

Accelerating EU industry competitiveness: Paving the way for the next policy cycle

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EXECUTIVE SUMMARY

The European Union (EU) must adopt an integrated approach to its energy, climate, and industrial policies to enhance the Green Deal, ensuring it effectively meets its climate objectives while maintaining global competitiveness.

The 2019–2024 legislative session saw unprecedented progress in climate policy target-setting. However, the EU's initial actions on competitiveness, such as adjusting state aid rules, were often ad-hoc and reactive. These actions were typically in response to exogenous factors like aggressive industrial policies from competitors and various crisis situations.

Instead, the new legislative cycle offers a chance for a clear strategic direction to integrate climate goals into a competitive and growth-oriented approach. Market-driven solutions and a holistic framework for energy resilience are crucial. A clear path to climate neutrality remains essential for policymaking in the next legislative cycle. The EU must become more strategic and innovative in supporting the energy transition and industrial transformation, while also ensuring that it adheres to its ambitious climate goals. This requires deeper integration of the European Single Market and incentives for investments in infrastructure and innovation.

Key recommendations include:

- Strengthening the Single Market, particularly in energy and finance, to stimulate growth and allow the scaling up of European companies.
- Streamlining state aid rules and exploring ways to support the transition through the tax systems, while also introducing new forms of economic policy coordination to avoid fragmentation.
- Supporting industrial decarbonisation through innovative mechanisms like public guarantees, Power Purchase Agreements, and smart Contracts for Difference.

- Implementing alternative financing methods for grid expansion and focusing on cross-border integrated grid planning to maintain competitive electricity prices. Expanding transmission capacities between countries to reduce costs and volatility, with a focus on renewable energy to ensure competitiveness and resilience.
- Strengthening industrial decarbonisation through initiatives like the Climate Club and bilateral partnerships and maintaining the expansion of the Emissions Trading System (ETS) to boost sustainable competitiveness. Integrating climate policy into EU trade policy in a more holistic way.
- Identifying lead markets for low-green-premium products, defining low-carbon products, and using green public procurement to drive demand for climate-friendly goods.
- Developing hydrogen production and infrastructure strategically, particularly in the North Sea, and aligning hydrogen diplomacy with EU climate goals to enhance global competitiveness and sustainability. Scaling up the use of hydrogen in energy-intensive sectors like steel, cement, and transport, including aviation, is also crucial.

This agenda emphasises the need for a strategic focus on implementation to achieve the targets set out in the European Climate Law. By leveraging market-driven solutions and enhancing the Single Market, the EU can ensure its competitiveness, drive down transition costs, increase social acceptance, and position itself as a global leader in sustainable technologies.

INTRODUCTION

The EU must adopt an integrated approach to its energy, climate, and industrial policies to enhance the Green Deal, ensuring it effectively meets its climate objectives without compromising competitiveness with other world regions.

“The EU must now decide if it aims to lead in the global race for crucial future markets and technologies. If so, it must define a clear strategy to do so.”

The legislative session that ended on 9th June with the election of the new European Parliament was marked by a successful target-setting exercise with regard to climate policy. The new legislative cycle following the elections provides the opportunity to focus on implementing these targets and draw up a competitiveness and growth agenda complementing and enhancing the European Green Deal. Two reports lay the groundwork for this. One, by Enrico Letta (Letta 2024), is already out, and has sketched the outline of how the future Single Market could look like. The second report focusing on competitiveness, authored by Mario Draghi, is expected to be published soon and key findings have already been shared (Draghi forthcoming 2024). Olaf Scholz and Emmanuel Macron

have also chipped into the discussions on the future of Europe’s economic policy (Macron & Scholz 2024). The French President has been very vocal in the past about the EU’s need for reform, such as in a recent interview with *The Economist* (The Economist 2024) and in his *Université Sorbonne II* speech, warning that “Our Europe can die”, if Europe does not wake up from its doldrums (Elysée 2024).

