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COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND THE COUNCIL

2025 Strategic Foresight Report

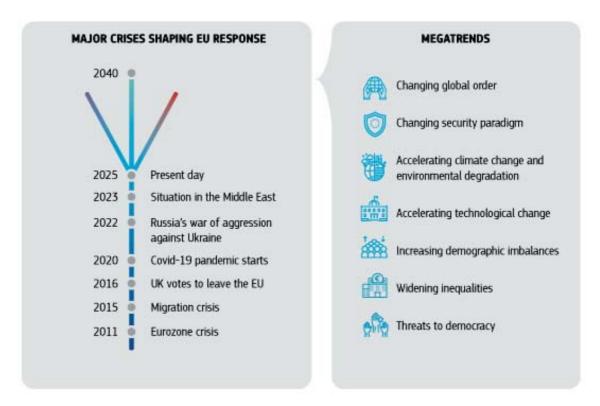
Resilience 2.0: Empowering the EU to thrive amid turbulence and uncertainty

1. INTRODUCTION

Since the first Strategic Foresight report in 2020, the global order has been shaken tremendously. While that first report explored the concept of resilience mainly linked to the first structural lessons from the Covid-19 pandemic, it is time to step up both on preparedness and resilience to preserve and re-establish the EU as a strong player in this changing world.

Therefore, this report introduces the notion of resilience 2.0. The 2020 report already defined resilience as not merely absorbing crises to maintain the status quo. It argued that resilience to system-wide shocks and long-term trends requires the EU to transform and bounce forward, in a sustainable, fair and democratic manner¹. And indeed, the EU has shown strength and unity in doing so in response to the recent shocks, helping citizens and businesses to adapt to major crises and global megatrends (see Figure 1).

Figure 1: Recent major crises and interlinked megatrends shaping the EU response



However, the scale, complexity, diversity and persistence of challenges ahead – from geopolitical and geoeconomic upheavals, conflicts and security threats, through the triple planetary crisis (climate change, pollution and biodiversity loss)², to technological and demographic changes, and threats to democracy and values – require a new level of resilience. This entails a leap beyond a mainly reactive approach towards a proactive and forward-looking one, to anticipate events, optimise resources, and prepare for different future scenarios, as our

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¹ Resilience in EU policies is defined in: Manca A et al., 'Building a Scientific Narrative Towards a More Resilient EU Society Part 1: a Conceptual Framework', 2017, DOI: <u>10.2760/635528</u>; Giovannini, E. et al., 'Time for transformative resilience: the COVID-19 emergency', 2020, DOI: <u>10.2760/062495</u>, and in the 2020 Strategic Foresight Report, COM (2020), 493 final.

² See https://unfccc.int/news/what-is-the-triple-planetary-crisis.

world today is more unpredictable than ever before. Many divergent scenarios are plausible, including some that seemed unthinkable only recently³. In such a world, reacting to each crisis as a turning point is no longer sufficient. An approach to resilience that is **transformative**, **proactive and forward-looking ('resilience 2.0')** becomes a decisive advantage in the new geopolitical reality and a crucial need for the European Union.

This report contributes to the reflection on how to make this leap to a new level of resilience. Building on recent strategies and reports relevant to resilience and drawing on a broad process⁴, it analyses the key long-term trends and developments. On this basis, the report presents policymakers with possible actions to be taken today to realise the vision of a resilient EU.

This approach is closely linked to preparedness that was introduced by the Niinistö report⁵ and translated into EU policy action in the European Preparedness Union Strategy⁶. Preparedness focuses on the EU's ability to anticipate, prevent, withstand threats and respond to them. The strategy also recognises that the EU needs forward-looking capabilities and systematic information gathering, including through the EU-owned space infrastructure and services, to scan proactively beyond immediate threats, considering unfamiliar or even hard-to-imagine longer-term scenarios. In that respect, strategic foresight, situational awareness, and early warning are key and must be further strengthened.

In times of global turbulences, strategic foresight helps the EU to stay on course and look beyond today's agenda. It offers a clear-eyed understanding not only of emerging risks but also of future opportunities: by scanning the horizon, reconsidering assumptions, uncovering blind spots, connecting events and assessing their combined effects, exploring the range of the possible, including desirable futures and pathways towards them. To do so, it taps into collective intelligence in a structured and systematic way. Such insights are embedded in the Commission's policymaking, strategic planning, and preparedness. This allows to better consider the long-term impacts and coherence of policies initiated today, as well as their robustness, under divergent future scenarios, and develop a shared positive vision of the EU's future. Since 2020, Commission's Strategic Foresight Reports are instrumental in this context. This report, the first under this mandate, is a transitional one, paving the way for the foresight process employing the full range of foresight methods and tools that will support the next editions from 2026 onwards. They can also be used to devise coherent action plans to enhance our resilience, tackle the identified challenges and seize the opportunities.

From resilience to resilience 2.0

The EU can count on a number of favourable preconditions to strengthen resilience.

First, the EU has unique resources to ensure resilience at a scale that no single Member State can achieve alone: 450 million people, and a single market which is home to 24 million companies and the source of 15% of the world's trade in goods; an agri-food sector that provides a reliable supply of affordable food with high quality and sustainability standards; established common democratic frameworks, and rule of law for its citizens, businesses, and

³ See e.g. 25 evidence-based potential major disruptions that could reshape policy between 2030 and 2050 in: OECD, 'Strategic Foresight Toolkit for Resilient Public Policy: A Comprehensive Foresight Methodology to Support Sustainable and Future-Ready Public Policy', 2025, https://doi.org/10.1787/bcdd9304-en.

⁴ The report builds on the recent Commission strategies relevant to resilience and strategic reports which informed them (such as the reports by Enrico Letta, Mario Draghi and Sauli Niinistö), the evidence cited in the report, insights from a public call for evidence, a participative process within the European Commission, consultations with EU institutional partners through the European Strategy and Policy Analysis System (ESPAS), the foresight network of the decentralised EU agencies, think tanks, and Member States through the EU-wide Foresight Network. It also draws on the previous Strategic Foresight Reports (2020-2023).

⁵ <u>Safer Together</u> – Strengthening Europe's Civilian and Military Preparedness and Readiness.

