policy practice.

18 Hornkohl, Lena and Pelekis, Dionysios, State Aid Control as a Coordinating Instrument for EU Industrial Policy in the Internal Market (February 16, 2025). Available at SSRN: https://ssrn.com/abstract=5140227 or http://dx.doi.org/10.2139/ssrn.5140227

19 Piechucka, Joanna and Saurí Romero, Lluís and Smulders, Ben, Industrial Policies, Competition and Efficiency: The Need for State Aid Control (September 29, 2023). Journal of Competition Law & Economics, Forthcoming, Available at SSRN: https://ssrn.com/abstract=4603658 or http://dx.doi.org/10.2139/ssrn.4603658

20 EDITORIAL COMMENTS (2024) The EU's integrated policy approach towards competitiveness: The interplay between State aid control and industrial policies, Common Market Law Review 61: 1–12, 2024 https://www.universiteitleiden.nl/binaries/content/assets/rechtsgeleerdheid/instituut-voor-publiekrecht/europees-recht/cola2024001.pdf

21 In certain instances, proposed state aid for broadband infrastructure in regions with existing or planned commercial broadband services has been scrutinized or required modifications to comply with EU rules. The Commission emphasizes the need for public funds to target "white areas"—regions lacking current or planned broadband services—to avoid undermining private investment and competition. https://competition-policy.ec.europa.eu/system/files/2024-01/stateaid_broadband_decisions.pdf?utm_source=chatgpt.com

Objective compatibility is about embedding long-term goals such as competitiveness, sustainability, and resilience into both industrial and competition policy (Iken et al, 2024)[22],(Hausfeld, 2024)[23] , Zachman (2022)[24]. Objective compatibility may justify non-neutral policies if their purpose (e.g. resilience, decarbonisation) is embedded across the policy space. The EU Green Deal moves in this direction by seeking to align competition enforcement with decarbonisation targets (De Stefano, 2020)[25]. However, tension remains when short-term consumer welfare (e.g. low energy prices) is prioritised over long-term resilience (e.g. domestic energy technologies), creating friction between DG COMP's legacy criteria and the EU's green transition strategy (Keating, 2020[26]).

Institutional compatibility involves evolving governance structures to mediate and align priorities across policy domains (FT, 2024)[27]. It concerns the evolution of governance architecture that allows regulatory bodies to internalise industrial goals. Institutional compatibility encourages coordination mechanisms (e.g. governance innovations) rather than a ban on sectoral intervention. The recent Temporary Crisis and Transition Framework (TCTF) reform allowed DG COMP to issue pre-approved state aid templates, facilitating quicker and politically aligned deployment of national subsidies. Yet, lack of coordination between DG COMP and DG GROW on merger assessments in key sectors (e.g. rail, pharmaceuticals) has at times revealed institutional disconnects, with industrial considerations excluded from competition rulings (Efstathiou, 2019) [28], EU (2016[29]).

Compatibility does not require that industrial policy be fully market-neutral or non-distortionary. Rather, it allows for selective interventions aligned with shared EU objectives and embedded in rule-based, transparent mechanisms. Compatibility thus reflects a shift from rigid market liberalism toward a principled flexibility in reconciling competition policy with long-term strategic aims.

Viewed this way, tensions between competition and industrial policy become opportunities for strategic alignment through policy design, revised mandates, and cross-directorate coordination.

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22 Alexander Iken, Terézia Kianičková, Marion Bailly, Andrea Usai, Gabor Koltay, Stephan Simon (2024) Non-Price Competition: EU Merger Control Framework and Case Practice, Competition Policy Brief No 1/2024, https://competition-policy.ec.europa.eu/document/download/b0042baf-a258-4c31-b31a-6331cb8d54a2_en?filename=kdak24001enn_competition_policy_brief_non-price_merger-control.pdf

23 Hausefld (2024) Competition law and sustainability: the case for coherence, Hausfeld Competitioon Bulletin, https://www.hausfeld.com/en-gb/what-we-think/competition-bulletin/competition-law-and-sustainability-the-case-for-coherence

24 Zachman, George (2022) The role of competition in the transition to climate neutrality, Bruegele Working Paper, June, https://www.bruegel.org/working-paper/role-competition-transition-climate-neutrality

25 De Stefano Gianni (2020) EU Competition Lw and & The Green Deal: The consistency Road, Competition Policy International, https://www.competitionpolicyinternational.com/wp-content/uploads/2020/07/05-EU-Competition-Law-the-Green-Deal-The-Consistency-Road-Gianni-De-Stefano.pdf

26 Keating David (2020) Is EU competition policy killing the Green Deal?, Energy Monitor, https://www.energymonitor.ai/green-deals/is-eu-competition-policy-killing-the-green-deal/?cf-view

27 FT (Editorial Board) (2024) The EU's competition policy conundrum, https://www.ft.com/content/ab3d1470-25a9-466f-bc84-6136c99b246b

28 Efstathiou Konstantinos (2019) The Alstom-Siemens merger and the need for European champions, Bruegel, Blog, https://www.bruegel.org/blog-post/alstom-siemens-merger-and-need-european-champions

29 EU (2016) Mergers: Commission approves acquisition of Allergan Generics by Teva, subject to conditions, Press Release, https://ec.europa.eu/commission/presscorner/detail/en/ip_16_727

However, compatibility is not automatic, but achievable through deliberate adjustments in tools, goals, and institutions. See further on this in the conclusions.

3.2 Internal Openness vs. External Strategic Autonomy

A second tension arises between preserving **internal openness**—the very raison d'être of the Single Market—and enhancing the EU's **external strategic autonomy**. In other words, can the SM remain open to global trade while encouraging partial reshoring of critical industries (e.g., renewable energy technologies and advanced microchips)? Such moves might involve new tariffs, regulatory barriers, or financing instruments that shield certain sectors from global competition. Balancing the principle of free movement of goods and services with strategic concerns (like the security of supply) will likely test the existing governance structures designed for an era of relatively unencumbered globalisation.

By creating a seamless trading area, the SM significantly influenced globalisation and made the EU one of the major global trading partners. Until the recent global geopolitical shifts, the EU SM principles were fully compatible with rule-based multilateralism. Internal openness of the SM was fully consistent with widening the scale of multilateral free trade agreements. On the other hand, looking towards the future, the Single Market has qualitatively new objectives. Its role is not only to stimulate trade and thus drive competitiveness, growth, and recovery from the COVID-19 crisis, but also to promote the EU's green and digital transitions and to be the mechanism of the EU's new industrial strategy[30]. These objectives would have to be pursued in a qualitatively different global context characterised by the new geopolitics, new global threats and global subsidy races. In the contemporary context, international trade has become more politicised in the EU and beyond, which contradicts the rule-based logic of the EU SM (Titievskaia and Harte, 2019)[31].

The response of the EU to the changing global context is ambiguously phrased as '*strategic autonomy*', '*strategic sovereignty*', or '*open strategic autonomy*' (OSA)(Damen, 2022)[32]. However defined, the concept will remain ambiguous and searching for a rational explanation of this contradiction may seem futile. The term's ambiguity reflects the complexity and uncertainty of the emerging world order and the inability of policymakers to articulate clear solutions. This by itself, is nothing new. As Wildawsky (2018[33]) points out, ambiguity is useful politically as it enables '*people (who might otherwise disagree if everything was made clear) to get together*... (The ambiguity avoids) *establishing a firm criterion against which to judge consistency*'. By stating policies in general terms, '*leave ample scope for varying interpretations of their intent*' (ibid).

A new policy aim closely related to 'strategic autonomy' is called 'technological sovereignty', which is an even more debatable concept which does not distinguish between the capacity to use technology, to maintain and assimilate it from the capacity to innovate or design it or own it

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30 https://www.consilium.europa.eu/en/policies/deeper-single-market/

31 Jana Titievskaia and Roderick Harte (2019) Members' Research Service International trade and globalisation - European Parliament, European Parliamentary Research Service, https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633176/EPRS_BRI%282019%29633176_EN.pdf.

32 Mario Damen (2022) BRIEFING: EU strategic autonomy 2013-2023. From concept to capacity, Parliamentary Research Service, July 2022, European Parliament, Strategic Foresight and Capabilities Unit, https://www.europarl.europa.eu/RegData/etudes/BRIE/2022/733589/EPRS_BRI(2022)733589_EN.pdf

33 Aaran Wildawsky, 2018, The art and Craft of Policy analysis, Palgrave

(proprietary sovereignty) (New, 2025[34]). We should add regulatory sovereignty, which is probably one of the strongest levers of the EU through the famous 'Brussels effect', which hopefully will not significantly weaken in the new hostile global geopolitical regime.

