

SKILLS FOR TOMORROW: WHAT STRATEGIES FOR BUILDING A COMPETITIVE EU WORKFORCE?

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INTRODUCTION

European labour markets face a significant imbalance. While the labour force shrinks because of demographic change, the economy and the demand for labour across sectors and skills levels continue to grow. Despite considerable cross-country variation, labour shortages are prevalent in almost all EU countries, with many member states facing shortages across sectors and specifically in occupations requiring skills for the digital and green transition.¹

Labour shortages can impose significant economic costs. Companies may reduce both the quality and quantity of their products and services, making them less attractive for investment. With fewer workers available, internal devaluation and higher competition can put workers' standards under pressure, deteriorating work-life balance and triggering long-term unemployment, with public employment services (PES) unable to cope.² These challenges will be aggravated by technological advancements, particularly digitalisation, which is redefining the nature of work itself, other than transforming labour markets.

As highlighted in Mario Draghi's report, these challenges are not isolated phenomena.³ The EU's Single Market has been underperforming with sluggish growth rates since the 1990s, demonstrated by low competitiveness and insufficient innovation levels, particularly when compared to other leading economies such as the United States (US) and China. Poor industry-science links, fragmented industrial policies and underinvestment in research have created a fragile and fragmented innovation environment across Europe, especially in Southern and Eastern member states.⁴

Addressing these challenges requires coordinated policy responses across both education, economic and migration domains at both the national and European levels.⁵ While recognising the role of member states in effectively addressing skills gaps and labour shortages, enhanced complementarity between EU and national policies, including through the exchange of good practices, could help to strengthen and promote harmonisation of common efforts across the Union. The start of a new policy cycle brings both

opportunities and challenges in this respect, with the European Parliament and the new college of Commissioners potentially setting new priorities and legislative agendas. Against this background, this Report offers an analysis of existing obstacles to addressing skills gaps and labour shortages and provides recommendations on how to address them.

BACKGROUND

Labour and skills shortages are regularly cited as one of the principal threats to EU businesses' competitiveness.⁶ A 2023 survey showed that for almost half of all small and medium enterprises (SMEs) that reported skills shortages as limiting their general business activities, the challenge concerned in particular the use of digital technologies.⁷ A survey also found that approximately 47% of EU adult workers have a mismatch between their skills and the requirements of their job.⁸

Demographic change is generally regarded as one of the main factors driving demand-supply imbalances. By 2050, the working-age population is expected to further decrease by 27 million, leading to fewer than two working-age people per elderly person.⁹ The EU-wide old-age dependency ratio (those 65+ compared to those 20-64) is expected to increase from 33% to 60% by 2100, affecting pensions, healthcare, and social services.¹⁰

The lack of active labour market participation of certain groups aggravates the broader consequences of demographic decline. Notably, the EU labour market is heavily gender-segregated, particularly in science, technology, engineering and mathematics (STEM) and healthcare sectors. Men outnumber women by 70% in several occupational categories, including computer and mathematical, architecture, construction, and transportation occupations.¹¹ A persistent issue is also the strong imbalance in labour market participation, with women being 10% less active in the labour force than men.¹² Despite EU action in gender equality, barriers such as unequal pay and insufficient access to affordable childcare, among others, continue to impede women's full participation.

