

Climate Policy Priorities for the Next European Commission

Clemens Fuest, Andrei Marcu, Michael Mehling

The report, including any tables, charts, and figures, has been prepared by the authors based on feedback from the Advisory Group as well as stakeholder consultations convened in Berlin, Paris, and Warsaw in November 2023. Views and opinions expressed in this report are solely the authors', and do not necessarily represent the views or positions of their affiliated institutions, any stakeholders involved in the consultation process, or members of the Advisory Group. The members of the Advisory Group are, in alphabetical order:

Daniele Agostini (Head of Energy and Climate Policies, Enel); Piotr Arak (Chief Economist, VeloBank); Simone Borghesi (Director, Florence School of Regulation-Climate area, Vice Rector for International Relations, University of Siena); Wanda Buk (expert, former VP of PGE); Radu Dudau (Director, EPG); Gabrielle Gauthey (CEO High Representative by the EU Institutions, TotalEnergies); Olivia Lazard (Fellow, Carnegie Europe); Andreas Löschel (Professor and Chief Sustainability Officer, Ruhr University Bochum); Holger Lösch (Deputy Director General, BDI); Michael Mehling (Deputy Director, Center for Energy and Environmental Policy Research, MIT); Simone Mori (former Head of European Affairs Enel); Karen Pittel (Professor and Director ifo Center for Energy, Climate, and Resources, ifo Institute and University of Munich); Yvon Slingenberg (Acting Deputy DG, DG Climate Action, European Commission); Antonella Sopranzetti (EU Affairs Manager, Exxon); Charles Weymuller (Chief Economist, EdF)



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Editors: Clemens Fuest, Florian Dorn
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*Clemens Fuest, Andrei Marcu, Michael Mehling**

Abstract

From the earliest announcement of the European Green Deal, the current EU political cycle has been defined by an unprecedented acceleration in the scale and pace of climate policy. Under difficult conditions that sometimes tested the ability to engage stakeholders, including various external shocks, the EU has put forward and largely passed an unprecedented legislative agenda, which was meant to have, and is having, deep impacts on the EU economy and society at large. Much has changed in the world since the European Green Deal and the “Fit for 55” packages were conceived, including a dramatic increase in industrial policy actions by Europe’s trade partners, a deteriorating geopolitical landscape, and an energy crisis that has been aggravated by these factors, all of which has led to persistent fiscal and economic pressures.

Given this reality, both the climate policy objectives and instruments pursued over the course of the last five years may need to be scrutinized in the coming political cycle, to ensure that they respond to evolving circumstances, concerns, and above all the reaction of European society to the political and economic consequences.

Based on interviews and feedback from the members of a high-level Advisory Group as well as consultations with approximately 200 stakeholders from the public and private sectors, civil society, and research and academia convened in Berlin, Paris, and Warsaw, this report identifies climate policy priorities and formulates recommendations for the incoming European institutions. It groups these along several dimensions: overarching issues; international context and cooperation; interlinkages with other policy areas; policies and instruments; industrial competitiveness; and public support for the transition. On these issues, the report identifies challenges and relevant considerations, including macroeconomic impacts, that will need to be included in the evaluation of current policies and the development of new ones in order to meet the objectives on the EU Climate Law while securing an economically competitive and prosperous EU.

* Alexandra Maratou, Ana Ruiz, and Juan Fernando López of the European Roundtable on Climate Change and Sustainable Transition as well as Florian Dorn of the ifo Institute contributed to the content of this report.

Table of Contents

Executive Summary	3
1 Introduction	6
2 EU Climate Policy: Overarching Issues.....	6
2.1 Reaching European Climate Objectives	6
2.2 High-Level Assessment of the Macroeconomic Implications of EU Climate Change Policy: Trade-Offs between Economic Growth and Climate.....	7
2.3 Climate Change: A Matter of Economic, Industrial, and Competition Policy	10
2.4 Technology Neutrality and Cost-Effective Climate Policy.....	10
2.5 Economic Consequences of State Intervention and Long-Term Societal Impact.....	11
3 Climate Policy Priorities for the Next Political Cycle.....	14
3.1 To be Sustainable EU Climate Policy Must Achieve Success in International Cooperation and Climate Diplomacy.	14
3.2 Managing Interlinkages between Climate Policy and other Policy Priorities.	19
3.3 Successful Policies and Instruments to Drive Decarbonization.....	22
3.4 Ensuring Competitiveness and Maintaining Europe's Industrial Base	24
3.5 Securing Public Support for the Transition.....	28
List of Figures.....	33
List of Tables.....	33

Executive Summary

- Following the last EU elections in 2019, the European Commission proposed an extensive legislative framework to address climate change and reach the goals of the Paris Agreement, which is now enshrined in the European Climate Law and further legislation. The next EU political cycle, which will follow the elections in summer 2024, will be critical in implementing this legislation while ensuring a socially sustainable and just transition, with a competitive and prosperous economy.
- Climate policy and the transition to a low carbon economy is often portrayed as something that can be achieved without economic difficulties. This downplays the considerable challenges implied by the transition.
- Climate change increasingly needs to be viewed as a matter of economic, industrial, and competition policy, both due to the cost impacts of carbon constraints and the economic opportunities related to emerging industries. Economic analysis of regulatory impacts needs to ensure comprehensive consideration of both the negative and positive effects of climate policies, including the impacts on consumption, on industrial competitiveness, and on supply chains.
- In the past, the EU has steadfastly adhered to economists' prescriptions and relied on cost-effective market-based policy approaches to advance decarbonization. As the scale and cost of decarbonization increase, however, the EU is showing signs of wavering in this commitment, turning instead to costlier technology-specific subsidies and other market interventions. More than ever, the efficiency of markets and technology neutrality need to be guarded against political interference.
- Consider the amount of state intervention in the economy as the result of efforts to address climate change, in terms of both the magnitude and the form of the intervention. This intervention will have long-term societal impact and should be limited to areas of absolute necessity. Public sector participation and regulation should not be the first reaction, as there is an increased – albeit not universal – sentiment of over-regulation and regulatory fatigue.
- To be successful, the EU climate policy framework needs to be sustainable along all three dimensions of sustainability: environmental, social, and economic. A critical component, now that implementation has started, is to rebalance and redouble efforts on climate diplomacy and international cooperation. Cooperation and similar levels of effort from other countries are a necessary condition for EU climate policy to be sustainable and for the EU to prosper economically.

- EU climate policy has always been a cross-cutting policy agenda, and it is becoming increasingly so. Complex interlinkages between policy priorities and outcomes need to be recognized to leverage synergies and to avoid conflicts, trade-offs, and inefficiencies. In the process, decades of progress on economic integration and market liberalization – both within the EU and in its international relations – should not be reversed.
- Current drivers for decarbonization are fit for the current external conditions and stage in the transition. Reviewing the drivers for decarbonization beyond 2030 needs to begin promptly, consider the evolving realities, and address or put forward any adjustments that may be deemed necessary.
- As the focus shifts to implementation, the next political cycle will have to secure Europe's competitiveness and the resilience of its economy. New and in some cases untested policy initiatives will be asked to deliver these objectives in increasingly competitive markets; their ability to do so has to be monitored and corrective action taken where required. Energy policy reforms will also play a key role. Additional support measures and enhanced compliance flexibility may become necessary but should be deployed judiciously.
- As the EU enters a new phase in the transition, the short- and long-term socio-economic impacts of the transition are becoming increasingly tangible and impactful on society at large. Public support is and will be affected, should not be taken for granted, and will require additional efforts to maintain.
- The economic burden associated with the transition to a decarbonized economy in terms of efforts to replace an existing capital stock and of reduced consumption should not be downplayed. The EU should put more emphasis on climate policy instruments that minimize the cost of a given reduction in emissions. This requires a stronger focus on CO₂ pricing, the development of functioning carbon markets with sufficient liquidity, and a review of other climate policy instruments and their compatibility and interaction with CO₂ pricing. EU climate policy should also place more emphasis on technology neutrality.
- To deal with the economic challenges linked to decarbonization, complementary policies are needed to foster economic growth in the EU as well as address the distributional impact of decarbonization. This will also be important to maintain public support for the transition.

- The European internal market is an important growth engine, but there is a risk that its potential is undermined by distortionary subsidies at the national level. The EU should make sure that the current temporary exceptions from state aid rules do not become permanent. At the same time, it is possible to improve general conditions for decarbonization and the competitiveness of EU companies. This should include, for instance, a reconsideration of electricity taxes in Europe, which may slow down electrification.
- A significant part of decarbonization investment merely replaces existing and functioning but carbon-intensive capital, which becomes stranded. No additional production capacity is created. This problem is more severe if the transition is accelerated. While the negative impact on GDP may be limited because investment is part of GDP, the impact on the welfare of the population is better reflected in the decline in consumption that is required to create room for more investment.
- Decarbonization is a challenge for energy-intensive industries in Europe. While CBAM may help create a level playing field within the EU, more needs to be done to support the competitiveness of European companies in global markets. This issue is mitigated if other countries raise their climate policy ambition. The EU should rebalance and redouble its efforts on climate diplomacy and international cooperation.
- Geopolitical tensions and supply chain disruptions have emphasized the role of resilience and led to a debate about strategic industrial policy. The EU needs to appropriately balance the significant costs of reducing import dependence, the possibilities of increasing resilience through trade diversification, and the benefits of reshoring. It is essential to take into account that, just because goods are important for the energy transition, it does not follow that they should be produced domestically under all circumstances. When it comes to research into renewable energy and battery technology, this can be considered of strategic importance and should be carried out in the EU. Large-scale domestic production of wind turbines, solar panels, or batteries should occur only if it can be done in an economically competitive manner, once distortions from climate policy have been addressed, and assuming that both the EU and its trade partners adhere to WTO disciplines. For these goods, potential temporary supply disruptions in the case of a geopolitical crisis are bearable because there is an installed capacity.

1 Introduction

In 2023, ERCST and the ifo Institute unveiled a new initiative entitled “Climate Change Policy Priorities in the Next EU Political Cycle.” The purpose is to identify and scrutinize various issues that should be considered by the EU institutions and inform the development of climate change policies post the 2024 elections, aligned with the new European Commission’s agenda.

