

Europe's sustainability transitions outlook Short-term action, long-term thinking

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European Environment Agency



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Foreword

Polycrisis. This rather disturbing term has come to be used to describe the current context in which our societies and politics operate. Broadly speaking, polycrisis describes a convergence of economic, social, geopolitical and environmental crises which together create systemic risks to the world as we know it. Regardless of the term itself, the EU's efforts to transition to sustainability now exist within such a context, putting environmental policy implementation under strain and calling for a balance between short-term responses and long-term sustainability goals.

Since the launch of the European Green Deal, Europe has faced many new challenges, including the COVID-19 pandemic, Russia's war of aggression against Ukraine, and a surge in political populism, often related to issues around migration. And at the same time, climate change continues to escalate, with increasing impacts here in Europe and around the globe. Together, these challenges impact Europe's food, water and energy security, as well as the continent's macroeconomic and social stability.

The nature of the polycrisis means that now, more than ever, progress towards environmental protection and restoration must go hand in hand with justice and equity. This report emphasises the importance of anchoring long-term sustainability thinking within a range of other policy priorities, highlighting issues around social fairness and the way that the perceived economic impacts of sustainability transitions are felt differently across social groups and economic sectors.

The question facing us now is this: how can we anchor sustainability goals across a plethora of emerging priorities, including competitiveness, security and a just transition?

The European Green Deal already goes a long way to positioning climate and environmental goals at the forefront of economic competitiveness. However, this requires an alignment of public and private financing mechanisms with long-term objectives, and the mainstreaming of climate and environmental considerations into all areas of policy. It also means we will need to foster sustainable wellbeing approaches that transcend our current GDP-centric economic model.

This report is based on years of work on foresight within the EEA. Nevertheless, it represents a new type of knowledge product for us. It is a reflection on the changing policy landscape and on fundamental questions around what it really means to 'live well within planetary boundaries'.

Leena Ylä-Mononen

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Executive summary

Navigating the EU's transition to sustainability in a context of polycrisis

The EU's transitions towards sustainability are unfolding in the context of what has been termed a global polycrisis — a convergence of economic, social, and environmental crises which together create systemic risks. Since the launch of the European Green Deal, Europe has faced a multitude of such risks and shocks to its food, water, energy and other crucial systems. These impacts strain policy implementation and coherence, necessitating a strategic balance between short-term action and long-term thinking. At the same time, crises can also sometimes serve to accelerate the EU's sustainability transitions, for example in the areas of energy and circular economy.

Despite progress, Europe is still far from achieving many of its 2030 objectives, and the global polycrisis raises further concerns about the EU's security and its economic competitiveness, along with questions of fairness when it comes to distribution of the costs associated with the transition.

This forward-looking report is based on collective intelligence harvested through a carefully designed strategic foresight process. While it makes full use of available data and knowledge, it deviates from traditional model and indicator-based assessments, making use of participatory foresight workshops to examine a range of future scenarios. The report suggests strategies to align short-term actions with long-term sustainability goals, addressing competitiveness, security, and fairness. It underscores the need for continuous anchoring of long-term visions in the context of a volatile policy environment, and emphasises the importance of anchoring long-term sustainability thinking into a range of other policy priorities.

There is a risk that growing, multiplying and competing priorities may crowd sustainability out of the EU's policy agenda. This makes effective and transformative governance of sustainability transitions even more crucial for the upcoming five-year policy cycle. The report proposes ideas for such 'anchoring' of sustainability objectives by reframing priorities to converge with the long-term vision of 'living well within the limits of the planet'.

Anchoring competitiveness, security and fairness within a renewed narrative centred on sustainability and transformation

Competitiveness

A renewed narrative should see competitiveness align with a more holistic understanding of a 'just transition' together with the implementation of high environmental standards. Recognising these standards as strategic investments which are crucial for economic development and resilience is vital. By highlighting the co-benefits of investing in climate, health and nature protection, a sustainable wellbeing approach can enrich and complement more traditional GDP-centred economic thinking. Such a narrative could inspire other countries and enhance the EU's global leadership role. The EU has the chance to lead in innovations and green technologies, boosting economic ties worldwide. However, a focus on technologies at the expense of social innovations and shifts in mindset and behaviour raises questions about long-term sustainability, especially when it comes to reducing pollution and protecting and restoring nature.

The 'anchoring' ideas presented in this report address the need for public financing mechanisms to align fully with sustainability objectives, leveraging private investments and ensuring quality jobs and environmental protection. Strengthening directionality in public investments and mainstreaming climate and environment within the EU budget are essential.

Security

A renewed narrative should broaden the understanding of security and resilience to encompass not only military and defence aspects, but also broader societal concerns such as ecological and societal resilience. The interdependence of security and resilience, especially when it comes to climate-induced risks, underscores the need for a comprehensive approach. Aligning security with sustainability transitions offers opportunities beyond traditional geopolitical perspectives. The EU's integrated security approach and recent communication on the climate-security nexus signal progress. However, silo thinking and short-term reactions hinder effective responses to crises. Broadening the policy debate to include environmental and climate action, while simultaneously addressing inequality, is crucial.

Opportunities exist in linking security priorities with sustainability, with the potential to reduce climate-related migration and dependency on fossil fuels. 'Anchoring' ideas focus on boosting anticipation and preparedness, emphasising transformative resilience in key systems like agri-food, and linking sustainability with strategic autonomy through reduced consumption. Furthermore, connecting sustainability with EU diplomacy and trade policies can extend global sustainability leadership, especially with neighbouring countries under the European Neighbourhood Policy and EU candidate countries adopting sustainable practices akin to the EU Green Agenda.

Justice and fairness

A renewed policy narrative here should see a broadening of thinking on these topics. While the EU has established instruments like the Just Transition Mechanism, more integration between justice considerations and environmental goals is needed. For example, fairness also intersects with health inequality exacerbated by environmental hazards, emphasising the need for justice in building resilience to climate change.

Here, 'anchoring' ideas include strengthening democratic participation, broadening the just transition beyond sectoral policy, stimulating transformative social innovation, integrating nature, technology and culture, and leveraging the health-environment nexus to reduce inequalities. Taxation targeting consumption-related environmental pressures could be implemented, ensuring fairness and societal cohesion by not disproportionately burdening vulnerable communities. Promoting fairness is essential for realising the long-term sustainability agenda.

The EU's vision of 'living well within the limits of our planet' is a simply expressed goal, but one which requires deep and complex changes to our societies. Amidst the current backdrop of polycrisis, now more than ever, sustainability governance, informed by strategic foresight and anchored by transformative principles, will be essential in order to realise this vision and ensure a secure and prosperous world for the generations to come.

1 Introduction

The concept of 'living well within the limits of our planet' has directed the European Union's (EU) sustainability policies towards transforming the economy and society over the coming decades. Under the framework of the European Green Deal (EGD) and the 8th Environment Action Programme (8th EAP), this long-term vision has served as a compass for a wide range of EU climate, environmental and sustainability policies.

The short-term outlook, however, has been persistently volatile and challenging for this aspirational vision of the future. Turbulent economic and geopolitical circumstances related to recent and ongoing global crises have brought to the fore different policy priorities in the EU such as competitiveness, security and social fairness. Such challenges may have diverted attention away from meeting climate and environmental goals.

As the analysis in this report shows, the outlook for the EU's sustainability transitions is hard to determine. On the one hand, there has been significant success in initiating important policy actions. The EGD has developed pathways for systemic change in key provisioning systems. For example, it is promoting the energy transition to carbon neutrality and the economic transition towards circularity; it also supports efficient resource use, sustainable food systems, and the protection and preservation of biodiversity.

In this regard, global crises have provided an impetus to accelerate some of these transitions. This was the case with the COVID-19 pandemic which led to the introduction of the Recovery and Resilience Facility. This provides support to EU Member States hit by the pandemic but its support is bound to the EU's climate commitments. Similarly, the EU's response to Russia's war against Ukraine has involved drastically reducing imports of fossil fuels from Russia and accelerating efforts to decarbonise the EU's energy system.

On the other hand, recent crises have also jeopardised the EU's sustainability transitions in the context of concerns about Europe's geopolitical security and the competitiveness of economic transformations envisaged in the EGD. The dilemmas inherent in linking long-term and short-term approaches within the EU's sustainability agenda have been highlighted by difficult questions about access to strategic materials and the development of the know-how needed for 'green and digital' transitions. Further difficulties relate to the scale of public and private financing required to support all these measures.

Finally, recent global crises have also heightened concerns about social fairness and cohesion in relation to the potential costs and burdens of sustainability transitions. In 2024, European farmers took to the streets to protest a plethora of issues affecting their livelihoods. Some protests and concerns were national in scope; others were driven by Europe-wide issues such as the rising costs of energy, fertilisers and transport. This report addresses these developments to suggest ways to anchor the EU's sustainability policies in the troubled sea of crises. The purpose behind this approach is to meet demands for security, fairness and competitiveness while also upholding the long-term vision of 'living well within the limits of our planet'.

Long-term thinking is essential for sustainability transitions which involve lengthy and complex processes of transformation in key systems such as energy, mobility, food and the built environment (EEA, 2019). Maintaining long-term goals is important because such transformations still have far to go. The caution apparent in this outlook is coherent with other assessments (EEA, 2023b; EC, 2024a), indicating that, across the board, Europe is still far from achieving its 2030 8th EAP objectives. This is despite progress being observed in many areas. The relevant exceptions to this slow progress are climate mitigation and air pollution (Box 1.1).

The EEA's Climate Risks Assessment (EEA, 2024a) indicates that we are close to dangerous tipping points in relation to Europe's economic sectors and citizens' health. Climate change is a risk multiplier: it can exacerbate existing risks and crises, and cascade from one system or region to another — including from the rest of the world to Europe. Biodiversity is being lost and nature degraded across Europe, threatening the ecosystems that underpin our wellbeing. Pollution is still taking a significant toll on health and wellbeing, while water resources in Europe are increasingly under stress.

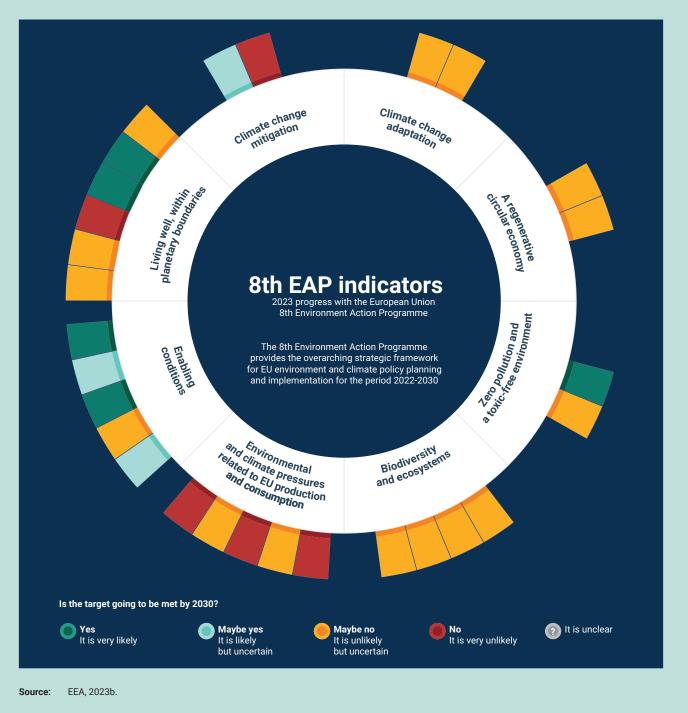
While the EU needs to be steadfast about its long-term sustainability objectives, it also needs to be capable navigating in a policy environment which allows emerging and evolving risks and crises to direct the focus and priorities. This assumption is supported by several studies that have focused on global trends (e.g. ESPAS, 2024; IPCC, 2023; IPBES, 2019). New crises and shocks, especially those which are environmental and geopolitical in nature, will continue to test the resilience of the EU, its commitment to long-term sustainability objectives and the implementation of new legislation adopted during the 2019-2024 EU mandate. Recognising this will be crucial for making progress on the objectives of the 8th EAP and achieving the EU's commitments on Sustainable Development Goals (SDGs) for 2030.

Box 1.1

8th EAP — indicator-based progress

The most recent findings about progress on climate and environmental goals paint a concerning picture for Europe. The monitoring report of the 8th EAP indicates that 20 out of the 28 headline indicators included in the monitoring framework are not on track to reach their 2030 objectives (5 very unlikely and 15 unlikely). This indicates limited progress in the area of biodiversity and ecosystems, the circular economy, and overall pressures associated with production and consumption. A similar picture is confirmed by the latest EU SDG monitoring report. While good progress was made towards many socioeconomic goals, trends in the environmental domain were less favourable over the 5-year period up to 2021/22 (Eurostat, 2023a).

Figure 1.1 8th EAP Indicators



Ongoing debate in the EU demonstrates that environmental provisions (e.g. reducing pollution and restoring nature) are often regarded as excessive burdens rather than opportunities. Sustainability transitions create winners and losers, and involve major costs for society. This difficulty helps explain the resistance to change in some fields and some of the failures to secure legislation. External crises are not the only challenge as they have exacerbated existing tensions that need to be addressed. At the same time, the Eurobarometer surveys indicate that European citizens continue to attach high importance to climate and environmental issues and expect the EU and their national governments to deliver on the long-term vision of 'living well within the limits of our planet'.

All these factors demonstrate that long-term thinking needs to be continuously anchored in an ever-changing policy environment, which often tends to favour short-term decisions. For policymakers, reconciling the long-term view on sustainability ('thinking about it') with a discrete and often reactive short-term perspective ('acting for it') is challenging.

This report aims to contribute to this debate by putting forward a range of anchoring ideas which may help reframe different priorities in a manner which allows them to converge with the long-term vision of sustainability.

Approach and method

The analysis in this report draws on desk research and a participatory foresight exercise (Figure 1.2). In the environmental and sustainability field, foresight processes are often used to anticipate potential risks and identify opportunities to advance environmental and sustainability policy objectives. Strategic and participatory foresight was deployed for this report with the aim of responding to the following questions:

- What would the EU's environment, climate, and sustainability agenda 2024-2029 look like if it was driven by one of the emerging policy priorities (i.e. competitiveness, security, fairness)?
- What risks and opportunities for the long-term sustainability objectives can be identified in such scenario?
- How can EU's climate and environmental agenda can be anchored in these priorities?

A participatory foresight workshop was organised to generate collective intelligence on how different policy priorities relate to each other in the context of the EU's long-term sustainability vision, 'living well within the limits of our planet'. The risks and opportunities apparent in meeting these long-term sustainability objectives were also considered. The workshop was attended by stakeholders from EU institutions, environmental and sustainability think tanks, academia and industry.

The workshop participants were selected to ensure diverse viewpoints and a balanced representation of perspectives on sustainability policies in social, economic and environmental domains. Participant gender balance and geographic distribution also informed the selection.

The foresight workshop was designed around a set of qualitative scenarios. Each scenario represented an imagined perspective based on the EU's climate and environment agenda, seen through the lens of a policy priority. Based on desk research and interviews with experts and policy-makers, different policy concerns were clustered into three broad priority perspectives:

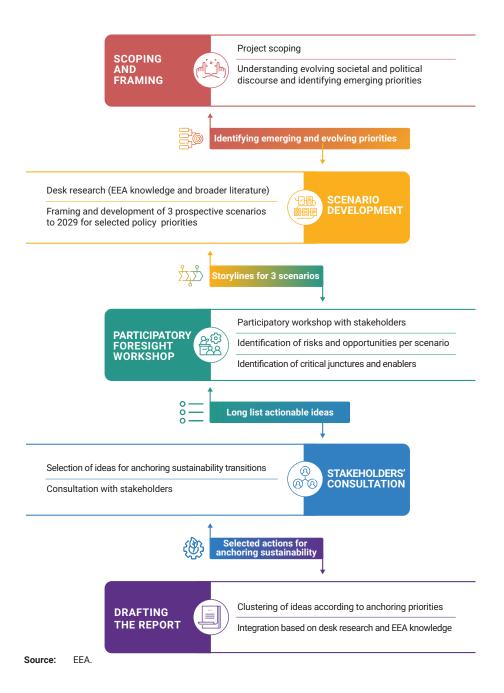
· competitiveness;

- security;
- fairness.