In that respect, we can differentiate three stages in the EU's approach to strategic autonomy.

First or so far, the dominant stage was aiming for a global free trade system by **expanding the scale of free trade agreements worldwide**. Even today, half of the EU trade is covered by free trade agreements[35]. EU Competitiveness Compass[36] argues that the EU will continue expanding its vast network of trade agreements, '*opening up market access for European companies, securing greater reciprocity, while promoting open rules-based global trade governed by a modernised WTO*' (p. 13).

The second stage is the **passive use of so-called defensive FDI and trade instruments**. Competitiveness Compass refers to using trade defence instruments and enforcing the Foreign Subsidies Regulation. The Clean Industrial Deal (CID) points out that the Commission will continue to use Trade Defence Instruments (TDIs), such as anti-dumping or anti-subsidy duties, to protect its industries from unfair competition. It also foresees the ongoing review of the EU Foreign Direct Investment (FDI) Screening Regulation to reduce the differences between national screening mechanisms. Also, the Commission will adopt guidelines for assessing the distortive effects of foreign subsidies.

However, CID also proposes Clean Trade and Investment Partnerships (CTIPs), which can be considered somewhere between the second and third active stages. They should align the EU's external action with the EU's industrial policy objectives. They will manage strategic dependencies and secure the EU's position in crucial global value chains by diversifying EU supply chains and ensuring better access to raw materials, clean energy, and clean tech.

The third stage is **active use of market access as strategic leverage**. Letta's report supports reciprocity in trade and investment, i.e. a softer version of '*access to market for access to tech'*. Draghi's report is somewhat more articulate in that respect by arguing for leveraging knowledge transfer from foreign direct investment (FDI) through joint ventures or cooperation agreements for knowledge transfer and sharing between EU and non-EU companies (p 137). This approach is the most elaborate in the Automotive Sector Communication – Industrial Action Plan (2025), which proposes not only Trade Defence Instruments and the Foreign Subsidies Regulation but also measures to strengthen the contribution of foreign investments in the automotive sector to increase further their added value for the EU (p. 17). This may include, for example, joint venture requirements, senior management requirements, facilitating agreements that support the needs of EU industry (such as off-take or license services and royalty agreements with foreign partners), licensing of technology or intellectual property, and commitments to supply critical inputs (p17). Indeed, it seems like the EU is emulating the Chinese '*access to market for access to technology*' policy, which makes sense as the EU has to catch up with China in EV automotive technology

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[34] New Patricia (2025) Technological dependence and European industrial policies: the dilemma between proprietary, territorial and regulatory sovereignty, In Industry, development and sovereignty 17th - 21st century, Institute of Public Management and Economic Development, Paris Eds. Clotilde Druelle-Korn , Patrick Fridenson, Pascal Griset and Laurent Warlouzet, https://books.openedition.org/igpde/21707

[35] ref

[36] EC (2025) A Competitiveness Compass for the EU, COM(2025) 30 final

(McKinsey, 2025[37]). However, we should remember that in the Chinese case, technology transfers and joint ventures failed to develop domestic innovation without intensive domestic technology accumulation and technology assimilation. Subsidisation and market protection need to be combined with strong competition and incentives for companies to innovate and focus on efficiency (Mazzocco, 2025[38])

We foresee that as the EC goes deeper into sectoral policies, the temptation to engage in policies akin to 'access to the market for access to technology' will become greater. However, history shows that managing interdependencies appears precarious and complex and that sometimes sovereignty can be best achieved through international alliances (New, 2025). We think it is worth pointing out two specific issues in the EU context.

First, large SM is a natural lever for accessing technology, and the EU has huge bargaining power in this respect. This may seem like emulating the successful Chinese policy of trading in the market for access to technology. However, we should remember that this approach has been used in different ways throughout history by any country facing the issue of technology transfer bargaining with technological leaders. FDI or endogenous technology efforts alone are insufficient for catching up or following the technology frontier. We expect countries to develop technologically only when openness is complemented by active technology absorption and adaptation. Countries that managed to generate **complementarities** between local technology efforts and accessing knowledge of technology were catching up (Mowery and Oxley, 1995; [39] Radosevic, 1999[40]; Jung and Lee, 2010[41]). Relying exclusively on FDI, especially for small economies, can generate high growth for quite some time, as demonstrated in the case of Ireland. However, the Irish lesson is that failing to embed FDI into the wider economy and ignoring the diversity of firms' ownership, size, and sectors will reduce their transformative impact and make economies vulnerable to external uncertainties (Bailey and Lenihan, 2015)[42]. Finally, extensive literature on FDI spillovers in central and Eastern Europe demonstrates insufficient reliance exclusively on FDI as the source of technology upgrading (Bruno and Cipolina, 2018[43]; Bontadini et al, 2024[44]; Li, 2025)[45].

Access to SM is a very strong strategic lever to reconcile the trade-off between the openness of the SM and the need to control the EU technological interdependencies with the global economy. In

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37 McKinsey (2025) European automotive industry: What it takes to regain competitiveness,

38 Ilaria Mazzocco (2025) Driving Diplomacy: The Future of Europe's Automotive Sector and EU-China Relations, CSIS BRIEFS | WWW.CSIS.ORG

39 Mowery, D.C. and Oxley, J.E. (1995) 'Inward Technology Transfer and Competitiveness: The Role of National Innovation Systems'. Cambridge Journal of Economics, Vol. 19, pp. 67–93.

40 Radosevic, S. (1999) International Technology Transfer and Catch-Up in Economic Development (Cheltenham: Edward Elgar).

41 Jung, M. and Lee, K. (2010) 'Sectoral Systems of Innovation and Productivity Catch-Up: Determinants of the Productivity Gap between Korean and Japanese Firms'. Industrial and Corporate Change, Vol. 19, No. 4, pp. 1037–69

42 David Bailey & Helena Lenihan (2015) A Critical Reflection on Irish Industrial Policy: A Strategic Choice Approach, International Journal of the Economics of Business, 22:1, 47-71, DOI: 10.1080/13571516.2014.993218

43 Bruno, R. L., & Cipollina, M. (2018). A meta-analysis of the indirect impact of foreign direct investment in old and new EU member states: Understanding productivity spillovers. The World Economy, 41(5),

44 Bontadini, F., Evangelista, R., Meliciani, V., & Savona, M. (2024). Technology, global value chains and functional specialisation in Europe. Research Policy, 53(2), 104908

45 Chenyang Li (2025) The Spillover of Foreign Direct Investment on Domestic Firm Growth in CEEs, PhD, University College London

strategic technology policy, the solution is neither full openness nor technology autonomy, but complementing endogenous technology investments with technology transfer via FDI and GVC. Resolving this trade-off is even more important in the EU, which has a poor coordination record between R&D policy and technology transfer. Our econometric analysis based on extensive firm-level data shows, as would be expected, that the productivity gaps in the EU are related strongly to technology variables (R&D intensity and R&D embodied in purchased Machinery & Equipment (M&E) in the sector)(Bruno et al., 2022[46]). However, against expectations, when considered together, these two forms of R&D appear to be disjointed alternatives, i.e. insignificant, suggesting mismatches between disembodied R&D investments and the level and nature of the R&D embodied in purchased M&E. These results indicate a lack of coordination between EU R&D policy and technology transfer, for example, Foreign Direct Investment (FDI), trade and industrial policy. The challenge is ensuring that FDI supports industrial goals without compromising technological sovereignty.

Second, the EU has great weight in global supply chains, which generate interdependencies. High integration of the EU in GVCs explains its preference for '*de-risking (managing the risks of continued interdependence) over decoupling (detaching economies from one another as in the Cold War)*' (Farrel and Newman, 2023[47]). However, this requires the integration of economic security considerations into FDI, trade and GVC policies. The EU has already embarked on this challenge by establishing the framework for foreign investment screening mechanisms, regulations on foreign subsidies and the Anti-Coercion Instrument. These could be described as defensive mechanisms that must be combined with positive mechanisms of attracting new technologies, the most significant of which is access to SM. The issue is whether they are blunt instruments and, if not, whether they will be effective.