⁶ JOIN(2025) 130 final.

external partners alike; a range of governance capabilities, from robust trade policy instruments to global standard setting.

Second, the EU has the scale and capability to mount a transformative response to the geoeconomic upheaval, the triple planetary crisis, and the digital transition.

Third, the EU can quickly adapt during a crisis despite complex decision-making, adjusting its mechanisms and structures. We proved this by implementing NextGenerationEU to help Member States in the aftermath of the pandemic and by securing a surge in European investments to ensure that our defence industry can produce at greater speed and volume and by facilitating rapid deployment of military troops and assets across the EU through Readiness 2030.

Fourth, the EU has already demonstrated resilience in response to diverse recent crises and has learnt from them. Joint European response mechanisms have been introduced and strengthened: joint purchasing of COVID-19 vaccines, diversifying gas supplies during the recent energy crisis or the mobilisation of rescEU resources in response to wildfires or other natural disasters – all those are examples of agile and effective responses, based on solidarity and adaptability.

Based on these experiences, this is the time to develop a vision of a resilient EU 2040. That vision should be grounded in the EU's goals and values⁷. A resilient EU in 2040 would need to deliver the following three fundamental elements:

- Peace through European security: thanks to its strong abilities, in full alignment with international alliances, the EU will deter and defend itself from ill-intentioned state or non-state actors; it will achieve this through a combination of military strength, whole-of-society preparedness, instruments able to defend its interests, and strong global standing and diplomacy; an enlarged EU will be a cornerstone of enduring peace, security and prosperity across the European continent; it will have strong bonds with like-minded countries as well as partnerships based on common interests, leveraging its economic and trading power and open strategic autonomy;
- the values of democracy, human dignity, freedom, equality, the rule of law, and respect for human rights: the EU will uphold, assert, defend, and enforce these values and its democratic model internally and project them on the world stage. It will offer effective governance through democratic institutions and enable the effective exercise of the rights and obligations of people and companies;
- **people's well-being**: built on internal and economic security, quality jobs, attractive conditions for workers and businesses, sustainable prosperity respecting planetary boundaries, a habitable planet with climate-neutral and climate-resilient economy, and a healthy natural environment; quality, affordable and inclusive education and training, and health systems; Europeans will confidently use safe technologies that make their lives better, while enjoying rewarding work, a fulfilling life, favourable conditions for starting families and raising children, affordable housing, and safe and high-quality food; Europe will be a place of accessible world-class infrastructure, healthcare and education, and thriving countries, regions, and cities offering 'the freedom to stay', taking into account current and future generations.

Achieving this vision requires bold transformations. While predictability and stability are key and one of EU's assets, we must stand ready to change whenever needed, staying ahead of the curve, to preserve and strengthen the fundamentals of the European project.

⁷ Treaty on European Union Article 3(1) The Union's aim is to promote peace, its values (defined in Article 2) and the well-being of its peoples.

2. MAJOR GLOBAL DEVELOPMENTS AND EU-SPECIFIC CHALLENGES TO INCREASED RESILIENCE

The EU's future policy space to enhance its resilience is determined by **global megatrends** and by **EU-specific challenges that have come to the fore since the first Strategic Foresight Report in 2020**. In addressing both towards a resilient EU 2040, the EU will need to integrate these trends in policymaking and political choices, expand its agency to act and better navigate the opportunities and challenges ahead.

2.1. Key long-term global developments

Security has become a key vector for all EU policies. Russia's war of aggression against Ukraine has changed the perspective on security. Geopolitical turmoil and the erosion of the global multilateral order further enhance the need for autonomy in the capability to protect current and future generations. Recent years show that everything can be weaponised: supply chains, migration, trade, humanitarian aid, space and information⁸. Since hybrid threats operate in the grey zone between war and peace, they create attribution ambiguity, with internal and external security aspects increasingly entangled. Security, or lack thereof, affects all of society and the economy: business, investment, social and territorial cohesion, prosperity and well-being, as well as our democracies and values. In addition, the end of the post-Cold War peace dividend and turbulent economic projections challenge public budgets, leading to difficult choices, but also highlighting opportunities, for example to capitalise on synergies in the civil-military domain.

We are witnessing the erosion of the rules-based international order and fracturing of the global landscape. From the United Nations to the World Trade Organisation, key pillars of the global order are under stress. This is especially important for the EU, which has built its strengths on openness: common trade policy functioning in synergy with the single market, international partnerships and standards are all contingent on rules-based international governance⁹. Hence, the instability and partial disfunction of the international order and the partial fracturing of global economies have a destabilising effect on the EU's ability to act in the interest of its economy and the well-being of its people. A return to the previous status quo seems increasingly unlikely. Despite the negative effects, this also creates an opportunity for the EU to be more vocal in shaping a future-proof rules-based international order¹⁰.

The impacts of climate change and the degradation of nature and water resources have worsened, reaching levels that are harder to deal with. Annual global average temperatures have already exceeded 1.5°C above pre-industrial levels. The cumulative impact could mean crossing tipping points from melting ice sheets to coral reefs dying off to the disruption of Atlantic currents, beyond which abrupt and irreversible changes will take place. Climate-related extreme weather events have already caused economic losses in the EU of EUR 738 billion in the last 40 years (between 1980-2023, with 22% of these losses between 2021 and 2023)¹¹. Wildfires have burned more than a million hectares of land in the EU by the end of

⁸ European Union Institute for Security Studies, 'Hacking minds and machines. Foreign interference in the digital age', 2024, <u>CP_184.pdf</u>

⁹ See the Joint Communication on strengthening EU's contribution to rules-based multilateralism, JOIN (2021) 3 final

¹⁰ Biscop, S. This is not a new world order. Europe rediscovers geopolitics from Ukraine to Taiwan, 2024.

¹¹ European Environmental Agency, 'Economic losses from weather- and climate-related extremes in Europe', 2024, https://www.eea.europa.eu/en/analysis/indicators/economic-losses-from-climate-related

summer in 2025, the highest amount in any year since official records began in 2006¹². Europe's biodiversity and nature's vital contributions through ecosystem services, such as clean air and water, are declining at an accelerating rate, compromising key enablers of health. It is also a risk multiplier: from mega-droughts leading to water and food insecurity, unpredictability of wildfires, disruptions of critical infrastructure and critical transport routes, to threats to financial markets¹³.

