

# **ECO-NOMICS: A GREEN INDUSTRIAL POLICY FOR THE NEXT EUROPEAN COMMISSION**

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## **SUMMARY**

- The new European Commission will seek to improve Europe's capacity to manufacture green technologies.
- Member states agree on this headline aim, but they are divided on how to achieve it and the level of priority to give it.
- Some member states want to double down on building an effective green industrial policy, others place greater priority on keeping down the costs of green technology and so believe that they need to continue to import some green technologies from outside Europe, at least for now.
- The EU can ill afford this diversity of approaches. To benefit from economies of scale, it needs to act as a bloc.
- To move the union beyond national approaches, the European Commission should spearhead a common strategic understanding of the challenge it faces, put in place a credible financial package for research and development for the next green technology wave, and prioritise a limited number of areas for innovation over the next decade.

# Catching the wave of green technology

Green industrial policy is now all the rage in the United States, India, and China. These countries seek to dominate the industries that will make the key technologies necessary to decarbonise the global economy. Unfortunately, the European Union risks falling behind in this race to win the future. Certainly, the Chinese situation – control of up to 80 per cent of all the stages of making solar panels and 60 per cent of wind turbines and electric-car batteries – is somewhat disheartening to European policymakers.

Nonetheless, the EU can still compete globally in green technology. But rather than fight yesterday's battles on products such as solar panels, the EU's focus should be on the coming waves of innovation. The biggest challenge for the bloc, and one of the main reasons why it has not invested sufficiently in the first waves of green technology, is because of the diversity in European approaches to the green transition. The EU's competitors in green technology are deploying both their continental-sized markets and their fiscal strength to support the development of green technology. The member states of the EU will need to coordinate and align their efforts if they are to compete with the US and China.

To understand this diversity, we asked ECFR's national researchers in the 27 member states to carry out a survey in all the EU capitals. We wanted to understand the extent to which member states prioritised the need to develop "Made in Europe" green technology, as opposed to importing it in order to keep the costs of the transition down for consumers, which policy instruments the member states need, and which green technology areas they thought would give Europeans the most return for their investment. We field-tested the findings in May 2024 with a closed group of policymakers from the EU institutions and member states, as well as analysts and thinkers on the subject, to help contextualise the member states responses.

This paper draws on the findings of this project. It will briefly map the thinking across the different EU member states, highlighting points of difference and tension. It will then look at the strategic outlook for the EU in different areas of green industrial policy – including innovation policy and barriers to green technology – drawing on not only the member states' positions, but also open source data to discuss how the EU ranks against the global competition and how it works with global partners to shore up its supply chains.

The paper will then look at the toolkit for green industrial policy – finance, skills, and administration and regulation – and how Europeans should invest in each. Finally, we will draw this together into a set of proposals on a green industrial policy for the new European Commission that will take office in 2024. We will look to foster a policy that can not only drive

the green transformation of EU economies, but also underpin the success of European companies in a global economy that is decarbonising.

## Disadvantaged by diversity

The Biden administration's introduction of the Inflation Reduction Act (IRA) in 2022, caused much consternation in European capitals. European policymakers worried that European companies would never be able to compete with subsidised green technology from US firms and that EU companies would be lured to invest in the US, rather than Europe. Ursula von der Leyen claimed that the IRA, like Chinese subsidies, represented unfair competition for European firms since it distorted the playing field. Indeed, European authorities often framed the IRA as an affront to the basic WTO principles of free trade and non-discrimination. From a US perspective, the IRA represented an answer – albeit almost a decade after the fact – to the Made in China 2025 policy that Beijing has pursued since 2015 to subsidise the development of Chinese electric vehicles and green technology more broadly.

From a European perspective, however, our national researcher survey, and our expert workshop, suggest that the challenge that the IRA has thrown up for Europeans is that they do not agree on how to respond to it. They disagree on the extent to which American actions were fair, whether they can or should put themselves in a position to emulate it, or whether they should rather focus on keeping the green transition as cheap as possible for consumers, even if that means delaying investment in indigenous EU green technology.

The EU member states broadly break down into four groups in their thinking about green industrial policy: the Enthusiastic Subsidisers, the Guilty Subsidisers, the Green Importers, and the Green Agnostics.

### Enthusiastic Subsidisers

The phrases that came up most frequently in the response to the question about which green industrial policy interventions from the EU would be most important were “funding”, “support”, “invest” and “research, development, and innovation”(RDI). These words point towards the most powerful group of member states around the European Council table, the Enthusiastic Subsidisers, who see green technology subsidies as essential to future European growth and competitiveness. Germany leads this group which comprises many of the larger member states, including France, Spain, and Italy.



leading car company Fiat has been slow to develop capacity in electric vehicles and political incentives have been weak.

However, despite the significant amounts of support being invested in building up green technology in these states, there is still concern in national debates in the Czech Republic, Finland, France, Ireland, and Romania, among others, that governments are not subsidising enough to be competitive. Many of the national researchers described a lack of financing for development and commercialisation of green technology as one of the main obstacles to their member state taking advantage of the business opportunities of the green transition. This theme also came through strongly in our closed-door workshop from private and public sector representatives. Both groups saw a critical gap in the provision of investment at the earlier, riskier stages of green tech projects.