Integrating economic security considerations into policies for SM access while ensuring technology sovereignty is an organisational, legal and policy challenge. While EU decision-making in trade policy, the SM and competition policy is centralised, its foreign and security policy remains largely at the national level[48]. Also, economic security considerations would need to be built into decision-making structures that can balance the need for openness of the EU SM with its greater market control in the interest of economic security. A balance between maintaining open economic exchange and limiting interactions via control and anti-coercion mechanisms contains a huge scope for miscalculation and overreaction (Farrel and Newman, 2023). Economic security is not fixed, i.e. defined in advance, which makes it incompatible with a rule-based system. This will represent a significant legal and organisational challenge for the EC.

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[46] Bruno, RL; Douarin, E; Korosteleva, J; Radosevic, S; (2022) The Two Disjointed Faces of R&D and the Productivity Gap in Europe. Journal of Common Market Studies 10.1111/jcms.13260.

[47] Henry Farrell and Abraham Newman (2023) The New Economic Security State. How De-risking Will Remake Geopolitics, Foreign Affairs, October, 2023

[48] European Parliament (2021) WORKSHOP Achieving Strategic Sovereignty for the EU, Policy Department for External Relations https://www.europarl.europa.eu/RegData/etudes/STUD/2021/653634/EXPO_STU%282021%29653634_EN.pdf

3.3 Market Structure vs. Ecosystem Governance

Traditional competition policy is well-equipped to assess whether a single firm abuses its market dominance. However, contemporary industrial policies often emphasise **ecosystems**—the networks of firms, public agencies, universities, and investors collectively shaping a sector's competitiveness. Regulating these ecosystems purely through Single Market rules (or a narrow competition lens) ignores the collaborative nature of many modern industrial alliances (e.g., joint R&D or shared manufacturing platforms). As the EU seeks to promote such partnerships, the tension between traditional, firm-level regulation and more holistic ecosystem approaches becomes more pronounced.

The EU competition policy, among other issues, monitors planned mergers and acquisitions of companies and detects cartels. This focus on individual firms contradicts the increasing role of ecosystems from both competition and industrial policy perspectives.

First, the increasing role of digital platforms brings into competition policy the relationships between digital platforms and the digital ecosystems in which they operate. This challenges the conventional narrow view of competition policy and is inadequate in the digital economy. The interdependence of digital markets and the role of digital platforms as regulators setting rules for their users and their power to leverage market power from one market to another or preferential treatment of one's product is escaping a narrow view of competition policy (Szczepański, 2019[49]. Here, we should consider a valid critique of the current EU competition policy, which is solely focused on the objectives of efficiency and consumer welfare but ignores addressing underlying business models, infrastructure and incentives, which leave control of innovation trajectory in the hands of incumbents who preserve their power (Caffarra, 2023[50])

Second, the new entities of industrial policy, like IPCE and industrial alliances, are ecosystem-level entities that are out of the focus of competition policy but are integral to the shaping of the emerging SM. IPCEIs are based on state aid exemptions (Articles 107–108 TFEU) that enable cross-border projects in strategic sectors like batteries, hydrogen, and microelectronics. They can be considered *de facto* industrial policy with a collaborative EU twist. Letta's report calls for streamlining IPCEIs and improving governance to make them more accessible, especially to smaller Member States. Draghi's report proposes *to extend the IPCEI instrument beyond only breakthrough technologies and the 'global state of the art in the sector' to include industrial (e.g. infrastructure) projects of common interest and all forms of innovation (…) and expand the Single Market'* (p305). The Competitiveness Compass supports broadening its scope and streamlining its approval. The Industrial Action Plan for the European Automotive Sector (EC, 2025b) proposes identifying candidates for an important common European interest (IPCEI) project for clean, connected, and autonomous vehicles.

From this, it seems evident that the IPCE are here to stay and proliferate. However, these entities cannot be integrated into the SM by being regulated only from the SM or competition policy side, as

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[49] Marcin Szczepański (2019) EU competition policy. Key to a fair single market, IN-DEPTH ANALYSIS EPRS | European Parliamentary Research Service, Members' Research Service PE 642.209 – October 2019 https://www.europarl.europa.eu/RegData/etudes/IDAN/2019/642209/EPRS_IDA%282019%29642209_EN.pdf

[50] Cristina Caffarra (2023) Europe's Tech Regulation Is Not an Economic Policy, https://www.project-syndicate.org/commentary/european-union-digital-markets-act-will-not-tame-big-tech-by-cristina-caffarra-2023-10

they are also industrial policy entities. They would have to be reconciled within the integrated SM *cum* policy space within the context of hybrid SM governance. The state vs market governance framework is unsuitable for discerning new emerging issues based on integrating the SM and industrial policy. The challenge is how many new mezzo-level entities can be accommodated into the rule-based system while simultaneously stimulating open market competition. This calls for the EU-wide singular decision-making body to reform the current approach, which, if not corrected, may result in overlapping programs and coordination instruments (Hodge et al., 2024:25).

4 The EU's Lacking Fiscal Capacity and the challenges of industrial policy coordination

The critical limit of the EU industrial policy is the EU's limited "fiscal autonomy" vis-à-vis its relatively high "regulatory autonomy." Member States, by contrast, often have significant fiscal leeway but less freedom to deviate from EU regulations. The net effect is that EU-level industrial policy has leaned heavily on regulatory instruments—"pricing externalities" or establishing rules—rather than direct public investments.

Compared to the US, the EU market is more integrated than the US (Parsons and Smith, 2022[51]). Regarding services, the EU seems to be a mirror image of the US[52] , while the personnel mobility situation is quite mixed, i.e., it isn't easy to compare (ibid). However, the American federal government enjoy strong fiscal capacity since US states have limited fiscal capacities. Still, as argued by Parsons and Smith (2022), the EU already *has stronger and more systematic rules for internal openness than Americans have ever considered. The US maintains many interstate barriers that the EU has removed or mitigated, from goods standards to professional qualifications, financial regulation, and public* procurement (ibid: 5).

From our perspective, the key fact is that the US Federal government enjoys high fiscal autonomy, which enables it to tolerate more regulatory independence of individual states. On the other hand, the EU does not have autonomous fiscal capacity, so the only way to ensure SM is by reducing the regulatory autonomy of member states[53]. This explains why the completeness of the 'internal' market is seen as much less of an issue in the US than in the EU (ibid).

Table 1 presents the trade-off between the EU member states' higher fiscal autonomy and the EU's higher regulatory autonomy, which is relevant to understanding the emerging SM paradigm.

Table 1: Fiscal capacity and regulatory autonomy in the EU

	Fiscal autonomy		
Regulatory autonomy		High	Low
	High	-	EU level
	Low	EU Members States	-

Source: author

[51] Craig Parsons and Andy Smith (2022) The "completeness" of the EU Single Market in comparison to the United States, Single Market Economics Papers, Economic Commission

[52] 'The EU exhibits default rules of openness with sectoral exceptions, while the U.S. maintains legally separate jurisdictions with sector-specific areas of openness' (ibid: 12).

[53] As Parsons and Smith (2022) argue: 'if the EU had US-style federal capacities to fund infrastructure, insure banking deposits, provide welfare benefits, offer housing support, and so on, its ambitions for economic flows and integration would not depend so heavily on strong single-market rules' (p15).

A lower regulatory autonomy of individual MS would require a higher role of the EU in industrial policy. Yet a lack of fiscal capacity of the EU means that, at least until recently, such a role has been confined to the regulatory realm, which is quite a limited avenue for promoting the greening of the economy, digitalisation and strategic autonomy. The outcome of this structural feature is that the EU industrial policy is **highly biased towards regulations,** including price regulations (cap & trade).

This leads to three features of the situation**. First,** without a robust EU-level capacity to invest directly in major industrial or technology initiatives, the burden falls on Member States, whose fiscal strength varies widely. Wealthier Member States may dominate industrial policy implementation, exacerbating regional disparities. **Second,** the EU must encourage private-sector financing or foster cross-border alliances to meet ambitious green goals. While this approach can mobilise large capital, it complicates the policy landscape, as private actors have varied interests, timelines, and risk appetites. Dependency on external actors (e.g., private investors, third-country funding) limits the EU's ability to act independently in critical sectors. **Third**, limited EU investment capacity restricts the EU's ability to quickly pivot or ramp up support for critical industries when global shocks occur (e.g., sudden disruptions in semiconductor supply chains). Coordinating investments across Member States can delay critical industrial transitions.

Analytically, Table 1 leads us to Table 2, where we try to envisage different scenarios of the EU industrial policy, which are shaped by possible changes in the fiscal capacity of the EU and by changes in the degree of coordination of industrial policy.