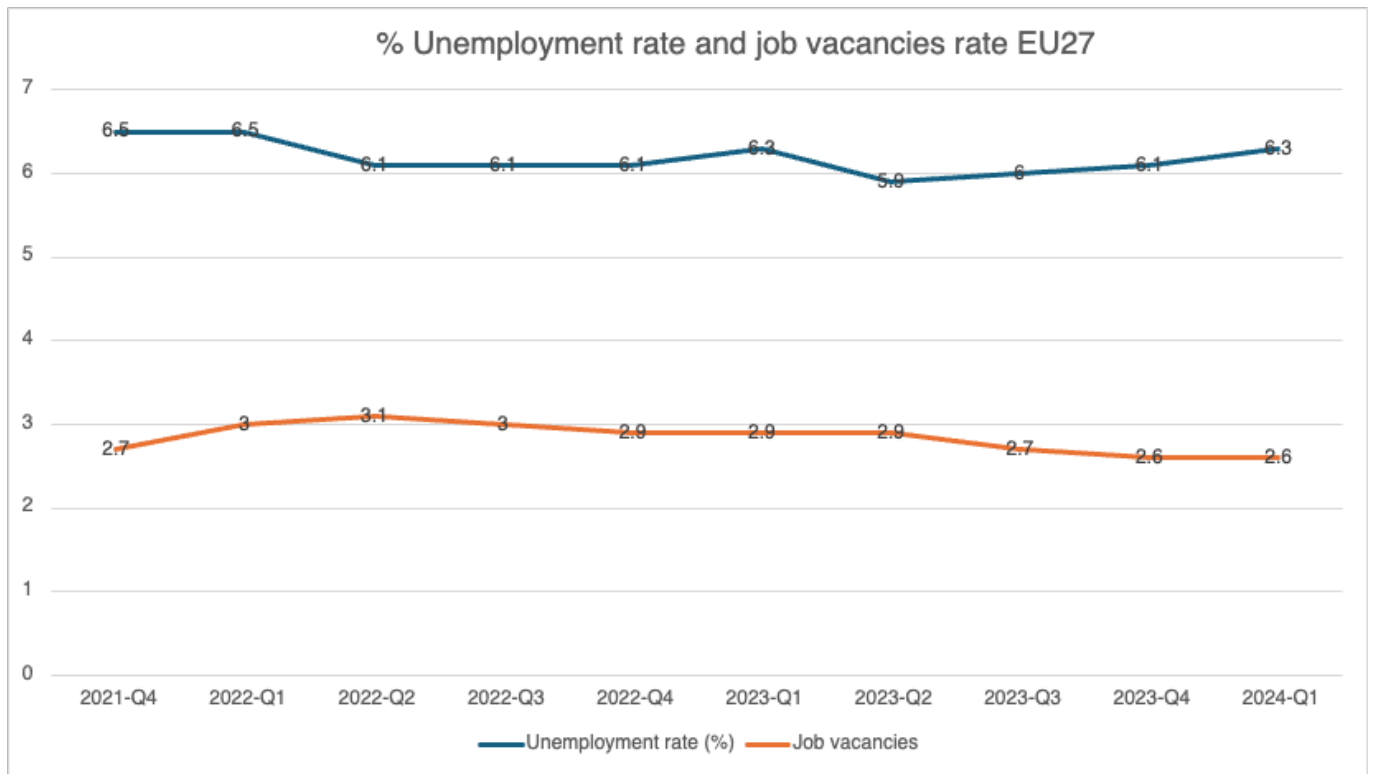


Figure 1: Eurostat job vacancy and unemployment statistics. Author's own elaboration.

The interplay of demographic change and limited labour market access for certain groups leads to further challenges, such as an increased burden on welfare systems, increasing fiscal pressure.¹³ This adds pressure onto already cracking social safety nets, compromising the EU's capacity to invest and grow amid increasing global competition, while failing to provide unemployed individuals with adequate support.¹⁴

Furthermore, the interplay between labour shortages and challenging working conditions is evident in sectors such as healthcare, agriculture, and hospitality. In healthcare, for example, despite nurses receiving pay increases in recent years, factors such as long working hours, staff burnout, and persistent understaffing continue to contribute to high turnover. This highlights a more complex dynamic, where improved wages have not fully mitigated the broader challenges that impact worker retention and recruitment.¹⁵ Even for sectors and professions with good working conditions and high salaries attracting and retaining workers remains difficult.