## Guilty Subsidisers

Several small- or medium-size member states, however, such as the Netherlands, Denmark, and Sweden are critical about the lack of a level-playing field when it comes to national state aid, and advocate for a more traditional free-trade approach. (This criticism does not imply that they are not also subsidising their own industries in sectors, such as battery production, in which they have leading companies.) Our researchers found that these policymakers were keen to develop more of a level-playing field within the EU. They are particularly concerned that few member states can match German government investment in German companies. This concern is broader than electric vehicles and also emerges with regard to hydrogen-based steel making and other innovative low-carbon technologies.

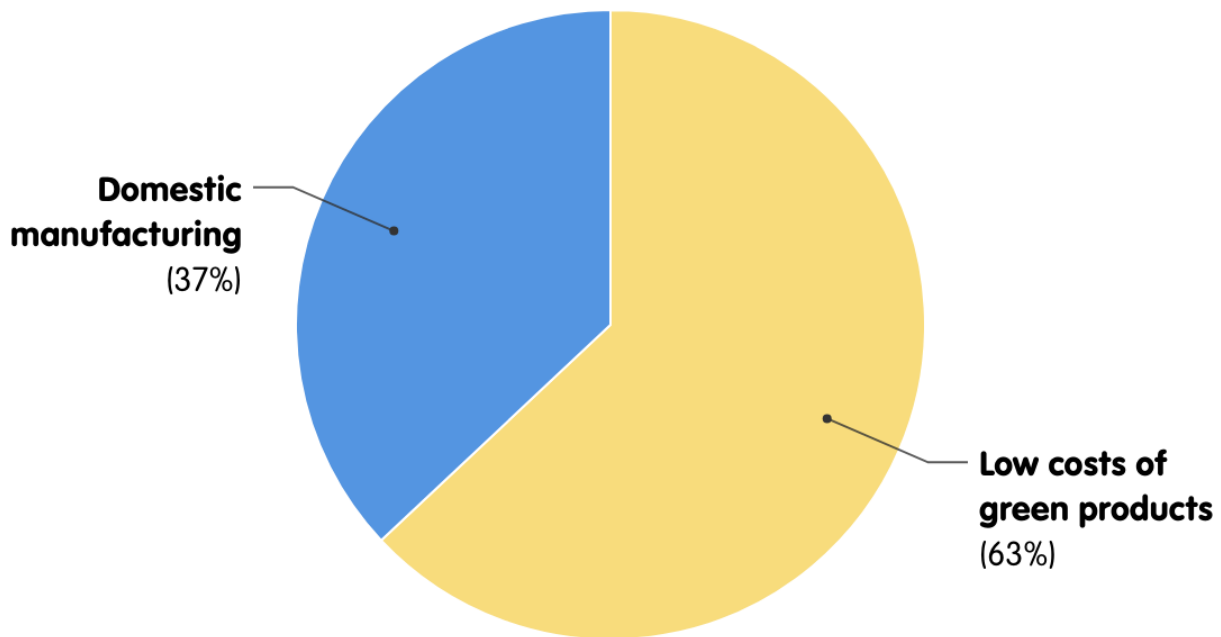
The Guilty Subsidisers are not only concerned about fragmentation of the internal market within the EU. Our researchers in these states also reported concerns about the impact that too much reliance on subsidisation and tariffs could have on the EU's ability to champion free and fair trade in the international system. The debate over electric vehicles is an illustrative case. Enthusiastic Subsidisers, such as France have been pushing the European Commission to introduce higher tariffs on Chinese electric vehicles that benefit from government subsidies in order to protect the growth of French electric vehicle development. But our researchers in the Guilty Subsidiser countries such as Sweden highlighted concern in their capitals about the French view prevailing at the EU level. The commission's decision on tariffs in response to the US decision to impose 100 per cent duties on Chinese EVs in May 2024 is more closely in line with French than Nordic thinking.

## Green Importers

A further important dividing line between member states is on the extent to which they believe in using the limited resources available for investing in the green transition. There are many competing demands on budgets, from doubling down on defence spending to supporting Ukraine, sustaining the cost of enlargement, and supporting vulnerable citizens facing high living costs in many EU countries. We asked the national researchers to explore whether policymakers in their capitals felt that governments should spend these finite resources on supporting the growth of green technology at home or focus firmly on keeping the costs of the transition down for consumers. In practice, given the greater availability and lower costs of solar panels, electric vehicles, batteries, and critical materials in Asia, and particularly China, keeping costs down implies importing these goods.

A majority of member states responded that the priority should be keeping costs down, while continuing to rely on importing if necessary. This group – Green Importers – includes a broad range of states in terms of size, geography, and approach to fiscal discipline, from Austria, to Estonia, Greece, Luxembourg, Portugal, and Slovenia.

## If your government had to choose, which do you think would it prioritise? According to policymakers.



**Prioritise low costs of green products** such as electric vehicles or solar panels to speed up their use in the population, even if they are imported. **Prioritise domestic manufacturing** of such products even if that would imply higher prices and slower market penetration.