Table 2: EU fiscal capacity and coordination of industrial policy: four analytical scenarios

	Weak EU fiscal capacity	**Strong EU fiscal capacity**
EU coordinated industrial policy.	(1) Status quo. **Regulations drive industrial policy.**	(2) **Strong** EU industrial policy supported by EU financial instruments
EU fragmented industrial policy	(3) **Fragmented** EU industrial policy and **weak corrective** mechanisms of the SM governance.	4) **Fragmented SM** and **dominance of the corrective mechanism** of the SM governance, **including correcting industrial policy-driven disparities**

Source: author

Quadrant 1 scenario assumes that the EU fiscal capacity will remain limited, but the EU will continue coordinating industrial policy. Given the absence of financial instruments, the focus of the policy will be driven by regulations as they are compatible with the repertoire of instruments available in the EU. Quadrant 2 scenario assumes that the EU will significantly improve its financial capacity, enabling a firmly coordinated industrial policy. Quadrant 3 scenario assumes weak EU fiscal capacity and weakening of the EU coordinated industrial policy. This may be due to the industrial policy's overly conflictual and political nature, which firmly becomes MS's prerogative. Also, the proposed new EU fiscal framework may lead to stronger differentiation in the fiscal capacities of individual member states and, thus, to different capacities to conduct national

industrial policies (Eisl,2023)[54]. This would inevitably lead to further polarisations and differences among countries regarding the degree of strategic autonomy and the type of policies. The fragmented industrial policy would require strengthening the EU corrective mechanisms to compensate losers of industrial policy-generated inequalities. However, the EU fiscal capacity will be weak, which will endanger the coherence and homogeneity of the SM. Quadrant 4 scenario assumes that the EU will improve its fiscal capacity, but this may not be sufficient to generate a coordinated industrial policy. As a result, the SM will further fragment as a plethora of new EU-level-driven instruments will require new corrective mechanisms, which the EU hopefully will be able to bring due to its strengthened fiscal capacity. These may further enhance the Cohesion and Just Transition policies and even lead to EU-wide unemployment insurance or other social transfers. In this scenario, state aid rules will loosen, but this will be balanced by regional funds to support states with limited resources to run their industrial policies.

The Single Market has led to harmonising industrial policies in the EU toward fewer targeted interventions (Guarascio and Simonazzi, 2016[55]). Changes towards fragmented EU Industrial policy, as envisaged in scenario 4, accompanied by stronger EU fiscal capacity, may have a potentially positive impact as they would open space for more differentiated industrial policy approaches based on the specificities of the individual MS. However, the issue is whether the SM framework in these cases would be flexible enough to accommodate country-specific approaches. This would require a better understanding of the structural constraints of individual economies and how they are affected by the SM. The most significant illustration of this challenge is the Italian economy, whose structural difficulties would require country-specific industrial policy backed by the EU fiscal transfers (see Guarascio et al., 2023)[56]. However, the biggest uncertainty is whether fiscally conservative countries would accept such changes at the EU level (Gambarotto et al., 2019)[57]. This can be resolved only by coordinating EU industrial policy between developed and cohesion regions, i.e., effectively shifting to the quadrant two scenario.

Considering where the EU stands today in four quadrants, it does not fit neatly into any one quadrant of the fiscal–industrial policy matrix. Still, we can characterise the current EU situation as sitting closer to Quadrant 3, which is characterised by fragmented industrial policy combined with weak fiscal capacity at the EU level. While there are emerging efforts at coordination, they fall short of a comprehensive industrial policy supported by robust, centralised fiscal tools. Historically, the EU has relied on regulation and Single Market rules to shape economic behaviour — a model consistent with Quadrant 1 ("status quo"), where weak EU-level fiscal capacity is paired with rules-based industrial coordination. However, the recent trend is a significant and differentiated increase in state aid at the country level, indicating the fragmented nature of EU industrial policy, especially regarding financial firepower. New instruments like NextGenerationEU, InvestEU, and IPCEIs offer partial EU-level investment support but remain exceptional and temporary. Therefore, the EU is best

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54 Eisl A. 2023 "How stringent would the new Stability and Growth Pact be? And for who?", Policy brief, Paris: Jacques Delors Institute, June.

55 Guarascio, D. and Simonazzi, A. 2016. A polarized country in a polarized Europe: an industrial policy for Italy's renaissance, Economia e Politica Industriale, vol. 43, no. 3, 315–322

56 Dario Guarascio, Philipp Heimberger and Francesco Zezza (2023) The Eurozone's Achilles heel: Reassessing Italy's long decline in the context of European integration and globalization
Working Paper No. 238 , Department of Economics and Law, Sapienza University of Rome

57 Francesca Gambarotto, Marco Rangone, Stefano Solari (2019) Financialization and Deindustrialization in the Southern European Periphery Athens Journal of Mediterranean Studies- Volume 5, Issue 3 – Pages 151-172

described as occupying a position between Quadrant 1 and 3 — a hybrid state marked by limited fiscal authority and fragmented investment governance. Although there are visible efforts to steer national policies in a common direction, the EU does not yet operate a genuinely coordinated industrial policy, nor does it possess the fiscal muscle to enforce or finance one at scale. Hence, the EU's current model might be described as "**strategically aligned but structurally fragmented**" — a regulatory core with uneven financial backing across member states.

Accordingly, the future of the EU industrial policy may be determined by 'muddling through', *ad hoc* solutions and improvisations. This is a frequent outcome of a contentious and politically loaded process characterising this structural shift. **First,** reflecting political realism, none of the major policy documents envisage the full EU fiscal capacity. For example, Letta's report does not call for full fiscal federalism. Instead, it builds a model where the EU acts as both a strategic coordinator and a catalytic investor, with selective fiscal power to steer and scale industrial transformation. State aid flexibility should come with "*contributions to common instruments*, " requiring Member States to allocate a portion of their national funding to financing pan-European initiatives and investments (p. 11). **Second**, a substitute for the EU's lacking fiscal capacity could be stronger coordination of fiscal incentives by MS to stimulate investments in new areas. **Third**, the EU can compensate for its limited fiscal capacity by turning its regulatory and market access power into a proactive technology policy tool. The strategic challenge for the EU is not simply funding industrial policy but achieving effective coordination across member states, especially without a strong fiscal capacity. Without coordination, even well-intentioned national efforts risk duplication, fragmentation, or intra-EU distortions. So, the key question becomes: **how can the EU coordinate industrial policy without full fiscal capacity?** This is an even more significant challenge given the heavy bias of the EU policies towards regulations and the very weak capacity to invest and tax.

For years, the EU's approach to "greening" the economy has centred on regulation and pricing mechanisms (e.g., the Emissions Trading System). Yet many experts argue that a true green transformation also requires **direct infrastructure, technology, and skills investment**. This calls for shifting from a purely regulation-and-price model (where carbon is taxed or priced, and markets adjust accordingly) to one that actively invests in emerging technologies and manufacturing capacity.

The weak fiscal capacity of the EU leads to regulations being the dominant instrument for promoting green growth. Yet, a policy mix for green growth would require a full scope of instruments, including investments, tax credits and regulations.

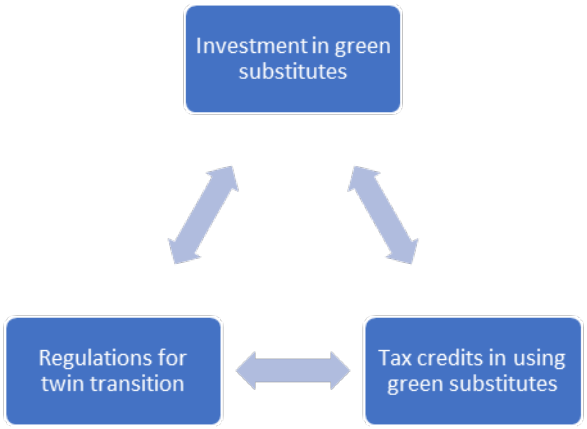
Investments should focus on the main sources of greenhouse gas emissions (electricity, manufacturing, transport, agriculture, buildings) and the diffusion of existing technologies, new technologies, and changes in behaviour in these sectors (see Lonergan and Sawers, 2022) [58]. The bulk of investments should accelerate the adoption of the existing clean technologies, followed by investments in new technological solutions. Here, we fully endorse the argument of Lonergan and Sawers (2022) that investments should focus on close substitutes. They argue that the effectiveness of any policy is almost entirely determined by whether or not a close substitute exists. Only then can taxes, especially tax credits, be effective instruments to change behaviour and accelerate '*the depreciation of carbon-intensive assets, financing the creation of carbon-free*

[58] Eric Lonergan and Corrine Sawers (2022) Supercharge me. Net zero faster, Agenda Publishing

alternatives, creating substitutes at scale, and targeting the relative price of substitutes' (ibid). As the main EU-level instrument supporting green growth, regulations are effective only when complemented by investments and tax credits.