The outflow of skilled and educated workers from one country or region to another, in search of better working conditions and higher living standards, aggravates existing labour shortages, despite also being considered part of the solution to address shortages.¹⁶ The 'talent development trap', a situation where regions experience a decline in their working-age population, leading to a shortage of skilled workers and a stagnant number of university and higher-education graduates, is prevalent in rural regions, which are often characterised by ageing populations and low levels of tertiary education.

In the past cycle, the EU took several initiatives to address the growing challenges posed by labour and skills gaps and to expand the workforce. The European Commission designated 2023 as the European Year of Skills, aimed at highlighting the importance of skills development and ensuring the necessary

competitiveness and resilience of the EU. It also emphasised the role of vocational education and training (VET) in meeting the demands of rapidly evolving industries, fostering collaboration among member states, social partners, and stakeholders.

The Directive on Work-Life Balance, for instance, aims to support better labour market participation by improving working conditions for those with caregiving responsibilities. The Directive encourages flexible working arrangements, parental leave, and the ability to transition from part-time to full-time employment, especially for women, who are disproportionately represented in part-time work. Moreover, the Youth Employment Support, the Reinforced Youth Guarantee and the Commission's Recommendation for Effective Active Support to Employment (EASE) strive to tackle youth unemployment targeting NEETs.

Moreover, the European Commission's Green Paper on Ageing emphasises the importance of prolonged working life and learning.¹⁷ These initiatives encourage reforms to retirement systems, pension schemes, and labour markets, with an eye to incentivising older workers to remain active. Member states are encouraged to adapt their national strategies to roll out inclusive policies that facilitate smoother transitions for older workers, rather than merely incentivising longer careers. By fostering a culture of continuous learning and flexibility, the EU aims to ensure that older individuals continue adapting to the demands of a rapidly evolving labour market.

Among the concrete measures adopted in the past EU policy cycle, in 2022, the Council adopted Recommendations on individual learning accounts and micro-credentials, designed to enable individuals to update or expand their skill sets.¹⁸ Other EU-level efforts sought to improve the quality of VET, including through the European Quality Assurance Reference Framework and the European Credit System for Vocational Education and Training, with the latter supporting the transfer and recognition of learning outcomes.

Over the course of the past two mandates, the EU also reiterated its commitment to activation strategies through the European Pillar of Social Rights (EPSR), which sets out three targets to achieve by 2030: increasing employment to 78% among 20–64-year-olds, ensuring 60% of all adults participate in training every year, and equipping 80% of those aged 16–74 with basic digital skills. Moreover, the 2030 Digital Compass sets the EU target, that by 2030, at least 80% of all adults should have at least basic digital skills, and there should be 20 million employed ICT specialists in the EU.

STATE OF PLAY

The need to address labour shortages to boost competitiveness calls for a thorough examination of labour policies and skills strategies. The start of a new EU cycle offers a chance to reflect on the necessary actions and develop ambitious plans to be implemented by national governments. However, despite the rhetoric of renewal, there is scepticism about the EU's capacity to enact meaningful reforms, especially considering the division of competences over these matters. In her Political Guidelines, President of the European Commission, Ursula von der Leyen, proposed the creation of a "Union of Skills", focusing on strategic investments in adult education and lifelong learning.¹⁹ The newly appointed Commissioner for People, Skills, and Preparedness is tasked with driving this agenda. Yet, there are concerns about whether greater EU involvement will adequately address long-standing issues. Recalibrating strategies to fill persistent labour gaps will require the political will at national level to fundamentally rethink existing approaches and commit to significant financial resources. With the consolidation of far-right and nationalist forces following the 2024 EU elections, governments may turn towards protectionist policies, avoiding the deeper structural reforms needed to address labour shortages across the EU.

In this context, addressing existing challenges in the new cycle hinges on key areas: active labour market policies (ALMPs) also through the support of public employment services (PES) skills strategies, as well as recognition of the need for prolonged working life, and a better inclusion of part time workers in the labour workforce.