In line with the strategic foresight method, these perspectives frame the analysis of risks and opportunities related to anchoring long-term sustainability objectives with the policy agenda for the next 5 years. The perspectives are not predictions of the future.

This foresight process builds on earlier EEA work to explore the current situation and the challenges involved in sustainability transitions, informing interpretations of the implications for the EU's environmental and climate policies (EEA, 2021c). The present challenges and ambitions for the future, related to the vision 'living well within the limits of our planet', provide essential context and framing for the foresight exercise and the report at large.

Figure 1.2 The research process



Structure of the report

Following this introduction, Chapter 2 begins by acknowledging the current global 'polycrisis' and outlining its main features and meaning in the European context. It then considers the current sustainability agenda of the EU, in particular the framework of the EGD, and reflects on how the envisaged sustainability transitions have fared in the crisis-prone environment of recent years. The chapter introduces three broad priority areas which are particularly relevant for our understanding of the outlook for the EU's sustainability transitions – competitiveness, security and fairness.

Chapter 3 presents the strategic and participatory foresight methods used to inform this analysis. It also gives an account of future risks and opportunities envisaged in attempts to achieve the EU's long-term sustainability vision. These are considered in connection with the policy priorities of economic growth and competitiveness; security and resilience; and fairness and cohesion. The chapter reports on the risks, opportunities and ideas for anchoring sustainability transitions identified during the foresight workshop described above. The outcomes of the process were then further refined and discussed with additional stakeholders.

Chapter 4 builds on the outcomes of the participatory foresight process and identifies possible steps and actions which could help anchor the EU's long-term vision to the short-term outlook for the next 5-year policy cycle (2024-2029). The chapter addresses the following question for each of the priorities identified: how can the climate and environment agenda be anchored to the evolving priorities related to competitiveness and growth, security and resilience, and fairness and cohesion? The actionable ideas offered in this chapter are consistent across these different pairs of priorities, underpinning them while maintaining sustainability at their core. Examples of the actionable ideas proposed are:

- a stronger emphasis on the One Health approach to address environmental inequalities;
- ensuring proper financing to meet the carbon neutrality goal;
- building capacity for green tech development;
- · broadening understanding of security and resilience.

Chapter 5 concludes the report by reflecting on what 'thinking long-term while acting short-term' may mean for a policy narrative which is centred on the EU's long-term sustainability vision but also supports other political priorities that need to be addressed in the short-term. Overall, the report sketches out ways to apply long-term systemic thinking in the context of the EU's sustainability transitions while serving as a stepping stone towards the EEA's flagship integrated assessment of the state of the European environment (SOER 2025). It builds on the EEA's knowledge of achievements and gaps in the EU's current environment, climate and sustainability agenda, complementing that with collective intelligence on current and future challenges and opportunities identified through participatory foresight.

2 The EU's transition to sustainability: between the polycrisis and ambitions

Key messages

- The EU's transition to sustainability is unfolding in the context of the polycrisis an interplay of global economic, social and environmental crises which require urgent responses and significant resources. To address the polycrisis, short-term responses need to be balanced with long-term ambitions; additionally, trade-offs need to be acknowledged and managed.
- While the changing social, economic and geopolitical landscape affects the implementation of long-term ambitions, to date the EU has ensured that climate mitigation has remained at the core of the transition. Yet policy developments in areas such as climate adaptation, the circular economy, zero pollution and biodiversity have, to varying degrees, been more limited.
- The polycrisis has brought to the fore three emerging priorities: competitiveness, security and fairness. This raises the question of how, in the next policy cycle, they can converge with – or will diverge from – the established priorities for the climate and environment.

2.1 The context of the global polycrisis

The backdrop to the EU's transition to sustainability can be described as the polycrisis – a global situation whereby multiple economic, social and environmental crises are intertwined in terms of their causes and effects. This leads to systemic risks with compounded and potentially severe implications for human societies and the planet (Lawrence et al., 2022). First coined by Morin and Kern (1999), the term has been popularised by historian Adam Tooze to describe the convergence of several crises. It gained political traction in the 2010s and 2020s, often in association with the global financial crisis of 2007-2009.

Today, an important element underpinning the polycrisis is the 'triple planetary crisis of climate change, biodiversity loss, pollution and waste generation' (UNEP, 2021). Despite extraordinary improvements in living standards globally, although with marked inequalities among and within countries (EEA, 2019; 2020a), the future looks uncertain as critical ecological boundaries that support life on the planet have been crossed (Richardson et al., 2023). We have reached a point where our planet's life support systems and social peace are being severely damaged and increasingly at risk of collapse (Lenton et al., 2023). Much of that is due to the 'great acceleration' that marked the second half of the last century, a period characterised by fast-growing economic and material development associated with rising environmental and climate pressures (Box 2.1).

Box 2.1

Great acceleration, great inequality and the triple planetary crisis

The triple planetary crisis is a result of the decades of 'the great acceleration' in the second half of the 20th century (Steffen et al., 2015). This involved a mode of socio-economic development based on extensive extraction of natural resources, fed by fossil fuels and focused on ever-growing production and consumption. This has pushed humanity well outside its safe operating space on the planet. In fact, much of the negative impact on ecosystems, nearly 90% of biodiversity loss and significant water stress are associated with growing extraction and use of resources, while about 50% of global greenhouse gas (GHG) emissions are directly associated with resource extraction (UNEP, 2024).

The triple planetary crisis is also closely connected to inequality, globally and within counties. 'In 2019, the super-rich 1% were responsible for as much carbon emissions as the poorest 66% of humanity (5 billion people), while the richest 10% are responsible for 50% of all emissions' (OXFAM, 2023). This imbalance is also apparent in concerns around vulnerability to climate change. Top polluters are likely to be the least affected while the poorest countries and communities, often located in the Global South, are likely to be most vulnerable (Chancel et al., 2023).

In Europe, recent developments such as the COVID-19 pandemic and Russia's full-fledged invasion of Ukraine in 2022 have resulted in multiple and significant implications for European economies and the wellbeing of citizens. Climate change is also increasingly and severely impacting Europe through extreme climate events. As indicated in the first European-wide climate risk assessment (EEA, 2024a), Europe is the fastest-warming continent in the world. It is increasingly affected by weather extremes (e.g. extreme heat) and changing precipitation patterns, leading to catastrophic floods and more severe droughts. These events compromise food, water and energy security, and financial stability; they also impact the health of people and ecosystems through cascading and compounding effects. In turn this leads to repercussions for social cohesion and stability. Most of the climate risks identified could reach critical or catastrophic levels by the end of the century if decisive action is not taken (EEA, 2024a).

This occurs at a time when the global order that underpinned socio-economic progress for Western democracies is being increasingly challenged. Growth rates in Europe and in the most mature economies are historically low, with inequalities on the rise. Economies in several countries in Europe are experiencing low growth, stagnation or even recession. International competition has intensified fiercely, including in sectors that used to exemplify Europe's competitive edge, such as green technologies. This landscape creates new challenges for social stability, as economic competitiveness is strongly associated with job security and livelihood.

Concerns relating to fairness and inequality, such as wage and income distribution, wealth disparity, minimum living standards, equality of opportunity and intergenerational fairness, have increasingly been taking centre stage in public debate. While inequality between Member States has been decreasing, inequalities within countries are on the rise (EC, 2023a). In this context, there is a strong perception in society that inequalities have reached excessive levels (EC, 2023a). 'In many regards Europe faces increasing imbalances and inequalities which drive people and territories apart and risk undermining future development perspectives' (European Committee of the Regions, 2021). Inflationary pressure (e.g. in relation to food and energy) combined with decreasing purchasing power are impacting households and sectors of the economy, and increasing the risks of growing inequality across Europe (EC, 2023a).

Security and resilience have emerged as two important priorities dominating Europe's policy landscape. Concerns around security are a result of a compound effect of open warfare at Europe's borders, a surge in the flow of refugees, threats of terrorist attacks, supply-chain disruptions, disruptions of major provisioning systems (e.g. food, energy, water), heightened impacts of climate change, risks of climate tipping points being surpassed, risks of new pandemics and other geopolitical conflicts (EPC, 2024). As a response to these security risks, the EU is focusing on various measures ranging from increased military expenditures to strategies under the recently-revised EU Pact on Migration and Asylum.

Today, the effects of polarisation, instability, precariousness, insecurity and distress that characterise the global landscape (UNDP, 2022) are increasingly affecting Europe as well (EEA, 2020a; EC, 2023a). New risks and shocks are also on the horizon such as water scarcity, a decreased supply of critical raw materials, antibiotic resistance and collapse of critical infrastructures (EPRS, 2023a).

From a governance perspective, the polycrisis compounds issues relating to poor environmental, economic and social sustainability. For policymakers, the result is that they are burdened with the weight of many high-level decisions that need to be taken amidst uncertainties and shocks. In turn citizens question the capacity of policymakers to work out the optimal ways of dealing with the crises. The systemic interconnectedness and complex nature of these challenges makes them a particular problem not just in the area of governing transitions to sustainability but also, more generally, governance and democracy at large.

This interrelated nature of the polycrisis points to a decision-making situation characterised by high complexity and high uncertainty, typical of 'wicked problems' (see also EEA, 2024b). This problem is widely acknowledged in the scientific literature and in policy. In such contexts one fix-all solution is not sufficient and does not exist. Striving for a narrowly-defined solution to one issue, no matter how effective, may even be futile. Each decision to respond to a particular crisis could amplify effects across different areas, creating multi-hazards and cascading impacts (Sillmann et al., 2022). In particular, new and unintended tensions around social stability and cohesion may arise. Tackling climate change is a case in point. It is well known that when mitigation policies are designed without considering their distributive impacts and in particular their impacts on vulnerable communities, they are likely to lead to contestation and may backfire significantly.

In this context, calls for long-term systemic thinking to address the polycrisis have been intensifying (Dixson-Declève et al., 2022; EEA, 2019; 2020a; 2021b; UNEP, 2021; IPBES, 2019; 2022; UNEP, 2024), alongside an impetus for sustainability governance frameworks (Meuleman, 2020; EEA, 2021a; Visseren-Hamakers et al., 2021; IPBES, 2022; EEA, 2024b; EEA, 2024f).

All of these frameworks recognise the need to embed long-term sustainability thinking within short-term policymaking. However, striking a balance between long-term thinking and short-term responses to the risks and uncertainties of the polycrisis is a difficult task.

2.2 EU's agenda for sustainability

The European Commission (EC) has deployed a broad and comprehensive agenda for sustainability under the long-term vision of 'living well within the boundaries of our planet'. EU commitments to the United Nations (UN) SDGs have been introduced since the preceding policy cycle. These along with the EGD and the 8th EAP represent Europe's heightened ambitions and efforts to respond to and navigate emerging systemic risks and global crises by putting sustainability at the heart of its policymaking (Boxes 2.2 and 2.3). 'Climate change and environmental degradation are an existential threat to Europe and the world. To overcome these challenges, the European Green Deal will transform the EU into a modern, resource-efficient and competitive economy, ensuring no net emissions of GHGs by 2050; economic growth decoupled from resource use; and no person and no place left behind.' (EC, 2019)

With its renewed ambitions, the EGD is often considered to be the most systemic and sustainability-centred policy framework in the EU. According to EC documents, the EGD offers a strategy for 'deep transformations' in Europe's key systems with environmental and social sustainability at its core (EC, 2019).

The centrality of concerns for the environment and climate in the EGD has arisen from the EU's long-standing commitments to preserving, protecting and improving the quality of the environment and of human health. It promotes measures at an international level to deal with regional or worldwide environmental problems, particularly geared towards combating climate change. These goals are enshrined in the Treaty of the Functioning of the European Union (EU, 2012). The EGD has leveraged EU's strong environmental legislation, including its substantial efforts towards climate mitigation (e.g. the Emissions Trading System (ETS)) and its commitment to the 2030 agenda and UN SDGs.

Box 2.2

Sustainable Development Goals in the EU

The 2030 Agenda for Sustainable Development and its 17 SDGs, adopted by the UN General Assembly in September 2015, have provided new impetus to achieve sustainable development through global efforts. The EU is fully committed to playing an active role in helping maximise progress towards the SDGs (Eurostat, 2023).

What suggests a more transformational and long-term orientation towards sustainability in the EGD is the increased focus on systemic change and an interconnected view of sustainability policies (e.g. economic and environmental aspects). In this regard, the EGD emphasises the need to protect and restore natural ecosystems, confirms the gravity of the climate and environmental situation, and commits the EU to action. To some extent, the EGD can be said to have been informed by the EEA' series of reports on *The European environment – state and outlook* and in particular its 2020 edition (EEA, 2019). This is particularly in relation to the need for urgent and systemic responses.

In its goals and intents the EGD reinforces the long-term vision of 'living well, within the limits of our planet' which was established by the 7th EAP. This vision was recently carried over through the objectives of the 8th EAP (EC, 2022a) (Box 2.3).

Box 2.3

8th EAP priority objectives to 2030

Objectives to 2030 include:

- achieving the 2030 GHGs emission reduction target and climate neutrality by 2050;
- enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change;
- advancing towards a regenerative growth model, decoupling economic growth from resource use and environmental degradation, and accelerating the transition to a circular economy;
- pursuing a zero-pollution ambition, including for air, water and soil, and protecting the health and wellbeing of European residents;
- · protecting, preserving and restoring biodiversity, and enhancing natural capital;
- reducing environmental and climate pressures related to production and consumption (particularly in the areas of energy, industry, buildings and infrastructure, mobility, tourism, international trade and the food system).

It should be noted that alongside environmental concerns, considerations relating to economic growth and competitiveness are also central to the EGD. For example, the decarbonisation of the economy is regarded as an opportunity to leverage the competitive edge of 'green' European industries and economic sectors, strengthening the EU's position in international markets to the benefit of its market actors, Member States and residents. The EGD includes the overarching strategic priority of transformations towards sustainability, including in the environmental pillar, and the aim to make them a cornerstone of the political narrative. This paves the way for a broad range of actions in social and economic policy areas and is also connected to the idea of climate-neutral economic growth, supported by new green jobs, services and industries, as the means to reduce pressures on the climate and environment.

Finally, the EGD also takes into account Europe's need to support its global role in promoting environmental protection and climate mitigation. The EGD frames climate and environmental issues through policies targeting the systems responsible for key climate and environmental pressures such as food, mobility, energy, industry and the built environment. This is reflected in strategies covering broader policy areas such as the Farm to fork strategy, Zero pollution action plan, EU climate adaptation strategy, the renewed Biodiversity strategy for 2030 and Circular economy action plan, as well as the establishment of the European Climate Law and the Fit for 55 package. These represent major advancements in environmental governance in terms of integrating different policy areas and promoting holistic and systemic change.

Above all, the European Climate Law introduces a way to enshrine the long-term commitment to climate neutrality by 2050 in a legally-binding instrument with the obligation to set intermediate targets and adjust policies when necessary. As a follow-up, the Commission has launched the Fit for 55 package to achieve the intermediate target of reducing emissions by at least 55% by 2030 compared to 1990. Most of the legislative proposals had been adopted by the end of the 2019-2024 term. In addition, as a climate mitigation target, the communication on the 2040 Climate Target Plan recommends a 90% reduction in GHGs emissions by 2040 compared to 1990 levels.

The COVID-19 pandemic, Russian aggression in Ukraine, the steep increase in energy prices, inflation and the cost of living, alongside the intensifying effects of climate change, have all disrupted economies and significantly affected healthcare, energy and agri-food systems. Such issues have brought to the fore concerns about security and competitiveness within the EU. Consequently, policy developments in Europe have been heavily influenced by the global polycrisis context and its implications.