The political momentum for climate change mitigation is at risk in parts of the world, and climate and environmental policies are increasingly instrumentalised and subject to disinformation¹⁴. At the same time, the green transition for many countries can result in more independence and growth. Also, for Europe, a successful transition to sustainable growth provides the opportunity to simultaneously enhance the Union's strategic autonomy and competitiveness, in particular through the ramp-up of clean technologies.

2.2. EU-specific challenges

The simultaneous quest for economic competitiveness and strategic autonomy. Drawing on the experiences of recent crises, various economies, including the EU, are actively pursuing strategic autonomy to ensure their long-term economic security¹⁵. In parallel, to meet global challenges, the EU aims to enhance competitiveness across key sectors. Both priorities are essential for resilience: Europe's security and open strategic autonomy will depend more than ever on our ability to innovate and compete with other economies in the world, particularly in net-zero and digital technologies. Hence, to build true resilience, Europe must pursue both. Open strategic autonomy shields the EU from external shocks and dependencies, whilst competitiveness drives the innovation and economic strength needed to adapt, lead, and thrive in a rapidly changing world.

In a global economic system burdened by geopolitical competition, trade tensions and increasing public debt levels, the EU must integrate security and strategic autonomy considerations more systematically into its economic policies. Pursuing both competitiveness and strategic autonomy simultaneously requires careful policy design, as measures to enhance autonomy may entail upfront costs or structural adjustments and potentially reduce short-term efficiency. Evolving global dynamics and excessive strategic dependencies have brought renewed attention to the use of public procurement (including joint procurement and preferential EU sourcing) as a policy tool to enhance open strategic autonomy and sustain industrial decarbonisation efforts¹⁶.

Excessive dependency on key services provided by non-EU entities in sectors such as digital and finance exposes the EU to risks, including data security vulnerabilities, service disruptions, espionage and economic coercion. This is particularly relevant for digital services subject to

¹² https://forest-fire.emergency.copernicus.eu/apps/effis.statistics/seasonaltrend

¹³ European Environmental Agency, 'European Climate Risk Assessment', 2024. For a recent stock-take of the analytical work being carried out in the European Union and the policy responses taken so far, see the <u>report on the monitoring of climate-related risk to financial stability</u>, C(2024) 4372 fin.

¹⁴ International Panel on the Information Environment, 'Information integrity about climate science: a systematic review', 2025, http://doi.org/10.61452/BTZP3426

¹⁵ European Commission, 'Shaping and securing the EU's open strategic autonomy by 2040 and beyond', 2021, https://data.europa.eu/doi/10.2760/877497

¹⁶ Nicoli, F., 'Mapping the road ahead for EU public procurement reform', 2025, https://www.bruegel.org/first-glance/mapping-road-ahead-eu-public-procurement-reform

network effects, which tend to limit competition¹⁷. For instance, around 70% ¹⁸ of the EU's cloud infrastructure is controlled by three US companies: Amazon Web Services, Microsoft, and Google.

Energy security is a key building block of a resilient, future-proof and competitive economy, especially considering that in 2023 the EU imported 58% of its energy¹⁹. Accelerating the clean energy transition is therefore not only vital for achieving climate goals but also a strategic imperative to reduce dependence on fossil fuel imports and shield the EU from geopolitical shocks, such as those that it has faced from Russia's weaponisation of energy. By strengthening energy security, the EU could reduce fossil fuel import spending by EUR 2.8 trillion between 2031 and 2050, compared with the 2011–2020 average. By investing in home-grown clean energy and energy efficiency, the EU reinforces its autonomy and builds a more resilient lowcost energy system for the future. However, this transition is also creating new dependencies, both on the clean technology products themselves, where industrial production is dominated by other global players, and on the expanding list and quantities²⁰ of the critical raw materials that go into those products when they are produced in the EU or elsewhere (see Box $1)^{21}$.

Box 1. On the horizon: an era of possible new dominance for raw materials and clean tech

The intensifying global competition for critical resources and the clean tech market share, coupled with a more transactional approach to international relations, could foster new alliances between state and private actors aimed at establishing OPEC-style dominance of specific resources or technologies. This control may drive significant price inflation and restrict access to essential materials, posing a serious challenge to the EU's strategic autonomy and clean energy transition. In response, there may be a growing emphasis on innovation in circular economy practices and advanced mining technologies including space mining, starting with the Moon.

Critical raw materials play a central role in other strategic sectors of the EU, such as defence, civil security, healthcare, and automotive. Disruptions in their supply chains, whether due to sanctions, geopolitical coercion, or the smuggling of raw materials by criminal organisations²², could have significant adverse consequences for the EU. The Union's reliance on imports of these materials, combined with the often high concentration of supply in a few countries along the value chain (both in extraction and processing), poses serious economic and security risks, especially given that the export restrictions on industrial raw materials have seen a more than five-fold increase since 2009²³. Strengthening circularity in the EU can reduce these dependencies.

Balancing the approach to technology: key to unlocking future competitiveness but requiring managing related risks. Technologies have a transformative potential: from supporting the green and digital transitions or health care, to boosting productivity and competitiveness, and enhancing security. Mastering the technologies of the future, from basic

¹⁷ Montero, J., Finger, M., The rise of the new network industries: regulating digital platforms, 2021.

¹⁸ June -2024 BDO Market-research IaaS PaaS.pdf

¹⁹ Eurostat, Shedding light on energy in Europe – 2025 edition - Interactive publications - Eurostat ²⁰The number of Critical Raw Materials (CRMs) identified by the EU has grown from 14 in 2011 to 34 in 2023.

²¹ The boxes used in the report illustrate relevant emerging signals of change drawn from the horizon scanning process led by ESPAS (https://espas.eu/horizon.html).