To foster intellectual leadership, the initiative convened thought leaders, forming an Advisory Group to provide input to the project.

The project included a consultation process, featuring bilateral interviews with members of the Advisory Group as well as stakeholder consultations in three EU member state capitals – Berlin, Paris, and Warsaw – in the fall of 2023. The authors of the paper were informed by the Advisory Group’s input and by the three stakeholder consultations, but the content of the paper and the opinions expressed therein solely reflect the views of the authors and do not represent the perspectives of any individuals involved in the consultation process.

This paper is structured into two main sections: Section 2 presents overarching issues, including matters of principle and macroeconomic implications; Section 3 highlights a series of specific issues that warrant further consideration and examination by the EU institutions in the development of climate change policies post the 2024 elections.

2 EU Climate Policy: Overarching Issues

The issues in the section below are intended to identify principles that should be considered by the EU institutions in the next EU political cycle when examining existing EU climate change legislation and regulation, or in drafting new ones.

2.1 Reaching European Climate Objectives

Reaching the objectives of the European Climate Law and Paris Agreement is not an issue under debate, but there is more than one road to implementation. There have been changes in the framework conditions since some of the legislation was put forward and/or passed, and a review, and adjustments, if necessary, need to always be part of the approach.

Since December 2019, when the European Commission presented the European Green Deal (EGD), the parameters of EU climate policy implementation have dramatically

evolved. At the time, when Europe resolved to become the first climate-neutral continent by 2050 – with the European Climate Law (ECL) making this a legally binding target – the world differed significantly from the world we currently live in. The climate targets and policy roadmaps of the EGD were put forward before the global Covid-19 pandemic, an escalating energy crisis, rising competitive pressures for both incumbent and clean energy technologies, and a full-blown military conflict in Ukraine.

Importantly, however, the current energy crisis – although exacerbated by the actions taken in response to the Ukraine conflict – had started earlier and has very different roots, including what was referred to at the time as a “rush to gas” that spiked gas prices. The pre-Covid-19 and pre-war era of economic and political stability, when the transition was not yet seen as a burden and resources were abundant, sustained broad public support for climate action in the wake of the Paris Agreement’s (PA) adoption, but those are no longer the prevailing conditions. Together with the continuing energy crisis, Covid-19 and the responses to the pandemic have created different social conditions and strong inflationary pressures.

Achieving the goals of the PA and the objectives set out in the ECL cannot be subject to debate. These decisions have been taken, and their requirements now must be met. In doing so, however, it needs to be acknowledged that more than one pathway exists to achieving those agreed objectives. In view of the dramatically evolved context, alternative policy options may need to be examined and corrective action taken. Alternative pathways may also have become viable as a result of technological progress, for instance in the area of mobility or the H₂ economy. European policymaking needs to therefore remain open to both changing circumstances and technological possibilities, and recognize that different approaches can sometimes deliver the same outcomes.

2.2 High-Level Assessment of the Macroeconomic Implications of EU Climate Change Policy: Trade-Offs between Economic Growth and Climate

Climate policy and the transition to a low carbon economy is often portrayed as something that can be achieved without economic difficulties. For instance, the most recent impact assessment by the European Commission about the 2040 climate target considers three climate policy scenarios with rising levels of ambition, called S1, S2, and S3. The impact assessment argues that “In 2040, GDP for S3 is at worst 0.8% lower than

in S2 while output is at best 0.6% higher in S1 than in S2 By 2050, GDP levels almost converge for the three scenarios.”¹

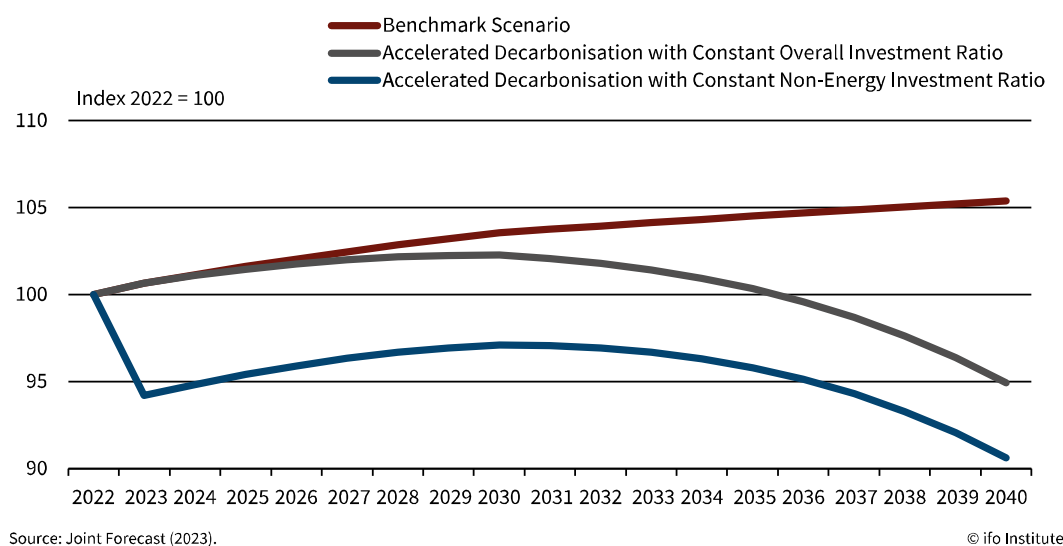
This downplays the considerable challenges implied by the transition. Decarbonization is costly because it restricts the use of a resource – fossil fuels – that plays an important economic role. In particular, ambitious climate policies require large investments. Normally, investment is seen as fostering future economic growth and consumption possibilities by creating additional production capacity. The picture is more complicated for decarbonization investment. A significant part of decarbonization investment merely replaces existing and functioning but carbon-intensive capital, which becomes stranded. No additional production capacity is created. This problem is more severe if the transition is accelerated. While the negative impact on GDP may be limited because investment is part of GDP, the impact on the welfare of the population is better reflected in the decline in consumption that is required to create room for more investment. Pisani-Ferry² estimates that the transition might require a decline in consumption in 2030 by 3 percent, which is very significant in an environment where more defense spending and the growing burden of population aging require additional sacrifices in terms of consumption. To illustrate the possible impact, Figure 1 illustrates the effect on consumption derived in a recent study of decarbonization in the German economy. The impact depends, among other things, on how other investment is assumed to develop if decarbonization investment increases. In the constant overall investment ratio, decarbonization investment is financed through cuts in other investment, so that the fall in consumption is initially small. But the neglect of other investment has a cost, which builds up over time. The second scenario assumes that the ratio of other investment to GDP is held constant, so that higher decarbonization investment requires a larger reduction in consumption. In both scenarios, the decline in consumption by 2040 is significant, amounting to 10 percent and more relative to the benchmark scenario without accelerated decarbonization.

¹ European Commission (2024), Commission Staff Working Document Impact Assessment Report Securing our future: Europe's 2040 climate target and path to climate neutrality by 2050 building a sustainable, just and prosperous society Strasbourg, 6.2.2024 SWD (2024) 63 final, pp. 51–52.

² Pisani-Ferry (2023), Climate Policy is Macroeconomic Policy, and the Implications Will Be Significant, Peterson Institute for International Economics Policy Brief 21–20. Similar results are derived in a recent analysis by the OECD (2023), which argues: “A scenario with a substantial energy transition by 2050 almost surely involves a significant increase in the share of global GDP devoted to investment, thus reducing global consumption possibilities. The resulting differential between the growth rate of GDP and private consumption is likely to be most apparent early in the transition, as the investment share is built up.”, see OECD (2023), Long Term Scenarios: Incorporating the Energy Transition, *OECD Economic Policy Paper* December 2023 No. 33.

Figure 1: Decarbonization and Consumption by 2040³

Simulation for Germany



Climate change itself has significant economic costs that need to be considered. However, the link between the speed of EU climate policy and global efforts is ambiguous.⁴ Adjustments in the ambition of EU climate policy are unlikely to have a significant impact on global warming in the coming years.

At the same time, it should be noted that there are important non-climate benefits of climate protection policies. Reduced air pollution leads to significant health benefits. A growing share of renewables in energy supply reduces dependence on imports of oil and gas and increases resilience in the event that the rest of the world fails to follow, and despite the fact that Europe's ability to directly address global emissions is limited.

In the long term, European climate policy may also drive innovation and support the creation of competitive advantage. But these effects will take time.

The significant economic burden of decarbonization in the short run suggests that a policy agenda is needed that puts emphasis on climate policy instruments that minimize the cost of a given reduction in emissions, as will be explained further below. In addition, more attention should be devoted to fostering economic growth in general. To the extent that the sacrifices in terms of consumption fall on the less affluent parts of the population, redistributive policies are needed. But it should be considered that this redistribution increases the consumption sacrifices required from the groups

³ Gemeinschaftsdiagnose (2023), Kaufkraft kehrt zurück – Politische Unsicherheit hoch, Herbst 2023.

⁴ A more ambitious climate policy of one country or region in the world can, under fairly general assumptions, reduce rather than increase global climate policy efforts, see Heike Auerswald, Kai Konrad and Marcel Thum (2018), "Adaptation, Mitigation and Risk-Taking in Climate Policy", *Journal of Economics*, 2018, vol. 124, issue 3, No 3, 269–287. This issue is also emphasized by the Advisory Board of the German Federal Ministry of Finance (2010), *Klimapolitik zwischen Emissionsvermeidung und Anpassung*, Berlin.

financing this redistribution. This will have implications for their willingness to support climate policies politically.

2.3 Climate Change: A Matter of Economic, Industrial, and Competition Policy

Climate change increasingly needs to be viewed as a matter of economic, industrial, and competition policy, both due to the cost impacts of carbon constraints and the economic opportunities related to emerging industries. Economic analysis of regulatory impacts needs to ensure comprehensive consideration of both the negative and positive effects of climate policies, including the impacts on consumption, on industrial competitiveness, and on supply chains.

