

The next 10 years

Challenges for Romania: forecast report

EFOR Annual Report 2024



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SUMMARY

Argument	4
Executive summary	5
I. Ever closer to you, Europe! Seven risks to Romania's convergence in the next 10 years	8
II. The Fourth Industrial Revolution: technology, innovation, and the labor market	31
III. The Energy Transition under Climate and Geopolitical Uncertainties	43
IV. What role for Romania in the new EU-35?	64

Argument

2024 is the year when we redefine the European Union and the Romania we want to live in. The upcoming elections across the EU, along with our ability to hold politicians accountable, will significantly influence the policies and institutions that will shape the continent's development until 2035 and beyond, to 2050. We face numerous challenges including climate change, demographic decline, migration, the global race for technological dominance, geopolitical tensions leading to worldwide conflicts, and the growing realization of hostility from other superpowers towards our liberal democratic values. To navigate these uncertainties and succeed, the entire European project must undergo a transformation.

Three decades ago, Romania was fortunate to come under the gravitational influence of the European Union, resulting in a more prosperous, peaceful, and free life for Romanians than any previous generation had experienced. Now, we face the question: Will future generations be able to say the same about us? The answer hinges on the decisions we make today.

This report is intended to spark a serious discussion about the changes and challenges Romania will face over the next decade, including urgent risks that require immediate action. It presents difficult policy dilemmas, acknowledging that while no one can predict the future, certain trends are clear. Economic convergence with the EU can no longer be assumed as a given. Significant demographic changes, from aging populations to migration, may impact Romania more severely than other European nations. Inequality and educational outcomes are critical factors that could either propel Romania toward technological competitiveness or hinder its progress. Moreover, Romania's energy transition could either foster sustainable economic growth or lead to economic stagnation.

Lastly, Romania must assume a more significant role in shaping the future of Europe. We have a direct interest in promoting an expanded, ambitious European project that upholds the core values of freedom, democracy, and the rule of law. But achieving this is not possible unless we reverse the current trend where rent-seeking groups exploit public resources or legislate niches that disproportionately benefit themselves. Additionally, we must address the issue of contra-selection in politics and government sectors.

In the following chapters, we identify and analyze the foreseeable risks and obstacles to the continued convergence and Romania's enhanced role in the EU. It is the duty of political leaders and parties during the extended electoral campaign of 2024 to propose solutions to the problems we raise and to explain how they plan to overcome the challenges.

EXECUTIVE SUMMARY

This report identifies the significant challenges Romania will face over the next decade, focusing on seven key areas. Additionally, it explores in depth the implications of the Fourth Industrial Revolution, the energy transition, and Romania's potential role in an expanded EU of 35 member states.

Seven Key Challenges for Romania in the Next Ten Years

1. Economic and Fiscal Instability

- **Twin Deficits:** Romania faces the dual challenge of budget and current account deficits, which have persisted for several years. These deficits originated from fiscal policy reversals in 2015, leading to an unsustainable economic model centered on consumption financed by rising external debt.
- **Policy Reversal of 2015:** The shift in fiscal discipline in 2015 resulted in numerous tax exemptions and facilities, undermining previous efforts to eliminate deficits. This has positioned Romania as the EU country with the most toxic combination of budget and current account deficits.

2. Unsustainable Growth Model

- **Current Model Limitations:** Romania's economic growth has relied heavily on consumption, supported by higher imports than exports. This model is unsustainable and contrasts with the more investment-driven approaches seen in countries like Poland and the Czech Republic.
- **Transition Needs:** Shifting towards a model emphasizing investments and exports is crucial. This requires significant policy changes to support sustainable growth and reduce dependence on volatile financial inflows.

3. Decline of revenues from natural resource extraction

- **Dependence on Fossil Fuels:** Revenues from oil and gas play a significant role in Romania's public finances. However, the gradual decline in oil production and the future reduction in gas revenues due to the phasing out of fossil fuels pose long-term fiscal challenges.
- **Future Projections:** By 2035, the sector's contribution to government revenues will significantly decrease, necessitating alternative revenue sources and strategic investments in renewable energy.

4. Major changes in the EU funds structure

- **Enlargement Impact:** The anticipated EU enlargement by 2035, incorporating less affluent regions, will strain financial resources and potentially reduce funds available to existing members like Romania.
- **Adapting to Changes:** Romania must prepare for reduced EU funds by increasing national contributions to the common budget, focusing on high-value sectors like innovation and green transition, and improving the efficiency of fund utilization.

5. Demographic Decline

- **Aging Population:** Romania faces a unique demographic challenge with a significant cohort, the "decreței," retiring post-2030, creating a shock to the pension system. This will double retirement claims in a short period.

- **Policy Solutions:** Addressing this issue requires raising the retirement age, increasing labor force participation, emphasizing savings-based pension systems, and possibly increasing immigration.

6. Migration and Integration

- **Migration Trends:** Migration will continue to be a divisive issue in EU politics. Romania must balance reducing irregular migration with fostering well-managed legal pathways and harnessing migration as a growth driver.
- **Integration Policies:** Effective integration of immigrants into the labor market and ensuring access to education and healthcare are critical to maintaining social stability and economic growth.

7. Political and Institutional Risks

- **Clientelism and Political Cartelization:** Romania's political environment is marred by rent-seeking behaviors and the counter-selection of public officials. This undermines effective governance and threatens democratic norms.
- **Governance Reforms:** Strengthening democratic institutions, enhancing transparency, and combating corruption are essential to fostering a political environment conducive to sustainable development.

The Fourth Industrial Revolution

Technology and Innovation

- **Technological Transformation:** The Fourth Industrial Revolution involves the automation and data exchange in manufacturing technologies and processes, including cyber-physical systems, Internet of Things (IoT), cloud computing, and artificial intelligence (AI). These technologies are set to revolutionize industries, increasing productivity and efficiency.
- **AI and Automation:** AI tools are transforming office functions and professional services, allowing for faster processing of large amounts of information. This shift demands a workforce capable of adapting to and managing advanced technologies.

Education and Workforce Development

- **Educational Gaps:** Romania's education system has struggled to equip students with the skills needed for the digital economy. A significant proportion of graduates lack basic competencies, undermining the country's ability to benefit from technological advancements.
- **Workforce Adaptation:** Addressing educational shortcomings and promoting lifelong learning are essential to prepare the workforce for the evolving demands of the digital age. This includes enhancing critical thinking, adaptability, and specialized skills in technology-driven sectors.

Organizational Capacity

- **Investment in Digitalization:** Romanian companies, particularly SMEs, face barriers in adopting new technologies due to limited access to finance and skilled labor. Overcoming these barriers is crucial for maintaining competitiveness in the global market.

- **Regulatory Framework:** Clear and supportive regulations are needed to foster the adoption of new technologies. Romania must streamline its regulatory processes to avoid creating additional obstacles for businesses.

The Energy Transition

Climate Goals and Sustainability

- **EU Climate Ambitions:** The EU's Green Deal, Fit-for-55, and RepowerEU initiatives aim for net-zero emissions by 2050. Romania must align with these goals, focusing on reducing emissions and transitioning to renewable energy sources.
- **Infrastructure and Path Dependency:** The long life cycles of energy infrastructure necessitate forward-looking investments that meet future needs. Romania must ensure that new and existing infrastructure supports the decarbonization agenda.

Economic Implications

- **Energy Efficiency and Electrification:** Improving energy efficiency and increasing the share of electrification in energy consumption are key strategies. Romania must invest in renewable energy projects and develop sectors like green hydrogen.
- **Governance and Coordination:** Effective governance is critical to managing the transition. Coordination between national and EU policies, as well as between public and private sectors, is necessary to achieve climate goals.

Romania's Role in an Expanded EU 35

Strategic Engagement

- **Influence in EU Policy:** Romania must actively engage in shaping EU policies, advocating for a vision that promotes democratic values and sustainable development. This includes participating in strategic initiatives and leveraging EU funds for innovation and green projects.
- **Regional Leadership:** As the EU expands, Romania has the opportunity to play a leadership role in promoting regional stability and economic growth. This involves fostering collaboration with new member states and supporting their integration into the EU framework.

Economic and Social Integration

- **Inclusive Growth:** Ensuring that economic growth benefits all regions and social groups is crucial. Romania must address regional disparities and invest in infrastructure, education, and healthcare to support inclusive development.
- **Social Cohesion:** Promoting social cohesion through effective migration and integration policies will help mitigate the risks of political polarization and societal divisions.

I. Ever closer to you, Europe!

ROMANIA'S CONVERGENCE IN THE PAST THREE DECADES

The former communist states of Eastern Europe, Romania included, had a very fortunate transition over the last 30 years, although citizens do not always perceive it as such. The 11 countries that are now new members of the Union (NMS) have closed much of the development gap with the West; Czech Republic and Slovenia now rank above Greece, Portugal and Spain in GDP/capita. The accelerated progress was primarily due to integration into the large common market, the re-valorisation of existing assets and resources when they could be used more efficiently than under the Socialist system, their status as net recipients of EU funds and, in general, the positive effects of the wider globalisation process of recent decades.

In this respect, as analysts note, this great and sustained regional success had little to do with the quality of local political elites, or with any clever strategies or pro-active policy decisions.

“Although not the same everywhere, the broad economic policymaking stance of the last 30 years has been low taxes, limited government intervention, and prioritizing the attraction of foreign direct investment. [NMS] governments tend to have substantially lower levels of government debt and spending as a share of GDP compared with Western Europe. Industrial policy, which was a key tenet of catch-up growth in Western Europe and East Asia in the past, has been largely absent in [NMS] in the last three decades. Much of [the region] is highly industrialized, with the Visegrad countries having manufacturing shares in employment and value-added above even Germany. But this has come about without any significant active industrial policy and rather via heavy use of FDI subsidies and rebates.”¹

The positive trend became observable long before accession itself, as early as the 1990s, and after 2000 it became a certainty, because markets, institutions and societies anticipated it by at least a decade in their individual decisions. All in all, in an unprecedented historical experiment, the process has improved the lives of people in Eastern Europe, especially in countries like Romania which had serious development backlogs, in the space of just one generation. Backed by the *soft power* of the European Union, to which they have gradually drawn closer, the people of Eastern Europe are doing better today than in 1990 on everything from the quality of public services to life expectancy. The economy functions better than in any previous period, even if we take for granted the statistical figures published by the communist regimes, which are full of inevitable distortions.

Post-communist de-industrialisation and restructuring has affected some parts of the NMS, especially the mono-industrial areas, but as Grieveson says in the quote above, the industry remains a more important component of GDP in the region than in Western Europe: more and better quality is produced and exported, with less employed labour, working in better conditions and only five days a week (not six or more, as was sometimes the case before 1990).