In some policy areas, the response has offered opportunities for further strengthening and aligning resources towards EGD goals. The climate change mitigation agenda has been significantly accelerated in response to the turbulence of the polycrisis. Both COVID-19 and the Russian aggression in Ukraine have strengthened and streamlined EGD action on climate mitigation. This is reflected in the development of new policy packages for financing net-zero ambitions (e.g. the Resilience and Recovery Facility; REPowerEU). The disruption of the energy market and price fluctuations have propelled the energy agenda and reconfirmed the climate objectives promoted by the EGD. There has been a surge in investments in renewable energy technologies through the REPowerEU plan, largely connected to the EU's strategic goal of reducing its energy dependency on Russian fossil fuels. One of the unintended consequences of this was that investments in fossil fuels infrastructure was reinforced, creating stranded assets in the future.

Rising temperatures and extreme weather events have heightened the EGD's efforts in relation to climate adaptation and implementation. The aim has been to increase resilience (e.g. via a new strategy established in 2021 (EC, 2021c)) while exposing social and regional vulnerabilities across EU Member States. However, more concerted efforts involving stakeholders and better integration across multiple policy areas are required. For example, the recently-published *European climate risk assessment* points to the need for urgent action to avoid locking Europe into maladaptive pathways in relation to areas such as land-use planning and long-lived infrastructure (EEA, 2024a). Such action would mitigate potentially catastrophic risks.

As economic and strategic considerations have been receiving more attention from policymakers in the context of COVID-19 recovery, the war in Ukraine, the United States (US) Inflation Reduction Act and aggressive subsidy policies for clean technologies in China, the relevance of Europe's strategic autonomy agenda has increased significantly. This has resulted in proposals for important new policy instruments such as the EU's Net-Zero Industry Act (NZIA) and the Critical Raw Materials Act. Thus, the need for strategic autonomy has brought about new opportunities to promote the EGD's circular economy agenda with the aim of mitigating new forms of dependencies (e.g. in relation to critical raw materials, strategic energy technologies) and related supply chain vulnerabilities. However, it has also raised questions around scalability, for example in relation to growing demands for critical raw materials. The rate of circular material use in the European economy has remained low since the 2010s – at about 12% – (EEA, 2024d), provoking concerns about the implementation of other comprehensive approaches such as the Circular economy action plan (EC, 2020).

The polycrisis has significantly affected the socio-economic and political landscapes, and this also has implications for the development of the EGD. While there was initial support for initiatives like the Biodiversity strategy, the Nature Restoration Law, the Farm to fork initiatives and the Zero pollution agenda, growing concerns associated with the rising cost of living and the increasingly concerning socio-economic situation in EU Member States has led to pushbacks. A surge in opposition to the EGD's environmental agenda has been fuelled by social protest, vested interests and active lobbying (e.g. manifested in different political parties in EU Member States, and among farmers and industry). This has contributed to a diminishing level of ambition compared to the early days of the EGD.

Nevertheless, important initiatives have been developed in certain areas, including the Zero pollution action plan and its related actions on chemicals and textiles, and the EU biodiversity strategy and its forests, soil and pollinators initiatives as well as the Nature Restoration Law.

In the case of the zero pollution agenda, the EU has adopted important legislation on air quality standards and industrial emissions. Other legislation, for example relating

to soil and forest monitoring, is yet to be adopted. Meanwhile, some legislative proposals which have been announced by the Commission have not yet been launched due to firm resistance from industry. This is the case for the proposal to revise the REACH Directive (Corporate Europe Observatory, 2024).

Much of the planned legislation for the Farm to fork agenda has been delayed or halted. The proposal to reduce chemical pesticides has been withdrawn by the Commission following difficulties in the European Parliament and the Council alongside continued protests among farmers across Europe. Important legislative steps have been taken in establishing the regulation on deforestation-free products, as well as the Environmental Crime Directive, and, most notably, the Nature Restoration Law. The EU Council reached a political agreement on the establishment of the Nature Restoration Law, although the revised version of the law is less ambitious than the earlier drafts. The controversies around this law suggest that biodiversity conservation and nature restoration are perceived as separate issues from climate action, in the minds of some policymakers.

Nevertheless, important policy gaps remain, including the absence of a legislative framework for sustainable food systems.

Finally, over the past 5 years, the polycrisis has facilitated public financing of EGD policies. The COVID-19 recovery package introduced unprecedented resources to foster the energy transition (e.g. 30% of the EU 2021-2027 budget and 37% of the EU recovery fund – the Next Generation EU – were devoted to climate action).

Yet full implementation of the EGD would demand a steady injection of substantial investments in future years. Overall, it is estimated that around EUR 520bn per year is required (in 2021-2030) (EC, 2021a) to deliver on the Green Deal objectives. Of this, EUR 390bn per year would need to be spent on the energy transition and de-carbonisation of the economy (EEA, 2023a). The Communication on the EU's 2040 climate target and the accompanying impact assessment estimate that investment associated with economic sectors required for the clean transition would cost around EUR 1.5tr per year between 2031 and 2050. Thus the additional investment required would be lower, at around EUR 660bn per year. However, public finances are increasingly under strain due to competing demands associated with growing inflation, the rising costs of climate adaptation, a shrinking tax base due to demographics and automation of the economy, alongside new needs to strengthen security and armaments (EEA, 2020b; 2023a).

The changing geopolitical and societal context has revealed some of the strengths and limitations of the EGD. To date, the integration of different policy initiatives has worked best at the intersection between climate and energy. The integrative design of the EGD has also managed to link the energy transition and technological innovation under the rubric of a twin green and digital transition. Research and innovation have been highlighted as important enabling instruments (e.g. through the establishment of several EU Horizon missions).

Several other elements (e.g. sustainable finance, global partnerships, just transitions) that are part of the EGD's toolkit have yet to be fully deployed across environmental themes though they have made significant advancements.

The polycrisis made also evident the existence of tensions across different goals of the EGD. For example, climate mitigation and nature protection goals both require land and biomass to meet their respective needs, therefore their use and allocation points to trade-offs. Moreover, global crises and the need to secure strategic autonomy implied difficult decisions regarding upholding the requirement of environmental impact assessment when permitting projects of strategic importance.

In the EGD, social sustainability has been included in connection with climate and environmental policies. In particular, this has implications for the transition in the

area of social justice, with certain aspects of this issue partially addressed in the Deal (e.g. in the creation and implementation of the Just transition fund). Similarly, the establishment of the Social Climate Fund, and its future implementation through national social climate plans by 2025, has the potential to strengthen the social dimension of the transition across EU Member States.

The initial focus of policies addressing just transitions was centred around issues of distributive justice. Other important dimensions of social justice such as procedural, recognitional and restorative justice (EEA, 2024b) could be more systematically embedded in policy and build on promising policy developments and initiatives (e.g. renewed air quality legislation, the Bauhaus initiative). Another area where coordination between the climate and environmental goals of the EGD could have been more stringent is in the link between external climate and environmental action outside the EU. The establishment of the Carbon Border Adjustment Mechanism could become a gamechanger, protecting EU industries whilst incentivising third countries to create carbon-pricing mechanisms themselves.

Overall, the global crises of the 2020s have influenced the EU's policies for sustainability in a number of ways. Mostly these effects have been compound, at once accelerating the energy transition (e.g. in connection with the Ukraine war and natural gas dependence) and also making them even more complex (e.g. contributing to push back on nature restoration on account of high energy prices and inflation). Overall, the crises have challenged the transformative and systemic character of the EU's transitions. With every new crisis, the policies of the EGD have been tested against different priorities and demonstrated the flexibility of the EGD as a systemic framework able to address more than just one priority. The current situation has also raised the question of how systemic risks and global crises should be dealt with in the future.

2.3 Evolving political priorities

As illustrated in the previous sections, the social, economic and geopolitical crises in Europe have coincided with the development of a stronger environmental and sustainability agenda under the EGD framework. This interplay of heightened ambitions across the broad EGD agenda and the spread of the polycrisis have provided a specific context for evolving political priorities and concerns. With the help of structured interviews with selected stakeholders and analysis of policy discourse, this report identifies and clusters three priority areas which have the biggest impact on how and where the EU's climate and environmental goals stand in the context of other EU policies and objectives. These three priority areas are:

- competitiveness;
- security;
- · fairness.

As elements or representations of an increasingly heterogeneous policy discourse (Figure 2.1), these priority areas are intentionally broad and include other aspects and concerns such as those related to growth, resilience, cohesion and justice. They are also sufficiently general to allow different interpretations and framings for sustainability. This consideration is explored in Chapter 3 of this report.

In summary, these priority areas reflect concerns which are widespread in the policy discourse in relation to Europe's capacity to sustain economic growth and competitiveness while at the same time providing security and social cohesion in a time of polycrisis. These concerns began to (re-)emerge in the years following the

2007 financial crisis and the migration influx in 2015 and have peaked since the start of the COVID-19 pandemic and the war in Ukraine. This context also reflects a more challenging geopolitical environment.

The central question in this report is how these different priorities may impact the EU's transition to sustainability. Will they 'outcrowd' the space on the policy agenda and lead to de-prioritisation of climate and environmental goals? Or conversely, will it be possible to consider these priorities alongside climate and environmental goals to harness additional impetus for the EU to implement its EGD and 8th EAP policies?

As experts point out, the EGD is ensuring that the EU's green transition is spilling over into virtually every policy field. While it is reasonable to assume that the environment and climate will remain a feature of policy, not least through implementation of the legislation that was agreed-upon during the first five years of the EGD, open questions remain concerning the compatibility of different priorities with the environmental agenda. For example, the respondents interviewed for this report pointed out a potential disconnect between social and environmental policies. Climate and environmental goals are regarded as excessively burdensome by certain social groups; for example, by several farmers' organisations. Similarly, the need for the EU to focus on security may not be fully compatible with environmental policies. For example, a surge in the EU's military spending may crowd out other investments, such as climate adaptation and various resilience measures.

In this regard, it is possible to imagine the sustainability agenda developing in different ways, depending on what steps and priorities come to define the short-term outlook. Different combinations are likely to affect long-term outcomes for sustainability and also any progress against targets and objectives, as policy measures become stepping stones to a more distant future. Moreover, the level of ambition that will characterise the next policy cycle and how the challenges faced by the EGD can be resolved or better navigated in the changing context remain to be seen.

Understanding these developments and avoiding choices that would be most detrimental to the long-term vision calls for new types of forward-looking and participatory knowledge, as well as analysis frameworks that connect different, often competing priorities to inform policies to generate transformative actions towards sustainability.

Figure 2.1 Policy priorities in an evolving societal and political discourse



Source: EEA.



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3 Exploring the future of the EU's sustainability agenda

Key messages

- The future of the EU's sustainability agenda will depend on the interplay of priorities such as competitiveness, security and fairness. There are risks and opportunities for sustainability transitions associated with each of them.
- The main risk is that climate and environmental objectives will be seen as contradictory or problematic vis-à-vis the pursuit of, for example, competitiveness or security. This may further fragment the sustainability agenda and hinder transitions.
- Inequality and a lack of policy coherence also pose challenges, potentially exacerbating societal and environmental issues and impacting vulnerable groups negatively.
- Conversely, leveraging convergence between climate, environment and other priorities offers opportunities to make progress towards the long-term vision which underpins the EU's sustainability agenda.

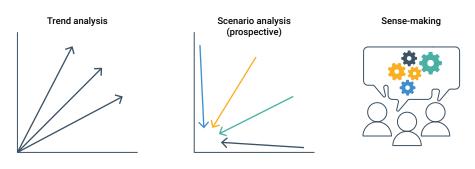
3.1 The value of foresight

Foresight is the discipline of exploring and anticipating the future in a structured and strategic way. Its purpose is to help build and use collective intelligence to anticipate developments and shape the future we want. Anticipation is not the same as prediction and foresight is not about predicting the future; it is about helping build it. Foresight supports long-term thinking by enabling analysis of trends and drivers and, in this instance, their impacts on sustainability transitions.

The European Commission defines foresight as a process-based, mutual learning and co-creation approach to developing relevant medium- to long-term anticipatory intelligence in a participatory way; it provides actionable knowledge to inform policy and decision-making (EC, 2021b). There has been a noticeable uptake in foresight methods across EU institutions in recent years with a growing number of forward-looking analyses to support EU policymaking (EPRS, 2023a; ESPAS, 2024; EC, 2023a) including in the environmental policies, for example FORENV.

Foresight approaches bring together diverse viewpoints to explore and anticipate future developments, helping society plan and build resilience in the present (EC, 2021b3e). In the environmental and sustainability fields, foresight processes are often used to anticipate potential risks and identify opportunities for the advancement of environmental sustainability goals (EEA, 2023e). The main added value of foresight is that it requires forward-thinking approaches from policymakers which support them to plan and prepare ahead of a crisis. Foresight also allows for strategic reflection before certain scientific evidence becomes available (Dammers et al, 2019). As noted in Chapter 2, to date we do not have evidence of how EGD legislation (yet to be implemented) is going to help us to attain environmental objectives. It is also the case that we may be missing certain information on the potential risks and threats of the polycrisis. However, if we make use of multiple forms of knowledge and expertise, decision-making need not necessarily be hobbled by uncertainty and complexity around the future (see e.g. Funtowicz and Ravetz, 1994). The strategic foresight method allows us to broaden our understanding of present and future outlooks, and make sense of possible cognitive biases and blind spots. In this regard, many foresight practitioners talk about foresight being as strategic as transformative exercise.

Figure 3.1 Main foresight techniques underpinning the STO foresight process



Source: EEA.

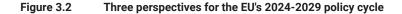
To support the analysis in this report, a participatory foresight workshop was organised to explore different ways of looking at the futures of the EU's sustainability transitions in light of prevalent political priorities. These priorities were distilled from a trend analysis, discourse analysis of the EU's policy documents, and structured interviews with policymakers and stakeholders. The priorities which were reworked into foresight 'lenses' or 'perspectives' were clustered around the three broad themes of competitiveness, security and fairness.

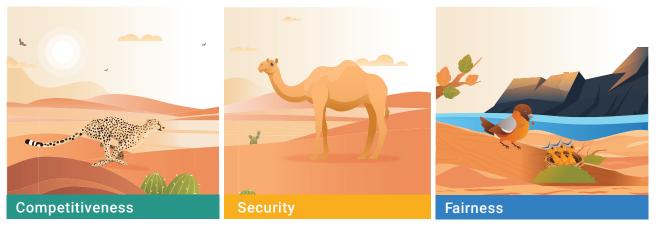
3.2 Looking at the future through the lens of a policy priority

To facilitate the foresight process and the broader analysis, a set of three qualitative scenarios was developed. The three scenarios present alternative policy agendas for the EU's 2024-2029 policy period, with the EU's climate and environmental objectives considered through different policy priority lenses. Each scenario illustrates how a particular policy priority choice relating to competitiveness, security or fairness may have different implications for sustainability objectives, with varying trade-offs, risks and opportunities (Figure 3.2). Considering possible futures according to different policy priorities supported participants in the foresight exercise to look at the current situation and the range of choices open to the EU for the next five years.

For the purposes of the report, the workshop outcomes were then elaborated on further, using a prospectivist approach (Godet, 2001). Prospectivist thinking is part of a broader foresight thought and practice based on a systematic approach involving gathering data, analysing trends, and using a variety of tools and frameworks to explore potential futures. The forward-looking prospectives on long-term climate and environmental objectives developed for this report are consistent in addressing the same question: what sustainability transitions converge with each given priority (opportunities) and what transitions diverge (risks)? Secondary questions included: what are the key drivers and actors in this perspective? What is a range of

possible consequences of strategic decisions that lead to this point in the future? What are the 'red lines' and 'no regret options' in each perspective from the point of view of long-term sustainability objectives? Figure 3.2 provides a visual illustration of the three perspectives. The summary and full storylines for each of the perspective scenarios and their selected drivers are provided in Annex 1.