For European manufacturers of clean technologies that are needed to achieve decarbonization, the path to net zero presents an opportunity. Harnessing that opportunity will, however, depend on a favorable investment environment, which must rise to the demands of the global technological race that has unfolded regarding who will lead in the clean technology markets of the future.

Many sectors of European industry, in particular the energy- and emissions-intensive sectors such as steel, aluminum, and chemicals, produce the materials and components that are needed to produce these net-zero technologies. Decarbonizing their processes while remaining competitive will be challenging, should CBAM lead to a level playing field at least within the EU. The situation of these sectors underlines that the European economy as a whole needs better access to affordable carbon-free electricity and essential infrastructure, for instance for carbon capture and storage.

Recent geopolitical events have underscored the importance of a more diversified energy supply. As the energy transition progresses, however, relevant supply chains are also shifting. Going forward, policymaking will have to ensure stable supplies of critical raw materials and components such as batteries, electrolyzers, and fuel cells.

2.4 Technology Neutrality and Cost-Effective Climate Policy

The scale of the challenge and the cost of meeting the EU's ambitious climate objectives gives renewed weight to the important advantages of technology neutrality through market approaches and economic instruments.

When the EU set out in earnest to design its approach to climate policy over two decades ago, it made the conscious decision to embrace flexible policy instruments that rely on price signals and market incentives. At the time, the successful implementation of an air pollutant emissions trading system in the United States had offered lessons on

the cost savings afforded by market solutions, inspiring the flexibility mechanisms of the Kyoto Protocol as well as ultimately Europe's EU ETS. Throughout a period in which ideological pushback against markets has, at times, caused these policies to fall out of favor with certain constituencies, the EU has remained a steadfast defender of carbon pricing, not only expanding its scope within the EU, but also supporting its expansion to other regions through cooperation and outreach activities.

Still, that declared support for a rational and cost-effective climate policy approach has not prevented stakeholder politics from influencing instrument choice, with overlapping policy tools and, notably, support schemes aimed at promoting specific technologies incurring avoidable inefficiencies and additional costs.

If technology neutrality ever served as a guiding principle of EU climate policy, the very existence, and sometimes dominance, of separate policy targets and a growing number of technology-specific support schemes suggest that it no longer enjoys significant weight in Brussels. That could prove to be a costly mistake. With the pace and scale of necessary decarbonization efforts – and related investments – set to increase dramatically in coming years, the recent trend toward ever more detailed technology conditions and restrictions, often applied in different and not always consistent ways across various implementing regimes,⁵ risks creating uncertainty and diverting funds to uses that do not maximize their mitigation impact.

Governments can play a useful role in creating lead markets for nascent technologies and correcting a variety of market failures, but that does not have to equate to targeted technology picking with the attendant risks of regulatory failure. Where possible, and especially once technologies have developed some degree of maturity, EU policy should remain technology neutral and instead focus on the goal of decarbonizing the European economy in a cost-effective manner.

2.5 Economic Consequences of State Intervention and Long-Term Societal Impact

Consider the amount of state intervention in the economy and the long-term societal impact and limit it to areas of absolute necessity. Public sector participation should not be the first reaction, as there is an increased – albeit not universal – sentiment of over-regulation and regulatory fatigue.

In developing the policy framework to address climate change, one consideration that must always be present in EU decisions must be the level and nature of state

⁵ See, for instance, the different definitions of hydrogen under the Renewable Energy Directive, sustainable finance taxonomy, CBAM, and so on.

intervention in the economy and society and its long-term impacts. Driven in this case by the need for speedy action on climate change, the EU has intervened heavily in the economy, but it needs to ensure, as a principled approach, that the balance between market and state intervention is restored and not further tilted.

It is not disputed that climate change and its mitigation are global challenges that require state intervention. Due to its nature as a public good, climate protection is subject to free riding, resulting in suboptimal activities to mitigate emissions. Without state intervention, actors in a market economy will not account for the release of greenhouse gases into the atmosphere and its intergenerational impacts.

So, while state intervention is sometimes necessary, the balance that ensures that an approach using market mechanisms is the leading driver in the economy needs to be an important consideration in any future reviews or new policy proposals, because this is essential to minimize the cost of decarbonization for the economy as a whole.

To address the market failures in climate protection, the EU has pursued a very forward-looking and ambitious climate change policy, and has increased state intervention. Indicative of the level of intervention is that the proposals adopted by the European Commission in 2022 under the European Green Deal headline are expected to result in an estimated EUR 2 billion of additional administrative burden⁶ on businesses and citizens.⁷ Also, the EU has pledged to mobilize at least €1 trillion in green investments.⁸ The fifteen pieces of legislation that are part of the Ff55are the best illustration of this, and range from targets for emissions, green hydrogen production, to the definition of what is a sustainable technology.⁹

⁶ Includes both administrative costs and adjustment costs in the form of investments and expenses that citizens or business incur to adjust their activity to the requirements contained in a legal rule (e.g. the costs of upgrading production lines).

⁷ European Commission (2023), Annual Burden Survey 2022, https://commission.europa.eu/document/download/fb29f07c-3c53-42ce-8d16-862fbb38c076_en?filename=ABS_20230912_0.pdf.

⁸ Cf. https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal_en.

⁹ EU Emission Trading System (ETS), Effort Sharing Regulation (ESR), Land Use and Forestry (LULUCF), Alternative Fuels Infrastructure Regulation, Carbon Border Adjustment Mechanism (CBAM), Social Climate Fund, ReFuelEU Aviation and FuelEU Maritime, CO₂ Emissions Standards for Cars and Vans, CO₂ Emissions Standards for heavy-duty vehicles, TEN-T Regulation, Intelligent Transport Systems Directive, Greening Freight Package, Regulation on methane emissions reduction in the energy sector, F-Gas Regulation, Landfill Directive, Waste Framework Directive, Urban Wastewater Treatment Directive, Industrial Emissions Directive, Energy Taxation Directive (ETD), Renewable Energy Directive (RED), Energy Efficiency Directive (EED).

Table 1: The EU Funding for Climate Action is Supported through Different Instruments

EU ETS Innovation Fund	€40 billion from 2020 to 2030 ¹⁰
EU ETS Modernization Fund	€57 billion from 2021 to 2030 ¹¹
ETS Social Climate Fund	Up to €65 billion from 2026 to 2032 ¹²
Just Transition Fund	€ 19.32 billion from 2021 to 2027 ¹³
LIFE Climate Change Mitigation and Adaptation	€ 905 million from 2021-2027 ¹⁴
EU Budget	€2.018 trillion of which 30% will be spent to fight climate change. from 2021-2027 ¹⁵
Recovery Resilience Facility (RFF)	€672.5 billion of which at least 37% for climate action, from 2021 to 2026 ¹⁶

In addition to Innovation Fund and Modernization Fund EU ETS revenues, the remainder EU ETS revenues are transferred to national budgets. Total revenues generated since 2013 up to 2022 raised to EUR 139.5 billion.¹⁷ Between 2013 and 2020, around 75%¹⁸ of revenues have been reported as used for climate- and energy-related purposes. These are substantial amounts of funding for climate action that cannot be ignored, but are a function of the EUA price level.

The second consideration is the nature of the intervention and the tools put in place. While the EU ETS was presented as a market solution to drive transformation, its role has declined over time and been blunted by the significant amount of regulation that was introduced. This regulation in some cases complements the market signal, but in many cases blunts it and competes with it. It is understood, but not maybe ideal from societal point of view, that for political reasons and speed of implementation relying on the EU ETS price signal may have been

¹⁰ Assuming a Carbon price of €75/tCO₂. Cf. https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/what-innovation-fund_en.

¹¹ Cf. https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/modernisation-fund_en#financing-an-investment-from-the-modernisation-fund.

¹² Cf. [https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2021\)698777](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2021)698777).

¹³ European Commission, https://commission.europa.eu/funding-tenders/find-funding/eu-funding-programmes/just-transition-fund_en.

¹⁴ European Commission, https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/life-climate-change-mitigation-and-adaptation_en.

¹⁵ European Commission, https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/supporting-climate-action-through-eu-budget_en.

¹⁶ European Commission, https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal_en.

¹⁷ In 2022, total auctioning revenues generated under the ETS amounted to EUR 38.8 billion, of which EUR 29.7 billion went directly to EU Member States. https://icapcarbonaction.com/system/files/ets_pdfs/icap-etsmap-factsheet-43.pdf.

¹⁸ European Environment Agency, [https://www.eea.europa.eu/en/analysis/indicators/use-of-auctioning-revenues-generated#:~:text=Total%20auctioning%20revenues%20generated%20under,and%20the%20Modernisation%20Fund%20\(EUR3](https://www.eea.europa.eu/en/analysis/indicators/use-of-auctioning-revenues-generated#:~:text=Total%20auctioning%20revenues%20generated%20under,and%20the%20Modernisation%20Fund%20(EUR3).

politically unpalatable. However, the balance may have been tilted too much towards regulation and this needs to be a consideration in future policy developments. The widespread perception that carbon prices imply higher economic costs of decarbonization for the economy as a whole than potentially less salient regulations is misguided. In fact, the opposite is true. Hence, more efforts are needed to communicate this.

3 Climate Policy Priorities for the Next Political Cycle

3.1 To be Sustainable EU Climate Policy Must Achieve Success in International Cooperation and Climate Diplomacy.

The EU must rebalance and re-double its efforts on climate diplomacy and international cooperation, which is a necessary condition for the EU climate policy to be sustainable and EU to prosper economically.

The EU is positioning itself as a leader in addressing climate change, both on domestic and international fronts. This stance is justified not only as a necessary action to avoid an environmental catastrophe but also as a means of prodding other nations to contribute to the achievement of the PA goals. Additionally, the EU aims to assert leadership in the development of new decarbonized technologies, which will provide a competitive advantage to the EU economy. It is deploying the legislative framework to achieve that objective through the EGD and Ff55 package and presents the 2030 target of at least -55% and the 2050 climate neutrality in the ECL, as clear proof of its leadership.