Figure 3 depicts this issue by pointing to mutually reinforcing and complementary effects when investments, tax credits and regulations are applied in promoting green growth. However, this requires close coordination between innovation-focused industrial policy (investments), selective monetary and fiscal policy (credit regime, taxation), and SM regulations. Also, SM mechanisms would have to be sector-specific and play a role in the five areas contributing to environmental pollution or accumulation of greenhouse gases (electricity market, manufacturing industry, transport, agriculture and buildings).

Figure 3: Three market-shaping pillars of green transformation

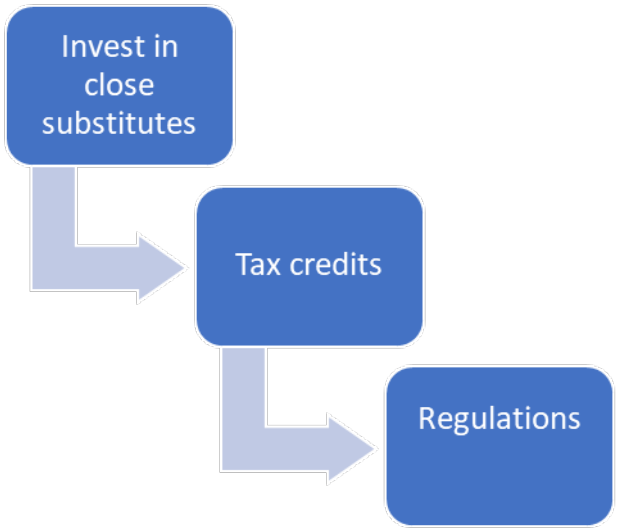


Source: Author based on Lonergan and Sawers, 2022

In a nutshell, in supporting the greening of the economy, it is essential to understand where market regulations stand in the pecking order of measures that can help it. Only then can we address how different areas of regulation of the Single Market, for example, state aid, public procurement, and competition law, could be reformed to accelerate greening.

Figure 4 depicts the optimal sequence of steps supporting ecosystem-oriented green transformation (Lonergan and Sawers, 2022). Investing in close substitutes is the essential first step, as opting for regulations or tax credits when close substitutes are unavailable is akin to offering sticks without carrots. Once substitutes are within reach of producers and consumers, tax credits should be considered, as only then are they effective carrots. Only in the last stage can regulations be deployed to institutionalise and make deploying new technologies compulsory.

Figure 4: Sequence of steps in supporting ecosystems-oriented green transformation



Source: Author based on Lonergan, Eric, and Corrine Sawers (2022). Supercharge me. Net Zero Faster, Agenda Publishing

Tax credits are usually considered mechanisms to correct market failure. However, their extensive use in the recent (Biden era) US Industrial policy points to their powerful role in the technological transformation of the economy. Taxes, in general, can also be considered a mid-range form of industrial policy (Haffert, 2021[59]). The EU's challenge is coordinating MS fiscal policies for 'greening' without the EU fiscal capacity.

The framework depicted in Figure 4 reflects the investment-centred view of the challenge, which argues that decarbonisation requires a central role for direct public investment. A conventional approach, which largely reflects the current EU policy, is a price-centred view of greening, which focuses solely on correctly pricing an externality (Lonergan and Sawers, 2022). The expectation is that market actors will then behave accordingly

The EU has extensively used regulations mainly because it does not have fiscal capacity, and thus, regulations were the only available instruments. It also fits well with the rule-based logic of the SM. However, it is a mistake to consider regulations less directive or distorting than explicit industrial and innovation policies subsidies.

Regulations are never neutral. As argued, for example, by Pichler et al (2021[60]), '*the fleet emission standards are the single most important reason for the production of electric vehicles*' in the EU. They support a gradual vehicle fleet modernisation but do not systematically challenge the automotive regime. These policies focus on efficiency alone and are insufficient *to reach current climate targets by 2030, let alone decarbonisation by 2050* (ibid). They favour gradual adjustments but ignore the need for more disruptive measures. Also, regulations can have opposite effects. For

[59] Lukas Haffert (2021) Tax policy as industrial policy in comparative capitalisms, Journal of Economic Policy Reform, 24:4, 488-504

[60] Melanie Pichler, Nora Krenmayr, Etienne Schneider, Ulrich Brand (2021) EU industrial policy: Between modernization and transformation of the automotive industry,Environmental Innovation and Societal Transitions, Volume 38, 2021, Pages 140-15

example, EU regulations have driven the automotive industry towards heavier, more expensive, less sustainable cars and, ultimately, a less competitive EU automotive industry (Pardi, 2022). A specific regulatory framework implicitly favours a particular type of greening, which may not be the most effective option from a sustainability point of view. Hence, in addition to market efficiency criteria, a new paradigm for SM would need to consider different paths towards sustainability and **trade-offs between different policy instruments.** However, which type of instruments will be deployed in the EU context will depend on the possible scenario in which the EU fiscal policy and EU industrial policy will develop (cf. Table 4). Similarly, the extensive use of tax credits and investments in the US IRA stems from the fiscal position of the US federal government.

This is not denying the relevance of regulatory policies like phase-out announcements. They are a form of political signalling essential to reduce uncertainty and promote the coordination of market actors around emerging substitute technologies (Meckling and Nahm, 2019[61]). However, if applied in isolation and without consideration of the proximity of close substitutes and investments required to achieve the planned target, they often turn into regulatory battles or evasions, as demonstrated by the recent history of the EU automotive industry. Also, the EU's regulatory and competition policy levers are paramount in digital platforms. Especially in digital technologies, there is a huge scope to develop that role further. For example, Andreoni and Roberts (2022[62]) argue for a conception of an '*entrepreneurial-regulatory state'* implementing complementary industrial and competition policy levers as part of its strategic engagement with digital platforms. However, a sole regulatory role without accompanying public and private investments by domestic players will not suffice.

The dominant approach of the EU is defined as a '**risk-based approach'** which aims to change the relative prices of green vs dirty assets **by de-risking private capital investments** (Gabor, 2023[63]; Kedward et al., 2023[64]). Within the risk-based approach, the industrial policy aims to intervene by steering price signals between 'dirty' and 'clean' assets and correcting 'market failures that generate 'uninvestable' risk/returns profiles'. Politically, this makes it easier to reach a political consensus around new policy priorities. However, the price for this is 'soft conditionalities' where policy '*extends subsidies with no transparent, well-defined criteria or governance mechanisms'* (Gabor 2023). Kedward et al. (2023) propose an 'allocative green credit policy' regime, i.e. quantitative and price-based interventions in credit and institutional capital markets, as an alternative to the current approach. Effectively, the proposal is '*to establish a clear trajectory for capital allocation in alignment with green transition plans*' based on the argument that *'direct credit policy interventions will more effectively and more immediately ensure transition-related capital reallocation than the current risk-based approach'*.

Overall, this would require **shifting from a price-centred to an investment-centred view of 'greening'**. All major policy documents (Letta, Draghi report, Competitiveness Compass, Industry

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61 Jonas Meckling, Jonas Nahm (2019) The politics of technology bans: Industrial policy competition and green goals for the auto industry, Energy Policy, Volume 126, 2019, Pages 470-479, https://doi.org/10.1016/j.enpol.2018.11.031.

62 Antonio Andreoni and Simon Roberts (2022) Governing digital platform power for industrial development: towards an entrepreneurial-regulatory state, Cambridge Journal of Economics 2022, 46, 1431–1454

63 Daniela Gabor, The (European) derisking state, on "Stato e mercato, Rivista quadrimestrale" 1/2023, pp. 53-84, doi: 10.1425/107674

64 Kedward, K., Gabor, D. and Ryan-Collins, J. (2022). Aligning finance with the green transition: From a risk-based to an allocative green credit policy regime. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2022-11). https://www.ucl.ac.uk/bartlett/publicpurpose/wp2022-11.