Source: ECFR national researcher survey with policymakers in all 27 EU member states, April 2024.  
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Clearly, the choice between importing in the near term and investing for the long term in building up innovation and capacity is to some extent a false one. A successful European approach to innovation will need to involve co-development and partnerships with partners beyond the EU. However, the distinction remains helpful when building an EU-wide green industrial policy strategy. Such a strategy will need to answer to the instincts of these different groups of member states and to allocate limited finances in such a way as to maintain the political will of all parts of the union.

## Green Agnostics

A final, small group of member states presents a different challenge to developing a green

industrial policy. They remain unconvinced that the green transition is a priority at all. Hungary spearheads this group and is, at least to judge by the media coverage, the most sceptical member state of the need for a green transition. Hungarian officials, in interviews with our researcher, characterised the European Green Deal as “unnecessarily ambitious” and “not in touch with real world developments.” They focus on actively promoting Chinese investment and are therefore strongly against any competitive measures that could compromise China’s willingness to invest.

Hungary is not alone. In the Czech Republic, for example, the right-wing political elite (the “Yes” party led by Andrej Babis) fears that thanks to the European Green Deal, Czech heavy industry is dying.

Moreover, this research took place before the June European Parliament election which saw a rightward shift among voter concerns, in part, about the cost of living and a desire from parts of the electorate to focus more on the everyday reality of voters. This political movement may have further entrenched Green Agnostics in various member states since our research took place.

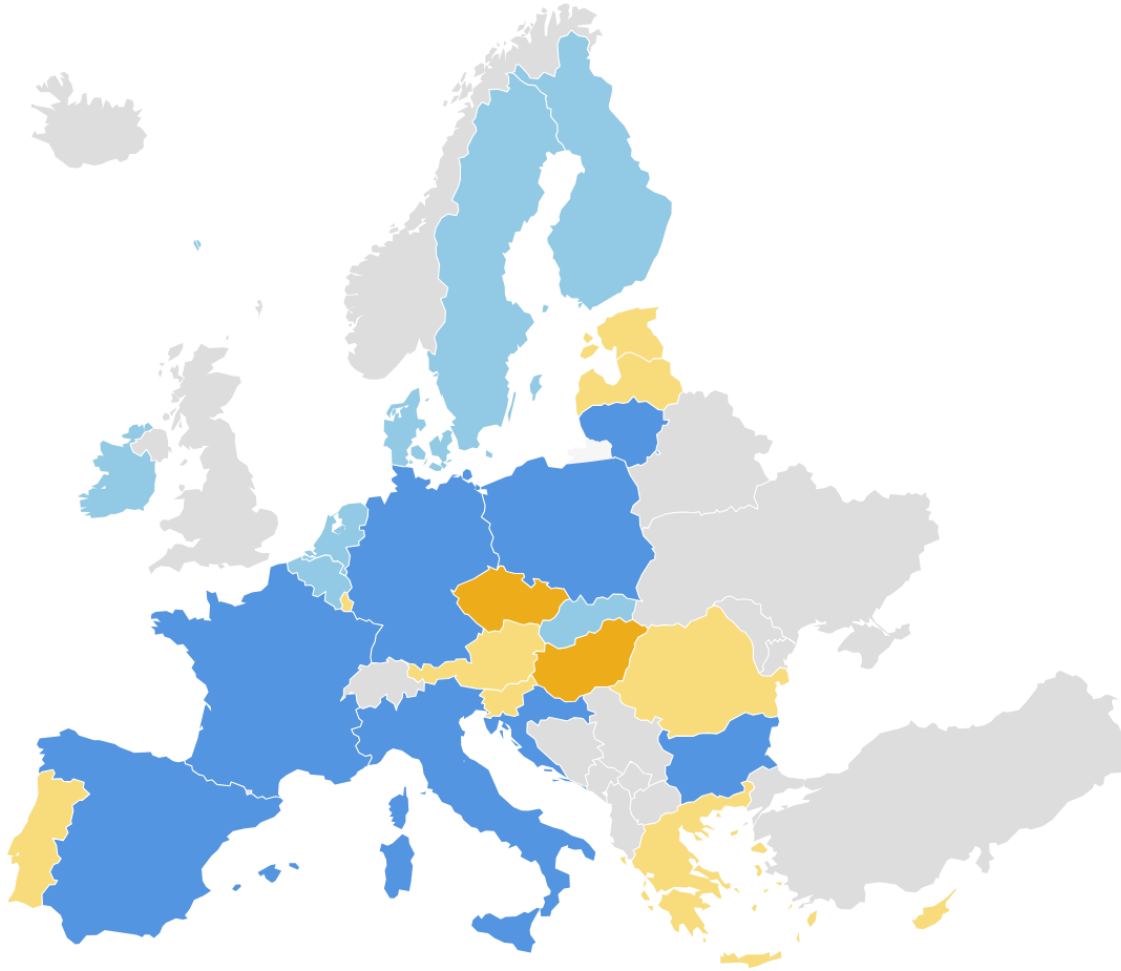
In any case, EU efforts to build a consensus on a green industrial policy will need to incorporate an effort to make the case to these “agnostic” national governments as to how a green industrial policy can be helpful with international competitiveness and long-term wealth creation in a way that all parts of the EU can benefit from.