ALMPs can promote labour market participation and are a common feature in national governments' toolkits to tackle unemployment. They enhance the alignment between job vacancies and the skills of unemployed individuals. They typically include job creation schemes, wage subsidies, job-search assistance and VET schemes, which are used within the framework of ALMPs to provide job seekers with the training necessary to enhance their employability. ALMPs tend to have positive effects where they provide new employment opportunities after upskilling or training, or as an outcome of hands-on labour market experience as part of these measures.

However, ALMPs often suffer from slow responsiveness to rapidly evolving labour market needs. For example, while technology advances quickly, many VET programmes do not adapt their curricula fast enough to provide the necessary skills. With the EU's interest in industrialisation renewed, workers in traditional sectors may also find their skills becoming obsolete, leading to unemployment if there are not enough reskilling and upskilling opportunities available.²⁰

These challenges may be especially evident as they occur at the same time as the green and digital transitions.

Acknowledging the crucial importance of VET for achieving a successful twin-transition and the greening of the economy, the European Commission has recently published a taxonomy of green skills. Yet, uncertainty lies not only in determining which technologies will dominate the pursuit of a cleaner future but also in understanding how member states and businesses will effectively deliver such training.²¹

ALMPs are usually rolled out as a crisis response mechanism and against other structural obstacles, such as high youth unemployment, or the inadequacy of skills development. This lack of continuity can reduce their ability to tackle deep-rooted labour market issues, like youth unemployment. The chances of success of an activation policy depend on several factors, including the characteristics of the labour markets in which they operate. Therefore, it is important to assess ALMPs alongside both PES and employers. PES support labour market participation and facilitate job transitions and are essential in implementing ALMPs, ensuring that individuals, especially vulnerable ones, have access to the resources and support needed to enter and remain in the workforce.

At the national level, some PES have taken steps to tackle labour and skills shortages, also introducing reforms to their service delivery models and tools. These improvements include increasing internal capacities for counselling and placements, establishing specialised units like the High-Quality Qualification Selection Competence Centre in Lithuania for skilled professionals, and advancing digital services such as online job fairs and recruitment in Cyprus and Latvia. In France, PES have collaborated with professional federations to address sector-specific shortages by identifying candidate pools in high-demand areas like transport and healthcare, and, in several other countries, PES have reported better employer support through comprehensive counselling and guidance, especially for hiring workers from disadvantaged groups.²²

However, member states are also highly heterogeneous when it comes to ALMPs, PES reforms and skills-related investments. This is evident, among others, from national RRF plans. In Italy and Spain, for example, RRF investments are mainly directed towards upskilling and reskilling measures, suggesting as a priority the consolidation of individual's skills. Other countries like Croatia, instead, use these resources to create new jobs.²³

On top of public efforts, private companies can contribute to addressing labour gaps and skills shortages, helping to connect job seekers with employers, providing specialised services that often exceed the capacity of PES, such as tailored recruitment solutions, greater matching accuracy, flexibility and speed. According to the PES Network survey, cooperation between public and private employment services has evolved, with 32% of PES recently expanding or planning to expand partnerships with private job portals and agencies. Nevertheless, there is a risk that companies may prioritise critical sectors over others. Additionally, these partnerships often focus on short-term hiring rather than long-term skills development or life-long learning, which does not contribute to sustainable job creation.

However, ALMPs, PES, and skills strategies can only be truly effective if they not only focus on activating people but also aim to expand the workforce by supporting individuals who are currently underrepresented or facing barriers to full-time employment, such as part-time workers, older individuals, and caregivers. To achieve this, policies must also consider vulnerable groups, including young people not in education, employment, or training (NEETs), migrants, and long-term unemployed individuals, who often encounter significant challenges in accessing the labour market.