Source: EEA

3.3 Risks and opportunities for the EU's transitions

The most significant risk identified in the process, which was common to all scenarios was fragmentation of the sustainability agenda due to growing divergence between these three policy priorities and climate and environment objectives. Pursuing competitiveness and economic growth of the EU economy, or security and strategic autonomy at the expense of objectives pertaining to nature protection and restoration, biodiversity and climate goals, were regarded as significant risks. It was perceived that this would lead to negative outcomes and jeopardise the achievement of the EU's long-term sustainability vision. The potential implications are substantial: amplification of widespread environmental degradation, in combination with climate change, and increasing the risks of ecosystem failures and loss of ecosystem services, with long-term impacts on quality of life and numerous material losses.

Conversely, without sufficient regard for the short-term policy priorities dictated by the polycrisis, initiatives aimed at enabling long-term transitions in provisioning systems — like energy, food, mobility or housing — to reduce related environmental and climate pressures could backfire. Such a failure could lead to backlash, declining support, opposition and societal rejection. Unfacilitated 'green transitions' could exacerbate inequality, poverty and job losses, disproportionately impacting vulnerable groups without adequate consideration for social protection measures or job quality.

Yet opportunities exist for convergence between climate and environmental goals and other priorities. These opportunities largely lie in reframing priority perspectives to emphasise the integral dependency of socio-economic systems on healthy ecosystems and stable climate, as well as the links and co-benefits between policy areas. For example, seen through this 'green lens', strategic autonomy policies may foster a reduction in material footprint and lower demand for raw materials. This shift would promote human and planetary health, including mental and physical wellbeing, and also reduce healthcare costs. At the same time, it may generate new opportunities for entrepreneurship and employment. Nature-based solutions can also offer climate benefits and protect biodiversity while promoting local development and regional production. Such an approach may positively influence economic sectors like tourism or agriculture. The EU's actions regarding ecodesign and the circular economy have the potential to create short-term competitive advantages and lead to the creation of new business models. If framed more broadly, this could help foster experimentation on social innovation and lifestyle change, and contribute to a more inclusive and sustainable society through public dialogue and governance of common resources. The tables below present a summary of the risks and opportunities for each of the scenarios extrapolated for the report on the basis of the contributions from the foresight workshop.

Table 3.1 Perspective 1: competitiveness

Competitiveness	Risks (summary)	Opportunities (summary)
	Pursuing climate objectives alongside competitiveness and growth could occur at the expense of other environmental objectives and may lead to widespread environmental degradation and long-term economic losses. Pursuing competitiveness and growth at all costs could escalate international tensions, disrupt markets and erode trust in the EU, exacerbating social and distributional conflicts. This would undermine solidarity and democracy. Sharp polarisation of society and erosion of trust pose significant risks to societal wellbeing and political legitimacy.	A successful EU economic model emphasising climate-neutrality and inclusivity may boost diplomatic influence. Technological advancements could make green solutions cheaper and less reliant on behavioural changes, garnering support from businesses and promoting a thriving green economy. This scenario, embracing sustainability incrementally, could lead to a smoother transition and a re-evaluation of competitiveness and economic welfare.

Table 3.2 Perspective 2: security

Security	Risks (summary)	Opportunities (summary)
	In this scenario, risks for climate and environmental goals depend on how security is perceived and acted upon. Identified risks include lowering priority for environmental goals, climate vs. security trade-offs and delayed decisions (e.g. on adapting to climate and environmental risks). Resource competition, loss of public support and a security-oriented focus are also identified risks. Inequality affects security and stability as well. All these factors may hinder sustainability and international leadership in environmental standards.	Recognising the link between security and climate and environmental goals can lead to synergistic outcomes like less climate-induced migration, cleaner supply chains and tech sovereignty. Shock events (e.g. climate impacts) may prompt action and boost adaptation. Integrating intergenerational fairness can strengthen environmental sustainability. Local and more reliable supply chains and driving international standards would offer competitive advantages and strengthen the EU's position in sustainability transition and governance.

Table 3.3 Perspective 3: fairness

Risks (summary)



The risks outlined include missing climate targets because climate mitigation is slowed down, leading to EU's weakened competitiveness. A lack of emphasis on behavioural change could hamper long-term progress. Diversion of funds from social investments and a disconnect between social rights and green initiatives pose challenges. Regional disparities, a focus on Europe and an unclear global decarbonisation movement also add complexity. Recognition gaps, over-indebtedness and climate poverty are additional concerns. Social measures could improve confidence and promote fair, clean transitions, emphasising green jobs and innovation. Empowering local communities through support and wealth-building would strengthen the social dimension. Benefits could include reduced import bills, defining a European standard of living, holding polluters accountable, prioritising fairness, addressing common problems, enhancing local governance and fostering a strong EU-local alliance to tackle climate challenges globally.

Opportunities (summary)



4 Anchoring transitions to sustainability in the context of the polycrisis

Key messages

- It is necessary to anchor climate and environmental goals to the emerging priorities of competitiveness, security and fairness to future-proof EU policy as it seeks to transform towards sustainability. Reframing these priorities by acknowledging their dependence on a stable climate and healthy environment and ecosystems, is a necessary precondition for upholding the sustainability agenda in the next policy cycle.
- The EU's sustainability agenda could be reinforced by acknowledging that Europe's competitiveness is underpinned by elevated social and environmental standards and regulations. Industrial transformations, strengthening the directionality of public investments, transformative innovations, bolstering investment capacity, and promoting a sustainable and inclusive economy focused on wellbeing could all contribute to strengthening synergistic relationships between competitiveness and climate and environmental goals.
- Reframing security to ensure a comprehensive approach centred on societal security and ecological and societal resilience alongside nexus thinking about environmental security, societal cohesion and interdependence would be beneficial.
- Climate and environmental goals in the context of the polycrisis must be tied to promoting fairness and justice. Ensuring equitable distribution of costs and benefits, inclusive decision-making, access to resources and services, and reducing exposure to environmental hazards could reduce inequalities and align well with the EU's commitment to just and inclusive transitions.

4.1 Reframing priorities

As Chapter 2 argues, the effects of the polycrisis, in many cases, have pointed to a weakening of the overall transformative and systemic logic of the EGD. The result of this is that it becomes a balancing act rather than a coherent strategy for the future. While the EGD established an overarching logic for transitions to sustainability with the 2050 goal of climate neutrality, external and internal pressures on the EU and emerging priorities show that the risk of further fragmentation of the environment, climate and the broader sustainability agenda in the next policy cycle is not insubstantial. This means that the task of future-proofing a sustainability-centred policy framework 'beyond the EGD' is very important. A strong and prosperous democratic union relies on sustainability being upheld and solidified across the emerging priorities.

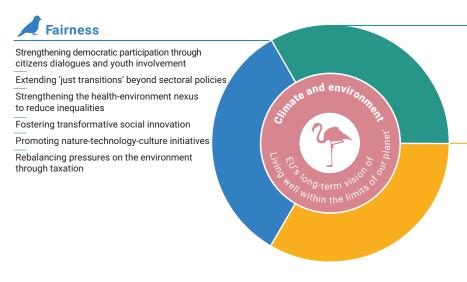
Considering the future through a series of lenses, each focusing on a single priority, offers the possibility to explore both the risks and opportunities for furthering the EU's sustainability agenda in the coming years. While the multiple synergies existing between climate and environmental priorities and the emerging priorities could be

leveraged to build a sustainability narrative 'beyond the EGD', it is fair to acknowledge that these priorities also contain elements that are in tension with the long-term vision of 'living well within the limits of our planet'. In some instances, they may be fully incompatible. Furthermore, if the risks associated with the priorities come to pass, it would be detrimental not only to the existing sustainability agenda but also the overall development of the EU. Here lies a paradox about priorities: each of them requires an immediate response, but if the response is fragmented and concentrated within a priority, risks prevail over the opportunity to resolve tensions jointly alongside other priorities.

In this context, anchoring the sustainability agenda to emerging priorities could be fundamental to successful decision-making going forward. Reframing emerging policy priorities according to their key (inter-)dependence on a healthy environment and stable climate could ensure that the EU's long-term sustainability ambitions, including its climate and environmental goals, are upheld effectively in the current polycrisis.

With this aim in mind, the following sections present a series of ideas for anchoring the sustainability agenda across (re-)emerging policy priorities in a way that is convergent with long-term sustainability ambitions, including climate and environmental goals. Such anchoring ideas are short-term pragmatic ideas that are inspired by long-term sustainability thinking. They are key outcomes of the foresight process described in Chapter 3, and are intended to bridge points of convergence between multiple priorities in a pragmatic way. An overview of these anchoring ideas is provided in Figure 4.1.

Figure 4.1 Overview of ideas for anchoring climate and environmental goals in the 2024-2029 policy cycle



Green industrial transformation

Bolstering sustainability investments Strengthen directionality in public investments Moving beyond GDP, towards a sustainable and inclusive wellbeing strategy

CI Security

Boosting capacity for anticipation and preparedness

Improving strategic autonomy by tackling demand and consumption

Promoting nature-technology-culture initiatives Leading in global sustainability diplomacy

Integrating environment into enlargement and ENP

Source: EEA.

4.2 Reframing competitiveness

Anchoring climate and environmental goals to the priority of economic competitiveness was already at the core of the EGD. In fact, the EGD was introduced as the 'new growth strategy of the EU' (EC, 2019). Initiatives such as the 'Greening the European Semester' had indicated a growing focus on social and environmental considerations in macroeconomic policy, based on the assumption that the twin

green and digital transitions would spur economic growth, modernise the EU economy, open up new business opportunities, contribute to job creation and help the EU regain a competitive advantage on the global markets (EC, 2023b).

The shift to a green and digital economy is believed to be associated with several socio-economic benefits. These include increased competitiveness in the manufacturing industry, diversification of energy sources, decreased dependency on imports from outside the EU, and improved resource efficiency. These changes could all mitigate the EU's economic vulnerabilities. Moreover, as global demand for sustainable products and services grows, the EU could strengthen its position as a leader in innovations and green technologies. By exporting renewable energy technologies, eco-friendly products and expertise, the EU could also strengthen its economic ties with other regions.

To date, green and digital technologies, innovation and green jobs have been the central elements in the narrative around competitiveness. While this approach is currently delivering on climate mitigation, it is unclear whether this focus on green growth based on technological specialisation is compatible with the EU's broader long-term sustainability vision for 2050 and, more specifically, with its ambitions regarding pollution reduction, biodiversity conservation and nature restoration, in Europe and in the rest of the world.

Underpinning the concept of competitiveness with values relating to the European socio-economic model and the high social security and environmental protection standards that come with that would support a high-skill, socially stable and economically attractive environment for investments (EC, 2023b). It would also foster social cohesion, offering an almost a unique selling point for the European socio-economic model.

More specifically, high environment and health standards are not merely regulatory requirements; they are strategic investments and key enablers for long-term economic development and competitiveness. They contribute significantly to the wellbeing of European residents and to resilience against disruptions resulting from climate change and other shocks. The sustainability agenda would be strengthened by acknowledging the dependence of long-term competitiveness on healthy and resilient communities, lively local and regional economies, and healthy nature and ecosystems. It would also highlight the value of the co-benefits that can be delivered by investing in climate, health, and nature protection and restoration. Such an understanding would ensure that sustainable and inclusive wellbeing is central to governance and decision-making, replacing the over-reliance on purely GDP-dominated economic thinking, and opening-up to new ways of valuing nature and the environment e.g. beyond purely utilitarian considerations (see EEA, 2023g).

Renewing the narrative in this way could have positive repercussions for the EU in international fora and negotiations and help in re-establishing the EU as a global frontrunner on sustainability. If the EU was to succeed in building up an economic model that delivers climate-neutral, sustainable, just and inclusive welfare, and which does not generate disproportionate burdens outside the EU, such a model could become of inspiration for others.

4.2.1 Anchoring ideas

Industrial transformation

The idea of transforming the EU economy and its industrial sector towards decarbonisation and a net-zero economy have become increasingly central to policymaking. The fact that Europe is lagging behind Asia and the United States in

the global race for digital technologies increases pressure on the region to become a leading force in clean technologies — otherwise it will fail to reap the industrial benefits of the ongoing digital and green transformations. The European economic fabric is highly reliant on energy-intensive industries, such as basic chemicals, iron and steel, and these sectors will be completely reshaped in the coming years. It is absolutely key for Europe to turn jobs in these industries as 'green' as they could possibly become in order to maintain and strengthen its socio-economic model in the future (EEA, 2023a).

The launch of the European Chips Act (EC, 2023c) and the NZIA (EC, 2023d), as part of the EGD's Industrial Plan, both strongly signal the need to move in this direction. The former aims to bolster Europe's competitiveness and resilience in semiconductor technologies and applications; this is of key importance to the digital and green transition. The latter foregrounds industrial policy that promotes the upscaling of clean tech manufacturing. The aim here is to support the clean energy transition at the same time as ensuring extremely low GHG emissions from manufacturing processes. It also aims to bolster competitiveness and security of supply (EEA, 2023a; EC, 2023d).

Furthermore, in autumn 2023 and spring 2024, the Commission organised several clean transition dialogues to discuss with European industry and social partners how to strengthen and support the implementation of the EGD's climate mitigation agenda through a reinforced industrial approach. a reinforced industrial approach.

Strengthening and nurturing manufacturing capacity for clean tech industries and provisioning for skilled, well-paid and future-proof jobs could also ensure that the promise of a thriving green economy is tangible for many. Additionally, it could generate a fair amount of buy-in and support from businesses, stimulating the initiative and resources of the private sector. By betting on renewable energy technologies, the EU could foster innovation and attract investments.

Expansion in the production of electric vehicles, retrofitting buildings and developing smart grids all contribute to generating new employment opportunities. Investments in sustainable infrastructure — such as public transportation, renewable energy grids and energy-efficient buildings — could also create long-term economic benefits, enhance quality of life, attract businesses and improve connectivity. If coupled with investments in R&D and uptake of technological advances, the focus on technological 'solutions' to climate change could attract 'green-minded' businesses, making progress cheaper and more easily accessible and scalable.

Yet green industrial transformation needs to ensure quality jobs supported by the highest safety and environmental standards to guarantee appropriate protection and conservation of Europe's biodiversity and ecosystems. It is also essential that transformation considers pollution levels so that it does not add significant negative health impacts for European residents. Many of the jobs potentially generated by achieving a net-zero economy and through the establishment of the Critical Raw Materials Act, are likely to be in energy-intensive sectors and mining, which often entail exposure to multiple hazards.

Europe needs to leverage the quality of its social and environmental standards rather than being dragged into a race to the bottom, since it is unlikely to be able to compete in it. Policies must therefore ensure quality jobs, renewed social protection and a healthy welfare system, underpinned by the sustainability transition.

The EU already has among the highest labour costs in the world (ILO, 2024) and this approach may well result in a further increase, leading to higher production costs and prices. Higher public incentives for producers, increased automatisation and

information technology (IT) may be required to address this challenge. At the same time, it may be necessary to introduce measures to support the development of skills and education and to compensate vulnerable citizens and communities which might be disproportionally affected by changes in the labour market.

The costs for industry involved in the changes proposed above, combined with unfair international competition practices (e.g. governmental subsidies), are often perceived as too high for sustaining international competitiveness. Thus, legislative and non-legislative actions are needed to create appropriate enabling conditions for strengthening competitiveness in Europe.

Additionally, the EU could strengthen its global diplomatic efforts in areas such as state aid, subsidy policies or toxic chemicals regulations and environmental pollution. Proposing more stringent international agreements could support the creation of a more even international playing field and mitigate the risks related to relocating industries outside the EU, where environmental standards and legislation are often far less stringent than the EU ones.