²² European Commission, 'Emerging risks and opportunities for EU internal security stemming from new technologies', 2025, https://data.europa.eu/doi/10.2760/9617320

²³ OECD (2025), 'OECD supply chain resilience review: navigating risks', https://doi.org/10.1787/94e3a8ea-en.

science to full operational deployment, is therefore a powerful geopolitical, economic, and societal – and hence resilience – asset. Embracing and shaping them in the EU is a foundation of our future competitiveness. It ensures state-of-the-art governance capabilities and enables effective protection and defence against nefarious state and non-state actors.

However, well-targeted safeguards are needed to avert potential systemic risks to security, citizen and workers' rights, privacy, climate and the environment, as well as democracy, trust, and social and territorial cohesion. We already see the rapid and exponential market penetration of new technologies, largely driven by a handful of the world's largest global companies. Many new technologies will make their mark in the next decade: quantum, biotechnology, neurotechnology, and advanced materials or robotics, each with wide-reaching opportunities but also acute risks. The potential use of some others, such as solar geoengineering (or solar radiation modification) ²⁴ is highly disputed (see Box 2).

Box 2. On the horizon: global governance to investigate solar geoengineering

Despite global efforts, the adverse effects of climate change are dangerously intensifying. In this context, a set of solar radiation modification (SRM) technologies, also known as solar geoengineering, have been suggested. Their objective would be to reduce global warming by enhancing the reflection of sunlight back to space. While their potential benefits are highly uncertain, they also raise various concerns related to distributional effects or malicious use. Currently, there is no international framework to govern their research, testing or deployment. Still, several nations have the required capabilities and might test them, for example via stratospheric aerosol injection. Others, like the UK, are investing substantially in SRM research, thereby gaining knowledge and expertise as a basis for future evidence-based trade-offs and a role in international decision-making.

Artificial intelligence (AI) stands out as a general-purpose technology with far-reaching implications for every domain of human activity. It advances scientific discovery – as seen in materials innovation or its potential for quantum computing, transformation of industrial manufacturing, healthcare²⁵, optimisation of energy supplies²⁶ and various other aspects of human life, including potential productivity increases as well as labour-market disruption²⁷. AI can be seen as a force multiplier, providing knowledge and capabilities – including critical infrastructure, advanced bioweapons, cyber capabilities, or autonomous surveillance – that were once the exclusive domain of governments or experts²⁸. Rarely has a technology so rapidly achieved popular adoption. The market dominance and influence, from setting research agendas to policy directions, of a few global actors blurs the boundaries between commercial and public actors and spaces. This calls for urgent reflection on various scenarios, including the extremes, and creates a clear rationale for decisive policy action.

The EU innovation model promotes the idea that data generated in society – whether personal or industrial – should be accessible for productive, interoperable use under clear ethical

²⁴ European Commission, Group of Chief Scientific Advisors, 'Solar radiation modification', 2024, https://data.europa.eu/doi/10.2777/391614.

World Health Organization, 'Artificial Intelligence for Health', 2024, https://www.who.int/publications/m/item/artificial-intelligence-for-health

²⁶ International Energy Agency, 'Energy and AI', 2025, https://www.iea.org/reports/energy-and-ai

²⁷ Centre for Future Generations, 'Preparing for AI labour shocks should be a resilience priority for Europe', 2025, https://cfg.eu/ai-labour-shocks/

²⁸ Amodei, D. Machines of Loving Grace, 2024.

conditions. In addition, the EU regulatory approach prevents unchecked access to data about Europeans. At the same time, this model can hinder innovation and market entry and faces issues with funding and deployment. For example, EU entrepreneurs often rely on bank financing and have more limited access to equity or other forms of risk capital, where risk capital is more associated with the development of disruptive technologies which can foster innovation and drive economic growth²⁹.

With increasingly rapid technology developments, strengthening the EU values-based innovation model, as opposed to the US market-driven or the Chinese state-driven ones, is increasingly relevant³⁰. A key challenge in aiming to foster innovation that is ethically grounded and globally competitive is the fragmentation of EU technology governance and related policies, between the EU and its Member States.

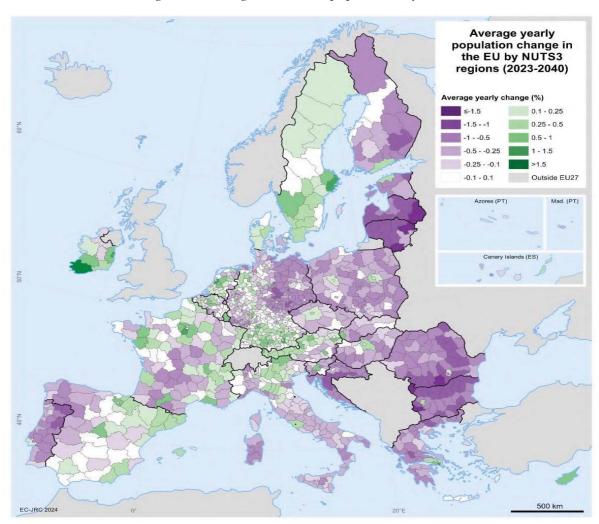


Figure 2: Changes in the EU population by 2040³¹

²⁹ European Central Bank, 'Capital markets union: a deep dive – five measures to foster a single market for capital', 2024, https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op369~246a103ed8.en.pdf

³⁰ Bradford, A., *Digital empires. The global battle to regulate technology*, 2023.

³¹ European Commission, 'Outlook and demographic perspectives for EU's rural regions. A modelling-based exercise', 2025.

People's well-being and societal resilience under pressure. The well-being of the EU's people is among the core objectives of the Union. The quality and overall experience of life, education and skills, work, mental and physical health, the environment are of intrinsic value. They also form a foundation of societal resilience – people's capacity to weather disturbances and transformations. In this context, the European model is one of our core strengths. Many EU countries are among the world's happiest places to live³² and Europeans enjoy some of the lowest levels of inequality when compared to other parts of the world. Yet, this model is under strain: equality remains uneven, and full inclusion is still out of reach. Sustaining the European welfare state requires sustainable public finances, and a productive and competitive economy.