Quality of life has also improved substantially in the post-communist period, especially in countries like Romania where the 1980s were particularly traumatic for the society. The Human Development Index (HDI) has risen steadily (with a dip during the Covid crisis) over the last three decades. OSI Sofia publishes an indicator of catching up with Western Europe (the *catch-up index*) measured on four dimensions: economy, democracy, quality of life, quality of governance². The conclusion is also optimistic: Eastern Europe is indeed catching up with the

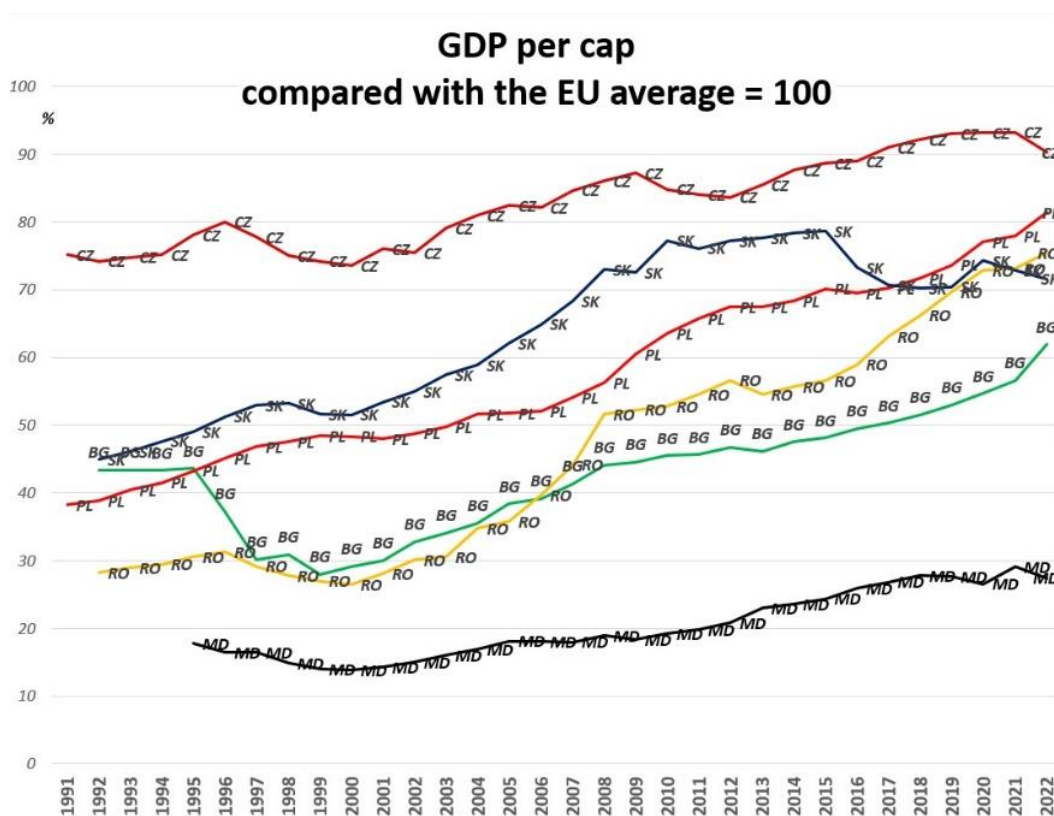
1 Richard Grieveson, 2024. “A Lot to Gain, A Lot to Lose”, in European Voices, issue 1 / 2024.

2 Marin Lessenski, 2016. *Don't Panic: Findings of the European Catch-Up Index 2015*. European Policies Initiative, OSI-Sofia (<http://www.thecatchupindex.eu>)

West, albeit a little faster on the economic dimension and a little slower on quality of life. Remarkably, Romania is permanently in the green zone of the index for the period analysed.

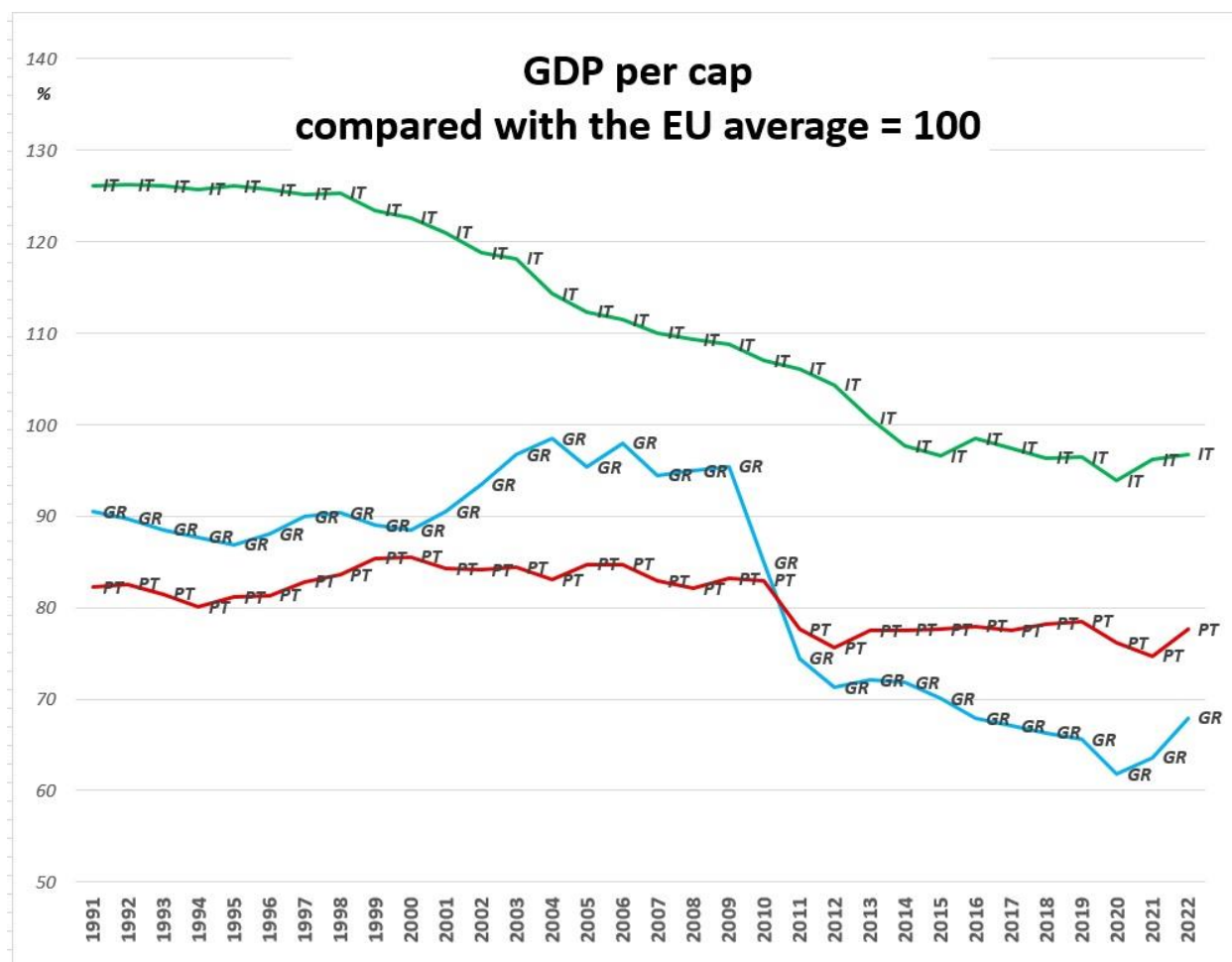
Convergence with Western economic development, as shown in Fig. 1, clearly reflects the influence of several factors, primarily the gravitational pull of the European Union. This becomes especially impactful once EU accession appears feasible. For example, there is a notable development gap between current EU member states and the Republic of Moldova. Although Moldova was not significantly behind Bulgaria or Romania in the mid-1990s, this gap has widened considerably since then. Without a clear EU perspective, Moldova missed the "rising tide that lifts all boats" effect typically associated with the pre-accession period. Another noteworthy observation is the intra-regional convergence: historically less developed former communist countries like Romania and Bulgaria have experienced stronger growth trajectories compared to more advanced, industrialized nations such as the Czech Republic. Consequently, the New Member States (NMS) region has grown more homogeneous since the fall of the communist regimes.

Fig. 1. Convergence in the New Member States



The positive trends observed in countries that joined the EU after 2000 are particularly noteworthy because they do not reflect a general European phenomenon. A significant number of older member states, especially those in the Mediterranean region, have experienced three challenging decades, with prosperity levels declining relative to the EU average, as illustrated in Fig. 2. The global economic crisis of 2008-2010, followed by a public budget crisis, partially explains Greece's struggles, for example, but this is less applicable to Italy or Portugal. The reasons for their prolonged stagnation are primarily structural. To better understand the situation and extract lessons that could benefit countries like Romania, we will shortly delve into a more detailed analysis of Portugal's case.

Fig. 2. Convergence / divergence in old member states



The pivotal question facing us today is the extent to which Romania — and the region as a whole — can sustain economic convergence over the next decade and beyond, amidst global shifts such as near-shoring, transformative changes in key industrial sectors like energy, automotive, and manufacturing, and the reduced potential for developing economies to leapfrog technologically and economically. Furthermore, to date, the convergence of the New Member States (NMS) has largely been achieved in auto-pilot mode within the conducive and neutral policy environment of the EU.

In the post-Covid era, Western states, particularly the major EU countries, have adopted more interventionist policies, aimed at steering development in new, "strategic" directions and quickly addressing emerging political and technological challenges. It remains uncertain whether the leadership and public sectors in the NMS are prepared for such tasks, which are much more complex than "adopting EU policies wholesale" which was the dominant attitude in pre-accession and post-accession so far. The quality of political and administrative elites, which was not an important factor as long as countries were governed on autopilot, may become one.

In the same vein, we do not know what is the future of the European automotive industry, to which a good part of the NMS industrial production depends, nor how successful the NMS can be with investments in research and development, high-end manufacturing and the global management and marketing implied by such products, all domains in which they have not acquired much expertise so far. To quote Graveson again, "*this economics of imitation appears*

to be a barrier to the next stage of region's convergence, and indicates a [NMS]-specific version of the middle income trap"³.

In the case of Romania, two crucial issues must be raised:

- to what extent the past trend of growth is sustainable in the new conditions, considering the deprofessionalization of the public sector in recent years, and
- to what extent the country's current model of growth is in line with the expected EU trends, likely to shift towards "green" production, sustainability and well-being as opposed to "pure" GDP growth based on affordable labour.

Romania also faces specific challenges such as increasing societal inequities — between public and private sectors, between "normal" and "special" pensioners, etc. — and declining competitiveness traditionally driven by low wages in industry and services. Long-term pressures will likely impact public budgets, including revenue losses from fossil fuels and increased expenditures on security, and social and health services for an aging population, as well as future increases in public pension costs due to a spike in retirements post-2030.

Despite 2024 being a hyper-electoral year, there is scant public conversation in Romania about these issues, even though political parties are expected to propose solutions in their campaign manifestos. The unusually long period from 2021 to 2023, which was devoid of elections, was expected to be a time of political stability and policy reform. Instead, it was largely consumed by quasi-electoral negotiations, party coups, and frequent rotations in government, all of which further undermined the quality and predictability of executive decisions. But this isn't the first time we've observed governments squandering the advantageous opportunities provided by the accession process during the second phase of their EU membership. Here's an example.

WHAT SHOULD ROMANIA LEARN FROM THE EXAMPLE OF PORTUGAL⁴?