EU and national initiatives in the next cycle will have to channel investments and address existing problems concerning ALMPs, stimulating labour market participation. Yet, with the risk of protectionist tendencies elevating national interest above EU-wide priorities, and with fiscal constraints playing out at EU level, EU-wide cooperation in areas like ALMPs and skills strategies may prove hard in the next cycle. The absence of coordinated training programmes and adaptive skills strategies would not only fail to address existing deficits but also risk leaving the EU economy even more vulnerable to external shocks.

PROSPECTS

While initiatives at the EU and national level in the new cycle will have to navigate financial constraints and political obstacles, policymakers, and other relevant stakeholders like PES and the private sector, should focus on the following actions to maintain EU competitiveness: modernising upskilling and reskilling programmes, fostering robust public-private partnerships, ensuring equal access to education and training for vulnerable groups, and investing in care services to increase women's participation.

1) Modernise PES and VET schemes

National governments should modernise service delivery by PES, thus ensuring a level playing field at the EU level. While some PES have updated their strategies to include integrated services, such as mentoring, coaching, and counselling for the most disadvantaged, more can be done to ensure ALMPs better target the unemployed and upskill workers. PES should place particular emphasis on encouraging vulnerable jobseekers to participate in online upskilling activities. This should be complemented by post-placement online counselling, especially for the long-term unemployed and individuals not in employment, education, or training (NEETs). Traditionally, counselling has been offered in person and proven effective for the long-term unemployed but offering these services online can increase cost-efficiency and broaden access. A stronger focus is also needed on high-demand qualifications, such as digital and green skills. Regularly updating curricula to incorporate emerging technologies and industry trends is also essential for keeping VET relevant.

2) Strengthen public-private partnerships and EU-wide social dialogue

To improve coordination between PES and employers, the EU should foster social dialogue between national governments, job seekers, and employers. By facilitating a structured dialogue, the EU can ensure that employment strategies are more aligned with the specific needs of industries and sectors facing acute shortages, for instance, healthcare, technology,

and construction. The EU should also play a stronger coordination and guidance role for member states in addressing skills and labour shortages. This can be achieved by establishing sector-specific task forces that bring together experts from EU agencies, industry representatives, and policymakers to conduct in-depth analyses of these shortages. These task forces could also serve as platforms for sharing best practices on improving working conditions and enhancing the overall attractiveness of these sectors to potential employees. Accordingly, while investments in cross-country collaborations are needed to tackle shortages across some sectors, for others, good working conditions can also contribute to fixing the problem.

3) Fiscal measures to expand labour supply

To further enhance labour supply and improve workforce participation, member states should also consider implementing tax policies that incentivise work. This includes revising tax structures to reduce the tax burden on low-income earners and providing tax credits or deductions for both companies and individuals who increase their working hours or transition from part-time to full-time employment. Such measures can help create a more attractive labour market by encouraging individuals to engage in work rather than remain on the sidelines. Additionally, policies that support affordable childcare and flexible working arrangements can be complemented by tax incentives to promote a more inclusive labour force. By integrating these fiscal policies with existing ALMPs and skills strategies, member states can foster a comprehensive approach to increasing labour supply.

4) Invest in skills intelligence

Investment in skills intelligence is crucial for designing and sustaining responsive and efficient VET programmes. Collecting data on labour market needs and skills trends is not enough: robust skill anticipation methods and reliable skills intelligence are required to transform data into actionable insights. To this end, EU agencies, in close coordination with national authorities and business representatives, should promote data collection and analysis, including on employment forecasts, and technological advancements to guide strategic decision-making. AI tools could gather real-time information and provide insights on how to design and develop transversal skills. To maximise the impact of these efforts, the Commission's 'Union of Skills' should foster collaborations between public institutions, businesses, and VET providers. These sector-specific task forces should focus on developing training programmes, apprenticeships, and skills development initiatives that align with industry needs. This coordinated effort can help design more effective ALMPs by ensuring that they are based on up-to-date labour market analyses and sector-specific needs in critical areas of the economy. Enhanced labour market evaluations, guided by input from these task forces, would not only improve the design of training and employment support programmes but also ensure that these policies are adapted to the evolving demands of the workforce.