Clean Deal) have implicitly recognised and accepted this, all pointing to investments as the major policy instrument. For example, the Draghi report's main thrust is ramping up investment, with tax incentives and regulatory changes serving as powerful complements rather than the core centrepiece. Letta's report also puts investment in the centre and does not propose EU-level innovation tax credits — those remain national tools. The Competitiveness Compass for the EU (COM(2025) is more strongly focused on investment than tax incentives or regulations. It presents investment as the core instrument for achieving strategic autonomy, green and digital leadership, and long-term competitiveness. Regulation plays a crucial enabling role, while tax incentives are mentioned only marginally and are largely left to Member States. The Clean Industrial Deal emphasises investment and investment incentives as the key to Europe's green industrial transformation, with regulation as a vital enabler and tax incentives acknowledged but treated cautiously. A fragmented taxation system has been recognised as an issue in the energy area since electricity prices vary due to differing tax regimes. Still, the Clean Deal fails to propose concrete steps to harmonise energy taxation[65]. In the Automotive Sector Communication – Industrial Action Plan (March 2025), the most significant and emphasised policy instrument is investment and investment incentives, followed by regulation and tax incentives, which receive the least attention.

In a nutshell, we observe **policy intention to reorder policy instruments** in a way that is more conducive to technological transformation. Yet, political constraint makes it quite difficult, and it remains to be seen to what extent the EU will be able to mobilise large-scale investment towards green growth and strategic autonomy and to what extent it will be able to coordinate taxation policy towards its strategic goals.

[65] By Maciej Bukowski Europe's Green Dreams Turn into a Nightmare March 26, 2025

5 Challenges of compatibility between industrial policy and the Single Market: coordination & institutionalisation, and incorporating conditionality & accountability

Policymakers must recognise two essential criteria for the successful institutionalisation of the industrial policy. **First,** public bodies would have to collaborate closely with the private sector to understand the details of technological transformation, different business models, potential outcomes, employment, and the financial impacts of other policies. These collaborations can be institutionalised in various forms (different types of councils, round tables, venture funds, etc). However, **second**, it is essential that public bodies also have significant autonomy in formulating performance requirements and ensuring conditionalities (Mazzucato and Rodrik, 2023)[66] and accountability (Radosevic et al., 2023[67]) for public support. Also, this would require methodologies for monitoring climate spending to avoid risks of greenwashing (Tagliapietra and Veugelers, 2020[68]).

Experiences with IPCEIs highlight the need for better vertical (EU vs. Member State) and horizontal (across sectors and regions) coordination. Conditionalities define how funds or exemptions are used, while accountability ensures that funds are well invested and will generate impact. These two aspects are often overlooked, yet they are fundamental for aligning industrial policy with SM rules.

5.1 Challenges of coordination and institutionalisation of industrial policy

As we pointed out earlier (section 4), the challenge for the EU is funding industrial policy and achieving coordination across member states, especially in the absence of a strong fiscal capacity. The lack of strong budgetary tools limits the EU's ability to enforce, incentivise, and redistribute – all core elements of effective coordination. Without fiscal capacity, there is a natural tendency to achieve coordination via centralisation. This tendency is reflected in different reform proposals which go toward more centralisation at the EU level[69]. However, this raises the issue: does bundling everything under one roof and one set of rules mean simplification and flexibility? The centralisation may increase the complexity of processes; standardisation of rules can limit flexibility; poor implementation might result in a cumbersome system that is difficult to navigate; bundling processes can result in bottlenecks. In addition, centralisation may create friction if the system involves multiple stakeholders with diverse needs.

The aim should not be to centralise everything but to create strategic coherence and prevent fragmentation, especially in areas like clean tech, strategic autonomy and digital infrastructure. For

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66 Mazzucato, M. and Rodrik, D. (2023). Industrial Policy with Conditionalities: A Taxonomy and Sample Cases. UCL Institute for Innovation and Public Purpose, Working Paper Series (IIPP WP 2023-07). Available at: https://www.ucl.ac.uk/bartlett/public-purpose/wp2023-07

67 Slavo Radosevic, Despina Kanellou, George Tsekouras, The experimentation–accountability trade-off in innovation and industrial policy: are learning networks the solution?, Science and Public Policy, Volume 50, Issue 4, August 2023, Pages 655–669, https://doi.org/10.1093/scipol/scad013

68 Simone Tagliapietra and Reinhilde Veugelers (2020) A green industrial policy for Europe, Bruegel, Brussels, BLUEPRINT SERIES 31 https://www.bruegel.org/book/green-industrial-policy-europe

69 Zubascu, Floria (2024) Commission prepares to bundle all research and innovation money into competitiveness fund, Science/Business

example, this coordination imperative is already present when the EU sets non-binding strategic roadmaps (e.g., Green Deal and Digital Compass[70]) to guide national plans. Without direct funding for large-scale industrial initiatives, the EU offers coordination via IPCEs, or InvestEU. It also relies extensively on soft coordination and voluntary alignment. In the case of State Aid, it loosens rules temporarily. The EU promotes digital platforms and alliances (e.g. Gaia-X [71]) but relies on national action. Probably, the EU still has several underused or emerging tools to drive coordination. Some of these, like joint or harmonised procurement for strategic technologies (eg, Quantum infrastructure), are mentioned in the major policy documents.

The bigger challenge is the extent to which coordination bodies and activities involve all relevant stakeholders. There is a recognition that the institutional representation of various stakeholders in the regulatory processes shaping the Single Market should be much broader. This has already been recognised through the emerging process of institutionalising industrial alliances, IPCEI, and Industrial Ecosystems Coordination - ICEC. The issue of regulatory or corporate capture and neglect of other stakeholders in shaping the Single Market (trade unions, NGOs) is emerging. In a nutshell, **reshaping the EU Single Market is likely to be a contentious and politically loaded process**.

The representation alone does not resolve the issue of the role of stakeholders and, based on which criteria, SM governance will be reshaped. The Important Projects of Common European Interest (IPCEI) initiative is the major test case in this respect, *as it gives the European Commission a pivotal role, in partnership with national governments, in the development of European-wide markets and supply chains*' (McNamara, 2023). The aim is to bridge the funding gap for projects in critical strategic areas that the private sector alone cannot finance. IPCEIs are proposed, run and funded by the participating governments, which may open doors for intra-EU subsidy races with '*serious corrosive potential for the single market*'. The most articulate objections to the ICPE are that the ICPE participation is narrow, favouring bigger firms that are well connected to public authorities and countries with more fiscal and administrative resources; without safeguards provided for public funds to distort competition; the process and definition of criteria is not transparent and clear; there is no absolute caps on the public funding amounts nor their proportion compared to the private share of investment (Poitiers and Weil, 2022[72]). These objections may reflect the teething troubles of the EU-level industrial policy, but also deeper institutional weakness regarding the capacity of public policy at the EU and MS levels to avoid regulatory capture and impose stricter criteria for competition and performance. If the ICPEa are testbed cases on overcoming trade-offs between competition and industrial policy, they have not been the best. The initial steps are very important as the EU should establish similar new mechanisms, such as funding mission-oriented programmes to develop substitutes for certain critical raw materials. However, it is probably too early to judge the outcomes, though the process is also essential in evaluating outcomes.

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70 https://eufordigital.eu/library/2030-digital-compass-the-european-way-for-the-digital-decade/

71 https://gaia-x.eu/

72 Poitiers, N. and P. Weil (2022) 'Opaque and ill-defined: the problems with Europe's IPCEI subsidy framework', Bruegel Blog, 26 January https://www.bruegel.org/blog-post/opaque-and-ill-defined-problems-europes-ipcei-subsidy-framework#:~:text=Membership-,Opaque%20and%20ill%2Ddefined%3A%20the%20problems%20with%20Europe's%20IPCEI%20subsidy,single%20market%20will%20be%20undermined

This issue is even more important given the possible expansion of the IPCEs. Recent geopolitical developments — including US tariffs and EU security concerns — raise the question of whether IPCEIs could evolve into tools of economic security, not just innovation. Extending IPCEIs to sectors like defence, quantum, and critical minerals could create a rapid-response mechanism to external shocks. However, this requires safeguards: transparent project selection, EU-wide co-financing rules, and equal accessibility for smaller Member States.