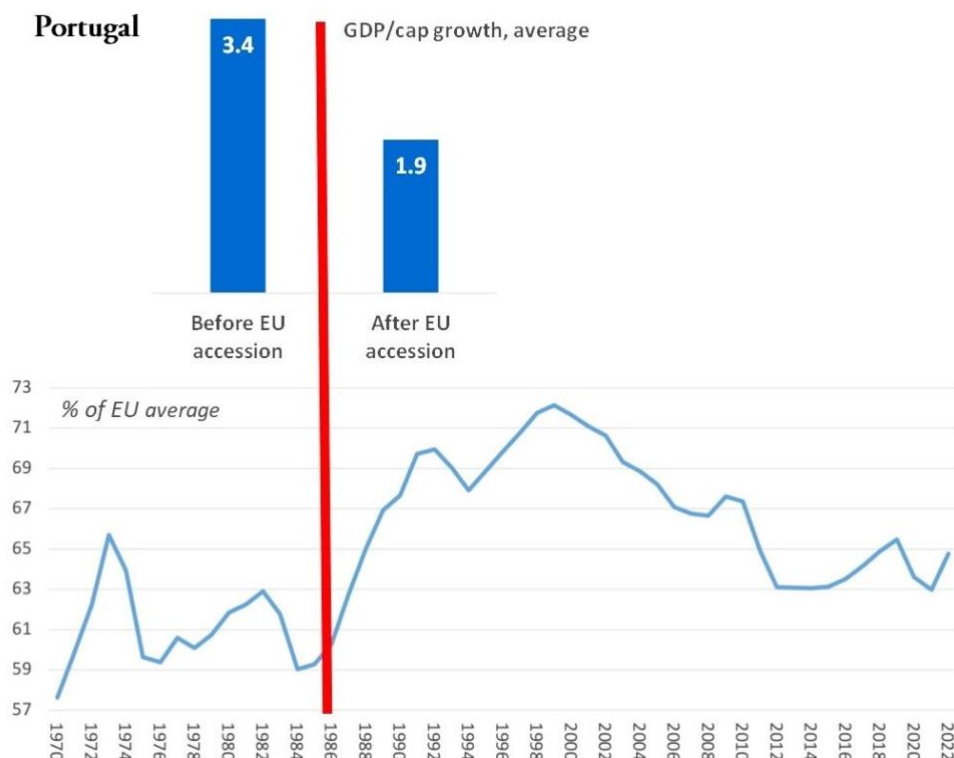
Portugal joined the EU in 1986 following over three decades of sustained economic growth, a journey facilitated by its earlier entry into the European Free Trade Association and the OECD in 1960, and a free trade agreement with the European Economic Community in 1972. This era marked the beginning of economic opening, liberalization, and de facto integration with what would become the European Union, leading to heightened prosperity and improvements in social development indicators. Initially, after its accession in 1986, Portugal continued to progress, albeit at a slower pace. However, over the past decade, this convergence with the EU has not only stalled but reversed, as depicted in Fig. 2. The detailed process of GDP per capita convergence before and after EU accession is illustrated in Fig. 3, showing a deceleration of growth and a decline in prosperity relative to the EU average after 2000, despite the EU's expansion to include new, poorer members, which lowered the Union's average.

Why do such negative trends emerge in some older EU member states — Portugal, Greece, and to a lesser extent Spain — that analysts have even begun referring to the phenomenon as "the post-accession curse"? Some countries seem to hit the wall around 15-20 years after joining, and then experience divergence or at least stagnation instead of convergence. Despite continued access to the large common market, substantial inflows of structural funds (generally, they are net beneficiaries), and more recently, the benefits of a stable common currency and low interest

3 Grieveson, 2024, *ibid*

4 Data and arguments in this section are from Lucio Vinhas de Souza, 2024. *Unhappy anniversary: Missed opportunities for growth and convergence in Portugal*, in VoxEU – the policy portal of the Centre for Economic Policy Research (CEPR)

Fig. 3. GDP trends before and after accession in Portugal



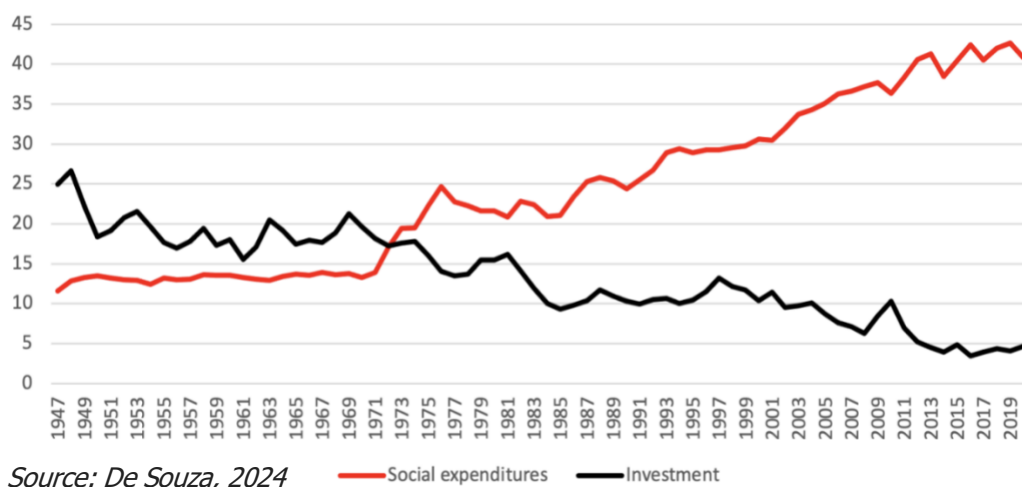
rates, the difficulties persist. De Souza identifies several reasons for Portugal's lagging performance over the past two decades in the article mentioned; let's summarize them here:

- Predominance of small enterprises (and micro-enterprises) with activities in non-tradeable sectors (mainly in tourism and small-scale agriculture); 96% of the country's companies are registered for the micro regime. These sectors often lack the scale needed to drive substantial economic growth.
- There is reduced spending on research and development by the private sector, coupled with a generally low level of overall investment. This limits innovation and the development of new, competitive industries.
- The growth of the state sector, with budget revenues going up between 1974 and 2022 from 20% to 45% of the GDP; and at the same time a substantial increase of "passive" social spending (pensions and other social transfers) at the expense of public investments; see Fig. 4.
- There has been a net emigration of highly skilled labor, as individuals find it much easier than in the past to move abroad in the new EU and pursue better career opportunities, thus draining the country of vital human resources.
- The phasing out of the one-off effect of urbanization: the migration of labour from the countryside to cities produced a temporary effect of productivity growth, but this effect cannot last forever.

The similarities between Romania and Portugal are numerous, highlighting several systemic challenges that could hinder Romania's economic progress. Like Portugal, Romania has a large proportion of small and micro-enterprises, which limits its economic scale and scope for innovation. Both countries are experiencing the rapid erosion of the advantage of cheap labor,

further compounded by net emigration and an aging population, which diminish the workforce and increase dependency ratios.

Fig. 4. Trends in public expenditure in Portugal



Source: De Souza, 2024

— Social expenditures — Investment

Romania also faces chronic, well-known difficulties in executing public investment projects. Often, allocated budgets for such projects are reduced during recessions or remain unspent due to bureaucratic inefficiencies, which hampers long-term economic growth. The migration of labor towards urban centers, which has historically boosted productivity by consolidating talent and resources in more economically vibrant areas, is still occurring in Romania to some extent but is expected to diminish over the next decade.

As these hidden engines of growth begin to falter, Romania risks following a trajectory similar to Portugal’s, potentially falling into a middle-income trap where it becomes challenging to sustain growth and catch up with more developed economies. This scenario underscores the importance of strategic policy-making and effective implementation to avoid such pitfalls. Concluding this comparative analysis, it is instructive to reflect on the words of the author quoted in this section, which encapsulate the broader implications of these shared challenges:

“The EU membership is not a ‘silver bullet’. Being an EU member is better understood as providing several instruments which, if properly used, can significantly support convergence (Vinhas de Souza et al. 2018). However, this positive result depends on the choice and implementation of a specific set of policies, as [other countries] show.”⁵

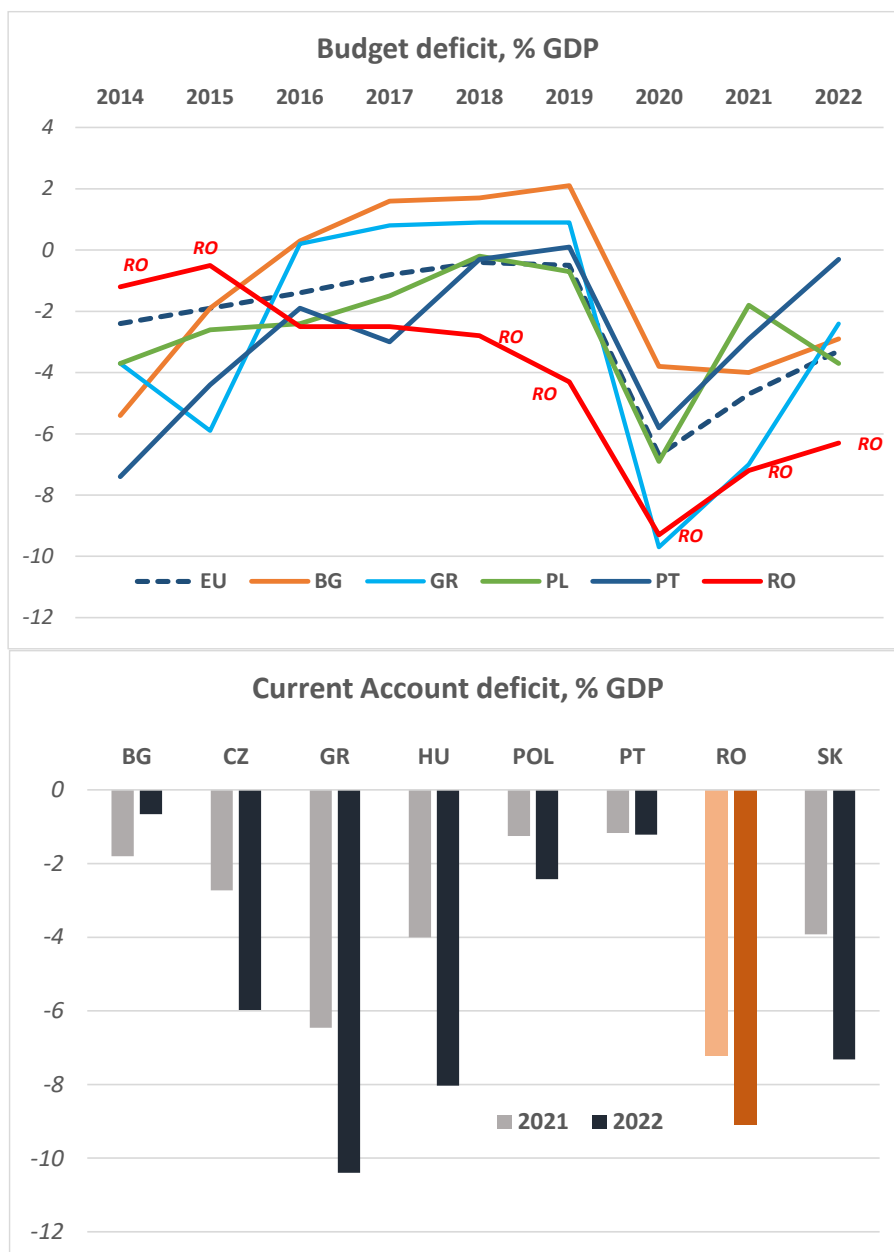
⁵ De Souza, 2024, ibid.

WHAT ARE THE RISKS TO ROMANIA'S CONVERGENCE PROCESS OVER THE NEXT TEN YEARS?

To systematically identify the risks affecting Romania's development trajectory, we conducted interviews with a number of leading Romanian and international economists and development analysts⁶. These discussions revealed a set of **seven key factors** which are detailed below.