5) Promote lifelong learning

Lifelong learning is a cornerstone of effective skills strategies, enabling individuals to adapt to the rapidly evolving job market. To effectively address skills and labour shortages, member states should promote interventions that

span the entire life course, catering to the diverse needs of all age groups. National skills strategies should prioritise adult lifelong learning, particularly for less qualified individuals and those at risk of skills obsolescence or job loss. This focus not only helps workers upskill or reskill but also fosters a culture of continuous improvement and adaptability within the workforce. Lifelong learning centres operated by both public universities and training institutions should play a central role in this training ecosystem. These centres can provide the unemployed and underemployed with access to a wide range of training programmes tailored to high-demand industries, particularly in areas such as digital and green skills, focusing specifically on building professional skills. Furthermore, targeted outreach programmes can ensure that all individuals, especially those from disadvantaged backgrounds or with limited access to education, can take advantage of learning opportunities. By addressing barriers to participation, such as transportation, affordability, and digital access, policymakers can create an inclusive learning and training environment that encourages lifelong engagement. In light of the 2025 review of the EPSR, the European Commission should mainstream these recommendations into the new Action Plan of the EPSR.

6) Enhance investment in childcare to increase women's participation

To boost women's participation in the labour market, member states should prioritise investment in early childhood education and care (ECEC). Affordable, high-quality childcare is essential for enabling women, particularly those with caregiving responsibilities, to enter or re-enter the workforce. Governments should expand the availability of accessible and affordable childcare services, as these investments yield dual benefits: supporting work-life balance for families while promoting children's cognitive development. This could therefore boost women's employment, and lead to better educational outcomes, reducing the risk of poverty and increasing employability in adulthood. To this end, the European Commission's proposed Gender Equality Strategy should introduce clearly defined, measurable targets for access to high-quality, affordable long-term care across member states, similar to the Barcelona targets for ECEC. This would ensure uniform progress in care provision and prevent deepening national disparities. By setting EU-wide benchmarks for long-term care, member states can be held accountable for improving access and quality, ensuring that all citizens, particularly vulnerable groups, have equitable access to essential care services. Providing more opportunities for women to combine parenting with paid work or training is also likely to mitigate the so-called 'child gap', the difference between the desired number of children per couple and the actual number.