Here, we cannot go into specific institutional solutions for integrating coordinated industrial policy into the SM regulations. For several proposals on specific institutional solutions and principles on which industrial policy should be based, see Tagliapietra and Veugelers (2020)[73]. Still, we can propose a toolbox of coordination instruments that partly overlap with the Tagliapietra and Veugelers (2020) report and can bridge the gap between limited EU fiscal capacity and ambitious policy goals. These instruments can promote scale, reduce duplication, and enhance strategic alignment without centralising all decision-making. They all already exist, but their scale and scope are quite limited given the scale of the challenges the EU is facing today:

— **EU-wide strategic procurement consortia**: Procurement consortia allow the Commission to shape demand-side scale without owning budgets. They leverage their coordinating capacity while respecting subsidiarity. Joint purchasing agreements — as seen in vaccine procurement — can be extended to green technologies (e.g. hydrogen electrolysers, EV charging systems) or defence supplies to pool demand, drive down costs, and shape global markets[74].

— **Co-investment platforms** are the mechanism to blend EU and national funding with private capital, de-risking early-stage investments in clean tech, semiconductors, and digital infrastructure. Platforms like InvestEU, EIB instruments, and IPCEIs allow the EC to blend private, national, and EU funding without full fiscal centralisation. Their design supports distributed execution with central guidance — a core feature of coordinated industrial policy.

— **Regulatory sandboxes** are experimental legal environments where select industrial partnerships can test new models (e.g. AI regulation, cross-border digital ecosystems) under relaxed conditions, fostering innovation while informing longer-term rule-making. They should be considered less as the instrument and more as a strategic enabler of experimental governance under an orchestrated governance model (see conclusions). Their implementation is primarily national, though EU-level coordination is growing. They are not explicitly harmonised, but some are recognised under legislation (e.g., the AI Act mandates a legal basis for sandboxes in Member States). Analysing regulatory sandboxes in the EU suggests a huge scope for improvements and coordination in this area (EC, 2023)[75].

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[73] Simone Tagliapietra and Reinhilde Veugelers (2020) A green industrial policy for Europe, Bruegel, Brussels, BLUEPRINT SERIES 31
https://www.bruegel.org/book/green-industrial-policy-europe

[74] Tagliapietra and Reinhilde Veugelers (2020) discusses green public procurement as a critical policy lever, noting that EU public procurement accounts for ~16% of GDP and could be a "unique tool to foster innovation"

[75] European Commission (2023): Directorate-General for Energy, ETIP SNET, Efthymiou, V., Hartz, N., McGranaghan, M. et al., Regulatory sandboxes – Policy report drafted by WG5's regulatory sandboxes task force, Publications Office of the European Union, 2023, https://data.europa.eu/doi/10.2833/676429

— **Multistakeholder roadmaps** are strategic planning tools that could be jointly developed with Member States, industry, and civil society, defining shared investment trajectories, performance metrics, and institutional commitments in, for example, net-zero industry and semiconductor sovereignty. Smart specialisation (RIS3) and the European Semester, which align Member State and EU objectives, can be considered as this type of instrument. However, the new coordinating role of the EU would require a significant expansion of the stakeholders' generated roadmaps. Their effectiveness depends on how binding and well-funded the commitments are.

— **Joint foresight-based investment planning** is a scenario-based framework that identifies key technological and geopolitical shifts and aligns national and EU investments accordingly, particularly relevant for anticipatory policies in climate tech, digital platforms, and defence-industrial base development. The current radical geopolitical and economic uncertainties further increase the relevance of these instruments. Their anticipatory nature — especially amid geopolitical shocks — enhances the EC's legitimacy as an orchestrator. Instruments like the Strategic Foresight Reports, scenario exercises, and Competitiveness Compass can help steer Member State investment logics and align them with EU-level missions.

These instruments reflect a governance logic well suited to the European Commission's emerging role as orchestrator of EU industrial policy. Each enables coordination, alignment, and strategic investment without requiring full fiscal or legal centralisation. In the absence of EU-funded industrial policy, the effectiveness of orchestration will depend on how these tools are sequenced, incentivised, and embedded in cross-sectoral and multi-level governance mechanisms.

5.2 Challenges of conditionalities and accountabilities

The experiences with the IPCEs show weaknesses in the design process of this mechanism, which, by and large, are about conditionalities and accountabilities. A robust system of industrial policy based on conditionalities and accountabilities would be quite compatible with the rule-based system of the SM. Yet, this is a striking gap in industrial policy development in the EU.

The dominant EU approach so far has been offering **soft conditionalities,** i.e. 'carrots but without a stick' (Gabor, 2023[76]). Yet, the worldwide experience suggests that **conditionalities, performance requirements and transparency** are essential to effective industrial policies. In the context of the new EU industrial policy, this issue has additional weight as the weakness in the governance of industrial policy is much bigger when the problem is about value chains, ecosystems or sectors than when they are about individual companies or individual mergers. The issue of accountability becomes even more complex as the EU regulates the process, but the co-funding comes from the MS with quite different policy traditions and political attitudes. This complexity increases further as the strategic importance of supported investments touches on the EU Open strategic autonomy issue, where, again, MS may have quite different attitudes and interests. Finally, such investments will lead to positive localised impacts with significant territorial implications at the country and EU levels. However, they can also lead to further stagnation in other regions. In a nutshell, there is a danger that the entire SM governance and industrial policy governance, as its new strong shaping factor, may collapse under strong political pressures of different origins. In such

[76] Daniela Gabor, The (European) derisking state, on "Stato e mercato, Rivista quadrimestrale" 1/2023, pp. 53-84, doi: 10.1425/107674

a context, conditionalities and accountabilities are the best medicine to fight opposing interests and political pressures.

By conditionalities, we understand the requirements that participants and Member States must meet to receive support under a specific program. Ex-ante requirements or obligations must be fulfilled to receive support or exemptions. Once public funding is granted, there should be strict accountability mechanisms. These ex-post mechanisms ensure follow-through, monitoring, corrections and consequences if commitments are unmet.

We have undertaken a first-glance **overview of conditionality and accountability mechanisms across major EU programs** for illustrative purpose**s**. They are summarised in bullet points below and, at this stage, are open to criticism and modifications:

— **Recovery and Resilience facility** condition funds are linked to national plans and aligned with EU priorities. Also, disbursement is tied to milestones and Commission assessment. This suggests that **both** conditionality and accountability are **high.**

— **Important projects of Common European Interest (ICPEIs**) require cross-border collaboration and innovation alignment, and conditionality can be assessed as **medium.** In return, there is some reporting, while evaluations have still not been established. This suggests that both conditionality and accountability can be assessed as **medium.**

— **European Semester** has low conditionalities and no enforcement, thus relying on peer pressure and ratings. In that respect, both conditionality and accountability can be assessed as **low.**

— **Structural Funds** are based on an operational program that must align with the EUI goals, giving **medium conditionality**. Accountability is based on spending compliance and audit-based, although narrow, and can be considered **high**.

— **Horizon Europe** calls require alignment with EU policy missions, and this conditionality is **high.** Performance and impact are monitored at the project level and considered **medium**.

— **State Aid** approvals are conditioned on policy fit and necessity (cf. temporary crisis framework) and thus can be considered **medium**. Scrutiny is primarily legal, with an uneven application, which also lacks strategic coherence and, therefore, can be regarded as a **medium**.

We know these are highly contentious and superficial assessments whose purpose is only to point out that the EU has a patchwork of mechanisms to promote conditionality and accountability in industrial policy. Still, none are fully comprehensive, permanent, or strategic.

Accountability should reflect real-world complexity by detecting issues early, not just evaluating outcomes. Elsewhere, we have addressed this issue by adding to outcome accountability the concept of process accountability and have explored its facets in the context of several regional innovation programs (see Radosevic and Zoretic, 2024; Radosevic et al., 2019; Radosevic et al., 2023)

Strengthening coordination across these tools – and embedding both ex-ante conditionalities, ex-post and process accountability mechanisms into a common framework is essential for effective industrial governance in the EU. Incorporating industrial policy into the Single Market demands robust systems of conditionality to ensure that exemptions or support measures do not distort

competition or undermine cohesion. Accountability frameworks—enforced at EU and national levels—are essential for preventing inefficiency, favouritism, and political capture.

6 CONCLUSIONS

The paper argues that the EU Single Market is undergoing a gradual but significant transformation driven by integrating industrial policy into its rule-based system. Whether this amounts to a genuine paradigm shift or merely an incremental evolution remains to be seen. The EU has a history of adapting its institutions over time, often in response to crises or emerging priorities. Green growth and strategic autonomy may well spur the kind of institutional innovation that, years from now, we will look back on as a turning point.

However, the practical challenges—fiscal, legal, and political—cannot be understated. Balancing competition rules with ecosystem-based industrial strategies, reconciling external openness with the drive for strategic autonomy, and ensuring consistent governance across 27 Member States all demand a high degree of policy finesse. The greatest risk may be a fragmented approach that fails to resolve these tensions, ultimately weakening both the Single Market and Europe's industrial potential.