The next part of this paper looks at how this case can be built.



## Map of EU thinking on green industrial policy

■ Enthusiastic Subsidisers ■ Guilty Subsidisers ■ Green Importers ■ Green Agnostics



Source: ECFR national researcher survey with policymakers in all 27 EU member states, April 2024.  
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## Strategic outlook

China's present competitive position is partly based on the Made in China 2025 strategy, established in 2015. By identifying strategic sectors and policy measures to support them, the government facilitated rapid advances in areas such as electric vehicles. Europeans are rightly concerned about China's subsidies and its tendency to dump its excess supply abroad at cut-throat prices. They should at the same time recognise the success of Chinese long-term planning.

The EU should learn from this approach and seek a long-term perspective. But, of course,

China is a unitary, authoritarian state that does not need to seek consensus from its constituent parts for its long-term plans. It is hard for Europe to compete with China and the US when many European decisions are taken by 27 national governments. For example, reducing tax rates as in the US IRA across the EU would be very cumbersome, perhaps impossible. Venture capital and gigantic technology companies are scarce compared to the US, and there is no state-level planning of investments like in China.

Fortunately, the EU has other strengths such as its large internal market, a skilled population, public welfare that facilitates a high level of female participation in the workforce, and standards settings that provide trust in its products globally. Building on such strengths is as important as remedying current weaknesses.

But the next European Commission will also need to work to win over the member states that are currently Green Importers. They don't believe strategic planning on EU green industrial policy can pay economic dividends quickly enough. Similarly, the commission will need to convince Green Agnostics, who are unsure that the green transition is a priority at all, to build an effective green industrial policy together. Common forecasting tools could help the EU build a collective assessment of this need.

The EU is still strong in several industrial sectors. Some of them, like advanced manufacturing and robotics, power transmission, information and communication technology, and recycling, are closely linked to the green transition.

But in other fields, such as artificial intelligence, the EU lags behind its competitors, particularly the US and China. Both industry leaders and politicians are concerned over the present situation of green industrial sectors such as wind power and electric vehicles, where low-cost imports from China are threatening jobs in Europe. For example, Ursula von der Leyen in her 2023 State of the Union address warned that “global markets are now flooded with cheaper Chinese electric cars. And their price is kept artificially low by huge state subsidies.”

In some of these areas, such as solar panel manufacturing, catching up with China will be very difficult and costly since panels produced in Germany are, for example, 40 per cent more expensive to make than in China. In other subsectors, the outlook is more positive because there is more scope for European innovative solutions (such as in inverters). In the wind power sector, the European Commission has already launched an anti-dumping investigation into China's allegedly unlawful subsidies and plotted a response in its 2023 wind power action plan.

Automobiles are a key part of the European industrial landscape with some of the most

research, development and innovation intensive companies. The five European companies spending the most on research and development are all in the automobile sector, with Volkswagen alone investing €19 billion in new technologies in 2023. In June 2024, the European Commission put forward tariffs on car imports from China because of alleged illegal subsidies. Member states as well as the European car industry are divided over such measures, with Guilty Subsidisers and Green Importers often sceptical, though for different reasons. The Guilty Subsidisers are concerned about a tit-for-tat escalation in tariffs on the global marketplace and Green Importers are worried about the impact of such measures on the prices consumers would have to pay for vehicles.

The EU has to meet the challenge from China both with trade defence instruments such as car tariffs and supporting policies such as financial support for innovation. But this has to be done in a way that reduces prices for customers in order to keep the Green Importer and Green Agnostic member states on board. At the same time, Guilty Subsidiser governments will be particularly keen to see measures that promote innovation. Such measures might include designing subsidies so that the most green solutions across the supply chain get rewarded.

Batteries are a closely related area where the EU has already taken some policy measures including both subsidies and regulation. For example, EU legislation includes specific recycling conditions, including the need to ship batteries to a recycling centre and also to declare their CO2 footprint, that could in practice mean imported batteries become less cost effective compared to locally produced products.

The EU and its member states need to provide specific support for green industrial sectors based on an impartial and critical assessment of where Europeans are competitive. They can then use well-designed and limited trade instruments that promote innovation in Europe. But this support will differ by sectors and governments which have hard choices to make when it comes to the design of green industrial policy

In a recent paper, our ECFR colleagues Alexander Lipke, Janka Oertel, and Daniel O’Sullivan explore the choices European policymakers have to make regarding solar panels, batteries, and electric vehicles. Similarly, our colleagues Tobias Gehrke and Filip Medunic propose a toolkit for a more integrated approach to managing economic and security threats, including a techno-industrial intelligence compact to identify which technologies to protect and develop. The effort to weigh up the different risks in a way that identifies distortion of competition among them will be an important element of convincing the Guilty Subsidiser governments that a common EU approach to subsidisation is one that they can support.

The Intergovernmental Panel on Climate Change offers a framework in its latest [report](#) that could be a useful starting point for an EU approach. It suggests an approach to industrial policy that focuses on general enabling factors and specific tailor-made actions for individual sectors.