In order to avoid fragmentation of the sustainability agenda it is essential to take great care in anticipating, preventing and evaluating the impact of ramping up industrial capacity in Europe. It is paramount that ambitions to expand manufacturing and extractive capacity in Europe jointly address climate mitigation and competitiveness. We must ensure that changes do not lead to detrimental impacts on the health of ecosystems, water quality and biodiversity, whose quality is already poor or insufficient in many regions of Europe (EEA, 2019). This is all the more important in the face of uncertainty around the future of carbon sinks, as trends in the destruction of forest habitats and ecosystems may compromise both climate and biodiversity targets (EEA, 2023c).

Overall, planning for industrial transformation could benefit from new and focused funding targeting vulnerable regions and groups, and also promoting positive conditionalities in the areas of environmental and social protection. Such a funding vehicle could be designed to leverage intra-European solidarity.

Strengthening directionality in public investments

The EU's Multi-annual Financial Framework (MFF) post 2027 will represent a crucially important financial lever to support the achievement of the EU's long-term sustainability vision. It will offer an opportunity to mainstream climate and the environment within the EU budget and spending. Previously, EU public investments have been earmarked in a way which is too generic. In contrast, the design of the entire MFF could be fundamentally interwoven with climate and environmental goals, potentially achieving more targeted funding. For example, an appropriate share of it could be devoted to clean tech innovation and deployment. The MFF could also facilitate coordination across different funds, taking into account their specific foci. This would allow for broad and mutually supportive interconnection rather than isolated action. Overall, a revision of the EU spending mechanisms should ensure that all public funding is aligned with, or at least is not countering, sustainability transition goals.

The use of requirements or conditionalities could be strengthened in the area of public financing. The role of state aid could also be re-thought by leveraging positive and negative conditionalities and financing, possibly in combination with a stricter sustainability taxonomy. This could support the creation of the right enabling framework for 'green-minded' businesses.

In this context, the precautionary and prevention principles, and the polluter pays principle (PPP), must be applied more stringently in policy development and implementation. In particular, deploying the precautionary principle as a compass to guide responsible research and innovation (e.g. with application in EU-funded programmes) could contribute to boosting Europe's competitive advantage and specialisation on green and sustainable technologies, while improving on innovation governance (Oldervoll et al., 2022).

The European Court of Auditors (2021) has acknowledged issues and opportunities in the application of PPP; strengthening its application across the EU could contribute to preventing further environmental degradation and health risks. Wider application could also help address the challenge of remediation costs (e.g. legacy chemicals) that often end up being covered through public finance. Liability and insurance schemes could also be deployed more systematically across Member States in association with the implementation of the PPP.

It may be prudent to develop and employ a new, EU-level funding strategy for setting green industrial policy. This could aim to tackle the risks of single-market fragmentation and the political tensions between EU Member States. Additionally, it could further promote the establishment of an integrated capital market in the EU. The threat otherwise is that richer EU countries may support private investment in clean tech by providing public incentives from national state aid and thereby undermining fair competition within the EU (EEA, 2023a).

Additionally, the expected reform of the common agricultural policy (CAP) is also a key opportunity to acknowledge the contribution of farmers whose business models are at the forefront of environmental protection and sustainability. Their value as stewards of nature and a healthy and secure food system could be properly recognised and compensated, strengthening their competitiveness both locally and globally.

Bolstering sustainability investments

There is a need for substantial investments in the net-zero carbon economy for decarbonising sectors such as energy, buildings and transport. It is estimated that around EUR 520bn per year is needed in the present decade (2021-2030). Of this total, EUR 390bn per year is targeted at the energy transition and the de-carbonisation of the economy (EC, 2021a). In addition, further investment is needed to boost EU manufacturing capacity in the area of certain strategic net-zero technologies. The total required is estimated to be around EUR 92bn over the period 2023-2030 (EEA, 2023a).

Given the sheer scale of investment needed, both public and private actors must contribute. In the short term, the re-establishment of the Stability and growth pact and the associated plans to reduce national public debt will limit the ability to leverage public investments; so too will the growing need to allocate scarce public budgets across multiple priorities (e.g. social and health expenditures, investments in social infrastructure, military expenditure and financing the transition).

Yet short-term actions could help reduce fiscal pressure and generate revenue to invest in transitions. Alongside the expected increase in ETS revenue (EC, 2023d), further revenue could be generated through energy taxation.

Environmentally harmful subsidies could also be phased out. Fossil fuel subsidies amounted to EUR 56bn in the EU in 2021 and EUR 123bn in 2022 (EEA, 2023h). There is currently no fixed end date for more than half of all fossil fuel subsidies in 19 Member States (EC, 2024c). However, any actions to reduce these subsidies must carefully weigh up the social acceptability of such changes as they may

disproportionally affect low-income households. Existing compensation mechanisms could be leveraged and expanded to better respond to this issue (see Section 4.4).

The mobilisation of private investments will be paramount to realising Europe's net-zero ambitions. The sheer size of Europe's greatest asset — the single market, comparable to the domestic markets of the United States and China — could be leveraged to unlock private clean tech investment.

However, it is important to ensure that EU trade policy does not reverse and become protectionist. This is because the EU will continue to need to import intermediate goods and natural resources from non-EU countries — as these products cannot be competitively produced within EU borders — and to export products. In this context, the cost of accessing financing could be eased by the development of the banking union and capital markets union. Such financing is a key element in companies deciding to invest in clean technology (EEA, 2023a).

Sustainable finance will also play a crucial role in helping re-direct financial flows towards net zero and green investments, including for nature-based solutions. In particular, there are currently considerable investment gaps in the area of nature-based solutions (EEA, 2022a). This is in spite of the fact that they contribute to climate mitigation and adaptation, reduce biodiversity loss and land degradation, and enhance food security, human health and wellbeing (EEA, 2023c; 2023d). This is often the case because their return on investment occurs across multiple dimensions, which often transcend mere monetary value. Private capital and bond markets represent massive and underutilised resources which could be mobilised to invest in nature-based solutions; for example, through 'blended finance' (EEA, 2022a). Overall, nature-based solutions could be upscaled with the use of positive conditionalities and incentives which would make them more economically viable and financially attractive.

Beyond GDP: towards a sustainable and inclusive wellbeing strategy

Economic growth and competitiveness have been a top priority for the EU for decades. This is due to its origins as an economic union with the establishment of the Single Market, but also reflects the imperative of growth for modern public policy. The pursuit of such priorities underpinned decades of economic and social progress in Europe.

Conversely, the very same model created new environmental and social vulnerabilities (e.g. due to the relocation of industries outside the EU). While technological innovation and market-based instruments contribute to climate mitigation (see e.g. EC, 2022), the ambitions embodied in the long-term sustainability vision for the EU require a more fundamental change to its socio-economic model.

It has become increasingly clear that a narrow and excessive focus on growth in GDP and trade balances leads to levels of environmental pressures which are beyond Earth's safe operating spaces (EEA, 2020c). It can also generate potential tensions with broader social sustainability goals, which may lead to the exacerbation of distributional conflicts at various levels. On a more general level, there is a risk of growing atomisation and fragmentation of societies in Europe where wellbeing, happiness, and professional and financial success are all relegated to the responsibility of the individual. This may further erode solidarity and shared identity among Europeans.

These limitations are progressively recognised by economic theories that look 'beyond GDP' such as the wellbeing economy, doughnut economics, post-growth and degrowth. Such approaches have increasingly become an object of EU institutional debate (EEA, 2021a; 2021b; EPRS, 2023c; EC, 2023a). Additionally, this shift in focus is also illustrated by the 'Beyond growth conference', which took place in the European Parliament in May 2023. It involved a series of connected initiatives regarding the future of the European economic model initiated by the Commission, as well as internal reflections on new monitoring and assessment frameworks and metrics.

At the EU level, there is scope for establishing something like a strategy for a wellbeing economy, aimed at redefining the EU's growth and competitiveness by integrating it with security, social and environmental dimensions. It could be structurally linked to the European Semester and could represent an ambitious yet pragmatic action which would further anchor sustainability. Key components of such a strategy could revolve around minimum wages, universal basic services, caps on executive earnings, corporate tax rates, a windfall tax and luxury tax alongside the incentives and conditionalities introduced in the sections above aimed at safeguarding competitiveness. A strategy like this could be developed by engaging in strategic local dialogues about the future of the EU socio-economic model across European regions, in order to strengthen a sense of ownership across multiple governance levels.

This kind of strategy could also systematically facilitate the uptake in policymaking (e.g. through the EU Better Regulation) of an accounting framework based on sustainable and inclusive wellbeing. It could also support the use of decision-making tools that account for multiple ways of valuing nature beyond its utilitarian value (EEA, 2023g).

In the context of international monitoring and accounting initiatives for measuring progress, the EU could promote the uptake of a framework and metrics based on sustainable and inclusive wellbeing. This could reframe and renew the concept of competitiveness according to high social, environmental and sustainability standards.

4.3 Reframing security

It is important to recognise that priorities relating to security and resilience can be understood, defined and framed in different ways. Security can be centred around a military and defensive strategy as well as around a more comprehensive view of societal security. This focuses on ecological and societal resilience and nexus thinking about environmental security, societal cohesion and interdependence (Kononenko and Hakala, 2023). Furthermore, heightened security risks in a broad range of areas (including in relation to climate-induced risks) will affect Europe's overall social and economic resilience.

This broader definition of security is understood in such terms as the UN interpretation of 'human security', and 'environment of peace' (SIPRI 2022). These conceptualisations of security offer opportunities for sustainability transitions that go beyond the narrow 'deterrence and defence' framing security. The EU's integrated approach to security and the recent Joint Communication from the Commission and the High Representative on the nexus between climate and security is a welcome step towards a broader understanding of security, which may address the underlying environmental issues.

There is a link between the broader and more narrow traditional framing of security because it is difficult to imagine societal security in the absence of military security. Both approaches need to work in sync to ensure that transformations in essential systems such as energy and food can continue even when faced with military risks. In this context, there is a danger of silo thinking (i.e. not connecting the multiple crises and their solutions with one another; a failure to think long-term when reacting

to short-term shocks; and the inability to react flexibly and in a context-specific way which is appropriate to the multiple crises) if the narrower militaristic and defensive definition of security is prioritised.

Overall, this requires the policy debate on security and resilience to be broadened to include environmental and climate action underpinned by climate adaptation, food system transformation to sustain long-term resilience, improved resource efficiency and responsible consumption. This also involves recognising that inequality and poor levels of inclusion are both factors that can contribute to a lack of security or resilience. The level of inequality across EU countries and regions is an important facet of how society perceives insecurities and how political leadership deals with them. In this regard mainstreaming just and transformative resilience is key (EEA, 2023f; EEA, 2024).

There are opportunities in strengthening the link between security and sustainability priorities. There is a crucial role to be played by environmental and climate policy in enhancing EU stability. If this is appreciated and realised, thorough change and more synergistic results can be achieved (e.g. reduced climate migration, reduced dependence on fossil fuel suppliers, less environmental conflict, accelerated energy transition, sufficiency, a circular economy). For example, an increase in more regional supply chains to reduce dependencies may mean they are better monitored and become cleaner.

4.3.1 Anchoring ideas

Boosting capacity for anticipation and preparedness

Managing security risks is an essential part of governing sustainability transitions. Foresight tools and horizon scanning are now increasingly used in the EU by environmental policy actors and institutions; for example, to identify emerging climate and environmental risks and opportunities related to technological developments (EEA, 2023e). The origins of these methods in defence ministries in the 1970s are well-noted but synergies between defence and environment policy structures are underexplored.

Currently the EU is investing both in its defence and sustainability policies. As such, systemic risk assessment may present a new opportunity for mainstreaming and integrating nexus thinking about different aspects of security, given the cross-cutting and interdependent nature of the risks involved (see e.g. Sillmann et al., 2022; ASRA, 2024). Experts in different areas could be involved in joint risk assessments and foresight frameworks to develop a new kind of collective intelligence. Water resilience is a good example of this as it requires the 'resource nexus' perspective (addressing the interplay of food, energy, land, water and other systems) (EEA, 2019; 2022b). This has the potential to be particularly useful for identifying and managing synergies and trade-offs and maintaining resilient ecosystems.

Focusing on transformative resilience

Transformative resilience refers to the capacity of key systems to continue transforming in the event of a crisis (as compared to a more conventional understanding of resilience as a system 'bouncing back' to a pre-crisis baseline). There are several opportunities associated with mainstreaming a transformative approach to resilience in policy practice. These could integrate security concerns and the need to transform key systems towards environmental and climate goals. One example is the agri-food system which is also closely connected to strategic issues such as food security and health (EEA, 2022c). COVID-19 and the war in Ukraine have been disrupting food chains and opened a debate about the EU's food sovereignty and strategic autonomy (Bounds, 2022). There is also an ecological dimension to food security because, in the long term, healthy agri-food systems are more resilient to crop failure, disruptions affecting international supply chains, price shocks (e.g. relating to fuels and fertilisers) (Cagnin et al., 2021) and outbreaks of animal disease (e.g. African swine fever, bird flu). The EU is one of the world's main importers and exporters; this means it can play an influential role in setting standards in the areas of food and feed production and trade (Bock et al., 2022). In this context, transforming the agri-food system towards environmental sustainability would increase its resilience. As such, this goal should be integrated in domestic and external policies (e.g. trade).

In the framework of transformative resilience logic, farmers can be regarded as stewards of resilience for rural heritage and evolving or transforming cultural and socio-ecological landscapes. Farming is not simply a 'job' done by people in rural areas but an important function of resilience (EEA, 2022c). Transformative resilience is also a relevant approach to food security; it allows us to reflect, for example, on the structure of food production in Europe, and our dependency on imported soja to feed livestock and fossil fuels and feedstocks to produce fertiliser. Shifts towards more plant-based protein sources and a transformation of lifestyle and consumption patterns would reduce these dependencies and make Europe's food system more resilient and sustainable.

Another example of transformative resilience is mainstreaming nature-based solutions for resilience. The effects of climate change on nature undermine societal resilience (e.g. in relation to agriculture and fisheries) (EEA, 2024a). Introducing nature into the debate on resilience would involve thinking beyond the utilitarian perspective on nature and understanding how to 'learn from nature'; for example, in relation to the capacity of ecosystems to transform after a shock. Such an approach would open up multiple other avenues for connecting resilience and justice. For example, the concept of restorative justice could be applied to nature by strengthening nature restoration or resilience, and the economy could be connected via the concept of regenerative economy.

Improving strategic autonomy by tackling demand and consumption

The link between security, resilience and sustainability could also be reframed in relation to reducing demand and consumption as a measure to boost the EU's strategic autonomy. Curbing material consumption by addressing demand could further improve the EU's standing on strategic autonomy. The aim would be to pursue a balanced trade policy reducing external dependencies.

Reduced access to resources could stimulate more sustainable modes of production and consumption. As the costs of raw materials increase, circularity becomes more popular. Currently there is a lack of investment in circularity, though there is a growing number of options for financing accelerating positive trends. Information on the environmental costs of strategic raw materials and data concerning the environmental impacts of their use may accelerate the transition to circular economy. In this regard, it is important to use pertinent indicators which account for different impacts without losing data accuracy. There is also space for improvement of financial instruments, e.g. behavioural taxation. This could involve reducing taxation for circular models and increasing it for unsustainable models.

Linking the EU's sustainability diplomacy, trade policies and security

The concept of security in the EU context has implications for its external action and international role. The UN 2030 Agenda for Sustainable Development and its Sustainable Development Goals provide an essential framework for steering and coordinating EU's international efforts. Full implementation of the 2030 agenda in Europe and active support for its implementation in other regions (e.g. through the EU's external action, development aid and trade policies) will be essential if Europe is to play a concrete role in global sustainability transitions.

It is essential for the EU to avoid outsourcing unsustainable practices to other regions as this would undermine their efforts to achieve the SDGs. This raises questions about the external impacts of key EU industries, especially agriculture and food systems. European producers must be accountable to social and environmental impacts across supply chains.