What stands out in these interventions is a feeling that Europe’s position in the global economy is challenged. For one, the continent is seen as falling behind in wealth creation and innovation. This is compounded by concerns that rigorous climate targets and administrative burdens could hinder the European economy’s competitiveness without effectively achieving net-zero emissions. This situation is further intensified by the protectionist and interventionist transformative industrial policies adopted by global competitors such as China and the US. Moreover, the disintegration of the multilateral order is shifting ever more from a threat to a reality, evidenced by the World Trade Organization becoming increasingly sidelined in the ongoing trade war between China and the US.

Simultaneously, there is an increasing roll-back of climate initiatives, evident in various European countries. The recent European elections highlighted a peak in opposition to climate policies as more citizens have voted for parties on the extreme end of the spectrum, that are hostile to an ambitious climate policy.

The EU must now decide if it aims to lead in the global race for crucial future markets and technologies. If so, it must define a clear strategy to do so. The Green Deal needs to be complemented with a market-oriented agenda that is socially sustainable and ecologically sound, focused on increasing competitiveness, enabling innovation, and spurring investments. A more competitive Europe, steadfast in its commitment to an ambitious climate agenda and energy transition, will be more resilient and better positioned internationally. This will not be the case if EU leaders and policymakers yield to climate-sceptic positions and parties. Moreover, the costs of inaction are escalating as the impacts of global warming become increasingly apparent. According to the EU Joint Research Centre, these include a projected welfare loss of €175 billion and annual damages to coastal regions estimated at €238 billion if no action is taken both to mitigate and adapt to the effects of climate change (Szewczyk, W., Feyen, L., Ciscar, J.C., et al 2020).

For such an agenda to work, a clear compass is needed. The Single Market is Europe's key asset to drive down costs for the transformation. It is the prime vehicle to drive the reform process, and it needs to be strengthened to enable transformation and development of future technologies. With the extended Emissions Trading System (ETS), the EU already has a successful climate policy guiding instrument that sets clear incentives to drive the decarbonisation of economies, and thus creates a competitive market for sustainable technologies. It now needs to be supplemented by a smart policy mix for the different sectors facing the phaseout of free ETS allowances.

The required enhancement of the Green Deal should explore the potential of market-driven solutions and supply side policies wherever possible, with a view to bringing down the

costs of the transition and increasing social acceptance of this transformation. When discussing how to strengthen Europe's resilience, we need to ensure that we are not backing ourselves into a corner by limiting our thinking to short-sighted, isolationist strategic autonomy approaches that seek to protect certain sectors from the vagaries of the market and run the risk of stifling innovation and growth. Instead, we suggest a holistic framework for energy resilience, as energy resilience and an industrial agenda geared towards climate change and the energy transition are mutually dependent, and mutually reinforcing (EPICO 2024).

To bolster our energy, climate, and industrial policy, we make the following recommendations.

I.

SCALE UP THE INTERNAL MARKET TO STIMULATE GROWTH

The thread running through the interventions by Macron, Letta, Draghi, and others is clear: For European companies to compete on a worldwide scale, they must first scale up within Europe. This requires deeper integration of the Single Market in fields that are still heavily regulated at the national level, in particular as regards finance and energy.

“The current regulatory environment is too often overly strict and administratively burdensome, which hampers the scaling up of innovation and new business models in Europe.”

Europe must also become more strategic and smarter in how it supports innovation and industry, and how it fosters industrial decarbonisation. The regular manner of disbursing subsidies in the EU, whereby Member States devise support programmes and negotiate them in detail with the European Commission, with companies then applying through lengthy procedures for time-bound, project-based support, has in the past proven to be very slow or too bureaucratic. In the context of the energy crisis, state aid rules were recently redrawn. For example,

the Temporary Crisis and Transformation Framework (TCTF) (BMWK 2023) relaxed certain state aid thresholds and introduced innovative ideas, such as the “Matching Clause”. These measures, however, are time limited. A structured process to determine which of these ad hoc measures have worked, and which ones might deserve to become permanent, together with further administrative simplification, such as adopting common sustainability conditionalities, can help streamline processes.