To start with enabling factors, a clear direction is necessary. The stability of the already existing EU legislative framework is crucial to provide predictability for companies and investors. The scheduled reviews of the Fit-for-55 legislative acts should not result in a weakening of the incentives to decarbonise.

Private and public spending on research and innovation is also a key enabler. Europe lags global leaders such as South Korea, while differences within the EU remain very large. According to the [EU 2023 Innovation Scoreboard](#), Austria, Belgium, Denmark, and Sweden all spend more than 3 per cent of GDP on research and innovation, while the corresponding figure for Bulgaria, Latvia, and Romania is less than 1 per cent. The Innovation Scoreboard also describes other differences including the number of new PhD researchers, the share of innovative small- and medium-sized enterprises, and the level of digital skills in the population.

In addition, Europe's competitors, including China, the US, and South Korea, provide direct financial support for research, development, and commercialisation. No one knows exactly how much China spends on state aid for green technology or what precisely counts as a subsidy, but it is clearly a massive amount. These subsidies help China to account for three-quarters of global investments in green technology manufacturing in 2023, according to the [International Energy Agency](#). The *Energy Monitor* [estimates](#) that the United States' IRA includes €337 billion in green subsidies. South Korea has an active green industrial policy and will for example [provide](#) €345 billion in policy loans for carbon emission reduction by 2030. Japan has established a [Green Innovation Fund](#) and is issuing [green transition bonds](#) backed by emission trading revenues.

The EU also has massive support for green technologies, but the picture that emerges from our survey is that the billions of euros in the NextGenerationEU programme have so far been used less strategically. Other instruments, such as the innovation fund, are more focused on promoting European green technology, but compared to the IRA or to China, EU programmes are less efficient. These features likely contribute to the fact that the Green Importer group represents the largest number of member state governments. They are not convinced that the current subsidisation strategy is putting the EU in a position rapidly enough to compete and are therefore inclined to accept continued reliance on importing over the near term.

The results from our survey of member states also show that rapid achievement of the EU target of spending at least 3 per cent of GDP on research and development is unlikely without more pressure from Brussels. Investment in research and innovation is key for the ability to lead in the development of new green technologies. But politicians, especially in the Green Importer member states should accept that there sometimes will be setbacks with first-of-a-kind technology. They should be prepared both to praise success and to defend earlier support for projects that did not fulfil expectations. Independent agencies and institutions such as the European Investment Bank will likely find that easier than elected politicians, who risk accusations of ‘policy capture’ by big companies.

In addition to much discussed green technology such as wind turbines and electric vehicles, there are other areas where Europe has the potential to lead and which the European Commission should include in its green industrial policies. These areas could include power transmission systems and energy storage, resource and energy efficiency, water management, advanced green manufacturing processes and materials, and synergies with digitalisation.

In general, the EU needs to consider if its current institutional set-up is sufficient for the scale of the green industrial transitions needed. The EU should strengthen the newly established European Climate, Infrastructure and Environment Executive Agency (CINEA) and give it the task to establish criteria for when and how the EU should give support to specific industrial sectors.

Some member states have, according to our national researchers, called for better integration of green transitions in all industrial sector policies. For example, a national researcher reported that Portuguese policymakers hoped for “greater horizontal integration of green strategies in all sectors of the economy and, in particular, in green industry and digitalisation.” Austrian policymakers similarly called for “utilising the potential of digital technologies for the green transition.” The EU should better include climate aspects in

sectorial industrial policy outside the ‘green technologies’, for example in funding for industrial research institutes and in the curriculums for training of engineers.

The EU and members state governments can also use their public procurement budgets, which account for 14 per cent of EU GDP to promote green industrial development. In his April 2024 report “Much more than a market”, Enrico Letta highlights the role that innovative procurement can play for new technologies by setting targets through new solutions instead of buying existing technologies. For example, instead of buying a specific lighting technology, public transport can ask for innovative solutions that reduce energy consumption while providing good light.

Public procurement is also a key tool for encouraging companies to innovate. For example, the commercialisation of electric vehicles was facilitated by cities buying them before they were attractive to the wider public. By establishing pan-European guidelines for public procurement of, for example, building materials, the EU could help commercialise low-carbon steel and cement products. The EU has taken a similar step through the recently adopted Net-Zero Industry Act, that requires member states to include sustainability and resilience aspects in competitions for subsidies for green technology projects.

Some of our national researchers (such as in Austria), also mentioned the need for further reforms to the electricity market framework to secure low-cost, low-carbon energy supply. Many experts do not consider the decisions taken in 2023 sufficient and advocate better incentives for renewables. Researchers have also proposed stronger coordination roles of EU agencies such as the Agency for the Cooperation of Energy Regulators, increased capacity of national administrations and distribution system operators and changes to the EU climate and energy governance regulation in order to make member states more transparent about their plans to decarbonise the energy system and to increase energy efficiency. Clearly, the links between energy and industrial policy need to become even stronger in the next institutional set-up of European institutions.

In addition, the EU needs to broaden its green industrial policy to more areas than often discussed, including resource efficiency and links to digitalisation.