1. The twin deficits and the major policy reverse of 2015

Fig. 5. Budget and CA deficit in Romania, compared with other EU states



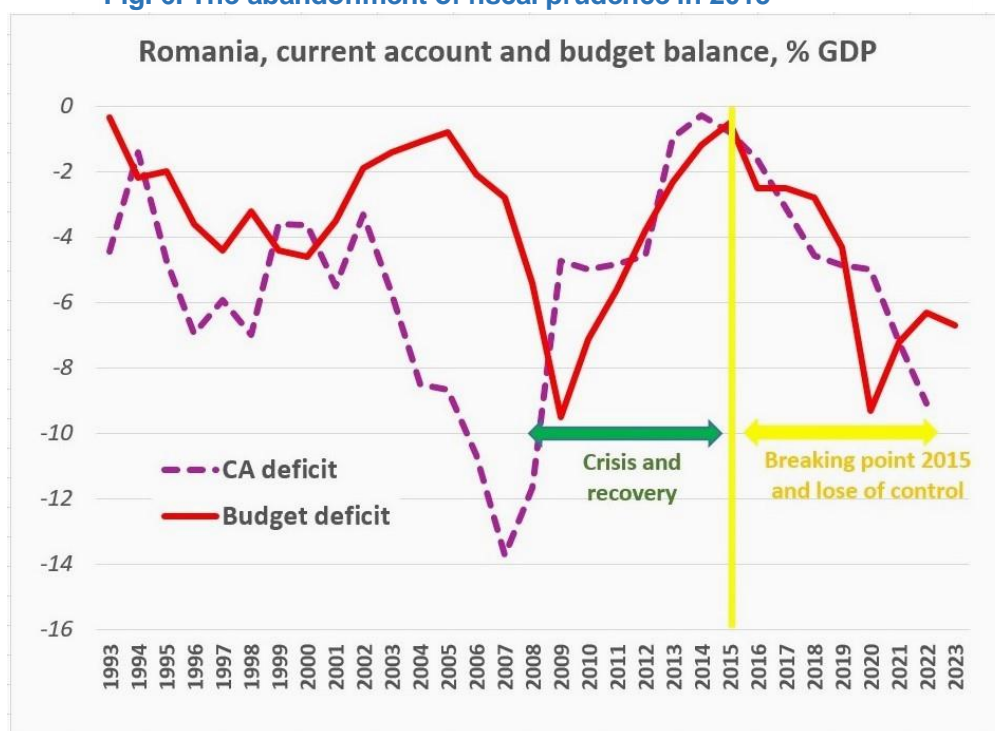
In recent years, Romania has experienced the most toxic combination of budget deficits and current account deficits within the EU, as illustrated in Fig. 5. Even Greece, previously criticized

6 Some agreed to be quoted in this report, others chose to remain anonymous; we are grateful to all.

by analysts after the last global economic crisis, has recently been on a more sustainable path – so much so that *The Economist* named Greece the Country of the Year for 2023, highlighting its substantial improvements in crucial economic and financial indicators. In addition, Romania was the only country in the EU with an excessive deficit procedure in 2023; the termination of this procedure, scheduled initially for 2024, is unlikely to happen soon.

This dual imbalance, comprising both an external deficit and a budget deficit, has persisted for seven or eight years. This situation originated in 2015 when the government of that day substantially altered the Fiscal Code by introducing numerous tax exemptions and facilities with an electoral aim for the 2016 elections – see Fig. 6. This was an abrupt reversal from the previous course when center-right governments (and even the same center-left administration during its first year in power) made painful efforts to eliminate the twin deficits, under the IMF program from 2010 to 2015, aligning Romania with similar Central and Eastern European countries. There is no objective explanation for this about-turn in fiscal discipline than the arbitrary decision of the leaders of that day to loosen the control and let things happen, in a period with good economic growth when fiscal space could have been created for future reforms. Without that unnecessary downturn, the country could have navigated in much better conditions the hard times which followed after 2020.

Fig. 6. The abandonment of fiscal prudence in 2015



Currently, Romania’s accumulated debt remains manageable, thanks in part to European funding and the strong interest from investors in Romanian securities, which offer high interest rates. The emergencies of the last years – the Covid crisis which started in 2020 and the war in Ukraine following immediately after, with an initial spike in energy prices and increased uncertainty all along – served somewhat paradoxically as a cover for these domestic policy failures, moving the attention to broader, geopolitical considerations and weakening the external controls from Brussels. However, a critical question arises regarding the sustainability of the investor’s interest for Romania, especially considering that during global crises, the first countries to be abandoned by investors are typically those with significant macroeconomic imbalances.

2. The need to change the current growth model

Fig. 1 and 2 in this report show that Romania has achieved convergence with the EU, including during the last few years, in spite of the successive crises created by the Covid pandemics and the war in its vicinity; arguably, it was even helped by them. Indeed, it grew more rapidly than some neighbouring new members from Central Europe. The big problem is that this trend is based on an unsustainable growth model centered on consumption, supported by a higher volume of imports than exports and financed through rising external debt – see Fig 5 and 6. This production structure and GDP composition have been entrenched for so long that they have almost become the default setting for local decision-making processes.

In contrast, Poland the Czech Republic or even Bulgaria have managed to preserve a much smaller current account deficits than Romania (Fig. 5) relying much more on investments and exports. This model of development, often associated with Germany, is considered more sustainable, even though German exports are currently facing challenges due to shifting trade flows. The contrast between Romania and Poland is probably the most relevant and instructive, because both countries are relatively big, started the post-communist transition with similar socio-economic structures, and Poland is often taken as a reference by Romanian commentators and decision-makers. Changing the unsustainable development course based on domestic consumption financed with volatile inflows of funds seems however a no-go for the current decision-makers in Romania, as it would be too costly politically.

3. Declining revenues from oil and gas

The exploitation of oil and gas generate massive revenues to the public budget of Romania: 7.8% of the total government revenues in 2021 and 9.7% in 2022. Additionally, royalties and windfall taxes paid by the oil and gas sector add another 3.7% of total government revenues in those years.

Recent debates have fervently questioned whether revenues from the exploitation of mineral resources could be even higher. Many policymakers, commentators, and a significant portion of the public live under the impression that increasing these revenues could easily resolve the budget deficit issue mentioned earlier at (1) and address the dilemma of the growth model (2) by transforming Romania into a rentier state, relying less on direct taxes and social contributions, and more on windfall gains from taxing oil and gas concessions. This proposition is appealing to both the right (as it would allow them to keep direct taxation low) and the left (as it would penalize global capitalism).

However, whether fortunately or unfortunately, Romania is unlikely to become such a petro-state. First, development theory warns of a 'natural resource curse,' a globally observed statistical correlation between abundant natural resources and the likelihood of poor, clientelistic, and authoritarian governance. Essentially, the rentier state model, aspired to by many Romanians, is generally undesirable.

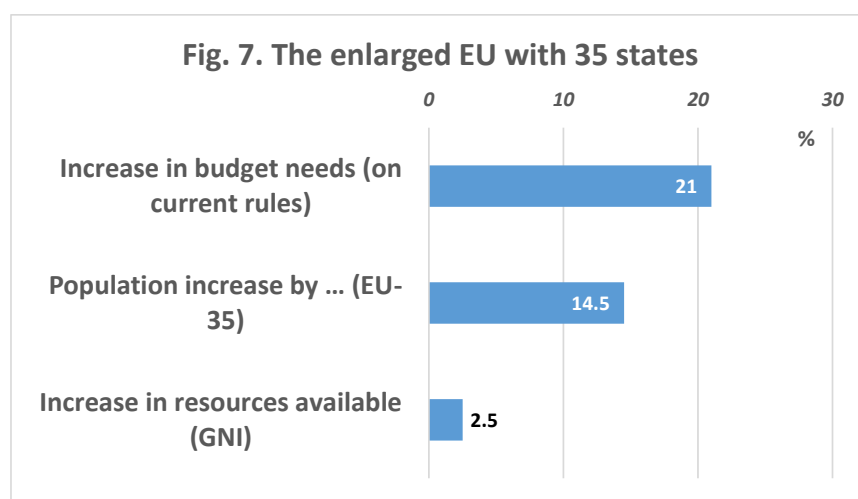
Second, such hopes are largely illusory anyway. According to the European Commission's Strategic Foresight Report 2023, forecasts predict a contraction of this tax base in Europe due to the phasing out of fossil fuels. Romania, one of the few EU countries with oil and gas reserves, is already seeing a gradual decline in oil production with little prospect of reversing this trend, because the perimeters are old and depleted.

The situation with gas is more complex, with a potential temporary increase in production and possibly budget revenues when offshore fields in the Black Sea become operational in the next years. However, the quantities are not unlimited, and the conversion of production into budget revenues is influenced by numerous variables, such as fluctuations in gas prices, the phasing out of natural gas in Europe which would push prices even lower, and the policy decisions regarding taxation levels. EU will half its gas consumption by 2030, and there will be increasingly new burdens on the oil and gas industry to reduce methane emissions. The fight to curb methane

emissions, resulting in higher standards, expensive equipment and a high probability of a future methane pricing system is a matter not adequately considered by Romanian decisionmakers and fossil industry to date, but one which will significantly reduce the profitability of gas extraction beyond 2030. Geopolitical instability in the Black Sea area creates additional uncertainty for the natural resource extraction, with its high upfront investments. All in all, it is likely that beyond 2035, the sector's contribution to public coffers will be on the decline. This means that a sizable fraction of this source making up about 10% of government revenues today will slowly phase out.

4. The end of EU funds as we know them

According to EFOR's projections, it is anticipated that by 2035 the Union will expand to include eight new members: Moldova, Ukraine, and six Western Balkan states, all currently candidate countries; a ninth state, Georgia, hangs in balance. EU internal documents consulted by EFOR suggest that this wave of enlargement into less affluent regions will present the future EU-35 (a coincidental numerical match for the year) with significant financial challenges due to disparities between the needs and available resources. If funding allocation rules do not change, the situation will look like in Fig. 7. It is estimated that most of the additional funds needed, around 72%, will be directed towards Ukraine.



But of course, the rules for the money allocation will not remain as they are today; substantial changes will have to be implemented. If we extrapolate on the current regulations and keep the same level of contributions, the average support per hectare under the CAP will have to be reduced by more than 20%, largely as a result of Ukraine's joining; Ukraine's Utilized Agricultural Area (UAA) exceeds that of France by 35%. The allocations for Ukraine may be even higher if a large share of its agricultural land would require extensive environmental clean-up after the war. But all these things will be very difficult to accept politically in Europe, so in practice, a mix of strategies will be employed, including:

- Increased national contributions to the common budget, from 1% to 1.2% of GNI or above;
- Reduced spending on Cohesion and the Common Agricultural Policy;
- Phasing out of the Common Agricultural Policy altogether, which is one of the most anti-competitive and protected sectors of the EU: one third of the total budget of the Union is transferred to just 4% of the population officially employed. Many of these people are above the EU average in terms of family income.

- Re-prioritization of spending on high added value sectors such as innovation, R&D, the connecting Europe facility, green transition and energy security, border management and the new priority of defense.

More details about how these adjustments to the budget philosophy and regulations align with the broader pattern of European Union reforms can be found in Chapter 5 of this report. In addition to the existing spending rules, a financial mechanism for Ukraine's post-war reconstruction will be established. The need here is substantial and grows with each month that Russian aggression continues. An assessment, which may already be outdated, estimates the total reconstruction costs to be on a scale comparable with the entire Common Agricultural Policy (CAP) budget for a seven-year cycle⁷. Overall, the preliminary internal reports circulating within EU institutions suggest that:

- both the Cohesion and CAP funds will be substantially changed and reduced
- many EU members, including some NMS, will become net contributors to the common budget.