Demographic change, while often overlooked, will have very significant future knock-on effects. Europeans live longer. The average life expectancy has grown by almost four years since 2002 and is now 81.4 years. Healthy longevity offers various opportunities but also challenges, particularly when coupled with the parallel decline in fertility rates³³; the EU is projected to have 17 million fewer people of working age by 2040 than in 2023³⁴. This will affect our competitiveness and put a great strain on the labour market and public budgets, including the ability of labour taxation to generate sufficient revenues³⁵. The issue is reinforced by projected marked regional disparities in population decline, with sharp contrasts between urban and rural areas, especially more remote ones (see Figure 2).

Global developments will increase the pressure on migration flows to the EU – especially from Africa, where the population is projected to expand from 1.2 billion to 1.8 billion between 2017 and 2035, when about half of the population would be under the age of 21^{36} . At the same time, the EU will need regular migration due to demographic trends, while countering irregular migration. Together, this offers a possible policy pathway of matching the needs in the EU labour markets with talent from abroad³⁷. Migration, however, presents a complex picture due to the volatility of both regular and irregular migration trends, but also market needs, and because it is a politically sensitive issue that needs evidence-informed and depolarising debate³⁸.

In the regional perspective, disparities are on the rise in the EU and growing in complexity³⁹. We are also facing the emergence of a 'geography of discontent'⁴⁰, with the economic benefits not evenly distributed. Technological progress and impacts of climate change may further complicate this picture, contributing to industrial redistribution.

On health, long-term challenges include the demands on healthcare and elderly care systems, compounded by labour and skills shortages and impacts of climate change. Of particular

³² World Happiness Report 2025, https://worldhappiness.report/ed/2025/

³³ Eurostat, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Fertility_statistics

³⁴ European Strategy and Policy Analysis System (ESPAS), 'Choosing Europe's future. Global trends to 2040', 2024, https://data.europa.eu/doi/10.2760/180422

³⁵ European Commission, 'Annual report on taxation 2025 – Review of taxation policies in the EU Member States', 2025, https://data.europa.eu/doi/10.2778/6367826, and '2024 Ageing Report. Economic and Budgetary Projections for the EU Member States'.

³⁶ ESPAS report (2024), op.cit.

³⁷ https://population-europe.eu/research/policy-insights/labour-markets-rescue-policy-pathways-forward

³⁸ European Commission, 'Navigating migration narratives', 2025. https://publications.jrc.ec.europa.eu/repository/handle/JRC142039

³⁹ ESPAS report (2024), op.cit.

⁴⁰ European Commission, 'Single Market economics briefs', https://single-market-economy.ec.europa.eu/publications/single-market-economics-briefs_en

concern are increased isolation and loneliness⁴¹, and an extreme increase in mental health problems amongst young people⁴², in part due to the damaging effects of social media⁴³, as well as rising rates of non-communicable diseases.

Resilience and well-being are also linked to planetary health⁴⁴. Synergies exist between climate, water and environmental action, as well as between those and other priority policy areas. For example, healthy ecosystems such as freshwater bodies or the ocean, forests or peatlands are some of the most effective carbon sinks and help to buffer the increasing impacts of climate change, such as cloudbursts and prolonged droughts. Acting in sync with nature contributes to security and economic prosperity⁴⁵; for instance, climate mitigation and adaptation helps contain pandemics and supports food security. A systemic and future-proof approach to climate adaptation can help multiple objectives: e.g. the resilience of infrastructure and buildings to both climate-related and other hazards⁴⁶. Critical ecosystem services, such as clean water, soil or air, are key for people but also for the economy⁴⁷.

Still, many urgent challenges remain when it comes to capitalising on these synergies. While the EU is on track to meet its target of 55% emissions reduction by 2030, progress towards EU environmental objectives is still insufficient⁴⁸. At the same time, potential tensions between sustainability policies and social fairness have become visible, increasing the need to support those people and places that are the most affected.

There are also emerging opportunities for planetary health. For instance, our understanding of ecosystems could expand significantly (see Box 3), which could be harnessed for systems-wide change and for mainstreaming biodiversity as a cross-cutting policy priority. Globally, the emerging 'geopolitics of biodiversity' could help to shift the focus towards recognising the value of scarce natural resources and their sustainable use, away from exploitation⁴⁹.

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⁴¹ Schnept, S.V. at al. (eds.), *Loneliness in Europe. Determinants, risks, interventions*, Population Economics.

⁴² World Health Organisation, https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health

⁴³ Haidt, J., *The Anxious generation. How the great rewiring of childhood is causing an epidemic of mental illness*, 2024.

⁴⁴ UN Environment Programme, 'Navigating new horizons. A global foresight report on planetary health and human wellbeing', 2024.

⁴⁵ United Nations University, 'Interconnected disaster risks: turning over a new leaf', 2025.

⁴⁶ European Environmental Agency, 'European Climate Risk Assessment', 2024.

⁴⁷ See e.g. Dechezleprêtre, A. and V. Vienne, 'The impact of air pollution on labour productivity: Large-scale micro evidence from Europe', *OECD Science*, *Technology and Industry Working Papers*, No. 2025/14, https://doi.org/10.1787/318cb85f-en.

⁴⁸ European Environment Agency, 'European Union 8th Environment Action Programme – Monitoring report on progress towards the 8th EAP objectives', 2025.

⁴⁹ European Commission, 'The EU environmental foresight system (FORENV) – Final report of 2023-24 annual cycle – Emerging risks and opportunities for biodiversity protection and ecosystem services in the context of economic and societal challenges', 2025, https://data.europa.eu/doi/10.2779/9033877

Box 3. On the horizon: understanding the dark biosphere and deep-sea ecosystems

As we face the worsening degradation of ecosystems and the critical services that they provide, scientific attention is turning to less explored territories. Below the world's surface are the deep ocean and 'dark biosphere' in the Earth's soil and crust with microbes that generate so much 'dark oxygen' (produced in the deep ocean and sub-surface in the absence of light) that their global importance is comparable to rainforests. Emerging research focuses on what those underground resources could mean for climate mitigation, biodiversity, and providing essential services. Deep ocean ecosystems and their potentially revolutionary implications for biotechnology, climate resilience and medicine are another emerging area. Future action could include, e.g. the creation of vertical protection zones and 'invisible' reserves built into future biodiversity targets. Advanced exploration technologies could accelerate scientific discovery and increase the pressure for exploitation of deep-sea environments (e.g. for critical raw materials), requiring a precautionary and systemic approach.