## The problem of partners

The intense debate about strategic autonomy and de-risking (especially from China) is also evident in our survey. Broadly speaking the Enthusiastic Subsidisers and Guilty Subsidisers believe that a common green industrial policy can help the EU reduce its dependence on China and others for green technology, whereas the Green Importers and Green Agnostics are

less convinced. Partnerships with countries in other parts of the world to secure access to critical raw materials and other resources are crucial to bolstering the subsidisers' argument that the EU does not need to rely on innovation in other global regions to decarbonise its own economy.

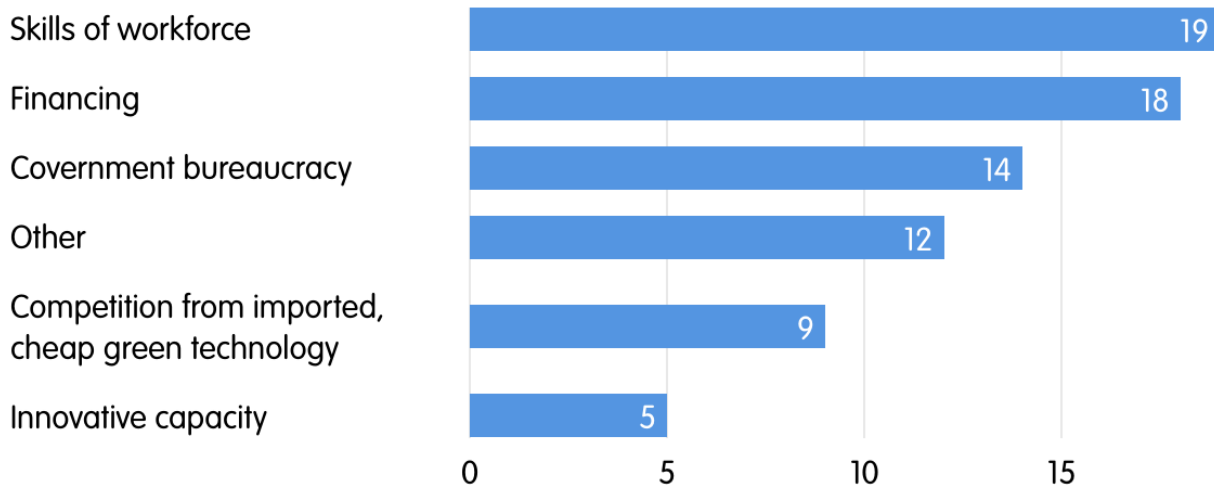
Our ECFR colleagues Tobias Gehrke and Filip Medunic suggest developing common economic security norms at the G7 level that define critical supply chains on a basis other than costs and expanding partnerships into techno-industrial alliances. The current authors have proposed a co-innovation and green technology financial instrument to help build stronger relations with key countries in the global south. Such an instrument could inter alia provide funding for demonstration projects of low-carbon technologies in developing nations, facilitate cooperation between research institutes in Europe and other parts of the world, and contribute to multilateral instruments for technology transfer.

Alliances with other countries are also a precondition for successful trade-related green industrial policies. Particularly in the event of a second Trump presidency, the EU will need to cooperate with advanced economies such as the United Kingdom, Japan, South Korea, Switzerland, and Canada as the EU will have difficulty withstanding US pressure alone. Such cooperation should be open to other parts of the world and support the integration of the global south into value chains. Closed cooperation would increase conflicts with developing countries and delay global green transitions. Our ECFR colleagues, Carla Hobbs, Rafael Loss, Jana Puglierin, and Pawel Zerka have explored the EU's potential partners on these issues in their Multilateral Matchmaker.

## Tools for green industrial policy

Last year, we asked national researchers to identify opportunities in the climate transition. Many answers mentioned growth of the green technology sector. In our survey this year, we asked the researchers to identify the main factors impeding European companies from seizing the business opportunities in the climate transition. The result is shown below.

## What are the main obstacles for EU countries to grasp the business opportunities of the green transition?



Source: ECFR national researcher survey with policymakers in all 27 EU member states, April 2024.  
ECFR · ecf.eu

This illustrates that although there is a great deal of diversity among member states, there is broad agreement on the current blockages to green technology innovation in the EU: financing, the necessary skills, and administration and regulation. A focus on overcoming these commonly identified obstacles from the next European Commission could increase the consensus around a more effective green industrial policy.

### Finance

Our survey shows that the EU member states do not believe that there is sufficient investment in their green transitions, especially after 2026 when the NextGenerationEU programme ends. For example, the Institute for Climate Economics [finds](#) that an annual investment gap of €406



billion has to be filled in order to meet the EU's 2030 climate goals. Riskier projects often need guarantees or direct government support for the initial phase, in part to better coordinate investment across Europe. This need is particularly acute when it comes to cross border infrastructure such as electricity grids.

This investment gap matters to the Guilty Subsidiser states as they are concerned about the current inequalities between member states' abilities to subsidise green research and development. It also makes a difference to the Green Importers. An increase in climate financing available could help make the case that with the necessary financial commitment, costs for consumers can be brought down through developing green technology in Europe. It may even have a bearing on the Green Agnostics in the sense that the availability of EU level financial support may reach voters in a way that the argument for climate action for its own sake cannot.