However, the PA is clear in that all Parties must contribute to the achievement of its goals. As the targets become increasingly ambitious, bringing along other Parties, especially some of EU's main trading partners, becomes increasingly important, if the EU leadership in decarbonization is to be sustainable – not only on the environmental axis, but on the social and economic ones as well. As mentioned in section 2.2, more European ambition in climate policy may not necessarily lead to more ambition by other countries. Should other Parties to the PA, especially EU's main trading partners, not follow with the same level of ambition, the sustainability of the EU leadership in this transition will increasingly become a real challenge for the EU economy and society.

This implies that while the EU, in the upcoming five-year political cycle, will focus on the implementation of the EGD, including any adjustment to the new 2040 climate target, there are other necessary conditions to make this implementation sustainable. This will include a discussion of EU international cooperation – including the tools currently deployed by the EU to incentivize great climate ambition abroad, and opportunities to

use international carbon markets for compliance flexibility and lowered costs – as well as a better understanding of metrics for determining the sustainability and leadership of the EU climate change policy framework.

It is important that the EU approach show a marked increase in EU climate diplomacy and international cooperation, which will ensure that EU is not moving alone. That should include a review of the level of effort as well as the existing and planned actions, tools, and approaches in international cooperation and diplomacy.

While not exclusively, the focus of the EU is on currently using CBAM and climate finance as major tools in its climate diplomacy toolbox to incentivize climate action by other countries. Any review should examine whether the focus on these tools is sufficient to lead to international convergence in an effective and efficient manner, as well as what other tools are needed.

Additional attention may need to be given to examining the timing and manner of reintegration in international carbon markets as well as approaches, including sectoral-level cooperation and carbon clubs (a concept which is yet to gain real traction). The resilience of the EU approach to climate cooperation may be further tested by upcoming international developments, such as the ICAO review of CORSIA and possible challenges to the CBAM under the WTO.

Secondly, at the domestic level, the EU needs to define clearer KPIs/metrics to assess the sustainability of the EU transition, including in the 2028 review for the 2040 target. This needs to be seen separately from the adequacy of the tools available to undertake the transition. Current provisions in the ECL are general and cannot be directly operationalized.

While the EU has been a clear catalyst in moving the climate change agenda, a central question that needs to be answered is whether the speed of the transition in the EU is consistent with “highway rules”:

- Not slower than traffic (i.e. speed of other trade partners around the world).
- Not too fast to constitute a hazard for passengers (EU citizens and the economy).

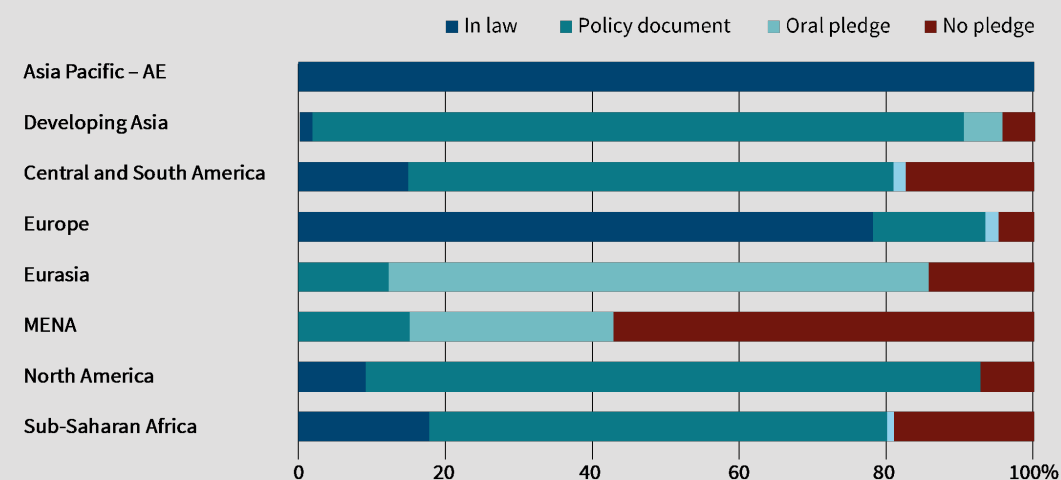
There is currently no clear-cut approach to measuring the EU leadership and a combination of metrics will be deemed necessary. This will need to differentiate between action/achievements and targets. In many cases other countries will set what may look like ambitious targets in the long-term, but the actions put in place do not match those targets. Some metrics may include a) the level of target of GHG reduction vs current pathway, including net-zero strategies that include carbon capture, utilization, and storage (CCUS), and carbon dioxide removals (CDRs) technologies; b)

level of investment necessary to achieve the transition vs current realities; c) CO₂ intensity per unit of GDP; d) trends in sectoral carbon intensity; e) penetration of renewables; f) trends in electrification; g) absolute target levels; h) penetration of zero emission in transportation; i) sectoral trends in CO₂ intensity vs production levels.

Other metrics could take a consumption-based approach to accounting for GHG emissions, which would however constitute a departure from the conventional metrics. While the EU can claim leadership on many of these metrics, it does not perform equally well across all.

As of September 2023, net zero emissions pledges covered more than 85% of global energy-related emissions and nearly 90% of global GDP, however, the number of countries that had adopted a net zero emissions¹⁹ target in national law accounted only for about one-fifth of global energy sector emissions. Asia Pacific, followed by the EU lead in terms of the share of energy-related emissions covered by initiatives that are enacted in law (Figure 2).

Figure 2: Energy-Related CO₂ Emissions Covered by a Government Zero Emissions Pledge by Type of Region



Note: Asia Pacific – AE includes Australia, Korea, Japan and New Zealand; MENA includes the Middle East and North Africa country groups. This is a work derived by ifo Institute from IEA material and ifo Institute is solely liable and responsible for this derived work. The derived work is not endorsed by the IEA in any manner.

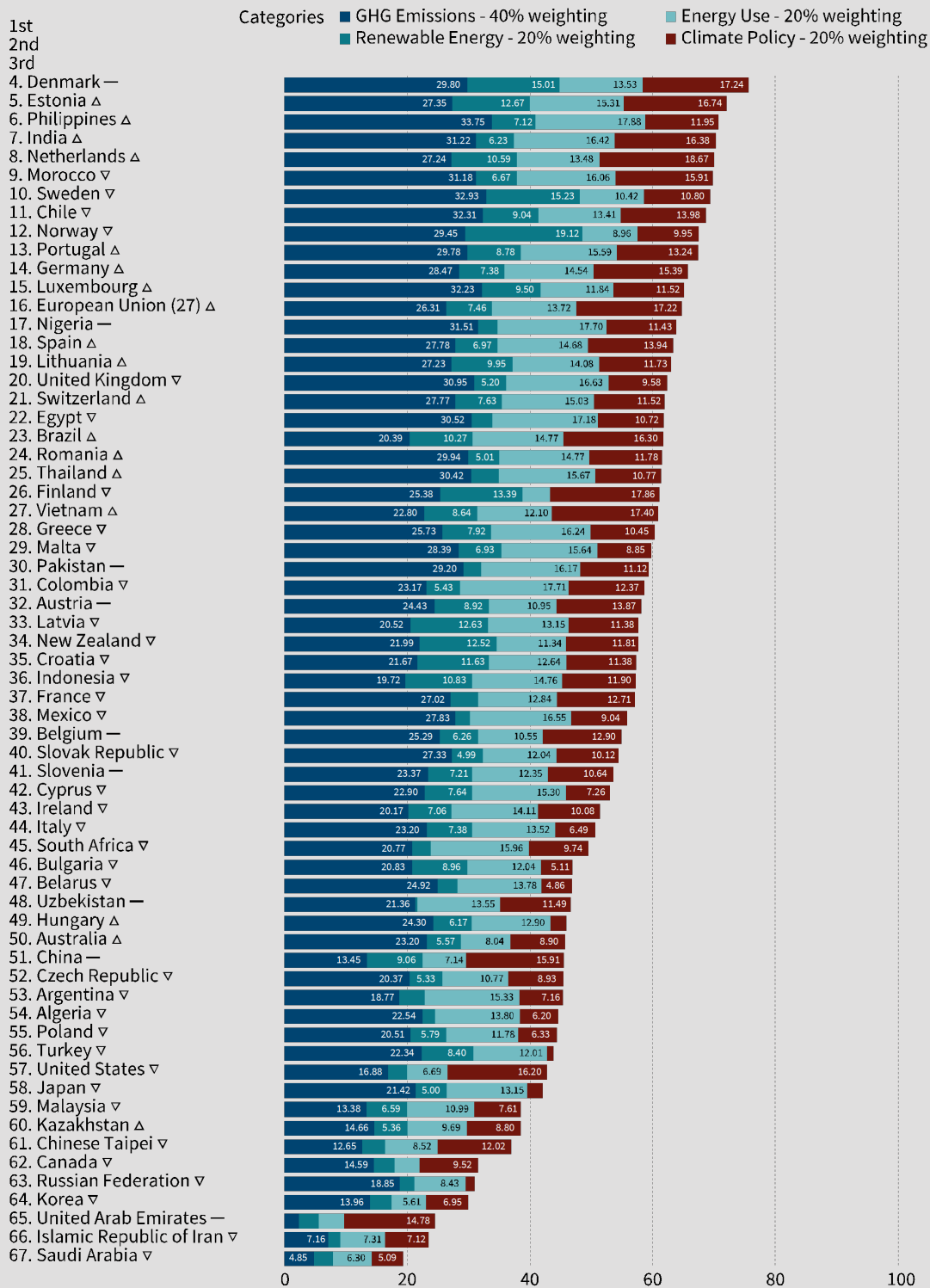
Source: Figure 1.10, IEA (2023), Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach, IEA, Paris.

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Other approaches can be employed to assess worldwide climate performance and mitigation endeavors, considering factors such as greenhouse gas emissions, adoption of renewable energy, energy utilization, and climate policy (Figure 3).

¹⁹ Pp. 32-33, IEA (2023), Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach, IEA, Paris <https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach>, License: CC BY 4.0.