From now on, the debate hinges on precisely how the EU defines the boundary between market liberalisation and proactive industrial support. If done thoughtfully, the next generation of EU industrial policy could become a template for tackling global challenges like climate change and strategic autonomy within a modified rules-based multilateral framework. If not, the Single Market may be pulled in too many directions simultaneously, creating an inconsistent architecture that pleases no one and failing to meet the EU's strategic objectives.

Usually, changes in policy paradigm emerge when the old policy paradigm cannot address the emerging challenges. Accommodating industrial policy tasks into the fabric (institutional architecture) of the SM, originally conceived as a dominantly market-enhancing governance mechanism, may reach its limits. In the case of the EU, we can observe the addition of policy instruments and explicit new goals (cf. green growth and strategic autonomy). Sooner or later, the dominant paradigm of the SM would have to change to reconcile market enhancement with policy governance. The new instruments and new goals may become incompatible with an unchanged setting or the existing market governance of the SM.

So far, the EC has accommodated trade-offs inherent in the emerging paradigm. A good example is accommodating the ICPE into the existing legal framework. However, the issue is whether ad hoc adjustments can be adequate for further strengthening of the industrial policy at the EU level. Probably, the time is ripe for a strategic overview and deeper analysis of the outlined trade-offs.

The EU industrial policy faces major constraints in the weak fiscal capacity of the EU. This, combined with the division of competencies in industrial policy between the EU and MS, opens up many issues regarding what can be done in such a context (see four scenarios summarised in Table 2). Assuming an unchanged context, the EU policy space will remain confined to regulations and price-directed mechanisms like carbon trading schemes. Investment policy and tax credits are missing, though the recent policy documents put investment as the major and central instrument (see Figure 4).

The essential policy implication is that a successful greening policy would need all three groups of instruments to work together and in sequence – investment, tax credits and regulations (Lonergan and Sawers, 2022). The EU challenge is ensuring **proper sequencing in the policy mix** in the current institutional context with weak EU fiscal capacity and mixed EU/MS competencies in industrial policy**.** Unless we see a shift towards a more investment-centred view of greening, the current overly price-centred view and soft conditionalities that dominate currently will have limited

effects (Gabor, 2023). It is time to reconsider the effectiveness of the current approach and explore changes in unorthodox directions, like green credit policy, as an alternative to the current derisking approach (Kedward et al., 2023).

If we accept the EU's weak fiscal capacity constraint, the only remaining opportunity is to achieve much stronger industrial policy coordination at the EU level. Strengthening coordination for industrial policy is much less about the issues of subsidiarity, i.e. vertical coherence of policy. They are more about **horizontal coordination and accountability**, which are central to network programs that prevail in industrial policy. We have not addressed this issue, although it is crucial for effective implementation in all four policy scenarios (Table 2) [77].

Given EU constraints, the underlying industrial policy principle can be **orchestration** (Abott, 2015; Abott et al, 2012)[78]. Orchestration is often associated with a lack of fiscal or coercive capacity. Its defining trait lies in governing through intermediaries, not merely compensating for resource constraints[79]. The EU's institutional design — characterised by regulatory leadership, national implementation, and soft fiscal instruments — closely aligns with this model. Thus, orchestration in the EU context is less about the absence of power and more about its distributed execution through multi-level governance structures.

There are several real-world examples of industrial policy being driven more by coordination and orchestration than by direct public spending[80]. These models are particularly relevant for the EU, which lacks centralised fiscal power but can still exert influence through regulatory frameworks, convening power, and market design. However, in the EU context, we consider it appropriate to define the optimal governance model of the Single Market as **"Integrated orchestration**".

'Integrated orchestration' in the EU would describe a governance model that **strategically aligns regulatory frameworks, funding mechanisms, institutional platforms, and stakeholder participation to deliver industrial policy objectives**, **without relying on fiscal federalism or centralised authority**. It extends the basic idea of orchestration (governing through intermediaries using soft tools) into a multi-level, multi-instrument system, adapted to the unique constraints and strengths of the EU.

Integration implies that the EU combines soft and hard instruments (regulation, co-funding, standards, conditionalities, and procurement), connects levels of governance (EU institutions, MS, regional authorities, and public-private intermediaries), coordinates across sectors and ecosystems

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77 For exploratory research of the governance issues related to network industrial and innovation policy programs see Radosevic et al, 2023 and Radosevic S, G. Tsekouras and P. Wostner (2023) Institutionalising experimentation in innovation policy: challenges and solutions in upscaling, JRC134408 Seville: European Commission,

78 Abbott, Kenneth Wayne and Genschel, Philipp and Snidal, Duncan and Zangl, Bernhard, (2012) Orchestration: Global Governance through Intermediaries (August 6, 2012). Available at SSRN: https://ssrn.com/abstract=2125452 or http://dx.doi.org/10.2139/ssrn.2125452

79 Abbotr et al (2015) were the first to Introduces the concept of orchestration as a governance mode whereby international organisations steer intermediary actors toward policy goals using soft tools rather than direct authority.

80 For example, in the 1950s–1980s, Japan's MITI (Ministry of International Trade and Industry) became the classic model of strategic coordination, Japan's success wasn't fiscal — it was institutional: a state that could set priorities and organise delivery across actors. US policy during Biden administration has adopted coordination as a choice — especially in strategic sectors like semiconductors, clean energy, and AI. Chinese policy also contain many elements of experimentation at local level and orchestration.

(energy, mobility, digital, defence, etc) and aligns instruments through strategic goals (e.g. green transition, resilience, technological sovereignty).

A critical reader is probably disappointed with this conclusion, as the EU has long performed orchestration-like functions. The EU has long acted as a *de facto* orchestrator via regulatory power (Single Market rules, state aid control), by convening and agenda-setting (e.g. Lisbon Strategy, Europe 2020, Green Deal), through Platform creation (e.g. alliances, IPCEIs, Smart Specialisation), and by leveraging funding (e.g. cohesion funds, Horizon, InvestEU). So, in practice, the EU already engages in orchestration as it lacks direct authority or fiscal muscle.

The idea that the EU is now becoming an orchestrator of industrial policy can sound tautological or simply descriptive of its long-standing governance style. However, as now applied, the concept of orchestration adds analytical clarity and normative weight to the EU's evolving role in a way that distinguishes it from liberal market regulation and full industrial coordination.

We pointed out that we are in the process of changing the paradigm of the Single Market. We outlined layers of added functions on top of the old role of the EU as guardian of the rule-based SM. The process outlined demonstrates that what was once an emergent governance logic is now becoming a structured approach: the EU is no longer merely coordinating policies at the margins, but increasingly shaping industrial outcomes through flexible rule-making, conditional incentives, and platform governance. Recognising this shift helps avoid false dichotomies between dirigisme and market liberalism and better captures the distinctive character of EU industrial policy in the 2020s.

Integrated orchestration reframes the EU's role not as failed coordination or weak federalism, but as a deliberate governance model suited to its institutional architecture. It distinguishes this from both "command-and-control" and laissez-faire models.

This emerging synthesis is about a reconfigured Single Market that **integrates multi-level orchestration, selective regulatory flexibility, and coordinated investments**. The issue is that the transition towards 'integrated orchestration' is not guaranteed. As we pointed out, the paradigm change process is politically loaded, and it is unclear in which quadrant of Table 2 it will end up.

A trajectory towards more deliberate orchestration strategy requires that the EU develop its capacity to align and steer diverse public and private actors without direct control by using soft law, strategic guidance, joint platforms, and co-funding to shape investment flows and policy priorities. This requires **selective regulatory flexibility** through which SM rules can be temporarily relaxed or core SM rules (e.g. state aid, procurement) adapted to enable innovation and respond to geopolitical shocks, while preserving the Single Market's overall coherence. Finally, **coordinated investments** are key to overcoming fragmented national initiatives by pooling resources for EU-wide strategic sectors (e.g. through IPCEIs, InvestEU, or mission-oriented consortia).

The Union can become a platform for industrial orchestration — using rules, incentives, coordination bodies, and co-investment tools to act strategically, even within limited fiscal boundaries. By **leveraging its regulatory power, trade policy tools, and procurement rules**, the EU can shape both internal and global technological development — but it must act with strategic clarity and coordination. This makes the EU's constraint (limited spending power) a design feature, not a fatal flaw.

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