The EU is well-positioned to play a beneficial role in the global food system. Europe already has state-of-the-art food production. By investing further in innovation and knowledge systems, Europe can help demonstrate that transitions are feasible and offer major opportunities. If done well, this could also mitigate concerns among EU farmers about unfair competition. In part, this would involve reaching beyond intergovernmental approaches to embrace transnational networks of civil society organisations, subnational governments and companies seeking to promote sustainable food systems. The EU could find further ways to connect more strongly with such networks to build on their experience and know-how when setting up new international initiatives.

Enlargement and cooperation with neighbours

Security dominates the EU's relationships with its neighbours, including those who aspire to join the EU in the future. As such, if the nexus approach to security/resilience/sustainability is not applied to the EU's relations with its neighbours, this would represent a lost opportunity. This is particularly true for relations with EU candidate countries (Western Balkans, Ukraine, Moldova and Georgia) and non-candidate eastern and southern partnership countries under the European Neighbourhood Policy (ENP).

With regard to ENP partner countries, experts suggest that the EU should propose win-win partnerships for the region to launch partnerships to supply clean energies (notably solar and offshore wind, alongside grids and flexibility tools), foster energy efficiency, invest in technologies (like carbon capture, utilisation and storage (CCUS) and hydrogen) and strengthen infrastructure connectivity (Tocci et al., 2023).

With regard to the candidate countries, the EU has been expanding cooperation on a broad range of sustainable policies and practices which mimic the EGD, such as the EU Green Agenda.

4.4 Reframing fairness

The idea of fairness has been increasingly featuring in the EU policy and political discourse throughout the policy cycle 2019-2024. This is in response to the recognition that issues of equity and justice need to be central to efforts to steer society towards a net-zero economy. In the context of the EGD, fairness is closely linked to the concept of the just transition, which focuses on the need to protect workers or regions that are impacted by structural economic change. The transformation to a carbon neutral and circular economy inevitably creates winners

and losers as new sectors emerge and polluting or resource-intensive industries are phased out. Similar equity and justice concerns are relevant across regions and at the global scale. Richer countries or parts of society are also more responsible for pollution and GHG emissions than others.

Fairness (or justice) can also be understood more broadly as including several dimensions such as distributional justice (allocation of costs and benefits); procedural justice (who participates in decision-making); and recognitional justice (respect for, engagement with and fair consideration of diverse cultures and perspectives) (EEA, 2024b).

The EU determines the course for just and equitable transitions (e.g. with the commitment of the EGD to 'leave no one behind' and the commitment of the European Pillar of Social Rights to build a fairer and more inclusive society) (EEA, 2024b). Yet despite the fact that very important instruments such as the Just Transition Mechanism, the Just Transition Fund and the Social Climate Fund have been established, there is still substantial room to strengthen the integration between justice considerations and environmental goals through effective policy interventions (Avelino et al., 2023; EEA, 2024b).

The issue of fairness is also very apparent in health inequalities in association with unequal exposure to environmental and climate-related hazards (e.g. air pollution, noise, extreme temperatures) (EEA, 2018). As such, the concept of just resilience to climate change has also found its way into EU policy. This recognises the fact that climate change affects all European residents, yet the people who are most affected tend to be those already at a disadvantage because of their age, health or socio-economic status (EEA, 2023f). Climate adaptation efforts in Europe reveal a stark reality: disadvantaged communities often face a double burden of flood risk and limited resources. Schools and hospitals are also disproportionately situated in flood-prone areas (EEA, 2023f).

Leveraging the benefits that environmental policy delivers in terms of reducing exposure to environmental and climate-related hazards for all and, in particular, to the most vulnerable segment of the population could strengthen the convergence between justice and fairness and the long-term sustainability agenda. This is presented below, alongside a range of anchoring ideas that promote fairness in convergence with environmental objectives.

4.4.1 Anchoring ideas

Strengthening democratic participation through citizen dialogues and youth involvement

In the last few years of the EGD, the need for stronger engagement in dialogue with the communities potentially affected by the transitions envisaged within the EGD emerged very strongly. This was demonstrated in the debate about the level of ambitions with regard to nature restoration. Some say that the European Green Deal does not offer a deal; that the 'deal' element can only exist in the context of healthy democracies. This observation is all the more important given the changing election landscape in Member States and the rise of populism. Some of the most significant push-back against the EGD arose in this context. There is the widespread perception that strengthening climate commitments and introducing new environmental regulations to halt degradation will simply become yet another burden for key sectors of the economy or certain categories of citizen which are already challenged. This is paired with a fear that it would have significant implications for jobs and regional cohesion, and lead to political backlash in the regions potentially affected the most by such changes.

Progress towards a net-zero economy is likely to take time. Once achieved, however, the expectation is that there will be a social dividend in the form of improved health and wellbeing across social groups. This is not to say that such convergence will take place inevitably but if social equity measures are put in place in conjunction with environmental policies, there is the potential for a really positive and transformative effect. A broad application of the priority of fairness, for example by empowering people at the local level in the areas of administrative support, financing, community and wealth building, would reinforce the social dimension of the sustainability transition and make it more likely that people feel listened to.

Similarly, European policymakers should make the case for a more ambitious environmental policy (e.g. nature restoration, biodiversity, water resilience). This would require action beyond communication on policies. It calls for much closer engagement of political parties with various communities, including young people, in framing and discussing environmental policies. It also points to the need for city assemblies and experimentation with deliberative democracy. Democracy is touted as a set of values and rights which must be upheld in times of crisis. This position would be strengthened if Europe more consistently embraced democratic politics, debate and negotiation as a way of connecting sustainability transitions with the issue of justice. Examples of such initiatives include the workings of the Competence Centre on Participatory and Deliberative Democracy within the EC Joint Research Centre (JRC) or the Conference on the Future of Europe.

'Just transitions' beyond sectoral policy

It is crucial to develop and implement an EU policy framework that expands the concept and focus of just transitions beyond the distributive implications. Policies to support a just sustainability transition must consider several dimensions of justice. These include distributional justice, procedural justice and recognitional justice (EEA, 2024c). In the context of climate action and the environment, it is also essential to consider restorative justice. This very specific type of justice focuses on past and present harm to particular humans, species and ecosystems (EEA, 2024c).

Procedural justice, among others, is a type of justice which is only now coming to the fore, for example through the launch of strategic dialogue on the future of agriculture (EC, 2024b) to reduce polarisation. Central to this type of justice is the recognition that achieving the EU's sustainability transition goals requires effective multilevel governance; hence, Member States and even regions should play a prominent role in shaping and implementing the appropriate policy framework at the EU scale. Financing for this kind of procedural justice could be provided by expected increases in ETS revenue or by the establishment of dedicated funds and mechanisms.

Stimulating transformative social innovation

In terms of innovation policy, the EGD relied mainly on increasing R&D in support of technological innovation, although support for social innovation in Horizon Europe has gradually increased. However, it is arguably insufficient to try to tackle sustainability challenges using only a narrow supply-side focus on technological innovation without engaging in deliberation with multiple societal actors on the social and behavioural changes needed to alter established habits and lifestyles. Social innovation aims to provide 'social ends by social means'; this is in contrast to technological or business innovation focused on business as the primary actor and measurable indicators to define success. Encouraging social innovation involves engaging in new ways which can potentially support dialogue and deliberation, gathering people around an agenda for change and shaping transitions across a wide range of actors. For example, a Horizon Mission on Transformative Innovation could be launched to create the right enabling conditions for exploring transformative social practices.

Connecting nature, technology and culture

Environmental policies, technology, and matters of aesthetics and culture may intuitively be categorised separately. Yet by bridging environmental policies, technology, aesthetics and culture, significant shifts in mindset and behaviour can occur. Historical examples, like the Bauhaus movement, illustrate how cultural movements can drive societal transitions, often in a way which is intertwined with technological advancements.

Effective integration requires broad participation and forward-thinking, taking into account tacit cultural trends and the aesthetic preferences of European residents. Cultural institutions, often overlooked in innovation discourse, play a crucial role, especially in projects which combine technology and creativity. The EU's green transition, exemplified by Commission's initiatives like the New European Bauhaus, underscores the potential of cultural movements to respond to environmental challenges. Furthermore, cultural institutions are increasingly embracing environmental themes, fostering collaboration and policy integration. Examples include Science-Art collaborations facilitated by organisations like the Joint Research Centre (JRC). Overall, by connecting nature, technology and culture, transformative initiatives can address environmental crises while enriching societal and cultural landscapes.

Strengthening the health-environment nexus to reduce inequalities

High levels of air pollution, concentrations of hazardous and toxic chemicals like bisphenol A, PFAs and neonics, as well as the widespread nitrogen pollution observed in European watersheds are the most pressing examples of systemic failures to prevent damage to human health, biodiversity loss and environmental degradation. European residents must bear substantial impacts and costs for remediation and to treat the diseases associated with environmental pollution. These impacts often disproportionately affect vulnerable communities. Strengthening the application of the precautionary principle and the PPP could ensure that the environment and ecosystems are healthier and could also reduce human exposure to toxic chemicals, as well as operating as a mechanism to spur green innovation (e.g. in the European chemical industry) (European Court of Auditors, 2021).

Current adaptation measures, while essential, often overlook vulnerable groups, with the potential to reinforce existing inequalities. While EU policies stress equity in adaptation, practical implementation of best practice lags behind (EEA, 2023f). Investing in societal resilience should ensure that equity is prioritised throughout policy planning, execution and monitoring. It should include the active involvement of vulnerable communities and sharing of effective strategies.

Many of the threats to health and wellbeing faced by European residents are linked to unsustainable patterns of production and consumption. The COVID-19 pandemic, among other zoonotic diseases, offered a stark reminder that human health is strictly interconnected with the health of animals, plants and ecosystems. The urgent need for multisectoral and transdisciplinary collaboration across human, animal and plant domains, and ecosystem health, is captured by the One Health approach (European Union Agencies, 2023). Implementing the One Health approach in EU policymaking could contribute substantially to reducing environmental inequalities; it could also

improve ecosystem health by making food systems more sustainable, thereby safeguarding key societal needs such as food security and access to clean air and water (Devos et al., 2022). The One Health approach coupled with further policies for nature restoration could also deliver increased access to nature for all, improving people's mental health and quality of life.

Rebalancing pressures on the environment through taxation

It is well understood that a large share of environmental and climate pressure is underpinned by material consumption levels and strongly associated with economic affluence (Wiedmann, 2020; EEA, 2021b). On a per-capita consumption footprint basis, European residents, on average, have a disproportionately high impact on climate and the environment compared to the world average. Unless these consumption-related issues are addressed it will not be possible for Europe to stay within the 'safe operating space' defined by the planetary boundaries framework (EEA, 2020c). Environmental and consumption taxation (e.g. 'luxury' taxes on flights, meat consumption, fuels) could drive changes in consumption behaviour and create incentives for green businesses. In that context, however, it is clear that the financial burden for reducing environmental pressures should not be disproportionally borne by the most vulnerable communities.

While the EU is made up of some of the least unequal societies in the world, significant economic inequalities (e.g. in terms of wages and wealth) exist and affect cohesion within Europe. Societal responses like the gilet jaunes or farmers' protests are a stark reminder of this. As such, a promising approach would be to reduce environmental pressures in a fair way through taxation (i.e. through policies targeting 'frugal' re-balance and re-distribution). If well-designed, such policies may help reduce inequality and foster more societal cohesion.

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5 Short-term action; long-term thinking

Key messages

- A coherent and systemic policy agenda involves a comprehensive plan integrating environmental, social and economic policies.
- There is a need to anchor climate environment and broader sustainability ambitions into a renewed policy narrative.
- This narrative needs to be based on a revised understanding of sustainability as a tool to tackle the problems of the present rather than a desired destination for a distant future.
- At its basis, the renewed narrative needs to build on the idea of climate and the environment as enablers for a safe operating space for the EU, underpinning the EU's economic and social development and stimulating wide public participation.
- Managing the complex interplay of global crises demands a systemic approach that aligns short-term actions with long-term sustainability goals. This requires policies to be recalibrated to balance environmental, economic and social priorities while fostering resilience and transformative governance.

5.1 A coherent and systemic policy agenda

The anchoring ideas described in the previous chapter offer insights into more strategic and long-term thinking about the outlook for the EU's sustainability transitions. These ideas address some of the most important areas where a combination of EU environmental, social and economic policies could produce the transformative effect needed for progress towards the desired goal of 'living well within the limits of our planet'. However, they offer only initial ideas for a possible strategic agenda to anchor environmental and climate goals to other strategic priorities.

While clustered according to key priorities, the suggested actions are highly interconnected and interdependent. As such, it is important to consider them holistically. A full assessment of their synergistic and antagonistic relationships is beyond the aims of this report, yet it is important to recognise that some of these actions are likely to be in tension with one another. The nature of the tensions will depend on how priorities are interpreted and weighed in the next policy cycle and on how societal actors respond to them.

Close attention to the way sustainability governance is exerted will be crucial to ensuring that the obstacles faced by the EGD will not affect sustainability ambitions in the same way. The aim of such scrutiny will be to ensure that these obstacles can be anticipated meaningfully, prevented and/or navigated through without losing sight of the long-term goals. Yet governing towards sustainability in the context of a plurality of priorities is far from simple. One central conclusion to draw from this report is that sustainability cannot be achieved as a simple sum of different priorities. As such, this report proffers a different approach to managing the plurality of priorities and anchoring and upholding the sustainability agenda by making use of a new logic. This logic requires the three (re)-emerging priorities to be reframed in convergence with the vision of 'living well, within the limits of our planet'. This would then allow them to feed into each other so that an aggregate long-term outcome is transformative (e.g. competitiveness and growth reframed as an economic model would support fairness and cohesion in the form of a new social model, while resilience and security reframed as cooperation and transformative resilience would support a new regenerative environmental and climate policy). Yet, it is important to acknowledge that full policy coherence, while desirable, it is very difficult to obtain in practice.

Managing the sustainability transition in times of polycrisis requires a more inclusive participatory governance regime. The quality of the EU's responses to external shocks and crises depends on the capacities (e.g. financial, institutional, policy instruments) that are available for dealing with them and various aspects of resilience, including societal resilience. Dealing with external shocks and the polycrisis more generally hinges on the quality of institutions; it also requires democracy to be upheld alongside trust in democratic processes. The objectives of the climate and environment agenda, security, economic competitiveness and social fairness are all inextricably linked and can only be addressed effectively in tandem. At the same time, incoherences, tensions and trade-offs, which are often unavoidable, should be clearly acknowledged and addressed through participation and engagement and across governance levels. This principle could inspire policymakers as it would offer avenues for strengthening participation across the EU.

Effective engagement at regional and local levels during the transition to sustainability is paramount, as such a transformation is experienced at the local level and is inherently place-based. As such, there is a need to mobilise EU residents and generate bottom-up change. Sustainability governance should aim to empower local initiatives and be open to flexible, context-sensitive solutions.

Better implementation could be achieved by developing further approaches and nurturing the conditions which aim to pre-empt conflicts and trade-offs, such as designing packages that include support for implementing change alongside the usual impact assessments.

Furthermore, responses to crises depend on how they are understood and framed. Understanding that crises and issues are connected and intertwined with the sustainability transition is paramount; so too is developing positive narratives.

The emerging political priorities considered in this report could play out differently for the sustainability transition. Outcomes critically depend on how issues such as competitiveness or security are understood and framed. A positive framing of these priorities could be offered by establishing material links between climate, economic and social policy. Equally, a successful transformation — in a positive sense — can be a prerequisite for competitiveness, security and fairness. They must be tackled in tandem; without a holistic approach, all of the goals are at risk.

A second conclusion which can be drawn from this report should serve as a warning. The scenarios discussed clearly point to the possibility that the Green Deal agenda could break apart into a plethora of competing priorities and actions. There is a risk that the vision for a sustainable Europe that inspired the latest set of EU policies (including the EGD) could become fragmented and possibly be shelved, with some issues being deprioritised (e.g. sustainable food systems, biodiversity). This would come at the expense of long-term sustainability, with potentially dire implications for other priorities too (e.g. security and resilience, fairness and cohesion, growth

and competitiveness). This report has identified certain ideas for action, potentially of inspiration the future of the EU's sustainability agenda. More needs to be explored and experimented on the ground. A lot will depend, of course, on the implementation of current objectives such as the 8th EAP and the legal provisions of the EGD (i.e. Climate Law, Fit for 55, Nature Restoration Law).