The national researchers highlighted several aspects of this problem, including the importance of creating a level-playing field between member states with different capacities to supply state aid, and the need to finance infrastructure such as electricity grids, roads, and railways. They also frequently mentioned the need for economic development in all EU regions, as well as access to capital to scale up innovative businesses.

However, the need to increase defence spending and preparations for enlargement to new member states will put pressure on the EU budget. Negotiations of the next multiannual financial framework (MFF) will not be easy. From a climate perspective, there are still strong reasons for financing the green transition as part of the next MFF. This is also a way of strengthening EU resilience to external threats, for example with renewables replacing imports of fossil fuels and circular economy solutions reducing the need for natural resources from abroad.

Still, the next MFF is unlikely to provide sufficient climate financing. Some other possible sources of climate financing include:

- Prolonging the Recovery and Resilience Fund for a limited time after 2026. EU funding for Poland was released only recently while many other countries have struggled to spend the money so far even though good potential projects exist.
- The EU Innovation Fund and the EU Modernisation Fund, financed by revenue from the emission trading system (ETS), have been largely successful in supporting new green technologies such as hydrogen-based steel making and facilitating the deployment of renewable energy. However, the funds turned down many applications due to limited

resources. Since ETS revenue will arrive on a yearly basis, it is possible for the EU to use that as a collateral for loans and invest more through these funds. Japan has used a similar method.

- Establishing more detailed green industrial development criteria for the use of national ETS revenue. Our survey shows that member states define the category of “climate investment” differently and sometimes divert money intended for climate finance to other, less well-funded priorities. The European Commission’s scheduled review of the energy governance regulation is an opportunity to describe clearer rules on categorising additional climate finance.
- Making faster progress towards a capital market union, as proposed by Enrico Letta and others.
- Increasing the size of the InvestEU programme that facilitates investment in companies by providing EU financial guarantees (which is important for start-ups and other small- and medium-sized enterprises). The current availability of risk capital in the EU is significantly lower than in the US, and somewhat lower than in China, Japan or the UK. Venture capital is only a small fraction of what it is in the US.
- Strengthening the European Investment Bank through a significant capital increase and looser rules on spending, making it possible to lend more money in relation to the existing capital of the bank. This type of financing might be easier to accept for the ‘frugal’ member states such as Germany, the Netherlands, and Finland than substantial increases to the EU budget.
- Setting targets for cohesion fund spending in the negotiations on the next MFF. In particular, the MFF should set targets for increased national research, development and innovation spending and effective governance of climate transitions.

## Skills and good working conditions

The CINEA has identified a lack of skilled workers within the EU as a major obstacle to green industrial transitions. The European Commission estimates that 35-45 per cent of workers in building renovations require training on energy efficiency. This comes through very clearly in the national researcher survey where this gap is mentioned in most countries.

In addition to existing EU initiatives such as the Skills Agenda, European governments should prioritise training and life-long learning in the next MFF and in the European Semester process. Since the European Commission will likely propose to make grants more dependent

on achieving certain milestones, the EU should include national investments in green skills among such criteria.

Europeans can also learn from the US. The Biden administration has made state aid to companies for green transitions conditional on skills development for workers and decent working conditions. The EU could include similar requirements in its support programmes to industry, such as the Innovation Fund, and consider such criteria in relation to national state aid.

There is also a link to good working conditions. The public will more likely accept the green transitions if policymakers are able to combine it with decent jobs. The gender dimension is important. More women in the construction sector and in engineering help increase the overall workforce in a time of labour shortages.

## Administration and regulation

Both companies and regions frequently complain about the difficulties of accessing EU funds, according to our national researchers. In part for this reason, many countries will fail to use all their NextGenerationEU funding by the 2026 deadline. European companies often regard cumbersome procedures a disadvantage compared to similar measures such as the IRA in the US.

Another factor is weak administrative capacity in several member states. A key topic is how EU policies best can contribute to improving local and national governance. Scientific research has shown the importance of quality of public administration for green transitions, including the skills to both support and to put demands on companies to lower emissions. Although support exists, such as the European Investment Bank's technical assistance programme, both the EU and the member states need to do more, particularly by including such requirements in the next phase of EU regional policy.

There are complaints in the survey and in the public debate about excessive EU regulation. The much covered case for a "regulatory pause", advocated for example by Belgian prime minister Alexander De Croo, is certainly shaping the thinking of the Green Agnostics. The member states surveyed see the political cost of pushing businesses to decarbonise as one of the key reasons they may fail to implement the European Green Deal. But the survey responses in several member states also show that governments see legislation as necessary to create markets and drive innovation. This is for example the case when it comes to circular economy business solutions.

Research shows that well-designed regulation can reward innovative companies. Economists

Daron Acemoglu and Simon Johnson note that “the three policy levers (carbon taxes, research subsidies, and regulations), together with pressure from consumers and civil society, led to a boost both in innovations in renewables and much larger levels of production of solar panels and wind energy.” This finding implies that European policymakers should not embark on a broad deregulation drive. As Martin Sandbu has noted in the *Financial Times*, “[p]leas to weaken green regulations, from the future ban on combustion engines to tightening rules of origin on batteries, only serve to shrink the expected size of the domestic markets for green-tech goods and services.”