- 1 Directorate-General for Employment, Social Affairs and Inclusion (2024) Joint Employment Report. . Brussels: European Commission.
- 2 European Central Bank (2023) Help wanted: the drivers and implications of labour shortages. Working Paper Series No. 2863. Frankfurt.
- 3 Draghi, M. (2024) The future of European competitiveness. A competitiveness strategy for Europe. Brussels: European Commission.
- 4 European Investment Bank (2016) Restoring EU competitiveness.
- 5 Karatzas, A (2024). "Skills for Tomorrow: unlocking the potential of mobility and labour migration". Brussels: European Policy Centre.
- 6 Riekels, G., Lausberg, P., Otero-Iglesias, M., González-Agote, A. (2024) "Towards a Competitive Edge: Reforming the EU Regulatory Framework". Brussels: European Policy Centre.
- 7 European Union (2023) European Year of Skills – Skills shortages, recruitment and retention strategies in small and medium-sized enterprise. Brussels: European Commission. Affairs and Inclusion.
- 8 Cedefop (2015) Matching skills and jobs in Europe Insights from Cedefop's European skills and jobs survey.
- 9 Eurostat (2020) Ageing Europe. Looking at the lives of older people in the EU. Luxembourg: Publications Office of the European Union.
- 10 Ibid.
- 11 Morales, M., Marcén, M. (2024) "The effect of gender norms on gender-based sorting across occupations". *Rev Econ Household* 22, 831–864 (2024).
- 12 Eurostat (2024) Employment rate of adults by sex, age groups, educational attainment level, number of children and age of youngest child.
- 13 Vartiainen, J. (2017) "The future of the European welfare states: the intriguing role of demography?" *European View* 16, 131–139.
- 14 Feyer, C. (2024). "Reinventing Skills – Changing Paradigms and the EU Response." *Intereconomics*, 59(3), 132-135.
- 15 de Vries N, Boone A, Godderis L, et al. (2023) The Race to Retain Healthcare Workers: A Systematic Review on Factors that Impact Retention of Nurses and Physicians in Hospitals. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing*.
- 16 Margaras, V. (2019) Demographic trends in EU regions. Brussels: European Parliamentary Research Service.
- 17 European Commission (2021) Green Paper on Ageing. Fostering solidarity and responsibility between generations. Brussels.
- 18 Council of the European Union (2022) Recommendation of 16 June 2022 on a European approach to micro-credentials for lifelong learning and employability C243/02, 10-25.
- 19 Von der Leyen, U. (2024) Political Guidelines 2024-2029. Brussels: European Commission.
- 20 Grossi T. and Rayner L. (2024) "The socio-ecological dimension of the Green Deal Industrial Plan" in Vanhercke B., Sabato S. and Spasova S. (eds) *Social policy in the European Union: state of play 2023, An ambitious implementation of the Social Pillar*. Brussels: ETUI and OSE.
- 21 European Commission (2022) Green Skills and Knowledge Concepts: Labelling the ESCO classification. Brussels.
- 22 European Network of Public Employment Services (2020) Activation of the Inactive: PES initiative to support the activation of inactive groups. Brussels.
- 23 Corti, F. and Ruiz de la Ossa (2024) The RRF's role in strengthening active labour market policies and public employment services. Brussels: Economic Governance and EMU scrutiny Unit, Directorate-General for Internal Policies.

The European Migration and Diversity (EMD) Programme provides independent expertise on European migration and asylum policies. The EMD Programme's analyses seek to contribute to sustainable and responsible policy solutions and are aimed at promoting a positive and constructive dialogue on migration. The Programme follows the policy debate taking a multidisciplinary approach, examining both the legal and political aspects shaping European migration policies. EMD analysts focus, amongst other topics, on the reform of the Common European Asylum System; the management of the EU's external borders; cooperation with countries of origin and transit; the integration of beneficiaries of international protection into host societies; the links between migration and populism; the development of resettlement and legal pathways; and the EU's free movement acquis. The EMD team benefits from a strong network of academics, NGO representatives and policymakers, who contribute regularly to publications and policy events.

The EPC's Europe's Political Economy Programme (EPE) is dedicated to covering topics related to EU economic governance, the single market, industrial and digital policies, and strategic autonomy in a context of deep geo-economic and technological shifts. The Programme has contributed actively to these debates over past years, leveraging its convening power, analysis and multistakeholder taskforce model. EPE analysts pioneered the concept of a 'wartime economy' following Russia's invasion of Ukraine, and the Programme is currently running projects focusing on the EU's ambitions and the private sector's capacity to deliver on the "triple" green, digital and economic security transitions. As fast-advancing components of 'economic security', digital and emerging technologies, such as quantum, are priority areas of focus. Linked to the changing international context, the Programme also focuses on trade policy, the transatlantic agenda, notably the EU-US Trade and Technology Council, China, and the EU's close economic partnerships (UK, EEA, Switzerland). The EPE Programme consists of a young and dynamic team, with recent recruitments bolstering analytical capacities linked to economic growth and crises, resilience and recovery, emerging tech and cybersecurity.

The Social Europe and Well-being Programme (SEWB) is dedicated to achieving a stronger Social Europe fit to address the social, environmental, economic and political challenges facing the Union today. It focuses on policies that prioritise strong and resilient healthcare systems; modern and inclusive labour markets; eradicating inequalities; investing in the health and well-being of people; making European welfare states and social protection systems fit for the future.

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