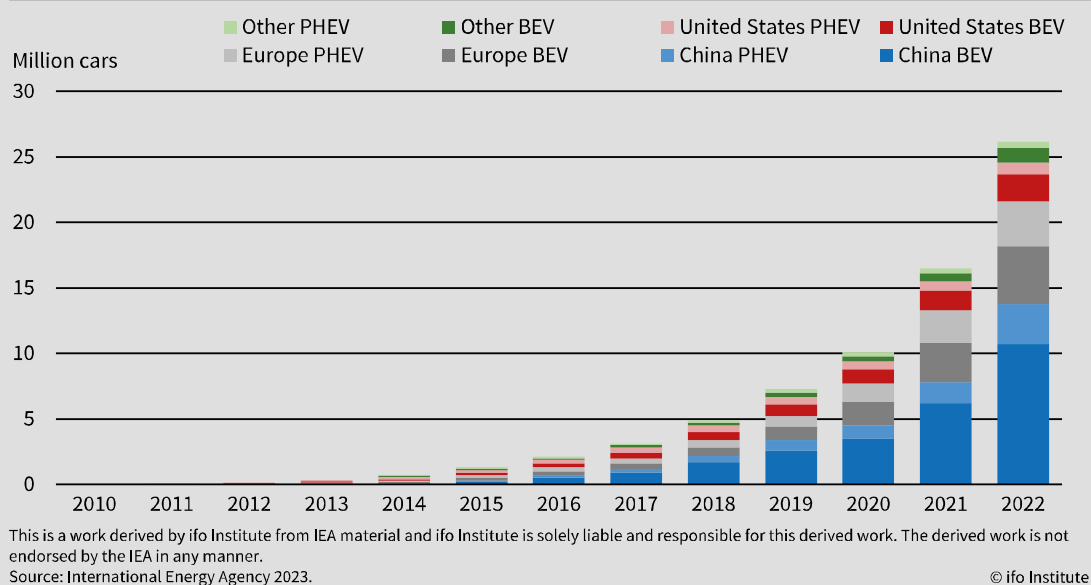
Figure 3: Climate Change Performance Index Ranking 2024 – Rating Table



Source: Climate Change Performance Index (Results 2024) "Monitoring Climate Mitigation Efforts of 63 Countries plus the EU – covering more than 90% of the Global Greenhouse Gas Emissions", Germanwatch, NewClimate & Climate Action Network. P. 7. © Germanwatch 2023

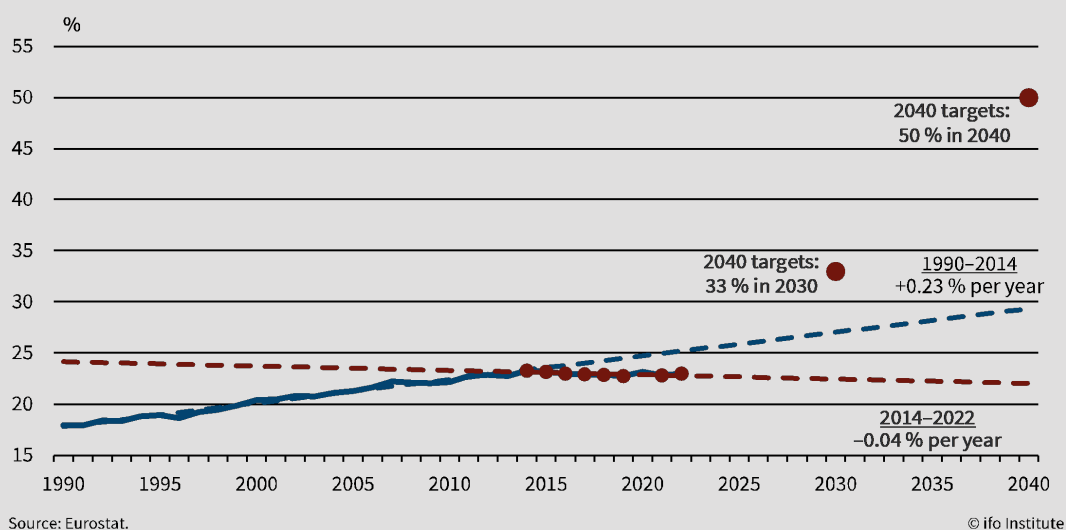
China is the leading market for electric vehicles followed by Europe (Figure 4). While the EU leads when it comes to per capita electric car ownership, China surpassed Europe in 2022 in terms of annual EV sales share.

Figure 4: Global Electric Car Stock 2010 – 2022



Despite the growth in EV and heat pump sales in the EU, electrification overall (defined as the share of final electricity consumption over final energy consumption) has stagnated since 2014 (Figure 5). While there are measures in place for the electrification of buildings and transport that can be expected soon to kick in, measures with respect to the electrification of industry are less concrete, and there is a need to justify, define and implement related strategies.

Figure 5: Final Electricity Consumption as a Share of Final Energy Consumption



While the review is timed with the 2028 PA global stocktake, a gap is emerging between the conditions prevalent at the time of the EGD, and changes that are visible in some of EU's trading partners. For illustration purposes, some countries, such as the UK and Brazil, take a different posture in the face of public opposition or economic hardships. The UK has been accused by international and domestic critics of backtracking on several pledges and edged away from some crucial climate commitments by delaying plans to phase out sales of gas boilers and impose curbs on petrol and diesel cars, although it pledged to keep the wider 2050 Net Zero target. Brazil, under the leadership of what is considered a progressive President Lula and not the more skeptical previous administration, has announced that Petrobras intends to be one of the last remaining oil producers on the planet, and the Brazilian energy company's chief executive said as he outlined a \$100bn-plus investment plan concentrated on offshore oil exploration and production.

These kind of actions and statements would militate for an earlier EU review, and a correction, should that be necessary.

3.2 Managing Interlinkages between Climate Policy and other Policy Priorities.

Complex interlinkages between policy priorities and outcomes need to be recognized to leverage synergies and avoid inefficiencies – and may become more visible as we approach net zero.

Climate policy has always been a cross-cutting policy agenda, but we are only now beginning to fully appreciate its interlinkages with all major areas of public policy. Just as the causes and impacts of climate change are ubiquitous, affecting virtually all aspects of society, so have the imperatives of climate change mitigation and adaptation increasingly encroached on other realms of political decision making. Energy and financial market regulation; regional and urban planning; agriculture, industrial and transportation policy; social and labor agendas – hardly an area of EU policy making is not being fundamentally overhauled as a result of the EGD and its implementing legislation. It is important to review whether pursuing climate policy objectives with instruments of other policy areas, such as EU taxonomy²⁰, is effective and maintains consistency of the overall approach.

²⁰ See e.g. Fuest, C. and V. Meier (2022), "Green Finance and the EU-taxonomy for Sustainable Activities: Why Using More Direct Environmental Policy Tools is Preferable", *The Economists' Voice*, Vol. 19.(2) p. 261-266 and Scientific Advisory Board of the German Federal Ministry of Finance (2021), "Green Financing and Green Government Bonds – Appropriate Instruments for an Effective Environmental Policy?", Berlin (Wissenschaftlicher Beirat beim Bundesministerium der Finanzen (2021): Grüne Finanzierung und Grüne Staatsanleihen – Geeignete Instrumente für eine wirksame Umweltpolitik?, Berlin.).

Indeed, the pace and scale of Europe's climate goals require nothing less: without policy levers pulling in the same direction at all levels and across all sectors of society, the ambitious transformation agenda cannot be achieved. But therein also lies the challenge. With growing interlinkages come added complexities, along with the potential for enhanced synergies and conflicts. The stakes are higher; the potential fallout of failed policy choices is greater.

Europe will have to navigate difficult terrain as it seeks to align very different policy priorities with the overarching goals of the EGD. In some cases, doing so can unleash new efficiencies as climate policy objectives are mainstreamed across other areas of public policy; but in other cases, it will also necessitate trade-offs and delicate balancing acts. Progress across disparate areas will be necessary to create the enabling conditions for a successful energy transition. Failure to align relevant policies, by contrast, will become a stumbling block that prevents Europe from achieving its ambitious vision of a resilient, competitive, and carbon-neutral continent.

This is evident in the energy sector, for instance, where reliability and affordability do not always go hand in hand with sustainability, at least for the foreseeable future. Variable generation profiles of wind and solar energy either demand accompanying storage, which is costly, or introduce reliability concerns. Accelerating the deployment of these same energy sources through streamlined siting and permitting procedures, especially for essential transmission and distribution infrastructure, will also require curtailing entrenched participation rights that were not long ago seen as a breakthrough for enhanced environmental protection.

But the trade-offs extend far beyond the energy sector. In the realm of industrial policy and clean technology manufacturing, the rapidly growing demand for critical raw materials and components has given rise to national security, geopolitical, social, and environmental concerns, and currently advanced solutions – such as the partial re-shoring of manufacturing capabilities and de-risking of essential supply chains – do not always align with the interest in accessing such technologies at scale and the lowest cost possible. Even on the labor front, the pressing need to expand the workforce with skilled labor can edge into sensitive policy debates about labor market and immigration reform.

At a minimum, the simultaneous pursuit of several interlinked policy priorities will result in isolated delays and additional costs, but consequences could become more serious in the current political and economic context. Inefficiencies may become more difficult to justify at a time when inflation and high interest rates are already exerting pressure on public budgets and consumers. If upcoming elections alter the perceived urgency of climate change in individual Member State governments or in Espace

Léopold and the Berlaymont, such pressures are likely to increase and might prompt a recalibration of policy priorities across Europe.

Things that need to be highlighted include conditionality in achieving our targets and the recognition of a number of areas that are necessary conditions to succeed in this interlinked environment, such as achieving success with:

- Availability and cost of hydrogen.
- Deployment of Carbon Capture and Utilization (CCU), Carbon Capture and Storage (CCS), and Carbon Dioxide Removal (CDR) methods or activities.
- The necessary rate of electrification.
- The necessary level of penetration of renewable energy,
- Inclusive treatment of nuclear, as a zero and low carbon energy solution for member states.

Particular attention needs to be dedicated to the further evolution of economic integration, both within the EU and in its relation to international trade partners. Because of unintended distributional effects, recent geopolitical concerns, and the perceived sustainability impacts, decades of progress on trade liberalization have come under scrutiny. Within the EU, a key feature of the internal market – state aid control – has been temporarily relaxed to enable more flexible national decarbonization strategies. Internationally, the turn to industrial policy has also seen a surge in the deployment of subsidies to advance climate policy objectives. These trends and their long-term impacts have to be carefully monitored to avoid reversing past progress with economic integration, including its sustainability benefits such as the diffusion of low-cost decarbonization technologies.