The current regulatory environment is too often overly strict and administratively burdensome, which hampers the scaling up of innovation and new business models in Europe. Innovative tools such as regulatory experimentation or sandboxes should be leveraged systematically as “speed boats” by regulators and policymakers to allow, firstly, the rapid testing and scaling of new technologies, and, secondly, the development of a more innovation-oriented regulatory framework in as many fields as possible (EPICO 2024).

Next, new and innovative instruments, such as Public Guarantees, allow private actors to take on additional risks and can play a decisive role to incentivise investments. This is particularly true as these guarantees are rarely activated, as seen with the European Fund for Strategic Investments (EFSI) and the InvestEU programme. Hence the burden on the public budget remains limited and manageable.

Moreover, Europe should enhance support for the transition by leveraging the tax system. The Inflation Reduction Act (IRA) became highly effective by using tax incentives to drive industrial and climate action (Tagesspiegel 2024). Germany already discussed supporting the transition with targeted tax measures (“*Superabschreibung*”, “*Investitionsprämie*”)¹. Whether at the EU or the German level, every euro that first has to be collected and then distributed is less efficient than a euro that does not have to be collected and distributed. The tax code is often more agile and more technology-neutral than tailor-made support programmes. In a world where agility is key, these are important assets. To minimise the risk of deadweight effects, tax credits for climate-related investments or similar measures should be temporary and phased out with a clear deadline.

Finally, both when devising new instruments and when improving on existing ones, it is essential to ensure that all Member States are enabled to do this. This could happen through an “EU Competitiveness Fund”, currently under discussion, or a streamlining of EU Cohesion Policy, or other forms of coordination of economic policy. The “Weimar Triangle”, consisting of Germany, France, and Poland, should make suggestions along those lines and present them for debate at the European level.

1. During the last federal elections, the CDU/CSU argued for tax credits for climate-related investment. Similarly, the current government originally proposed a “climate investment premium” as part of a broader package of tax measures to stimulate growth last year. This measure was ultimately scrapped as part of the reconciliation procedures between Bundestag and Bundesrat.

II.

ENHANCE EFFECTIVE INTEGRATION FOR THE ENERGY TRANSITION

Cheap, renewable energy is pivotal for our competitiveness and resilience and the success of our clean transition. For example, cheaper clean electricity will help our energy-intensive businesses compete worldwide; at the same time, it will create greater incentives for electrification over and beyond the industrial sectors, e.g. in transport and housing. Industrial decarbonisation via direct electrification will mean that, in many fields, Europe can become much less dependent on energy imports than it is today. This trend is anticipated because electricity is set to comprise a greater proportion of energy consumption than currently observed, with the majority, if not all, of this electricity potentially generated from renewable sources within EU member states.

“The industry must become more proactive about the energy transition. Investing in flexibility can unlock the benefits of a renewable-based energy system.”

With the inherently intermittent nature of renewable energy sources, enhancing storage capacities is crucial to maintain a stable and reliable energy supply. Integrated planning and targeted investments are essential.

While there will still be a need to import certain energy carriers, such as hydrogen, the overall dependency on energy imports is expected to decrease. For Germany, for example, a comparison of several recent forecasts highlighted that, on condition that climate targets are met, total energy imports in 2045 will be at least 70% lower than total energy imports from non-renewable sources today (Samadi & Lechtenböhmer 2022).

Deeper integration of energy markets in Europe is key to increasing supply and decreasing costs. Expanding transmission capacity between countries is crucial to capitalise on the complementarity of renewables across the EU, and thereby reduce volatility.

Regarding industrial electricity prices, while wholesale electricity prices have generally come down since the 2022 crisis, they remain higher than before – and gaps between Member States have widened (E-Bridge 2024). The industry must become more proactive about the energy transition. Investing in flexibility can unlock the benefits of a renewable-based energy system. For example, avoiding the costliest 20% of hours in 2030 could reduce power procurement costs by 20% in Germany, lowering wholesale electricity prices for industrial companies to around six cents per kilowatt-hour (EPICO & Aurora forthcoming 2024). Similarly, harnessing flexibility will also be key to driving down prices for households, e.g. by aggregation, and allowing heat pumps or electric vehicles to benefit from hours with

lower wholesale prices. The EU's Clean Energy Package provides a robust framework for Member States to follow. However, Germany, among others, has yet to fully implement these measures effectively.