Among the experts consulted by EFOR, opinions are divided: some believe that Romania is likely to receive less funding in and after the 2021-2027 cycle, yet will remain a net beneficiary. Others predict that Romania may become a net contributor, not necessarily at the initial phase of fund allocation, but possibly because Romanian authorities might not effectively utilize the allocated funds once the instruments become more competitive and performance-based. To support these conclusions, two things are clear:

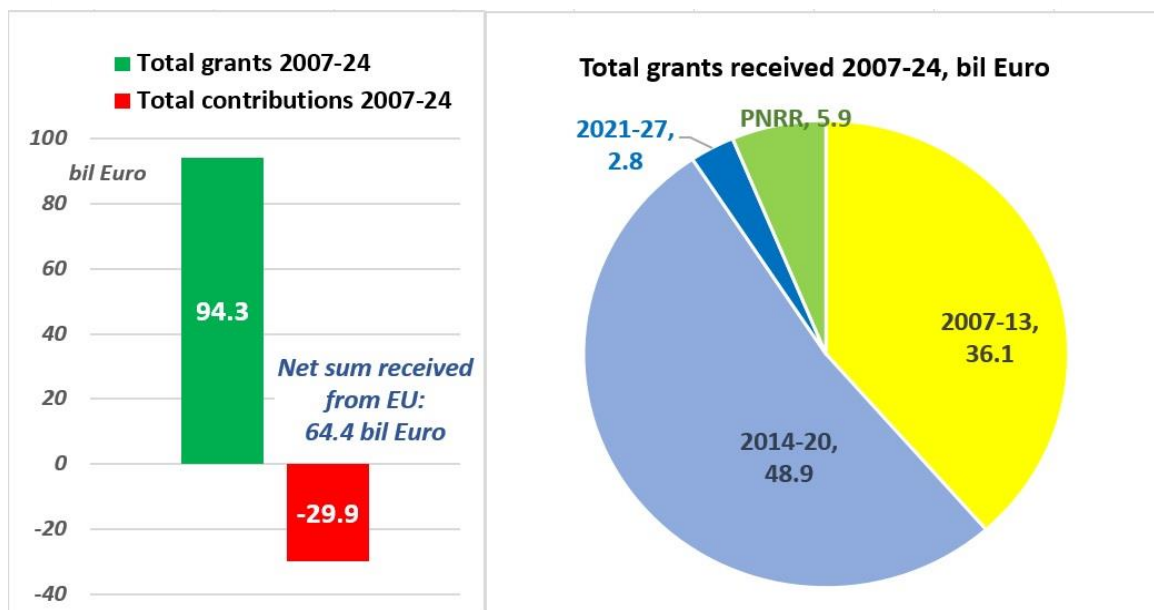
- the Recovery and Resilience Program (PNRR) will be terminated in 2026 and is unlikely to be renewed;
- two Romanian NUTS 2 regions, and very possibly three, will surpass the threshold of 75% GDP/cap of the EU average, and therefore become ineligible for Cohesion funds.

This combination of the end of the NRRP — surprisingly the main focus of Romania's efforts and discussions in recent years, despite it representing just a fraction of the total funds available in this seven-year cycle, as Fig. 8 illustrates — and the reduced allocations from the Cohesion Funds and CAP in the upcoming budget cycle, should prompt serious reflection among decision-makers. The net inflows of EU funds to Romania since 2007 until this day have amounted to **64.4 bn Euro, which represents about 2-2.5%** of Romania's total GDP between 2007 and 2023. Even if Romania does not become a net contributor and remains just above break-even, the potential permanent loss of EU inflows amounting to 1-2% of GDP could have significant impacts on many sectors of the economy. The prospect to become a net contributor cannot even be contemplated, not just because of its economic repercussions, but also due to its political implications.

If EU funding is significantly reduced, essential public infrastructure projects in transportation and environmental sectors will likely need to be financed through borrowing, thereby intensifying the budget constraints outlined in point (1). The focus is likely to increasingly shift toward large **pan-European projects**, particularly in the sectors previously mentioned, plus the energy sector, or toward **financing models based on reform conditionality**, similar to the approach incorporated in NRRP (see further details in Chapter 5). Historically, the Romanian authorities have never been very comfortable with either of these two approaches.

⁷ World Bank, EU, UN, 2023. *Ukraine Rapid Damage and Needs Assessment: 2022 – 2023*. Washington, DC.

Fig. 8. The balance of payments Romania–EU budget after accession



In **agriculture**, the withdrawal of currently generous subsidies will necessitate major adjustments. Over just a decade and a half, these subsidies have become a norm for many agro-business operators, both large and small. It is challenging even to predict today which entities could be viable in a truly competitive environment without them. The protest incidents in 2023 and 2024, where farmers in Romania and other NMS felt threatened by the more efficient and less protected Ukrainian agro-businesses, should serve as warning signs. Farmers represent a powerful interest group in Europe punching politically above their weight. A **de-risking strategy for agriculture**, in response to potential cuts in EU funds, would involve a detailed analysis by subsector and type of exploitation to identify and categorize those:

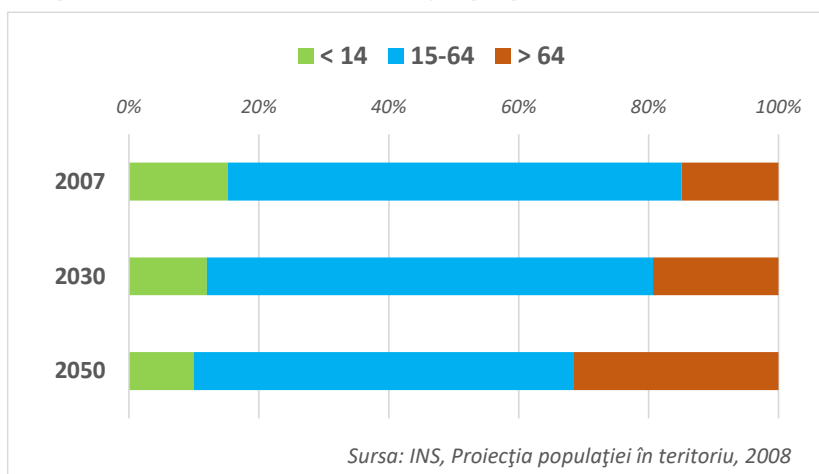
- (i) that are highly dependent on subsidies and unlikely to survive in the market without them (high risk), and
- (ii) those that rely less on subsidies and more on protectionist regulations that shield them from third-country producers (medium level of risk).

Entities in the first category are more vulnerable to any changes in EU budget allocations, while those in the second category will face increased competition from Ukraine, Moldova, and Serbia as these countries progress toward EU accession. One should however bear in mind that the increased competition would bring substantial benefits to the consumer, reducing food prices, even though consumers are less vocal than the agricultural lobby.

5. The demographic decline and the shock for the public pension system after 2030 when the Romanian baby boomers (“decreștii”) will retire

Europe is aging, and the NMS are no exception to this trend. On the contrary, this trend is even more pronounced in Eastern Europe due to the emigration of the working-age population to the West during the transition decades, with countries like Bulgaria and Romania experiencing the highest percentage of population loss among current EU members. These developments will continuously strain the public pension system in the coming years, which is already challenged by a combination of factors specific to the post-communist world, as is very evident in countries like Romania: early retirements during the restructuring of the large socialist industries; a low participation rate in the official labor market, due to a specific social structure (a high percentage of the population in rural areas, with subsistence households and low levels of education); and an increase in the life expectancy at 65 due to improved living conditions and medical services.

Fig. 9. Romania’s population by age groups



The big problem is that, unlike other former socialist states, Romania exhibits a truly unique demographic characteristic: it experienced a policy shock in October 1966 with the sudden decree of Ceaușescu which banned abortions in an attempt to counter the dramatic decline in birth rates which occurred in the early 1960s; see Fig. 10 below. This was followed by a two-to-three-year period during which the birth rate suddenly doubled, only for the effect to gradually diminish afterwards, proving that the worsening living conditions had a much greater impact on couples' decisions to have children than the regime's coercive methods. This led to the emergence of what is today known as the “*decreștii generation*” – an age cohort almost twice as large as those immediately preceding it, which subsequently transmitted this shock to the social services that needed to adapt quickly, such as the healthcare and school system.

All European countries underwent a demographic transition after World War II, including the former communist nations, but these shifts were gradual, without the abrupt disruptions seen in Romania. Consequently, starting from 2030, Romania's uniquely skewed demographic pyramid will create a shock to the pension system as this oversized generation begins to retire. Essentially, retirement claims in the state public system (pillar 1) will double in a single year, following years of lesser pressure; see Fig. 11. And this problem won't be solved in just two to three years, as the generations to follow for the next couple of decades will remain bigger than those retiring by 2030. Fig. 9. illustrates vividly the rapid pace of aging of the Romanian society after 2030, when these large generations reach the retirement threshold.

Fig. 10. The policy shock of 1966: average births per woman, Romania vs. France

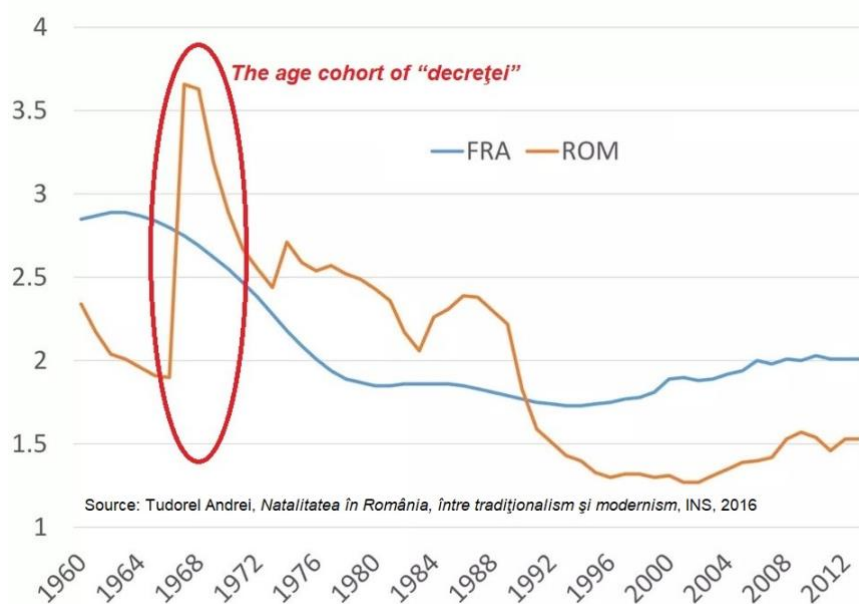
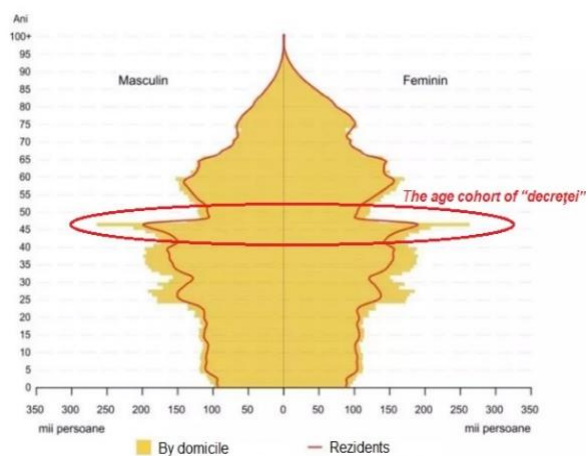


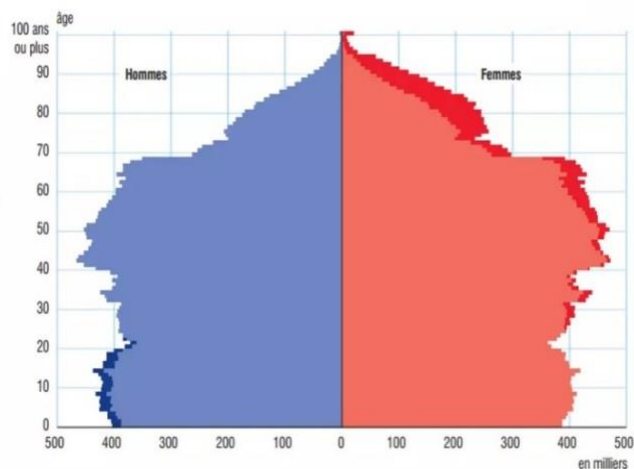
Fig. 11. The “decreței” age cohort and demographic structure in 2014, Romania vs. France

Source: Tudorel Andrei, *Natalitatea în România, între tradiționalism și modernism*, INS, 2016

ROMÂNIA



FRANȚA



Various solutions can be considered to address this issue, which is compounded by the loss of active labor due to emigration: raising the retirement age, increasing labor force participation through active employment measures, placing more emphasis on the pension system based on savings (pillar 2), or allowing more immigration from outside the EU into Romania. However, there is no one-size-fits-all solution, and each option is unpopular with voters in its own way. Consequently, there is strikingly little discussion among policymakers to confront the uncomfortable question of who will be funding public pensions in ten years' time, because this moment is well beyond the planning horizon of the parties competing in the 2024 election year.