To make the EGD project more compatible with electoral dynamics and an evolving political landscape, its operationalization has to build on rational, cost-effective implementation strategies; its intended and unintended effects across multiple issue areas need to be managed in a holistic way; and the inevitable balancing processes it requires must be carried out such that they remain accessible and transparent to the European public, because only broad political acceptance can sustain an agenda of such sweeping scope.

3.3 Successful Policies and Instruments to Drive Decarbonization.

Reviewing the drivers for decarbonization beyond 2030 needs to begin promptly and consider the evolving realities.

To drive decarbonization the EU has deployed a mixed of market approaches and regulation. It has combined “sticks”, in the form of caps on emissions and payment for EU ETS allowances (EUAs), with carrots, through the Innovation and Modernization Funds, contracts for difference, RePower EU, etc.

These policies and instruments have not always been effective and efficient, and the history of the changes to the EU ETS best exemplify that over the years with the many adjustments that were made – the removals of the link to the international markets, the introduction of backlogging and the MSR, the move from free allocation to increased auction and to CBAM. The changes were the result, in some cases, of changing conditions. On other occasions they were due to issues that were identified, and that needed to be addressed to ensure good market functioning and price discovery, and a good signal for decarbonization.

This combination of approaches is proving to be effective in driving decarbonization. The power sector is on a decarbonization trajectory to zero 2039.²¹ Industry, who is lagging the power sector in lowering its carbon intensity, but with a very different set of challenges when it comes to competitiveness and survival, has also been moving in the right direction. It is generally accepted that these accomplishments were the result of a combination of factors, with the EU ETS being one of the impulses.

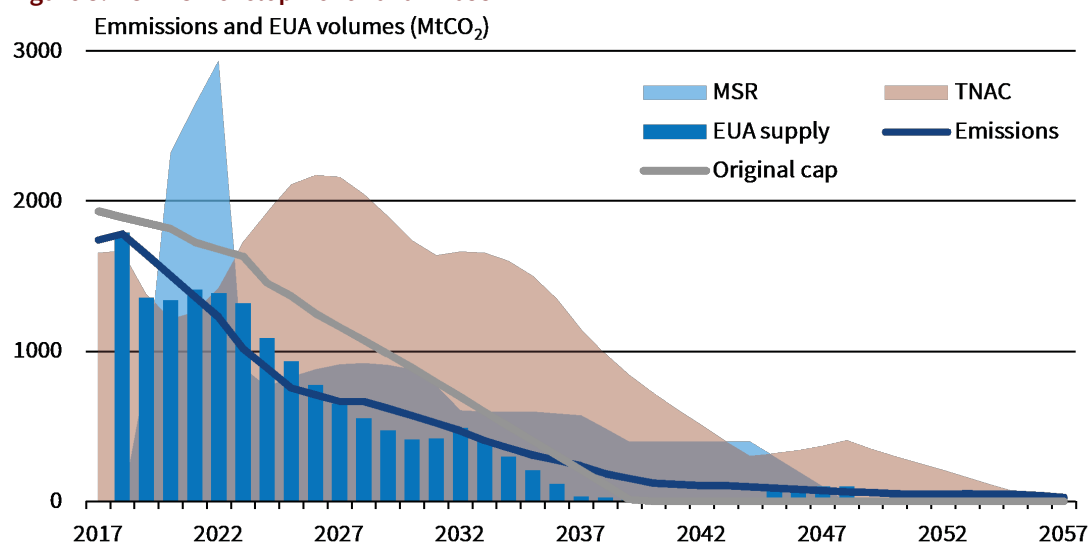
The current combination of instruments works reasonably well for the current market and economic conditions. However, given the net zero objective that the ECL requires, and the expected lack of ETS1 EUAs expected sometime at the end of the 2030s, it seems that we are heading into a different world, and it is natural to question whether the current instrument will be fit for purpose in the current form and the appropriateness and/or architecture of current instruments may require rethinking.

The flagship of the EU climate change framework, the EU ETS, is one of the current instruments that makes the object of intense discussions, with the European Commission having launched a preliminary reflection entitled “Issues and options for

²¹ Cf. <https://www.euractiv.com/section/emissions-trading-scheme/opinion/europe-needs-to-urgently-prepare-for-carbon-market-endgame/>.

EU emissions trading after 2030²². This is not to say that the reflection should be limited to the EU ETS, its role and architecture pos-2030.

Figure 3: EU ETS Development 2020 – 2055



Source: Pahle, M. et al. (2023), "The Emerging Endgame: The EU ETS on the Road Towards Climate Neutrality", p 13.
Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4373443.

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Given the importance of the EU ETS, any reflection of the role and architecture of the EU ETS post 2030 needs to start soonest, to allow for careful consideration and a strong and open debate. Some of the elements that militate for a serious review of the EU ETS will include:

- Changes in the EU ETS environment:
 - Decrease in liquidity as the underlying commodity goes to zero, quite a unique situation.
 - Potential increase in price volatility.
 - Transitional period to zero EUAs in circulation.
 - Need for a carbon price signal for negative emissions.

The debate should first focus on what makes the EU ETS fit for purpose, that is, what is it supposed deliver. Some of the objectives considered will need to include:

- Establish cost-effective incentives for decarbonization.
- Provide investment signals with special attention to:
 - The need for a long-term price signal, which is currently unavailable, or limited in availability.
 - The reality of the tension between price signal vs political acceptability

²² DG CLIMA (2022), Study on Issues and Options for EU Emissions Trading after 2030, CLIMA/2022/OP/0012.
Available at: <https://etendering.ted.europa.eu/cft/cft-display.html?cftId=12202>.

While this is not an exhaustive list, as a starting point, several issues can be proposed for examination:

- Architecture of the EU ETS – there are already multiple ETSS, in the post-2030 environment can it be expected that prices will converge, and they will merge into one ETS that will also address to some degree the issue of liquidity?
- Governance of the EU ETS – the current governance is based on volumetric regulation, with the MSR ensuring stability. Given the changes in liquidity, followed by the of EUAs volumes going to zero, can the MSR continue to play this role and in the same architecture? Or other approaches need to be explored – for the overall EU ETS, or only for some aspects such as carbon removals?
- Increased flexibility (e.g., carbon removals, linkages to international markets).
- Market expansion, in the EU and internationally, and interlinkages with flexibility.
- ETS + CBAM a solution for decarbonization; reviews are planned.

3.4 Ensuring Competitiveness and Maintaining Europe's Industrial Base

As the focus shifts to implementation, the next political cycle will have to secure Europe's competitiveness and resilience, ensuring that existing instruments are fit for purpose and examining the need for new ones.

All economies and sectors go through change, with new products and services replacing old ones. This is a natural, historical pattern.²³ Still, transformation does not mean deindustrialization. A decarbonized, but deindustrialized Europe is not a positive outcome for welfare in the EU, for global greenhouse gas emissions and other pollution vectors, for the security of European energy and other supply chains, as well as to secure continued public support for the transition. Perhaps as importantly, it would send a cautionary signal to trade partners around the world, and thereby potentially set back global decarbonization efforts.

Industries across the EU are anxiously following an unfinished legislative agenda that will fundamentally affect what they produce, how they produce it, and at what cost. Many sectors have expressed concern about what they consider a fragmented and largely untested strategy to secure their competitiveness in the face of these sweeping changes. Uncertainties around the effectiveness of the CBAM, the future design of the European electricity market, and evolving state aid rules all contribute to current anxieties. To be fair, the drivers of competitive pressure extend well beyond climate

²³ Drawing on the seminal work by Joseph Schumpeter: Aghion, P. and P. Howitt (1992), "A Model of Growth through Creative Destruction", *Econometrica* Vol. 60, No. 2, pp. 323–351.

policy: high energy prices, a high tax and regulatory burden, supply chain disruptions, tight labor markets, and geopolitical conflict have all played a decisive role in the past and might very well in the future.

Still, as the EU shifts its focus to implementation of the EGD during the next political cycle, it will have to afford renewed attention to the competitiveness of its industries in domestic and global markets as a result of additional costs incurred in the transition. For decades, a focus on trade liberalization has enabled growing reliance on imported, low-cost goods from other countries and has provided access to foreign markets for domestic exporters, creating large gains from trade and border crossing investments.

These gains are now called into question as geopolitical tensions raise the risk of supply and demand disruptions and EU industry competitiveness is affected by costs associated with climate change that other jurisdictions do not have to incur. Legislative measures such as the Net-Zero Industry Act (NZIA) and the Critical Raw Materials Act (CRMA) take important steps towards strengthening Europe's competitiveness and material supply chains, but they also pursue a costly reversal of the previous trend towards open borders and maximizing efficiency gains from international trade. Diversifying trade and international capital flows is key to preserve European competitiveness. Trade agreements with partners like Mercosur are of utmost strategic importance and should not be held up by overburdening them with non-trade policy issues.

A broader policy shift will therefore be essential to preserve Europe's competitive edge against its trade partners and attract investment within Europe. It will require enhanced access to reliable and affordable low-carbon electricity; a CBAM that effectively levels the playing field in domestic and, if possible at all, even international markets; stable supplies of critical materials and components; and predictable demand for low carbon products, for example through green public procurement. Each of these future priorities is discussed in greater detail below.

First, energy policy will be pivotal to maintain competitiveness, especially for energy-intensive industries. Europe's competitive pressures have been amplified by the recent energy crisis, leading to plant shutdowns, production curtailments, and job losses. High electricity costs not only impede competitiveness, but also discourage decarbonization efforts, as high and unpredictable electricity prices discourage the necessary electrification of technologies and processes. Like many other jurisdictions, the EU faces a changing energy matrix, where investment recovery for backup resources depends on very few scarcity events. Proposals to revisit the marginal pricing model in

wholesale electricity markets as a way to reduce consumer and producer risks²⁴ merit consideration, and should form part of the next electricity market design (EMD) review foreseen for 2026.²⁵ A prolonged period of past underinvestment will likely continue to exert upward pressure on electricity prices across the EU, and while the recently agreed EMD reform²⁶ offers welcome access to long-term power purchase agreements (PPAs), their contribution is likely to remain limited due to lacking demand. Support instruments such as Contracts for Difference (CfDs) and capacity remuneration mechanisms seem destined to be the main vehicle to fill current gaps, but also signal a permanently expanded role for government intervention and raise important questions about financial burden allocation and the risk of a national subsidy race under loosening state aid disciplines.