The new electricity market design (Council of the European Union 2024) offers member states a toolbox for structural reinforcements focusing on the supply side of the power market. This includes the introduction of smart Contracts for Difference (CfDs), where support is still needed, and public guarantees for Power Purchase Agreements (PPA). Member States should act on these as fast as possible based on the guideline to have as much market-driven renewable expansion as possible and limit public support-schemes to where they are necessary. The build-out of renewables via PPA, supported by public guarantees, will be a boost for market-driven energy transition, and better integration of renewables into the power market, and should therefore be the key priority. Public guarantees will also be crucial to open the PPA markets to SMEs, as these often lack a sufficient credit rating to become PPA-offtakers. At the same time, smart CfDs or similar instruments will still be necessary to keep the "cannibalisation effect" in check. Ultimately, the CfD design should incentivise system integration and innovation.

III.

THINK LOCAL, ACT EUROPEAN: INNOVATE ENERGY INFRASTRUCTURE

Europe's energy infrastructure acts as a significant bottleneck to a more effective transition. A major overhaul is essential to support the shift between different energy carriers, especially due to increasing electrification. At the same time, the current way of financing the expansion of the grid risks pushing power prices up. This is because, currently, consumers typically bear the costs of building and maintaining energy infrastructure through grid charges added to electricity prices. To keep EU electricity prices competitive, alternative methods of financing grid charges need to be explored. This was also a key finding from the European Commission's Clean Transition Dialogues with industry representatives. In Germany, several proposals along these lines are being discussed, such as public investment funds or spreading out investment costs over longer periods over time, e.g. via an inter-temporal *Amortisationskonto*.

“[...] an integrated European approach has to ensure infrastructure receives necessary attention, and overcome silo-thinking across national borders and energy sectors.”

In parallel, the Commission should continue to foster an integrated grid planning and policy framework that supports deploying renewable technologies across Member States, encouraging collaboration among stakeholders, such as the European Clean Hydrogen Alliance, and the different transmission system operators for hydrogen, electricity and natural gas (the European Network of Network Operators for Hydrogen (ENNOH), the European Network of Transmission System Operators for Electricity (ENTSOE), and the European Network of Transmission System Operators for Gas (ENTSOG)).

More generally, an integrated European approach has to ensure infrastructure receives necessary attention, and overcome silo-thinking across national borders and energy sectors. Following this logic, the European Commission must develop the energy infrastructure through a roadmap with clear milestones and technology-specific targets that are consistent across Member States, ensuring that current bilateral agreements align with EU-wide strategies. To enhance the effectiveness of EU energy policy, governance should transition from compliance monitoring to diagnostic monitoring (Defard 2023). Unlike compliance monitoring, which relies on a stable environment and detailed plans, diagnostic monitoring focuses on agile collective problem-solving and collaborative adjustments in response to emerging challenges. This ensures targets remain up-to-date and adaptable.

IV.

PUSHING THE BOUNDARIES: GLOBAL COLLABORATION FOR INDUSTRIAL DECARBONISATION

The European Green Deal requires a stronger focus on the international dimension of industrial decarbonisation, which has been missing up until now, including in legislation such as the Net-Zero Industry Act. The Climate Club is one initiative that should fill this gap (Kumar 2023a).

“The Climate Club can play an important role, and should be harnessed as part of EU policy, but has so far not received the place it deserves within EU policymaking, despite many import EU member states being part of it.”

The Climate Club, initiated by the G7 in 2022, is an initiative which has moved past a narrow approach focusing on a carbon price-based club, with exclusive benefits for members, to an open, inclusive alliance for countries from the Global North and the Global South (EPICO 2022). The Climate Club can play an important role, and should be harnessed as part of EU policy, but has so far not received the place it deserves within EU policymaking, despite many import EU member states being part of it.