Key bottlenecks and tensions associated with transitions should be properly addressed. Policy action needs to address issues relating to the expansion of the EU financial resource base for transitions. There is currently an acute labour and skills shortage for the 'clean economy', for example. As such, pragmatic and effective measures should be taken to offer access to green skills, training and jobs, including to incoming migrants, to support fair, just, and inclusive transitions.

A constructive EU strategy is also required to ensure that the sustainability transition becomes a global goal. A bifurcated global transition should be avoided and consequently, it is essential for the EU to engage its partners and competitors. The commitments and actions towards addressing the triple planetary crisis will only succeed if they are global. Ambitious regulation is a major strength and competitive advantage of the EU which could be leveraged further on a global scale (e.g. through trade agreements).

Finally, this report argues for a sustainability transition that is socially and economically resilient.

The sustainability transition should be coupled with a strong 'social guarantee' which includes measures to mitigate the social consequences of the transition. This should be a priority for action alongside support for an accelerated transition. In its attempts to respond to its strategic vulnerabilities and dependencies (e.g. on China for clean energy technologies or raw materials and on Russian gas), the EU should avoid creating new dependencies. Strategic autonomy for the EU is of crucial importance (e.g. in the areas of clean energy manufacturing and supply of critical raw materials). At the same time, the EU should continue to be open to international cooperation; an inward-looking stance is counter-productive and strategically unsound. Social momentum and support should be harnessed by engaging key stakeholders, including those from social and environmental movements.

5.2 A renewed narrative for sustainability transitions

As has been touched on in this report already, sustainability policies could be designed by engaging more prominently with the actors whose behaviour is targeted by policy. This could be achieved through stronger societal participation and engagement with stakeholders and knowledge holders, including EU residents, and by fostering the creation of spaces for societal discussion, deliberation and compromise. Directly engaging with the actors affected by change could provide answers to questions such as 'for whom is the transition delivering?'. This kind of engagement is likely to be essential to successfully designing and implementing sustainable policy in a time of polycrisis.

Broadening the narrative about the goal of 'living well within the limits of the planet' to encompass societal justice and dignity, rather than regarding it simply as requiring a balance between economic development and environmental 'boundaries', would support this kind of human-centred approach. To an extent, this process is already taking place. It is apparent in certain steps which have been taken to broaden the concept of a 'just transition'; it began as a relatively small and technical sub-field related to decarbonisation processes and now encompasses a wider transformative understanding.

The farmers' protests in 2024 are illustrative in this sense. Could they have been mitigated if a series of dialogues on the future of agriculture had been organised earlier, as part of the substance and narrative of the EGD? Similar concerns are likely to emerge in the future, for example, regarding the implementation of climate mitigation targets or other environmental policies across European countries.

A renewed sustainability narrative would also need to go beyond the language of 'win-wins' and 'acceleration at all costs' and instead take full account of the potential trade-offs between the environment, society and the economy (Janss et al., 2023). Policies based on a short-term 'sweet spot' understanding of sustainability (or win-win solutions) are generally poor at addressing the foundations of problems and sometimes even reinforce and entrench such mechanisms (e.g. moving from internal combustion engines to electric vehicles (EVs) reinforces the model of car ownership and related resource demand and overconsumption). A healthy environment is a pre-requisite for a functioning socio-economic system; without this, society and economic activities cannot be sustained in the long term.

This approach may appear overly ambitious given the difficulties faced by the EGD due to multiple pressures from the polycrisis. And yet much as the polycrisis reveals the vastness of the need for transformation, it also underscores the high cost of inaction or potential negative implications for the EU if upholding sustainability is not regarded as a very pragmatic and interest-driven strategy. As many other foresight assessments (EPRS 2023a; ESPAS, 2024; EC, 2023a) conclude, the polycrisis is likely to continue or even accelerate. The negative impacts are set to become more tangible if the EU does not take a more proactive, anticipatory and ultimately very pragmatic approach to shaping the future that has been envisioned. In this regard, policy goals would be better served by upholding long-term ambitions towards sustainability while underpinning them with pragmatic short-term steps.

In this context, a renewed sustainability narrative must be compelling in terms of accommodating societal concerns, at the same time as ensuring that the vision of 'living well withing the limits of our planet' is a realistic and pragmatic goal for the future. The two facets of this narrative must define 'what' living well means and 'how' this can be realised without overshooting environmental and ecological boundaries. Rather than merely showcasing targets and desired outputs, such a narrative must pinpoint how long-term change is created and its effects on both individuals and communities.

5.3 From long-term vision to permanent crisis management

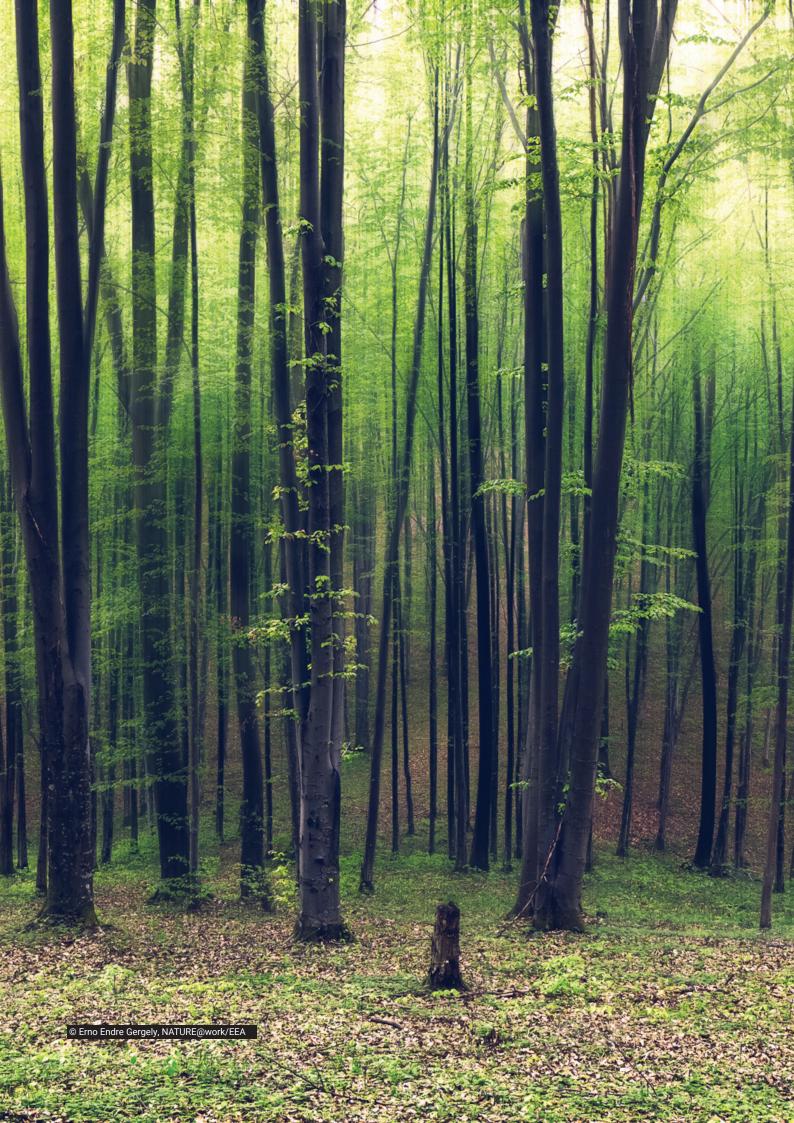
Sustainability is often described as a desired destination for Europe in a world beset by many crises and pitfalls. Sometimes characterised as a 'great unravelling' (Miller and Heinberg, 2023) of the economy, geopolitics, societal cohesion and the environment, a more positive outlook may lie at the intersection of these dimensions. Arguably, an antonym to polycrisis is sustainability – a systemic and holistic approach to 'being' in this world, which balances the current and future needs of humanity with the bearing capacity of the Earth. While the EU has rightly identified sustainability as a vision for a preferred future, this report argues that it is time to regard sustainability not just as a desired goal for the future but also as a way of governing in complexity of the permanent polycrisis.

Difficulties with the current approach do not arise from the dichotomy between long- and short-term thinking as such but the risk of misalignment between different priorities and short-term responses to various crises. The global economic, geopolitical and environmental crises underpinning the grand unravelling in the 21st century are systemic and must be approached in a systemic way. Sustainability is as much about strategic patience and playing the 'long game' in terms of transformations as it is about ensuring that short-term crisis management steps reinforce each other. There is only limited value in a single sectoral transition, whether climate or energy or another field; limited value in tackling one crisis separately from another. Moving forward into the 2024-2029 policy cycle, the EU must build on the systemic nature of sustainability transitions as a crisis-management tool appropriate to the ongoing global polycrisis and emerging risks.

In realigning the sustainability agenda as a basis for the EU's management of new systemic risks, short-term steps must be carefully recalibrated into a policy framework based on a pragmatic and forward-looking assessment of risks and opportunities in key priority areas: the environment and climate, competitiveness, and fairness and security. This report highlights complementarities between the EU's environmental objectives and other strategic priorities while also clearly identifying the trade-offs that may result from negligence in relation to environmental and climate risks.

Finally, to implement this framework for managing the polycrisis based on sustainability transitions, this report reiterates the value of long-term thinking informed by a pragmatic, actionable view into the future. This future needs to be underpinned by the principles of transformative governance to include:

- precaution against possible risks;
- a preference for long-term environmental objectives supporting wellbeing, fairness and societal resilience;
- space for people to experiment, participate and imagine a sustainable and resilient Europe in the world.



List of abbreviations

Abbreviation	Name
8th EAP	Eighth Environment Action Programme
Ai	artificial intelligence
CAP	Common Agricultural Policy
CBAM	Carbon Border Adjustment Mechanism
CCUS	carbon capture utilisation and storage
CTCF	Clean Technology Competitiveness Facility
EC	European Commission
EEA	European Environment Agency
EGD	European Green Deal
EIA	environmental impact assessment
ENP	European Neighbourhood Policy
EPC	European Policy Centre
EPRS	European Parliamentary Research Service
ESPAS	European Strategy and Policy Analysis System
ETS	Emissions Trading System
EU	European Union
EV	electric vehicle
FORENV	EU environmental foresight system
GDP	gross domestic product
GDPR	General Data Protection Regulation
GHG	greenhouse gas
ILO	International Labor Organization
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPCC	Intergovernmental Panel on Climate Change
IT	information technology
JRC	Joint Research Centre (of the European Commission)
MFF	Multi-annual Financial Framework
NZIA	Net-Zero Industry Act
OPEC	Organization of the Petroleum Exporting Countries
PPP	polluter pays principle
R&D	research and development
SDG	Sustainable Development Goal
STO	Sustainability Transitions Outlook
SIPRI	Stockholm Peace Research Institute
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
US	United States

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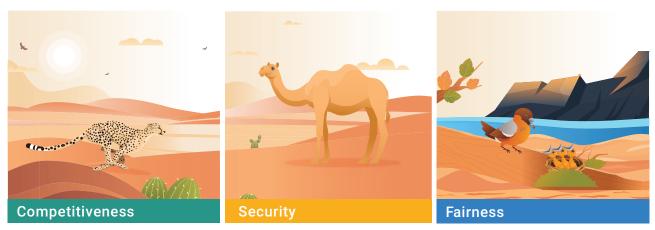
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Annex 1 Scenario narratives

The scenario narratives presented in this Annex represent alternative visions of the five-year policy trajectory formed by the upcoming policy cycle 2024-2029 and potential developments in the EU in these years. Inspired by EEA's earlier work on foresight, the narratives look back on the five-year cycle from the imaginary vantage point at the end of the upcoming policy cycle. Each narrative takes account of the policy cycle through the lens of one of the following political priorities: 'competitiveness', 'security', 'fairness', while reflecting on EU's long-term climate and environmental objectives (one narrative, one priority) (1). The goal of climate neutrality by 2050 and the objectives of the 8th EAP are retained across all narratives. The purpose of these narratives is to stimulate reflections around various potential trajectories for the coming 5 years using anticipation of trends based on current information, data and analysis and future conditions that may influence our choices, priorities and guide our planning. These narratives are also designed to be plausible, falling within the limits of what might conceivably happen. They are also internally consistent, identifying trajectories to avoid logical contradictions, and finally, these narratives should offer insights relevant to the chosen decision focus.

The narratives are neither fixed predictions nor an exhaustive description of all potential future developments, outcomes and uncertainties. Importantly, these narratives were used as tools in several stakeholder workshops with EU actors, including Commission services, that served to explore challenges and opportunities, as well as help to illustrate visions of possible future conditions and aspects influencing the next 5 years of the European Union.

Figure A1.1 Three perspectives for the EU's 2024-2029 policy cycle



Source: EEA.

⁽¹⁾ Initially, the project team developed a fourth narrative, taking climate and sustainability as a fourth distinct priority. This narrative was extrapolated in the course of developing the analysis and therefore not presented in the report as a separate scenario.

Scenario narratives - summaries and the driving factors

Perspective 1: competitiveness and growth

Concerns that Europe loses competitiveness especially in technology dominate the policy agenda. Crucial policy choice: is EU's competitiveness better served by relieving industry from climate/environment-related provisions (and associated costs), or to the contrary by seeking to maintain / achieve leadership in green technologies?

From 2024-2029, the EU focused on enhancing competitiveness in industries and services through research, innovation and a green agenda. This included policy changes like the 'green golden rule' and the Clean Technology Competitiveness Facility (CTCF). Subsidies were provided for clean-tech industries but there were challenges with environmental impact assessments and nature conservation goals. Efforts were made in agriculture and circular economy policies but shifts were limited. Overall, while progress was made in aligning competitiveness with green technologies, nature conservation targets fell short and compromises delayed climate neutrality goals.



Main driving factors

- Social: deterioration of the public political discourse (and political culture), spread of fake news and oversimplifications. A further increase of identity politics also in the realm of sustainability policies could see sustainability itself becoming a polarised and contested/divisive concept.
- Technology: public investment into green/clean technologies to address growing international competition.
- **Economic:** existing economic interests continue to dominate. Dominance of the growth model.
- **Political:** inequalities in political power and representation unchecked. Transition fatigue by the European citizenship and electorate.

Perspective 2: security and resilience

EU policy agenda is dominated by security issues in the light of escalating geopolitical tensions, armed conflict in different regions, fragile supply chains and weaponisation of economic interdependence. EU struggles to uphold the rules-based multilateral order and orientation at free trade. Security of supply (chains) becomes paramount, international cooperation limited. Pressures on public budgets and tensions between multiplying security demands amidst loss of climate and environmental resilience.

From 2024-2029, the EU aimed to accelerate the energy transition while addressing security and resilience challenges. The Strategic Compass for Security and Defence was implemented to understand security threats, including military conflicts and environmental crises. Divisions arose over threat perceptions and security spending among Member States. Efforts towards strategic autonomy led to trade disputes with major powers outside the EU. The EU focused on building resilience in key industries and supply chains, passed acts for net-zero technologies and raw materials, and invested in renewable energy infrastructure. However, conflicts emerged in energy taxation reforms and maintaining environmental standards amidst economic pressures. Adaptation to climate change gained attention but challenges persisted in terms of balancing security and sustainability.