6. The migration-politics nexus

Migration has become an intensely divisive issue in EU politics, particularly after the 2015 refugee crisis. Future decades are likely to see heightened pressures from global conflicts, economic distress, and climate-related disasters. The year 2024, a critical electoral period, could see identity politics threatening the foundations of liberalism and democracy in the EU, its member states, and even the US. For any political entity to function effectively, its members must share a common purpose, values, and identity. These foundational elements are challenged by significant demographic changes, as seen in key events like Brexit in 2016 and the rise of right-wing politics across countries such as the Netherlands and Sweden, largely driven by migration issues and concerns over national identity.

Globalization has led to industrial relocations and job losses, while increased mobility has created a stark divide between those benefiting from and those disadvantaged by these changes. This disparity, coupled with wage stagnation and industry disruptions from rapid technological advancements, deepens societal rifts and fuels political polarization. This often results in populism and the rise of authoritarian figures as scapegoats are sought for unresolved structural problems.

Today's crisis in democracy centers on how nations define membership and sovereignty, contend with historical memory, and respond to globalization. This is in direct conflict with previous immigration policies of liberal democracies, which were largely economically driven and influenced by humanitarian considerations, as well as Europe's demographic decline.

In many EU countries, concerns over immigration and ethnic or religious diversity are exploited by far-right and neo-nationalist groups for electoral gain. Establishing a balanced migration policy is crucial. It should aim to reduce irregular migration and foster well-managed legal pathways, coupled with development policies that harness migration as a growth driver to offset Europe's demographic challenges. Such measures could also enhance the social acceptance of immigration. Conversely, the absence of these policies encourages sectarianism, with extremist parties seeking to dehumanize individuals and groups. This trend is exacerbated by the proliferation of hate speech and targeted disinformation campaigns, both domestically and internationally.⁸

In a report published in 2023, the European Commission identified long term trends and disruptive events that impact on EU's demographic changes. Among the long-term trends are the increase of life expectancy at birth, and net migration to the EU in the past 35 years; the most impactful disruptive events were Brexit, the pandemic, and Russia's war of aggression against Ukraine⁹. According to the study, Brexit and the pandemic have generated reverse flows of migrants in the EU. Data collected by Eurostat from 13 EU member states¹⁰ shows an increase of 50% in the number of EU citizens leaving the UK in 2020 compared to 2015. The reverse migration impacted especially the Central and Eastern European countries. The pandemic opened more opportunities for remote work and therefore may also be credited in part for the movements of workers inside EU borders, but also for immigration towards and migration from the EU.

The figures so far and the projections suggest a different story than the conspirative *Great Replacement Theory* suggests. To date, 2-3 million immigrants come to EU-27 member countries from non-EU every year, and in 21 of 27 EU countries, more than 50% of immigrants came from outside of the EU in 2021. While migration is hard to predict, various estimates

8 Choosing Europe's Future – Global Trends to 2040, https://espas.eu/files/espas_files/about/2024-ESPAS-Global-Trends-to-2040-Choosing-Europes-Future.pdf

9 *Demographic Change The Impact of in a changing environment*, European Commission, 2023, p. 5

10 Belgium, Bulgaria, Czechia, Estonia, Spain, France, Croatia, Italy, Lithuania, Hungary, Austria, Slovakia, and Sweden

indicate that today's migration flows are not enough to compensate for Europe's demographic decline, and without migration, EU's population would decline by more than a third by 2100.

Fig 12. Immigrants from non-EU countries (top) and internal EU migration, 2013-2021 (Eurostat)

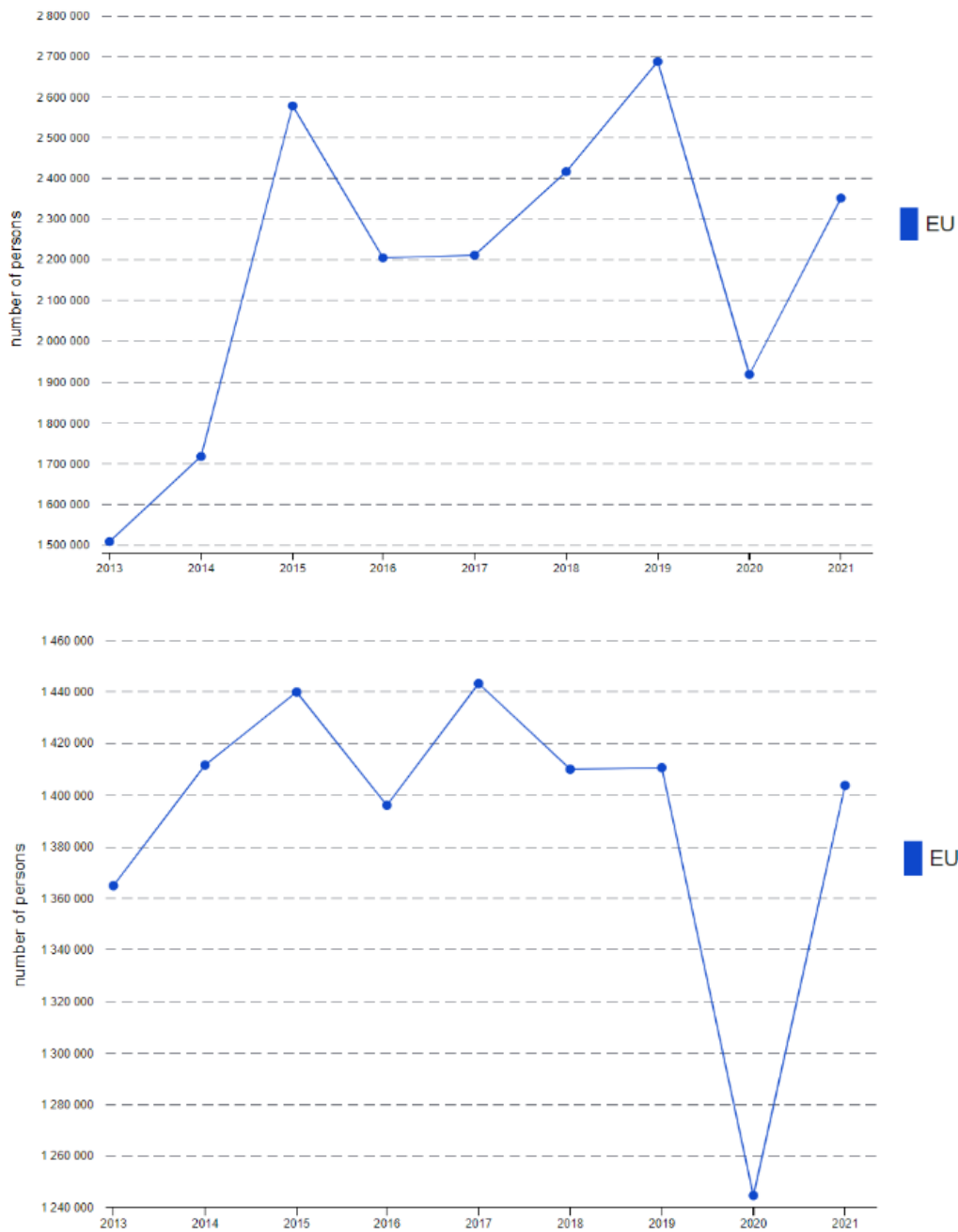
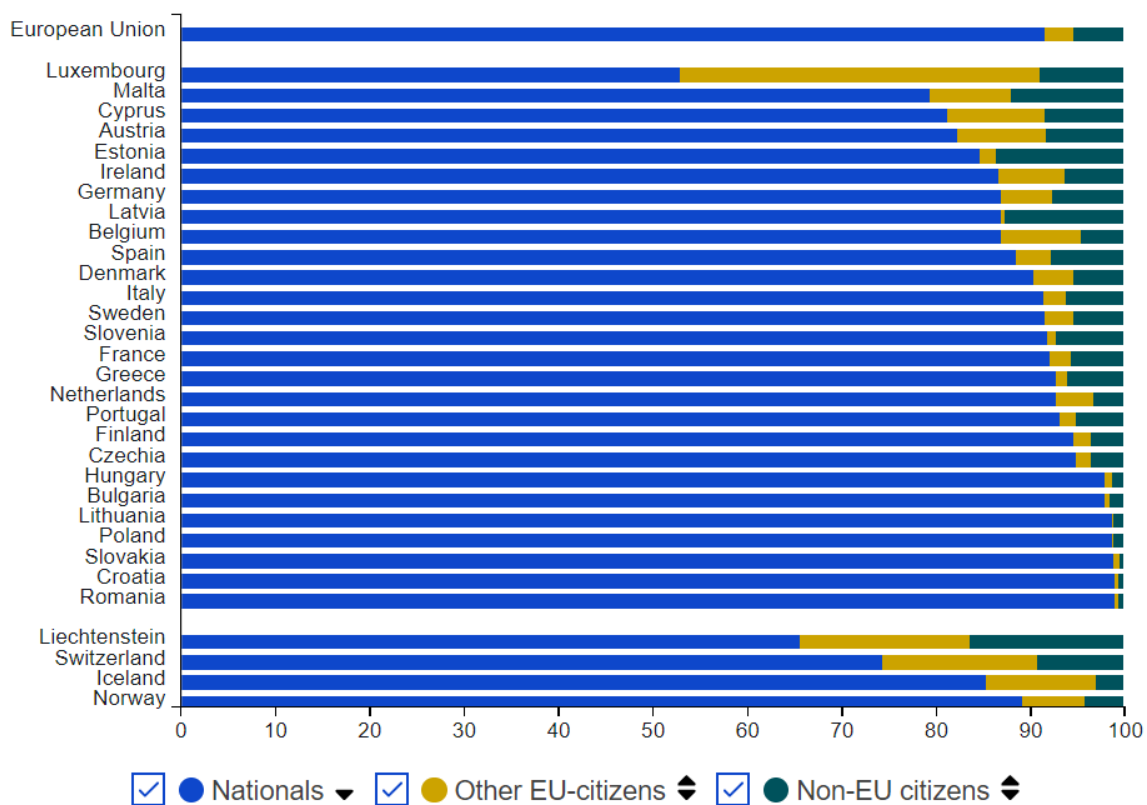