Our democracy and fundamental values under threat. Europeans see democracy and governance (41%) as the area that is the most crucial to resilience⁵⁰. Compared to other systems, healthy democracies have built-in resilience linked with adaptability, popular support, accountability and self-correcting mechanisms. Still, they can be vulnerable to erosion without strong protection mechanisms, while re-democratisation is not easy even after electoral changes which promise to reverse democratic backsliding⁵¹. At the same time, democracy in the EU is under external and internal pressure: from undermining the rule of law and media freedom, attacks on civil society, spyware, foreign information manipulation and interference and disinformation, to electoral interference. We are witnessing the increasing promotion of antidemocratic narratives and attitudes, including among young people, and the exploitation of societal, political, economic and technological vulnerabilities.

While not all of these are new, the scale and the openness of such threats have grown. People's views are increasingly shaped by algorithm-based, personalised sources which limit the shared space for democratic debate based on shared facts and evidence. 42% of young Europeans rely primarily on TikTok, Instagram, or YouTube for news⁵². Social media is deepening ideological echo chambers and driving polarisation, with algorithms prioritising divisive content. A political and ideological gap seems to be emerging between young women and men⁵³. We also see the effects of a new global oligarchy, with a few tech billionaires increasingly influencing politics. While AI has the potential to enhance efficiency, transparency and inclusiveness in democratic processes, manipulation campaigns using deepfakes or AI-generated fake news are already capable of weakening governments, reducing trust, destabilising markets, or influencing elections (see Box 4). Foreign interference and the misuse of social media platforms for disinformation during the recent elections in some Member States illustrate this. Fast and uncontrolled technological development might only further complicate the challenge posed by disinformation.

⁵⁰ European Commission, 'Resilience: The future of Europe as seen by EU citizens - Thematic analysis of the future stories shared through the #OurFutures initiative, 2025.

⁵¹ European Democracy Hub, 'How to strengthen democratic resilience. Five lessons for democratic renewal', 2024, https://europeandemocracyhub.epd.eu/how-to-strengthen-democratic-resilience/

⁵² The Eurobarometer Youth Survey 2024, European Parliament 2025.

⁵³ See e.g. Berland, O. and Leroutier, M., 'The gender gap in carbon footprints: determinants and implications, Grantham Research Institute on Climate Change and the Environment', 2025, Working Paper No. 424.

Box 4. On the horizon: a penny for your thoughts

Technological progress also opens the discussion about what personal and sensitive data could be used for political purposes in the future. For some, this could be the case for neural data generated by our nervous systems, for instance collected by biometric wearable devices. Advanced AI large language models can already consider emotions; powered by neural data they could substantially increase their capacity to address emotional needs. Algorithms can now even predict what content will 'superspread' in social media. Combining this knowledge with neural data could open the door to unprecedented possibilities to steer also political behaviour at the scale of individuals and societies. This opens the debate on the possible need to extend privacy rights to other areas, such as the neural data, which is more and more sought-after by technology firms.

Still, the picture is not entirely bleak if we take trust in governments as an indicator of democratic health. 52% of Europeans tend to trust the EU, the highest result since 2007 (see Figure 3). Among young people (15-24) this level is even higher – 59%.

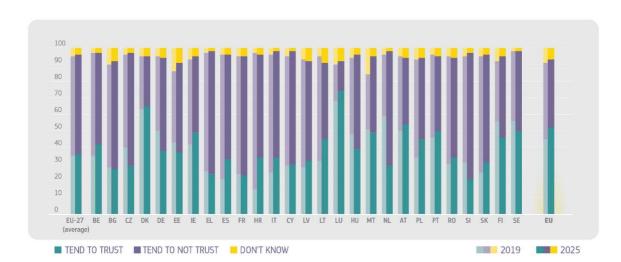


Figure 3: Trust in the national government and in the EU (2019 and 2025)⁵⁴

The roots of democratic resilience and renewal are found in social cohesion, in the institutional mechanisms of checks and balances, and in innovating to improve democracy⁵⁵. The EU has the levers to act on all these coherently through its policies and instruments.

3. THE PATH TOWARDS A RESILIENT EU IN 2040: AREAS OF ACTION

Building on the various recent European initiatives relevant to resilience, the EU needs to continue articulating a policy mix, based on a coherent and comprehensive approach, to build up economic, societal, environmental and political resilience. This requires a whole-of-government approach as well as consistently 'stress-testing' EU policies for current and future resilience. Even more fundamentally, given both the existing challenges and the vision of a larger Union, the EU needs to carry out the necessary reforms to guarantee a multi-

⁵⁴ Standard Eurobarometers, autumn 2019 and spring 2025.

European Democracy Hub, 'A new dynamic of democratic resilience?', 2025, https://europeandemocracyhub.epd.eu/a-new-dynamic-of-democratic-resilience/

level institutional set-up and mechanisms that not only allow it to function efficiently, but also ensure that it has the capacity to take bold decisions by enhancing qualified majority voting where needed. The EU also needs a Multiannual Financial Framework fit for its priorities, more focused, simpler and impactful⁵⁶. The EU institutions need to ensure a resilient, modern, and efficient public administration able to deliver our political priorities in a challenging context.

This report proposes non-exhaustive key areas of action that can have major positive impact and where the EU and its Member States have the agency to act.

Key area n°1: Developing a coherent global vision for the EU

The EU needs to leverage its position as a strong, stable, and trusted home and worldwide partner, based on its fundamental values and objectives. The EU needs to be clearer about what it stands for and more assertive in standing up for its distinct model. This requires the development of a clear EU strategic concept, consisting of fundamental principles for shaping internal policies, navigating the global arena and bolstering the international rules-based system. It needs to be accompanied by the implementation of projects that resonate with people and places in Europe, based on their interests and European values. They should portray Europe as a reliable player and partner, preferring cooperation over rivalry, but also able to assert itself and push back against those who threaten its interests. This also includes attracting talents from abroad in academia, research and other crucial sectors, such as biotechnologies.