Second, European energy-intensive industries compete with producers overseas, where energy prices are typically lower, and competitors do not bear comparable carbon costs. While the CBAM can help level the playing field on the domestic market, there is at present no provision in the CBAM to level the playing field in export markets. As the price of EU ETS allowances has increased, so have the indirect carbon costs passed through with electricity prices, another factor contributing to an uneven playing field.²⁷ As established carbon leakage safeguards such as free allocation of allowances and indirect cost compensation give way to the CBAM, the impact of this transition on industrial competitiveness needs to be carefully studied and additional measures potentially adopted with sufficient lead time to avert irreversible leakage.

Third, aside from being an energy user, Europe's energy-intensive industries are also a supplier of inputs for the critical technologies essential to sustain the energy transition. High energy and carbon costs are reflected in these inputs, adding to the cost of low-carbon generation technologies. Wind turbine costs have risen by 38% in two years, for

²⁴ For an overview and initial assessment of some of these proposals see chapter 4.3 and Annex 1 in: Marcu, A., P. Nouallet, A. Maratou and M. Alper Saglam (2023), "Electricity Market Design, Decarbonization, and Industries' Competitiveness", 12 October 2023, ERCST. <https://ercst.org/electricity-market-design-decarbonization-and-industries-competitiveness/#>.

²⁵ According to the provisional agreement on the EMD reform reached in December 2023 by the Council and the European Parliament, "By June 2026, the Commission shall review the Electricity Regulation and submit a comprehensive report on the basis of that review, accompanied by legislative proposal where appropriate. Elements to be assessed include the effectiveness of the structure and function of short-term electricity markets, as well as their potential inefficiencies and possible remedies and tools to be applied in crisis or emergency situations."

²⁶ The Council and European Parliament reached a provisional agreement on the EMD reform in December 2023. See text of the agreement <https://data.consilium.europa.eu/doc/document/ST-16964-2023-INIT/en/pdf>; See European Commission proposal COM/2023/148 final, <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52023PC0148>

²⁷ For more on this topic see: Marcu, Andrei, Michael Mehling, Aaron Cosbey and Alexandra Maratou (2022). Border Carbon Adjustment in the EU: Indirect Emissions in the EU CBAM. 5 July 2022, ERCST. <https://ercst.org/indirect-emissions-in-the-eu-cbam-2022/>

instance, with the rising price of steel accounting for a significant share of that increase; such cost increases are then reflected in higher electricity prices, exacerbating the aforementioned vicious cycle. Recent supply disruptions have also highlighted the importance of resilient supply chains, reinforcing the need for a coherent industrial and trade policy strategy.

Although it primarily targets manufacturing of clean technologies, the NZIA, for instance, also recognizes the importance of other strategic sectors along the value chain in providing the inputs needed for the European clean technology industry. Going forward, the EU should identify sectors of strategic importance, going beyond the current list of critical materials and advancing a coherent industrial strategy that appropriately balances the significant costs of reducing import dependence, the possibilities of increasing resilience through trade diversification and benefits of reshoring.

In this context it is key to take into account that, just because goods are important for the energy transition, it does not follow that they should be produced domestically under all circumstances. When it comes to research into renewable energy and battery technology, this can be considered of strategic importance and should be carried out on the EU. Large scale domestic production of wind turbines, solar panels or batteries should only occur if it can be done in an economically competitive manner, once distortions from climate policy have been addressed, and assuming that both the EU and its trade partners adhere to WTO disciplines. For these goods, potential temporary supply disruptions in the case of a geopolitical crisis are bearable because there is an installed capacity. For other goods, such as certain pharmaceutical drugs or natural gas, supply disruptions have more dramatic consequences. When considering reshoring, it should therefore be considered carefully for which markets supply diversification should be pursued and where reshoring might be the better option. Also, an open discussion is needed what costs are deemed acceptable to ensure that climate goals can be reached in the unlikely case of long-term supply disruptions.

Finally, Europe's competitiveness could be bolstered – and its growing international climate finance obligations served – by reconsidering the current restrictions on compliance flexibility through international carbon markets such as Article 6. Similarly, a greater commitment to technology neutrality in nascent markets such as the hydrogen economy could help the EU vis-à-vis trade partners imposing fewer technology restrictions. Finally, the governance framework of the EU requires a critical evaluation to identify where the current distribution of powers between the Brussels and Member State capitals is preventing Europe from taking the necessary action, and also to ensure that energy and climate policies work together rather than contradicting each other.

3.5 Securing Public Support for the Transition

With the short- and long-term socio-economic impacts of the transition becoming increasingly concrete, public support cannot be taken for granted and will require additional efforts to maintain.

Achieving climate targets requires significant investment efforts and shifts in lifestyles, and the ensuing distributional repercussions may trigger a political backlash – a trend that might be already underway. An increasing number of voices are advocating for a deceleration of the decarbonization process, leading up to the 2024 European elections²⁸. For instance, last year, a Dutch minister has cautioned European counterparts about diminishing public backing for the region's climate policies, highlighting an ongoing conflict between farmers and the government in the Netherlands over greenhouse gas limits. Deputy Prime Minister Sigrid Kaag, who also holds the position of Minister of Finance, has emphasized the growing challenges her government encounters in garnering support from certain segments of the public for policies with long-term consequences across generations.²⁹ Indeed, the transition may carry implications for fiscal policy and budgets, shaping the allocation of resources between consumption and investment. Additionally, it may exert influence on inflation and interest rates, introducing complexity to the challenge.

As the tangible socio-economic impacts of the transition emerge in both the short and long term, it is imperative to recognize that lack of public support cannot be ignored or wished away and will surely demand additional attention and efforts. Several developments factors highlight the potential challenges in this regard.

Firstly, the costs associated with the transition are becoming increasingly visible, notably through carbon prices, extending across more sectors with mechanisms like ETS2. This visibility may make the transition an easy political target.

Secondly, recent national elections results in several EU countries, such as Italy, Finland, Sweden, and Netherlands, have witnessed a rise in voices critical of ambitious domestic climate policies. Other developments at the Member State level, such as the Gilets Jaunes movement in France, the heating legislation in Germany, the resignation of the socialist Portuguese former Prime Minister over lithium and hydrogen corruption

²⁸ Cf. Pisani-Ferry (n2) p. 2.

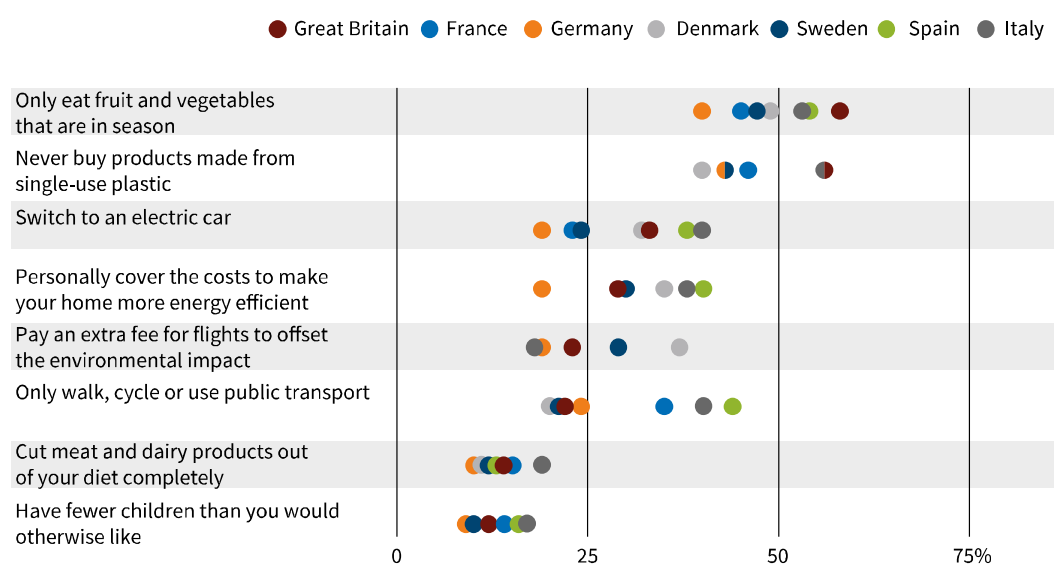
²⁹ Cf. Financial Times, “Dutch minister warns of waning public support for climate” (10 April 2023). Policies. Available at: <<https://www.ft.com/content/9777e52a-e290-4d87-ab7f-b5a073921222>>.

probe, in November 2023³⁰, and the farmer protests³¹ all over Europe, indicate that public acceptance of the transition may encounter setbacks and may not be as solid as generally believed. This surge of skepticism has reached a point where the continuity of the current consensus on climate neutrality within the European Council cannot be taken for granted.³²

Recent studies have shown somewhat surprising and inconsistent attitudes towards climate change mitigation policies. In the United Nations Development Program's 2021 Peoples' Climate Vote survey – the largest public opinion survey on climate change ever conducted – nearly two-thirds (64%) of the 1.2 million respondents found that “climate change is a global emergency”³³. Nevertheless, while concern over climate change continues to be important in many countries, the attitude towards climate change mitigation policies is significantly more modulated, with support for more significant support for policies that do not affect people directly, but less enthusiasms when it affects personal choices.

Figure 4: Some Lifestyle Changes to Address Climate Change Lack Support

Proportion of people willing to make lifestyle changes to address climate change



Guardian graphic. Sample Size: 1,985 adults in GB, 1,002 France, 1,996 Germany, 1,016 Denmark, 1,008 Sweden 1,008 Spain, 1,005 Italy. Fieldwork 5. 24 April 2023. Source: YouGov.