Fig. 13. Population by citizenship, 2022 (% of total population), Eurostat



MIGRATION FROM UKRAINE

Russia’s war of aggression against Ukraine has generated displacement for a significant part of Ukraine’s population both internally and to other countries. UNCHR data of Feb 2024 show that “there are 6.3 million Ukrainian refugees worldwide, with 5.9 million in Europe and almost 4.3 million in EU Member States”¹¹. The displacement is likely to continue at least in part in the coming years and that the numbers may also increase in case the situation in Ukraine worsens. According to the European Commission “The highest numbers of people fleeing Ukraine relative to population were registered in Czechia (3.9%), Estonia (2.7%) and Poland (2.7%) [...] At the end of Oct 2022, most decisions granting temporary protection were recorded in Germany (1.02 mil) and Poland (0.87 mil)”¹². While the temporary protection was extended until Mar 2025, the discussion about the mechanisms to be employed passed this date for the Ukrainians that decide not to return to their home country has not taken place. The war has also generated in 2022 “a historic emigration wave of an estimated one million Russian citizens” mainly towards Turkey, Serbia, Armenia, Georgia, Kazakhstan, and Kyrgyzstan. In the EU the number of first time permits increased by 35% in 2022 compared to 2021.¹³

Thus, the growth of EU’s population is expected reach a plateau at the end of the decade followed by a decline in overall numbers. This change in the population growth trend is likely to impact differently particular countries and regions. Countries such as Bulgaria (-26%), Greece (-

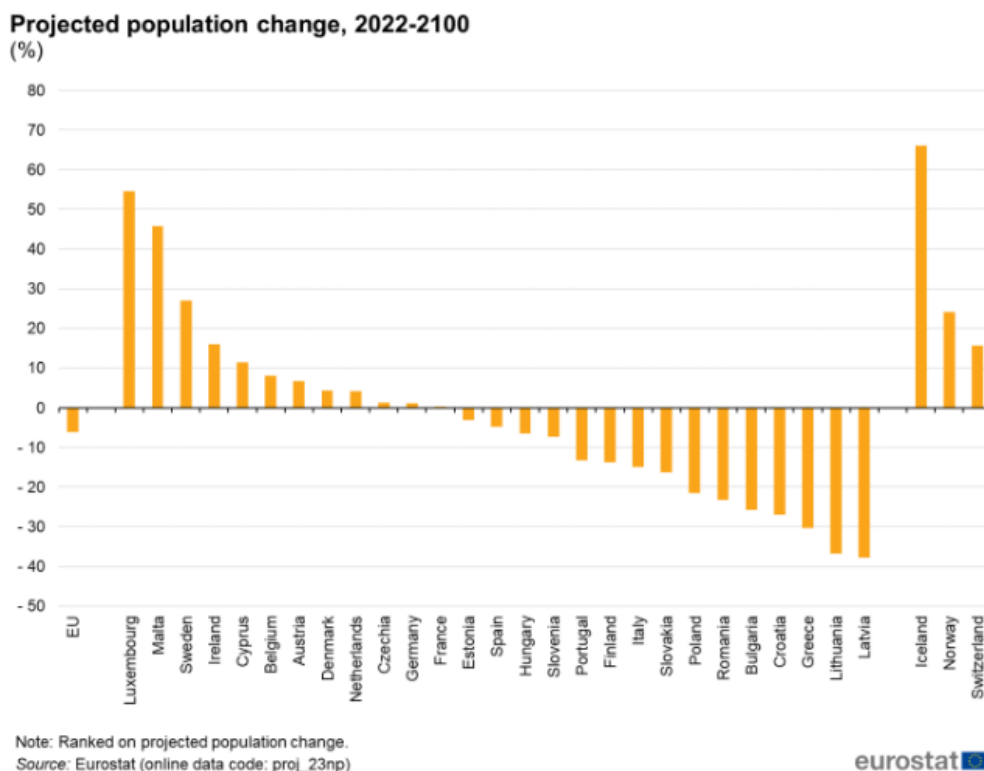
11 ICMPD Migration Outlook Eastern Europe and Central Asia 2024 *Eight migration issues to look out for in 2024 Origins, key events and priorities for Europe*, p. 7

12 *Demographic Change The Impact of in a changing environment*, European Commission, 2023, p. 18

13 ICMPD Migration Outlook Eastern Europe and Central Asia 2024 *Eight migration issues to look out for in 2024 Origins, key events and priorities for Europe*, p. 2

30%), Croatia (-27%), Italy (-15%), Latvia (-38%), Lithuania (-37%), Hungary (-7%), Poland (-22%) and Romania (-23%) will see their population decline, while overall rural areas are losing population faster than urban areas¹⁴. A 2023 study published by the European Commission¹⁵ shows that “the EU population is projected to increase from 446.7 million in 2022 and peak to 453.3 million in 2026 (+1.5 %), then gradually decrease to 447.9 million in 2050 and to 419.5 million in 2100, thus with an overall decrease of 27.3 million (-6.1 %) from 2022 to 2100”. By 2100, the net migration to the EU will likely compensate for the negative trend in the number of population only in 12 EU countries, while the rest will see a decrease in overall numbers.

Fig. 14. EU population projections by Eurostat



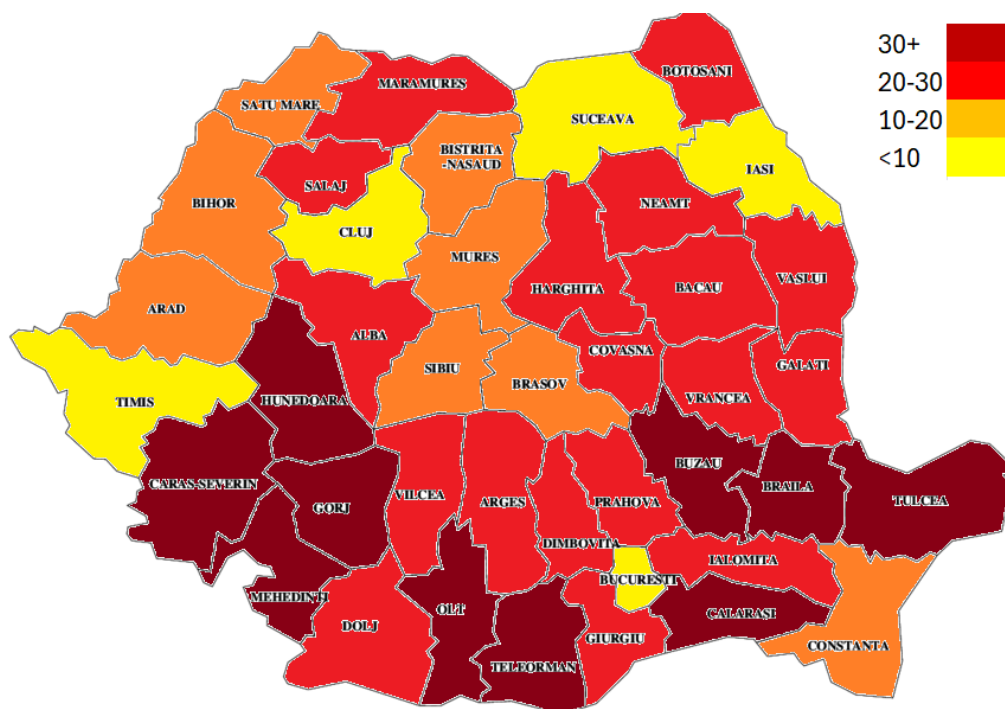
Eurostat predicts that in 2100 there will be two elderly persons for every three working age persons; in 2022 the ration was one to three¹⁶. With the increase in life expectancy, the EU population is aging rapidly, with the younger population accounting for only 16,3% in 2021. The share of people older than 65 years is expected to be around 30% in 2030, growing at a fast pace from 20,8% in 2021 and 17,8% in 2011. Romania will face similar challenges. According to Eurostat projections, Romania is expected to receive less migrants than the EU average until 2085.

According to Eurostat, Romania’s population is expected to decrease constantly from 19 million in 2020 to 13 million in 2100. The number of people leaving Romania will continue to supersede the inflow of migrants until 2050, while after that year the trend is expected to reverse. All counties in Romania, including Bucharest-Ilfov, will experience significant drops in population, and the decline in 10 counties will exceed 30%. The great unknown is the extent by which future patterns of migration could change the picture.

14 Eurostat Demographic Balances

15 Demographic Change The Impact of in a changing environment, European Commission, 2023,

16 https://ec.europa.eu/eurostat/statistics-explained/index.php?oldid=497115#Population_projections

Fig. 15. Population decline in Romania by county over 2020-2050 (% of population)

Source: Eurostat projections

In the past two-three years Romania has become increasingly attractive to non-EU migrants, including those from countries other than Ukraine. This is evidenced by a steady rise in the number of visas issued for entering the country. The total number of foreign nationals residing legally in Romania has seen significant growth: EU and SEE nationals increased from about 40,000 in 2011 to around 58,000 in 2022, while the number of third-country nationals surged from approximately 57,000 in 2011 to 114,000 in 2022. Data concerning the issuance of residence and work permits in Romania further illustrates this trend. Although the absolute numbers remain relatively low, the rate of increase is exponential for both visas and work permits.

Thus, in 2022, Romania ranks at the top among EU countries in work permits for Sri Lanka (56% of all permits granted in the EU for citizens of Sri Lanka) and Nepal (22%); over 2013-2022, the annual number of work permits for non-EU citizens has increased 20-fold¹⁷. Though in absolute figures this inward migration remains relatively low (31,000 work permits for non-EU citizens in 2022), the numbers may increase substantially in the future. Of the 115,000 people who obtained a residence permit in Romania in 2022, only just over a quarter have also requested work permits, which suggests that a large share of immigrants intend to move elsewhere. To date, Romania has among the lowest share of non-EU citizens in the entire Europe. Shifts in migration happen rapidly and the future trend depends on various factors, such as the availability of economic opportunities, or Romania's entry into Schengen, which could ease the relocation of immigrants to other EU countries or, on the contrary, may encourage many more to come. So far, inward migration from outside the EU consists primarily of low-skilled labor. With the increase in demand for healthcare and old age services, a higher number of workers and providers in such services may be attracted from non-EU countries.

¹⁷ <https://monitorsocial.ro/indicator/romania-devine-o-tara-de-destinatie-pentru-migratie-economica/>