The Climate Club can play an important role in supporting policy coordination between

members on topics concerning industrial decarbonisation, particularly in emission-intensive sectors such as steel. In a pilot model for the steel sector, cooperation should focus on upstream areas in the value chain (e.g. green iron ore, green hydrogen, and scrap) as well as downstream areas (e.g. lead markets for intermediate and finished products using climate-friendly steel) (EPICO 2023).

Through building of goodwill and mutual trust over time, the Climate Club could also be the venue for discussing contentious issues concerning carbon leakage (EPICO 2023), including concerns around the fair and equitable implementation of measures to account for third countries' responsibility for, and vulnerability to, climate change. In the meantime, climate diplomacy efforts around carbon pricing should be strengthened as part of the EU industrial agenda, for example, through knowledge-sharing with other countries setting up their own emissions trading system.

Plurilateral partnerships should be supplemented by bilateral partnerships. The EU Global Gateway can be an effective setup to enhance bilateral cooperation with third countries, particularly by focusing on investments in partner countries. The Global Gateway should receive additional funding to be included as of the next multiannual financial framework (MFF).

V.

PRIORITIES FOR EU LEAD MARKETS: CREATING DEFINITIONS AND TRANSFORMING PROCUREMENT

Most programmes supporting industrial transformation focus on subsidising capital expenditure to offset the costs of greener production processes. However, this approach strains public finances and has limitations when it comes to market distortion or choosing the optimal production process. European policymakers must therefore identify lead markets with low green premiums that can reduce production costs through increased demand and properly “lead” other markets that are more cost sensitive.

“Instead of relying solely on subsidies, the policy toolbox for lead markets includes labelling, ecode-sign regulation, and climate-conscious public procurement.”

Examples include the automotive sector for climate-friendly steel, public construction projects such as large-scale infrastructure projects or public transit for low-carbon cement, and the aviation and maritime sectors for e-ethanol. Instead of relying on subsidies, the policy toolbox for lead markets includes labelling, ecodesign regulation, and climate-conscious public procurement. Implementing these measures

would strengthen the EU’s competitiveness and solidify its position as a global leader in low-carbon products.

One approach for labelling is the concept for climate-friendly lead markets in green steel, cement, ammonia, and ethylene presented by the German Ministry of Economic Affairs and Climate Action in May 2024 (BMWK 2024). It is crucial that European policymakers follow suit and expedite agreement on common definitions for such ‘climate-conscious’ products. Public procurement, representing 14% of the EU’s GDP, holds significant potential for supporting such lead markets across the EU, which lags behind in Green Public Procurement (GPP) — public entities purchasing goods and services with lower environmental impact — compared to the US (Sapir, Tagliapietra & Schraepen 2022). France, a leader in GPP, has taken several measures to green its public procurement, including a 2030 mandate for public vehicles to be made of 70% recycled material (Décret n° 2024-134 2024). EU Member States could implement mandatory GPP criteria for construction and vehicles, besides establishing a much-needed comprehensive training platform for public administration officials (Stockholm Environmental Institute 2023). Existing regulations should be coupled with climate-friendly public procurement to drive the decarbonisation of the steel and cement industries by creating demand for these products. The production of automobiles is highly carbon-intensive, emitting over

7 million tonnes of CO₂ every year in the EU. Recently, emissions per car have increased since 2019 (ACEA 2023). Setting minimum standards for vehicles based on whole-life-cycle greenhouse gas emissions could ensure the transition to electric mobility does not compromise CO₂ abatement and material efficiency. Similar measures should be complemented with priority access and incentives for lead markets in other hard-to-abate sectors such as chemicals, refining and concrete.

VI.

STRUCTURING INDUSTRIAL HYDROGEN UPTAKE

Hydrogen is crucial for decarbonising the EU economy, particularly for sectors and processes that cannot use direct electrification. Europe has a unique opportunity to seize its untapped clean energy potential to increase its competitiveness. The limited renewable hydrogen available should be directed towards the most efficient uses to significantly reduce CO₂ emissions. Developing an EU “Hydrogen Act”, i.e. a pan-European infrastructure plan that maps future demand and incentivises domestic production, represents an essential key to unlocking the EU’s energy resilience, competitiveness, and energy security.