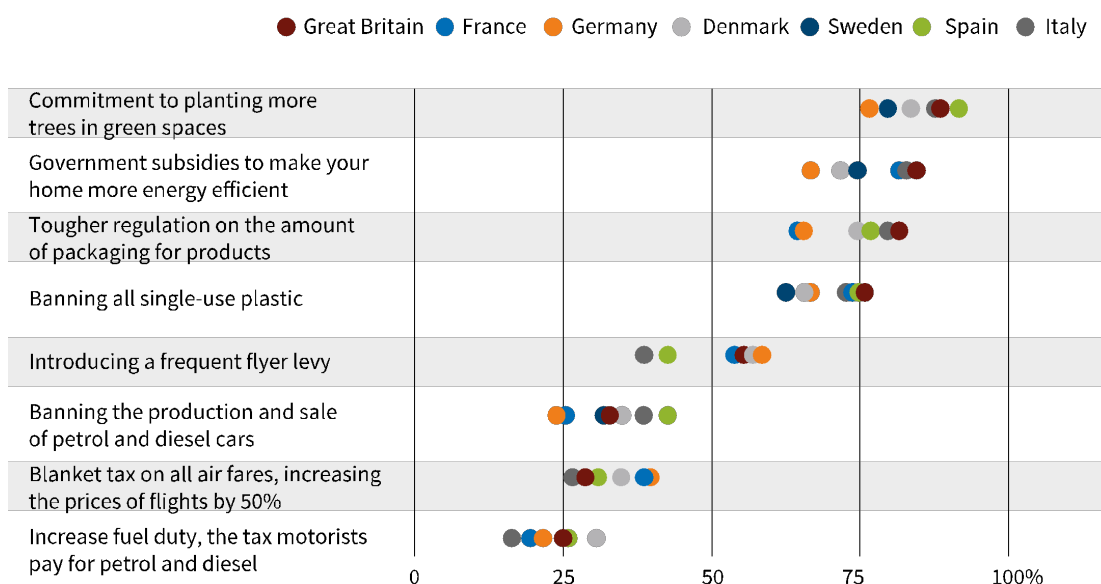
³⁰ Cf. Reuters, “Portuguese PM quits over lithium, hydrogen corruption probe” by Catarina Demony and Sergio Gonçalves (7 Nov 2023). Available at: <https://www.reuters.com/world/europe/portuguese-prosecutors-search-government-buildings-lithium-investigation-2023-11-07/>.

³¹ See <https://www.theguardian.com/environment/2024/jan/31/hypocritical-european-politicians-weaken-climate-policies-amid-farmer-protests>.

³² Pisani (n2).

³³ The survey asked respondents in 50 countries, representing 56 percent of the world population. Available at: <https://www.undp.org/publications/peoples-climate-vote>.

Figure 5: Climate Change Policies on Travel and Fuel Prove Unpopular
Proportion of people who support their government bringing in policies to tackle climate change



Guardian graphic. Sample Size: 1,985 adults in GB, 1,002 France, 1,996 Germany, 1,016 Denmark, 1,008 Sweden 1,008 Spain, 1,005 Italy. Fieldwork 5. 24 April 2023. Source: YouGov.

According to an International Monetary Fund (IMF) survey³⁴, the most substantial support is observed for subsidies targeting low-carbon technologies and renewable energy (see figure below). This inclination is particularly pronounced in Europe, where elevated energy costs resulted in a significant surge in the cost of living during the survey period. Carbon pricing and emissions regulations garner a comparable level of support across the majority of countries. In terms of overall endorsement for all policies across regions, Asia stands out with the highest level of support, a region where many countries are particularly susceptible to the impacts of climate change.

³⁴ Cf. Dabla-Norris, Era, Salma Khalid, Giacomo Magistretti, and Alexandre Sollaci. 2023. "Public Support for Climate Change Mitigation Policies: A Cross-Country Survey." IMF Working Paper 23/223, International Monetary Fund, Washington, DC.

Figure 6: Support for Mitigation Policies**Some Lifestyle Changes to Address Climate Change Lack Support**

	Carbon pricing	Subsidies to low-carbon technologies/renewables	Regulations limiting emissions
Asia Pacific			
Australia	52	65	52
China	55	65	50
India	67	66	64
Indonesia	46	62	44
Japan	39	45	31
Malaysia	58	66	53
Philippines	68	73	60
Singapore	58	68	48
Korea	60	61	52
Thailand	60	69	56
Vietnam	74	71	64
Americas			
Argentina	41	56	48
Brazil	62	65	50
Canada	50	62	50
Colombia	53	69	54
Mexico	58	69	56
USA	44	53	43
Middle East			
Egypt	43	55	35
Saudi Arabia	46	57	41
Europe			
France	44	58	44
Germany	29	54	35
Italy	45	65	40
The Netherlands	40	55	38
Norway	32	50	34
Poland	29	60	33
Spain	44	65	43
Türkiye	56	61	48
UK	41	62	44

Each row in this figure shows the share of favorable responses in each country to the questions “Thinking about all of the impacts of a carbon pricing policy, to what extent do you support or oppose such a policy in your country?”, “Thinking about all the impacts of a subsidy to renewable energy, to what extent do you support or oppose this policy in your country?”, and “Thinking about all of the impacts of regulation, to what extent do you support or oppose this policy in your country?” respectively.

Source: IMF staff calculations based on IMF-YouGov survey.

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Against this backdrop, mechanisms like the Social Climate Fund³⁵ address some aspects related to social acceptance in the energy and transport sector, but questions may arise about their sufficiency. Exploring alternative mechanisms, especially in sectors that have been overlooked, may become necessary. Likewise, it is crucial to emphasize that negotiating the equitable distribution of burdens, encompassing compensation for those adversely affected, extends beyond societal impacts and the burden on the public. This aspect requires meticulous attention during the transition process.

Finally, as recognized by the Commission's impact assessment³⁶ to achieve the proposed 2040 climate target of 90%, and climate neutrality by 2050, public acceptance of CCUS must be addressed.

Public awareness of CCUS technologies has been consistently low across European countries, a trend that persists today. This lack of awareness extends not only to citizens but also to institutions, organizations, and policymakers. Research has predominantly focused on citizens' perceptions, with some studies noting higher awareness in countries actively involved in CCUS technologies, such as Norway. Overall, the current understanding of CCUS technologies is still evolving, making it subject to change. Previous studies on public perception highlighted skepticism, particularly regarding CO₂ storage, influenced by unsuccessful projects in the Netherlands, Poland, or Germany³⁷.

In conclusion, the realm of 21st-century climate politics brings formidable challenges, marked by intense contention and a sense of novelty. The endeavor to rapidly decarbonize the global economy is unprecedented, with politicians gaining insights through practical experience only. Despite the apparent complexity of climate action, there is a gradual realization that daunting as it may seem, it is not necessarily insurmountable but securing public support by acknowledging the inherent difficulty of the task – i.e., “it will not be easy, but it's worth the effort”, rather than downplaying the costs – can yield substantial buy-in.

³⁵ Regulation (EU) 2023/955 of the European Parliament and of the Council of 10 May 2023 establishing a Social Climate Fund and amending Regulation (EU) 2021/1060. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2023.130.01.0001.01.ENG.

³⁶ Commission Staff Working Document Impact Assessment Report, Part 1, *Accompanying the document*, Communication From The Commission To The European Parliament, The Council, The European Economic And Social Committee And The Committee Of The Regions, Securing our future Europe's 2040 climate target and path to climate neutrality by 2050 building a sustainable, just and prosperous society {COM(2024) 63 final} - {SEC(2024) 64 final} - {SWD(2024) 64 final}

³⁷ CCUS Forum WG on public perception of CCUS Working Group Paper November 2023.

List of Figures

Figure 1: Decarbonization and Consumption by 2040.....	9
Figure 2: Energy-Related CO ₂ Emissions Covered by a Government Zero Emissions Pledge by Type of Region:	16
Figure 6: EU ETS Development 2020 – 2055	23
Figure 7: Some Lifestyle Changes to Address Climate Change Lack Support.....	29
Figure 8: Climate Change Policies on Travel and Fuel Prove Unpopular.....	30
Figure 9: Support for Mitigation Policies	31

List of Tables

Table 1: The EU Funding for Climate Action is Supported through Different Instruments	13
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Authors of this Issue

Clemens Fuest



Clemens Fuest is President of the ifo Institute – Leibniz Institute for Economic Research at the University of Munich, Director of CESifo, Professor of Economics at the University of Munich (LMU), and Director of the Center for Economic Studies (CES) at LMU. His research areas are economic and fiscal policy, international taxation, and European integration. He is, among others, a member of the Scientific Advisory Board at the German Federal Ministry of Finance. Prior to his appointment in Munich, he was a professor at the Universities of Cologne (2001-2008), Oxford (2008-2013), and Mannheim (2013-2016).

Contact: fuest@ifo.de

Andrei Marcu



Andrei Marcu is currently the Executive Director of the European Roundtable on Climate Change and Sustainable Transition. Since 1993 Mr. Marcu has played an active and important role in many areas related to climate change and sustainable development. He has been a negotiator supporting G77 since 2018 and was Chief Executive Officer of BlueNExt, Head of Regulatory Affairs, Environment and Climate Change at Mercuria Energy Trading, Senior Managing Director of the World Business Council for Sustainable Development (WBCSD) in charge of Energy and Climate as well as Vice Chair of the Energy and Environment Commission of the International Chamber of Commerce in Paris.

Contact: acmarcu@ercst.org

Michael Mehling



Michael Mehling is Deputy Director of the MIT Center for Energy and Environmental Policy Research and a Professor at the University of Strathclyde Law School. His research focuses on climate policy design and implementation at the domestic and international level, including its intersections with environmental, energy, financial market, and trade law and policy. Among other roles, he is founding editor of the Carbon & Climate Law Review (CCLR) and a founding board member of Ecologic Institute in Washington DC, the Blockchain & Climate Institute (BCI) in London, and the European Roundtable on Climate Change and Sustainable Transition (ERCST) in Brussels.

Contact: mmehling@mit.edu