Instead, they should identify possibilities for simplification without lowering their ambition and areas where there are currently legislative gaps that need to be filled by new initiatives. For example, for producers of more costly but lower carbon steel to find markets, EU regulation should demand a certain amount of such ‘green steel’ in buildings and bridges. Similarly, new regulations could simplify reporting requirements on compliance and standardise them across the various surveillance authorities.

## Finding a common direction

Finding a common direction in the diverse landscape we have described will largely determine the effectiveness of the EU’s climate policy and have a big impact on European competitiveness. There is also a strong security and resilience argument for more common action. A stronger green industrial base will enable the EU to manage its choices more effectively. It will help European policymakers understand whom the EU depends on and for what to power its economy. However, the surveys imply that the case will need to be made in slightly different ways in different settings.

We see five key steps to building an innovation-focused green industrial policy that can bind the member states together and drive their green transformation and their economies forward simultaneously.

### Step 1: Find a common strategic understanding

The EU institutions should consolidate their evaluation of the state of play on the green industrial base to provide common direction. The current approach is structured according to member state ability and the political priorities of the national government of the day. It thus risks distorting competition, as larger economies can afford to move ahead faster and poorer economies fall even further behind. The EU can still compete globally, but this effort needs to start from an EU wide set of principles around how state aid should be used for green

industrial transformation. The new commission should task the CINEA with establishing criteria for when and how the commission should give support through financing and trade instruments for specific industrial sectors. The commission should base this approach on where the gaps are on an EU-wide basis, as opposed to a national one. It should include a tolerance of risk in research and demonstration projects and anticipate EU institutional investment being at the front end of the research process to create incentives for the private sector to sustain projects.

## Step 2: Ride both horses

Political leaders need to keep the green industrial transition affordable to instil confidence in the public that the costs of the green transition will be fairly shared within the EU. Member states will therefore need to keep importing affordable green technology to underpin the expansion of new forms of clean energy. If instead, they go all-out for a “Made Green in Europe” approach, the permissive consensus for the European Green Deal will fall away. Some trade related measures in strategic areas such as electric vehicles and wind power, where Europe still can compete and where there might be national security concerns, would make sense. But those measures should promote the most innovative companies and not be designed to freeze the status quo. In general, EU investment should be focussed on capitalising on the next wave of innovation and underpinning the research necessary to do so. This may include a focus in fields like low-carbon steel and cement, power transmission, advanced manufacturing and materials, energy and resource efficiency, where European companies already have a competitive edge.

## Step 3: Get the financing in place

The provision of green financing is not currently sufficient to set the EU up as a global competitor in green technology. Financing strategic green investment in line with the criteria suggested above should be a priority for the next MFF, in line with the recommendations of the Letta report. In addition, the member states of the European Investment Bank should increase the capital of the bank and it should simplify its process for lending money. The EU should use more of the emission trading revenue, and increase the size of the InvestEU facility to provide access to risk capital.

## Step 4: Prioritise Investment

The EU and its member states should invest in a limited number of priorities that will make a significant difference to the EU's green technology competitiveness and will show results over

the next decade.

This paper has stressed the importance of greater focus on building the skills in green technology that can underpin industrial transformation. The next commission's green industrial policy should seek to stimulate a rapid increase in green technology skills through requirements for EU regional policy funding and conditionalities in state aid to companies. There are obvious synergies with the skills element of the EU's digital agenda, but a common set of green industrial policy criteria can help to realise these overlaps.

Businesses also need sufficient access to low-carbon energy through a reform of the electricity market that provide sufficient incentives for investment in renewables, coordinates EU agencies' efforts on this point, and places more emphasis on energy efficiency.

Finally, the next commission's green industrial policy should seek to reinforce the supply chains needed for the EU's green technology industrial growth through better green industrial partnerships with other parts of the world. These partnerships might include open coalitions of the willing such as the Climate Club (an open forum, currently at 39 members of countries that want to raise the ambition for green industrialisation in multilateral discussions). They also might benefit from establishing a European co-innovation and green technology diffusion fund.

## Step 5: Build a conducive green business environment

The most important factor for inspiring private sector investment in green technology is predictability in European governments' focus on the climate agenda. Any weakening of the commitment to implementation of the European Green Deal in the upcoming negotiations on the EU's path towards 2030 and 2040 climate targets and climate neutrality by 2050 will create yet more uncertainty for investors. EU institutions should also use public procurement policies and well-designed regulation to help create markets for green technologies and reward innovative companies to reinforce the signal of commitment to the agenda.

## Conclusion

The EU Council's strategic agenda for 2024-2029 commits to building “a stable and predictable framework and creat[ing] a more supportive environment for scaling up Europe's manufacturing capacity for net-zero technologies and products”.

However, there are very different views on how to do this, reflecting the diverse starting points among member states that we have described. Thus, a decisive, targeted plan for a

green industrial policy could be one of the most effective actions that the EU could take towards shoring up the EU's green competitiveness in a world that has to decarbonise. A visible success will permanently bind member states to this agenda through the rocky times to come.

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