“Developing an EU ‘Hydrogen Act’ [...] represents an essential key to unlocking the EU’s energy resilience, competitiveness, and energy security. The potential of the North Sea to become “Europe’s new powerhouse” should be seized by boosting offshore wind and hydrogen production.”

The potential of the North Sea to become “Europe’s new powerhouse” (Mjahed 2023) should be seized by boosting offshore wind and hydrogen production, to increase the EU’s resilience and competitiveness substantially. Particularly through additional wind power beyond 100 km from shore, renewable hydrogen offers cost-efficiencies and lower energy losses compared to submarine cables (Patonia, Levinova, Poudineh & Nolden 2023), with the potential to generate around 300 TWh of hydrogen (Slater, Sall & Hülsen 2023). Member States must increase cooperation with Norway and the UK, develop and implement coordinated national and European infrastructure development plans, set clear regional renewable hydrogen targets, and harmonise the procedures and the timing for the rollout of permits.

European two-sided Carbon Contracts for Difference (CCfDs) should be introduced for hydrogen ramp-up. They should be time-bound and focused on select industries, and should be introduced alongside other national and European instruments, such as carbon pricing and carbon border adjustment for goods produced outside the EU. The goal is de-risking in the early stages and enhancing resilience. Since Europe, as a whole, will be a key market for hydrogen, CCfDs should be implemented across EU Member States.

A resilient energy system should also adequately reflect international low-carbon hydrogen imports, in order to ensure availability at the EU level. The European Hydrogen Bank's international framework needs structuring. Double-sided auctions can bridge the cost gap between hydrogen and fossil-based alternatives, reduce investment risks, and match suppliers with consumers. Default guarantees are also essential, as they hedge private market participants against higher default risks in international hydrogen purchase agreements (EPICO, Guidehouse Consulting & Konrad Adenauer Stiftung 2023). Moreover, aligning hydrogen diplomacy with broader EU climate diplomacy is essential. Establishing robust monitoring and certification systems for low-carbon hydrogen and its derivatives in third countries ensures these align with EU regulations. The European Commission should identify priority regions which are undertaking initial steps in building up a hydrogen economy and should receive technical support from the EU.

However, the development of Sustainable Aviation Fuel (SAF) is often neglected, and there is a lack of political momentum behind the introduction of hydrogen in the aviation sector. As demand is predicted to double by 2050, the use of hydrogen should play a critical role in meeting Europe's sustainability targets. Given that aircraft have a current lifespan of around 20 years, it is advisable that decisions for the use of hydrogen are made now, to ensure aircraft fleets are fit for the future. Additionally, action needs to be taken to make sure that robust refuelling infrastructure is available at airports, to ensure the effective transport, storage, and supply of hydrogen to aircraft.

The steel industry, a high priority on the "hydrogen ladder", is projected to be the largest consumer of renewable hydrogen in Europe by 2030 (Hydrogen Europe 2023). This sector has significant potential for CO₂ reduction, with few viable alternatives (Baylin-Stern & Berghout 2021). Involving primary steelmakers in hydrogen infrastructure planning is crucial. Positioning electrolyzers in close proximity to hydrogen-direct reduced iron plants could enhance operational flexibility and energy efficiency.

Hydrogen also has the potential to revolutionise Europe's aviation sector. Currently, medium-haul flights make up around 75% of European air traffic. If hydrogen were to replace traditional kerosene as an alternative aviation fuel, the sector could reduce its CO₂ emissions by roughly 25% (El Helou & Siméon 2024).

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ABOUT US

EPICO is an independent climate and energy policy think tank based in Berlin and Brussels. Founded in 2021 by Dr Bernd Weber, EPICO has a social market-oriented approach to promote a socially cohesive and environmentally sustainable transition to climate neutrality. Supported by its broad-based Advisory Council, EPICO provides a platform and network for diverse stakeholders from politics, academia, industry, and civil society to exchange and find majorities for ambitious climate policies.

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