To implement this approach, the EU should support the euro in assuming a more prominent role on the global stage and provide a stable regulatory environment conducive to attracting investments. Accession of candidate countries should be a priority for an economically and geopolitically stronger Union. As the EU enlargement process accelerates and gradual integration intensifies, candidate countries, potential candidates and EU's closest neighbours should be integrated step by step in EU policy initiatives. The EU needs to form new partnerships and alliances based on common interests, building on the Global Gateway Strategy, while strengthening mechanisms to defend its energy and economic security combined with climate protection. The EU should actively and with a coherent approach shape the discussion about a new rule-based global order and a reform of multilateralism, including the United Nations and the World Trade Organisation. The EU should move beyond a reactive, crisis-driven approach to neighbourhood policy, and instead cultivate long-term, mutually beneficial partnerships. These could foster stability in its wider neighbourhood, while creating shared prosperity and reinforcing its global influence.

Key area n°2: Amplifying internal and external security

The EU and its Member States, together with candidate countries, closest neighbours and likeminded partners, need to develop a technology-savvy forward-looking approach. The approach should capitalise on civil-military synergies, to deter ill-intentioned actors and protect citizens, businesses and civil society from combined internal and external security threats, in full consistency with EU values and international law. Particular attention should be given to streamlined decision-making in crisis situations as well as to developing and putting into practice the EU-sourced strategic enablers, such as secure digital infrastructures, energy networks, transport networks and infrastructure, space infrastructure and services, and information gathering and analysis systems. This should be done by making better use of EU economies of scale, for example by pooling of procurement, in particular for large-scale infrastructures and in the security domain. Effectively dealing with security risks requires an enhanced state of readiness and preparedness in the entire chain from individual members of

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 $^{^{56}}$ See the Commission's proposal for the Multiannual Financial Framework 2028-2034, COM/2025/570 final.

the public and local civilian organisations to industry, governmental actors and EU Member State's armed forces. Furthermore, existing foresight capacities in areas such as civil security, border management and disaster resilience should be strengthened. EU-NATO cooperation should be enhanced to avoid fragmentation in the face of security challenges. Security needs to be addressed across all key policies and sectors, with an integrated territorial perspective.

Key area n°3: Harnessing the power of technology and research

The EU should take a leading role in shaping global governance and guardrails for high-impact technologies, in particular innovative and clean technologies, including blue technologies, and at the same time ensure that we have a choice of EU critical technologies.

To capitalise on the enormous transformative potential of AI for a positive contribution to society, the EU and its Member States must ensure that frontier AI can be safely developed in Europe and that its adoption and diffusion is aligned with European values of dignity, fairness, and solidarity, while systematically preparing for the profound shifts that AI will generate, for example in the labour market and the security landscape. By setting global standards and building strategic autonomy in key AI research, infrastructures, and foundational models, the EU can ensure that AI's disruptive power becomes a driver of prosperity, inclusiveness, safety, security, and democratic trust. It should position itself as a global leader in shaping ethical and safe AI innovations—promoting transparent, accountable, and human-centric AI, systematically assessing and mitigating systemic risks of misuse, malfunction or misalignment of the most advanced AI models.

To embed its values, the EU needs to be able to influence how technology systems and infrastructures are built and what goals they optimise for. That is where coordination with Member States, financial support, regulatory simplification for strategic projects (such as secure data centres and the most advanced European foundational AI models), open science, EU research infrastructures, regulatory sandboxes, transparent standards, and robust institutional oversight, become key. The AI Gigafactories as infrastructure or the General-Purpose AI Code of Practice as a de facto standard for the safety and security of advanced AI are promising examples of such smart and strategic approaches.

The EU must also strengthen its technology sovereignty in crucial domains, by focusing on strategic future value chains, building its role as a trusted regional partner, and stress-testing EU (and Member State) policies for their strategic autonomy effects. The EU should show ethical and science-based leadership in responsible and precautionary approaches to new controversial technologies such as superintelligence or human augmentation, advanced ocean exploration, or solar radiation modification, including by fostering global collaborative governance structures to deal with potential risks, benefits and distributional effects. Building on the experience of the IRIS² satellite communication network, European public-private partnerships could be envisaged in cases when new technologies are deployed as public goods, i.e. digital platforms, AI and algorithms in public services and health, or strategic infrastructure, including for research. The EU needs to address policy fragmentation in technology governance. Coherence at all levels and domains would allow for proactive identification and management of potential trade-offs (e.g. between supply chain efficiency and strategic autonomy; new digital technologies and energy consumption), strengthen synergies between distinct policy areas (e.g. industrial policy and security), and allow for increased international collaboration and standard-setting with like-minded partners.

Key area n°4: Strengthening long-term economic resilience and preparing for labour market upheavals

The EU needs to strengthen the ability to deliver inclusive and sustainable growth combined with the capacity to quickly absorb and adjust to external shocks. It should work to strengthen and transform industries, to enable collective benefits of new technologies. The EU should build a comprehensive assessment of current and future sectors, especially those vital for its strategic autonomy, and take coherent action to strengthen supply chains, resources (including skills), capabilities, capacities, and control, while ensuring the economic, social and territorial cohesion of the Union. The EU should also prepare for expected labour market disturbances and reconfigurations, caused by various megatrends, from geopolitics, green and technological transformations, to the changing nature of jobs and demography.

The EU and its Member States need to invest in decarbonising the EU economy and promoting global action to accelerate the clean energy transition and to cut emissions of greenhouse gases, as well as in world-class and climate-resilient infrastructure. The EU should further develop a circular economy, strengthen domestic extraction, manufacturing, and recycling of critical raw materials, and simultaneously invest in research and development for the non-fossil substitution of these materials in strategic sectors, hand in hand with increased engagement with the partner countries on critical raw materials.

To mobilise the necessary private capital at scale, building a true Savings and Investments Union is essential to channel European savings into strategic investments for economic and climate resilience, competitiveness and innovation. The EU and its Member States should continue to work on simplification, especially for SMEs.

The build-up of the EU defence union is an opportunity to enact a coordinated policy (both between the EU and Member States, and within EU policies) where competitiveness, security, skills, innovation and preparedness are brought together. Additional investments in defence, and for research and innovation, should be used to support dual-use technologies and infrastructures wherever possible, with a focus on leveraging civil-military synergies along the entire innovation chain, from basic research to procurement of capabilities. Equally, civilian technologies should be best leveraged in support of defence readiness.