Main driving factors

- Social: attitudes to sustainability transitions are influenced by security threats and fears of uncontrolled migration. Public anxiety about risk of new viruses, pandemics and lockdowns.
- Technology: heavy investment in adaptation measures, as well as technologies to counter biohazards. New double-use technologies (e.g. drones used for geoengineering and defence).
- International: conflict over environmental resources, but also using resources as means of conflict (e.g., diverting water resources from downstream states, etc.)
- Political: security concerns drive the EU's policy agenda.
- Economic: lack of skilled labour to keep up with international competitors. Dependencies: technological, resources, energy, etc. The sustainability transition or security-driven diversification may create new dependencies. Supply chain disruptions and price shocks that fuel crises and the potential for conflict.
- · International: militarisation, arms-race, fragmentation of the UN SDG agenda

Perspective 3: fairness, justice and cohesion

EU policy agenda is dominated by public outcry for fairness and demands for a new social contract, stronger redistribution policies, centralisation of public ownership of key assets (e.g. energy grids, health and social care, increase in social housing), restraining the role of markets. Crucial policy choice: is justice and fairness more focused at redistribution (of a burden of those that stand to lose from transitions), or on a systemic change and a more holistic approach?

From 2024-2029, the EU grappled with climate ambitions amid societal challenges. Energy price spikes persisted due to supply constraints and increased global competition for resources. Climate disasters strained public finances, especially affecting vulnerable industries like farming. Pressure for fairness and solidarity grew, leading to reforms supporting a fair green transition and redistribution. Fiscal policy saw integration and reduced austerity, with funds directed towards climate transition and social support. Public infrastructure became a focus, with energy cooperatives increasing and investments in energy-efficient housing and green spaces prioritised for disadvantaged communities. EU solidarity extended globally, funding climate initiatives and advocating for increased international climate finance commitments. Urban planning shifted towards environmental justice and sustainable mobility.



Main driving factors

- **Social:** skills and education are essential while position of middle class is pivotal.
- **Economic:** poor households, lack of accessibility of certain technology, e.g., heat pumps, how do you integrate the lower income groups.
- **Political:** the invigoration of the centrist parties both on the left and right.
- Technology: social pressure on some regions, social unrest due to energy crisis and transition; transition is not affordable for everyone; technology driven change creates social gap regarding affordability.
- International: more inward-looking, international competition is lagging, little innovation – trade-off between internal damage and global expense.

Scenario narratives - full versions

Scenario 1: competitiveness and growth

Competitiveness was an overarching priority for the 2024-2029 EU policy cycle. The main goal for European leaders was to increase the competitiveness of European industries and services. Throughout the policy cycle, Europe invested massively in research and innovation to maintain and expand leadership in technologies. Member States' governments and the EC made policy effort to spur industrial output and energy transition in key production and consumption systems. This green competitiveness agenda received wide support in the European Parliament where the 2024 coalition of centre-right, socialists and the liberals had been calling on the EU to loosen fiscal rules. The proposal for a 'green golden rule' sought to modify the Stability and growth pact to allow Member States to borrow more in order to invest in the 'green and digital transition'. In addition, the Commission proposed to make the Recovery and Resilience Facility permanent and called it the CTCF to support both green technology innovation and manufacturing as well as households in the adoption of these technologies.

The recently-adopted Multiannual Financial Framework 2027-2035 reflected these preferences. To secure competitiveness in green technologies and to remain on par with fast-moving China and the United States, the EU implemented targeted subsidies and incentives for its own clean tech industries. It scaled up its manufacturing capacity for net-zero technologies and products required to meet Europe's ambitious climate targets. This included financial support for manufacturing electric vehicles, electrolysers, batteries and heat pumps; renewable energy projects; and sustainable transport infrastructure. Moreover, in order to train and attract young talent and workers, the EU launched major initiatives including streamlined visa processes for skilled workers and programmes to support domestic talent development, including large-scale investments in universities and vocational training.

As part of its efforts to accelerate the roll-out of renewables, diversify its energy supply and contain energy prices, the Commission loosened requirements for environmental impact assessments (EIAs) in priority areas, both for renewable energy deployment but also for energy grids (electricity, heat or hydrogen). It also prioritised green energy deployment and infrastructure over competing interests. This roll-back in environmental protection was highly contested among environmental NGOs and politicians.

While the EU managed to align its quest for competitiveness with the energy transition and in particular the further roll-out of renewables, it made less progress on nature conservation and reversing the loss of biodiversity. As a result of loosening EIAs to accelerate the deployment of renewable energy, it failed to deliver on nature restoration. The Nature Restoration Law was adopted in 2024 but in a form that lacked both ambition and an effective delivery mechanism. There was little appetite for and no plan to increase ambition in this policy cycle. By the end of the term, the EU fell far short of its already reduced nature restoration targets. The European green parties were in two minds about these measures: the climate wing supported the Commission in order to safeguard the energy transition while the more environmentalist wing found this an unacceptable trade-off between climate and nature protection. Even so, despite investments in climate neutrality and keeping the overall target of 2050 climate neutrality in sight, the Commission agreed to several compromises with Member States and key manufacturing industries in relaxing decarbonisation targets — effectively delaying climate neutrality.

Likewise, in agriculture and land use, the Commission tried to square sustainability with competitiveness. Putting faith in technological solutions, such as precision farming, a moderate CAP reform was passed in 2025 that emphasised the adoption of modern

technological solutions for sustainable intensification. To cater to the growing market for organic produce, more CAP subsidies were handed out to organic farmers. However, a big shift in agricultural production patterns seems to be lacking at the end of the term and the dominant pattern of production is large-scale industrial agriculture.

An important cornerstone of competitiveness was the implementation of the Critical Raw Materials Act. On the circular economy, the EU Commission proposed to double down on its ambitious policies by, for instance, introducing a strong Ecodesign for Sustainable Products Regulation and Construction Products Regulation. While cornerstones of the policies, including the digital product passport, environmental footprint reporting and minimum product requirements were established, the timeline for their implementation was pushed back considerably as companies lobbied in fear of excessive bureaucracy. Meanwhile, the adoption of the carbon adjustment mechanism significantly reduced the carbon leakage risk and was welcomed by EU industries that had invested significantly in decarbonising their production processes and value chains.

Scenario 2: security and resilience

During the 2024-2029 policy cycle, the Commission faced the challenge of accelerating the energy transition while enhancing the EU's security and resilience. It was underpinned by the implementation of the EU's Strategic Compass for Security and Defence: this new instrument established a shared understanding of the EU's security environment, given the challenge represented by military conflict in its neighbourhood, and climate and environmental crises of increasing intensity.

At the national level, threat perceptions varied, with some Member States feeling that the biggest threat was from climate change and migration and others from more traditional security concerns. Another division emerged between countries; some felt they were paying too much for the security of others.

Disruptions in supply chains and rising energy prices reinforced strategic autonomy as an overarching policy principle. The steps that the EU took towards strategic autonomy and its new industrial policy led to increasing tensions and trade disputes with China, the United States and other countries. EU exporters faced growing barriers in foreign markets and therefore focused increasingly on the European Single Market.

The Commission, supported by many Member States, intensified its efforts to build socio-economic resilience, with the aim of ensuring security of supply across key value chains. The NZIA was adopted in 2024, establishing targets for EU manufacturing capacity to reach 40% of EU demand across key net-zero technologies. Likewise, the 2024 Critical Raw Materials Act set domestic capacity targets for the extraction, processing and recycling of raw materials.

Driven by a general perception that the EU is too dependent on single suppliers in key goods — especially in clean technologies and mineral resources — the Commission proposed several legislative initiatives to follow up on the NZIA and strengthen the circular economy, including generous investment support for manufacturers of clean technologies, deployment support, restrictive quotas on imports of key technologies, the establishment of a Critical Raw Materials Club and a strategic EU raw materials reserve. Trade tensions and supply chain disruptions considerably delayed decreases in the cost of renewable energy, batteries, heat pumps and other key clean technologies after 2023. In some instances, the EU replaced cheaper imports with domestic production in its efforts to reduce import dependence.

Although investments in EU manufacturing increased, the rising cost of production strained household budgets and slowed down the transition. European industries faced problems with labour shortages (demography and migration policies) and had to invest massively in automatisation and IT, which further increased short-term production costs.

A new attempt to reform the Energy Taxation Directive to support the push to renewable energies and electrification clashed with EU Member States who wanted to extend the protection of households from high fossil energy costs. At the same time, efforts for a stronger integration of energy markets were successful. Driven by the need for greater diversification of energy supply, large-scale interconnection and hydrogen infrastructure projects were built with the support of EU funding, connecting northern Africa and the mediterranean with central and eastern Europe. The Commission funded energy efficiency information campaigns across Member States. The ambition of key energy efficiency regulations such as the European Energy Efficiency Directive and the Energy Performance of Building Directive was heightened. However, there were also conflicting signals emerging in the move from fossil to renewable energy, as many Member States developed additional liquefied natural gas import capacity entrenching continued dependence on fossil energy.

Competition for public funds intensified. Several factors increased pressure on public budgets — higher interest rates drove up public debt service, military expenditure increased, incentives proliferated for reshoring industries, more business and households needed support with energy bills, and expenditure to clean up climate change impacts grew significantly. As a result, public investments in the sustainability transition stagnated. There had been growing calls for a reform of fiscal rules and larger EU resources so that increased security expenditure did not crowd out climate investments. However, Member States failed to find common ground for fundamental reform and instead kept the constraining rules largely intact, with only incremental changes.

Exemptions were introduced in key environmental regulations, including on water, biodiversity and ecosystem restoration, in order to support the build-up of new mining activities, strategic energy infrastructure or manufacturing sites. The EU Nature Restoration Law barely survived but was riddled with exemptions where nature protection was (potentially) in conflict with access to resources, construction of critical infrastructure or other security-related goals.

Concerns about food supply disruptions and associated price spikes dominated the discussion on food and agriculture. Agricultural pressure groups seized the opportunity to maintain existing agricultural structures and practices that prioritised output maximisation through intensification. Key legislative initiatives of the Farm to fork strategy, intended to improve the sustainability of farming and restore nature, were shelved. Only selected elements survived, such as renewed campaigns to reduce food waste. Agricultural subsidies which were damaging to the environment remained high. Increased pressure on environmental legislation and practices propelled by concerns over food security led to a slow-down of progress towards sustainability and in some cases downgrades to the level of environmental protection.

Although security has primarily been seen in an economic and military sense, there was an increased awareness of the need to adapt to the effects of climate change across much of the EU. Severe weather events, including persistent heatwaves across much of central and southern Europe and flooding, led to increased focus on adaptation. An ambitious EU Adaptation Law was passed that mandated Member States to meet ambitious adaptation targets, including putting in place nature-based solutions. In the same vein, an EU Adaptation Fund was set up to help Member States fund measures and cross-border projects.

Scenario 3: fairness, justice and cohesion

During the 2024-2029 policy cycle, the Commission faced the challenge of upholding its long-term climate ambitions whilst addressing increased threats to social cohesion and democracy. Following the pandemic- and war-induced surge in the early 2020s, energy prices failed to return to pre-crisis levels and remained high during 2024-2029. Because of the cap on supply imposed by the Organization of the Petroleum Exporting Countries (OPEC) and the demand rebound in China and India, the EU faced new competition for fossil fuels and critical raw materials. Heavy subsidies for car manufacturing industries in Asia undermined the competitiveness of European producers.

Extreme weather events occurred frequently, causing calamities in EU countries. Wildfires across much of southern Europe, droughts followed by flooding in central Europe and catastrophic loss in agriculture required massive efforts to rebuild the affected areas and placed a significant strain on public finances. Compounded with the costs of socio-economic transitions, economic downturn, recession and inflation as well as the rising costs of climate adaptation, the pressure on households across most Member States grew.

Entire industries, such as farming and fisheries, felt the 'transition pain', where the burden was too great to support the costly policies. This trend was even more visible at the national level where several coalitions emerged between left and right political forces. More justice, fairness, solidarity and equality were demanded by EU citizens and ideas of procedural justice and participatory democracy were frequently evoked. Sadly, this did not contribute to a breakthrough in ecological awareness. The focus of policy initiatives was on maintaining 'traditional' industries, slowing down green transformation and protecting established production and consumption patterns.

While the overall target for 2050 climate neutrality remained in sight, there were several compromises made with Member States and key industries to delay targets for decarbonisation in order to protect jobs. Fairness – largely understood as fair wages and redistributive measures – became one area where many political forces could find common ground.

In this context, different social movements succeeded in mobilising large numbers of EU citizens to demand sweeping reform of the EU's social pillar. This was picked up in the European Parliament by an unexpected coalition of left and conservative political forces for a 'fair and solidarity-based' green transition in 2024-2029. The Commission responded by setting a fair and solidarity-based transition as its top political priority.

In fiscal policy, the 2024-2029 cycle saw both stronger European integration (common borrowing) and a move away from strict austerity. The Maastricht criteria were adjusted by exempting climate-friendly investments. New EU funds supported the transition of economically weaker Member States and disadvantaged regions.

The increased expenditure was financed partly through borrowing and partly by increasing taxes. This included an agreement on an EU-wide minimum corporate tax rate and windfall taxes on profits obtained from fossil business models. A related initiative to tax fossil-based wealth was put on hold, with a European Court of Justice decision pending. Increasing spending led to division among Member States, with pressures to decentralise the EU and threats of some Member States leaving the union.

The Social Climate Fund was extended significantly and developed into an instrument for solidarity and redistribution between European regions, assisting the poorest households across Europe. By prioritising the households most in need, the Social Climate Fund supported investments in deep renovations, EVs, heat pumps and rooftop photovoltaics. In addition, many Member States introduced or extended climate dividends at the national level to compensate households in the face of rising carbon prices. EU cohesion funding and the MFF 2027 budget proposal were more aligned with the climate and environment priorities of the Commission. The Just Transition Fund was topped up to support vulnerable households, disadvantaged communities and regions in their transition away from fossil-based industries and value chains.

In several Member States, basic energy infrastructure was (again) regarded as a public good and was to be provided by public agencies, including much of the energy and climate-related infrastructure needed for the transformation to climate neutrality (electricity, hydrogen and CCUS grids, heat networks). Network operators, once privatised, were now brought back into public (often communal) ownership. Public utilities were established and financed to develop publicly owned renewable energy and grid services. Favoured by fiscal rules, energy cooperatives increased rapidly, from local neighbourhood projects to initiatives that now span entire cities or regions. In 2026 the EU launched its Energy Poverty Initiative, with Member States setting up support schemes for vulnerable households in improving energy access and the adoption of energy conservation measures. In parallel, the Green Jobs and Skills Development Initiative sought to create new green jobs and provide training opportunities for individuals in sectors related to clean energy technologies, energy efficiency and environmental protection.

The EU also stepped up its international solidarity. Several Just Energy Transition Partnerships with low-income countries were established, funded by common EU resources including the Carbon Border Adjustment Mechanism (CBAM) revenues as well as contributions from Member States. CBAM revenues are now redistributed to vulnerable and developing countries in the form of climate finance. The EU also used its diplomatic weight to convince other countries in the Global North to increase their international climate finance commitments.

Changes in fiscal rules strongly incentivised affordable and energy-efficient housing options including through community housing and blended ownership models (communal/cooperatives combined with private ownership). In addition, long-term, interest-free loans were introduced to allow Europe's ageing society to shoulder the cost of retrofitting the building stock. A 2026 ruling of the Court of Justice of the European Union that recognised access to a healthy environment and green spaces as a fundamental right had substantial impacts, particularly in urban and regional planning.

Environmental justice shifted from rhetoric to a firm policy objective. In this context, public investments in these areas were ramped up and prioritised for disadvantaged communities and regions. Socially targeted nature-based solutions (such as green spaces in low-income neighbourhoods) sought to combine elements of environmental justice, nature protection, climate adaptation and mitigation. EU funding programmes (including cohesion funding) were thoroughly revised in 2026-2028, reorganising priorities to a strong push for public transportation, shared mobility, walking and cycling. Accessible public transportation systems focused on reducing the energy burden on low-income households and mitigating urban sprawl. EU support for road infrastructure has since been limited to damage repair and outermost regions. Instead, there has been a shift of priority in EU funding programmes towards returning urban areas to communal uses by citizens, combined with nature-based elements.

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