Key area n°5: Supporting sustainable and inclusive well-being

The EU should continue strengthening the social market economy and a just transition to a clean economy. This should include continued support to a shift in taxation away from taxing labour towards taxing negative externalities, in a balanced manner that ensures sustainable tax revenues, as well as affordability and availability of sustainable products and services. In pursuing the just transition, it should renew its focus on timely and tangible support for and engagement with the affected communities and groups, and an attractive post-carbon vision for them. It should pursue reflection on a new social contract that rebuilds trust for the benefit of all Europeans, with renewed welfare policies and a focus on high-quality public services as well as on the regions and populations that are most impacted by disparities. Special emphasis should be placed on securing safe and resilient medicine supply chains, and on preventive healthcare, bringing effective and affordable therapies and treatments to patients, addressing health inequalities, and promoting healthier lifestyles, availing ourselves of new technologies. The Commission's work on a dashboard of sustainable and inclusive well-being indicators that has the potential to reduce reporting burdens⁵⁷ is now mature enough to be embedded into policy evaluation, and investment and reform decision-making. The Commission should strengthen cooperation with the OECD and the United Nations (following up on the Pact for

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⁵⁷ European Commission, Measuring sustainable and inclusive wellbeing: a multidimensional dashboard approach, 2025, https://data.europa.eu/doi/10.2760/4186342

the Future) on the international efforts to develop 'beyond GDP' frameworks, building on the 2030 Agenda and their sustainable development goals.

Key area n°6: Reimagining education

The EU and its Member States should reflect on reimagining education and work in light of new technologies, demography, future disruptions and transformations. This means embedding lifelong learning as a societal norm, ensuring safe and nurturing childhood environments, aligning curricula with future skills needs and creating flexible pathways between education, training, and employment. It also requires fostering adaptability and creativity, preparing citizens not only for specific jobs but for multiple transitions across their lifetimes. Enhancing learners' mobility from school to universities to benefit from the best education that Europe has on offer prepares them for uncertainty, openness and critical thinking.

The EU needs a clear approach to attract and educate both a skilled workforce for the increasing service and care economy and the brainpower needed to strengthen its research and innovation potential, whilst avoiding regional imbalances. Considering the essential role of scientists and engineers in driving innovation, ensuring competitiveness and making sustainability transition possible, the EU should make best use of its talents to increase the number of STEM (Science, Technology, Engineering and Mathematics) graduates, both in vocational education and training and in higher education.

The EU should prepare to reap the benefits of the acceleration of automation and generative AI systems by investing in large-scale re- and up-skilling, fostering AI literacy among citizens. This would strengthen resilience, reduce inequalities, and ensure that the benefits of AI are widely shared. By coupling education reform with future-oriented labour market and social policies, the EU can turn disruptive change into an opportunity for greater equity, empowerment, and intergenerational solidarity.

Key area n°7: Strengthening the foundations of democracy as a common good

The EU should take action to counter polarisation, information manipulation and disinformation amplified by social media and AI algorithms. This should include addressing media and digital literacy and supporting trusted and independent information ecosystems that help create shared deliberation spaces, transcending information bubbles. Schools should be further empowered to leverage their crucial role in promoting media literacy and building resilience against disinformation. Evidence-informed and coordinated action is needed both to protect young people from the negative impacts of social media, and digital technologies, especially on their mental health and well-being, and to allow them to better reap their benefits.

The EU should strengthen support for social cohesion and community-building through innovative ways of engaging and partnering with local communities, including participatory territorial development instruments. The EU, Member States, and candidate countries should assertively pursue the shared vision for the EU (see key area n° 1), safeguarding and promoting the rule of law, media freedom, and civil society freedoms, and in strengthening the toolbox for combatting foreign information manipulation and interference, and disinformation. The Commission and other EU Institutions should develop a clearer communication strategy to better inform European citizens and businesses about the EU and to maintain their understanding and support. The EU should also continue efforts on deliberative democracy, through open and evidence-informed debates about policy options. It should also strengthen ties with civil society and local democratic actors. The Commission should propose measures on strengthening democratic resilience and civil society across Europe by providing dedicated frameworks, strategies and support.

Key area $n^{\circ}8$: Anticipating demographic transformation and strengthening intergenerational fairness

The EU should develop a framework on intergenerational fairness, aimed at ensuring that decisions taken today do not harm future generations and at increasing solidarity and engagement between people of different ages that will further contribute to harnessing demographic transformation as an opportunity rather than a destabilising force. It should be intersectional and should aim at mitigating the complex overlapping vulnerabilities that threaten the resilience of European societies, from climate change to the provision of basic services, access to healthcare and long-term care, or social inclusion. The strategy should allow to make European policies fit for current and future generations, by rethinking and adjusting our decision-making to ensure that it is underpinned by values and goals to allow Europeans to thrive in the long term.

4. CONCLUSION

Delivering on actions towards a resilient EU 2040, informed by foresight methods and processes, will allow the Union to take full advantage of its transformative power in the changing global context. The EU will need to address the consequences of various long-term global developments and its own specific challenges detailed in this report. Coherent action and governance will ultimately empower the EU to confront sudden crises and structural changes. This requires thinking beyond the short- and mid-term political cycles and adopting a perspective that better appreciates the long-term impacts of policies initiated today, as well as their robustness under divergent future scenarios.

To this end, building on the work realised over 2019-2024, the Commission will continue to underpin its policies with strategic foresight, including by adopting annual Strategic Foresight Reports covering relevant cross-cutting topics.

From 2026, these reports will be informed by a robust foresight process, including exploring alternative possible future scenarios, in a coherent way across different policies. Beyond the publication of the yearly reports, the Commission will ensure that, throughout this new mandate, foresight tools are fully integrated into policymaking so that our policies are more impactful and future-informed, and so that the EU can have a lasting and significant impact in a context of growing complexity. This will be underpinned by the strong foresight capabilities developed over the past years, specifically designed to anticipate and address uncertainty. The 2026 Strategic Foresight Report will focus on the future of the EU in a changing world.