Fig. 16. Visa requests in Romania

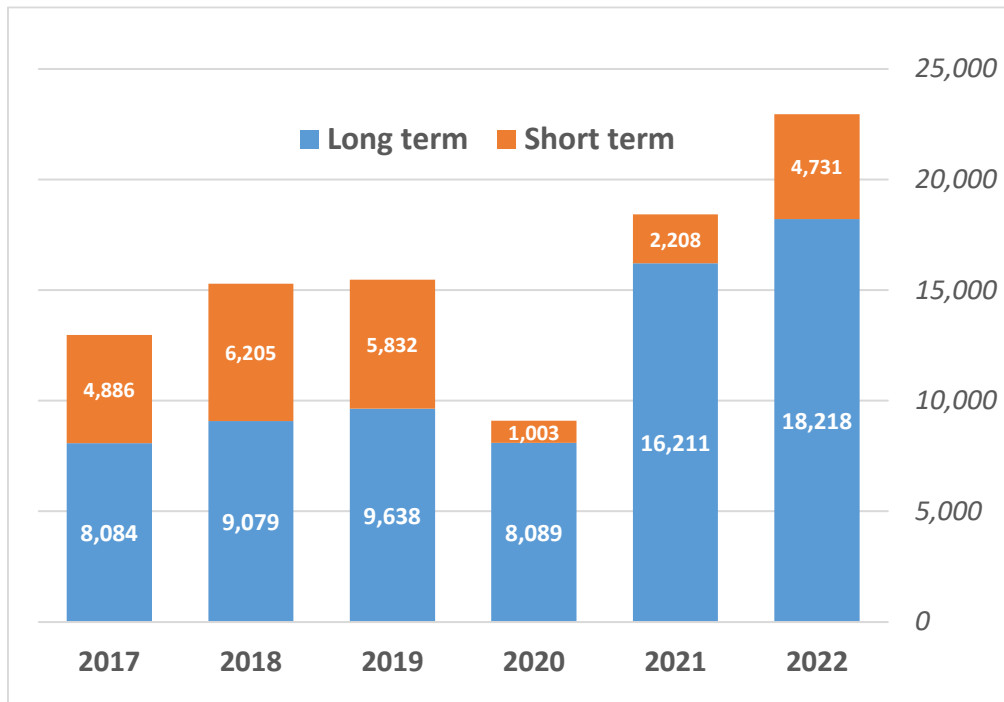


Fig. 17. Work permits issued

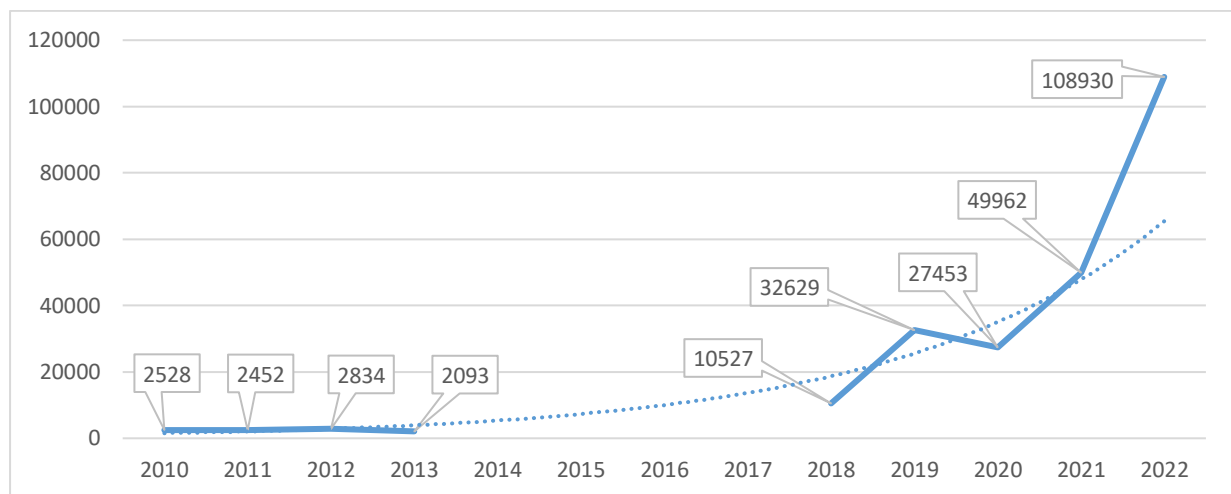


Figure 18. New yearly asylum requests (repetitive requests not included)

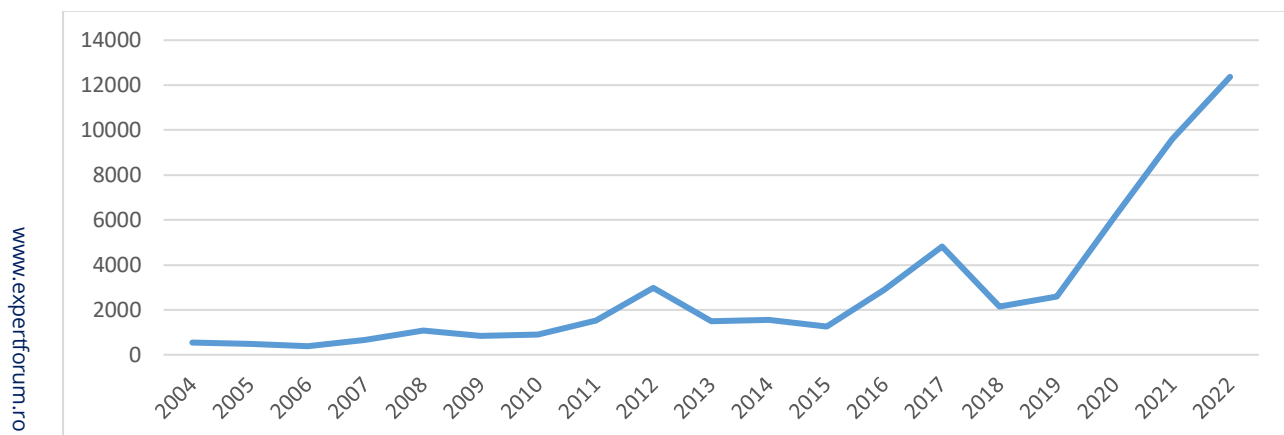
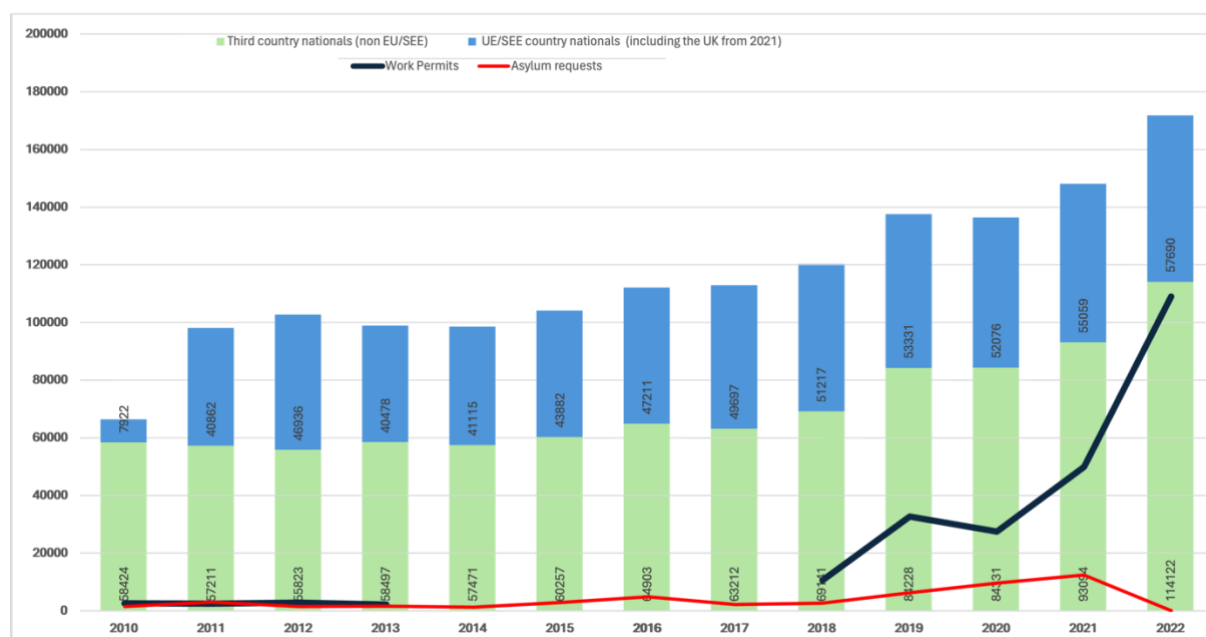


Fig. 19. Foreigners in Romania



In shaping its migration and immigration policies, Romania could greatly benefit from the experiences of other countries that have previously navigated similar challenges. A valuable resource might be the OECD's "Settling In: Indicators of Immigrant Integration" series, which covers various aspects of immigrant life from employment and living conditions to civic participation and social integration, with a focus on gender and youth. The OECD emphasizes the critical importance of collecting precise data on immigrant integration to inform policy debates. However, Romania has historically struggled with consistent and effective data collection and utilization in policy development, implementation, and evaluation. As Romania approaches the OECD accession process, enhancing data collection and usage in policymaking will be crucial.

In the employment sector, immigrants generally face higher unemployment rates across the EU, particularly in Southern Europe. In Romania, the legal and institutional frameworks governing labor are complex and outdated, complicating employment relations for nationals and even more so for immigrants. It is crucial to simplify and clarify labor regulations to make them more accessible to workers, including information on entitlements and the procedures for terminating employment. Recent media reports of employer abuse against immigrant workers highlight the urgent need for Romania to improve its ability to identify and address such issues promptly.

Family reunification is common among labor immigrants in OECD and EU countries, underscoring the need for host countries to ensure access to education for immigrants and provide language training for newcomers. Despite the large number of immigrants from non-Moldovan backgrounds, the necessity for language instruction is evident. Romania's recent experience with Ukrainian refugees has exposed the inadequacies of its education system in integrating non-Romanian speaking children. Solutions during the Ukrainian crisis often relied on the goodwill of individuals, such as school directors and teachers, as well as support from local NGOs and community efforts. However, there is a notable lack of national discussion on reforms to prepare for future migration waves, whether due to labor needs, conflicts, health crises, or climate changes. Romania needs to design systems that support immigrants in accessing public education, including early education and language courses.

Access to healthcare is also critical, as data indicates that immigrants often delay seeking medical attention, even in urgent situations. The recent Ukrainian refugee situation has not been encouraging in Romania. Although legislation was quickly passed to grant refugees the same

access to healthcare as Romanian citizens, implementation has lagged. Practical barriers, such as issuing national identification numbers to refugees, have prevented them from accessing essential services. Romania must rethink its health sector policies to determine which services should be available to immigrants and how. Once these policies are decided, implementation should be swift, and community awareness campaigns are essential to ensure that immigrants are informed of available services.

In summary, the Romanian labor market is poised for significant change over the next decade, with a growing emphasis on employees who possess creative potential, can drive innovation, or start their own businesses. However, the current practices within Romanian administration do not effectively attract or retain such talented immigrants. The National Agency for Employment primarily focuses on collecting labor requests from local businesses—predominantly in sectors like hospitality, construction, and manufacturing—and assist the government in issuing permits for lower-skilled job openings. A more proactive and strategic approach, such as implementing a points and bonuses system for highly qualified potential immigrants, appears to be beyond the capabilities of our labor authorities and the government at large.

Moreover, lessons from Western European countries demonstrate that even low-skilled immigrants cannot simply be used temporarily and then sent packing when no longer needed. Immigrants tend to settle down, start mixed families or find spouses in the immigrant community, have children, access social services and put their kids in schools. The notion that their presence is temporary and can be strictly controlled through visas and police enforcement is flawed; this is the *Gastarbeiter illusion* that many Western governments have succumbed to. If the people have spent enough time in a guest country, they will stick around. And indeed Romania needs these working-age individuals from third countries, while the reformed Schengen Agreement, which Romania is so eager to join, will further pressure the country to share the burden of immigration with frontline states like Italy and Greece.

The problem is, our public authorities are woefully unprepared to handle a sudden, noticeable increase in immigration from the Global South and to address the resulting increase in cultural diversity and the special requirements for social and educational services. Additionally, the political class seems incapable of leading and assisting society in adapting to these changes; instead, they are more likely to exploit these emerging social divisions for short-term political advantage. There is a significant risk that in the coming years, Romania may mismanage the influx of immigrants and refugees, fail to capitalize on their potential in the labor market, and simultaneously worsen domestic politics.

7. Detrimental political developments associated with the lack of convergence / stagnation: clientelism and *Pakistanization*

In recent years, Romania has seen a trend toward diminished political competition and increased party cartelization, with significant public decisions often made behind closed doors. The successive crises brought about by the COVID-19 pandemic and Russian aggression against Ukraine have been used as pretexts to delay necessary reforms—such as those promised in the National Recovery and Resilience Plan (NRRP)—to manage public resources without transparency, and to augment the influence of the military and intelligence services in executive and political roles. The administrative barriers to political participation remain high, party life is marred by clientelism and a lack of meritocracy, and the increasing involvement of the state security apparatus in politics, business, and the public sector has led analysts to draw comparisons with the dynamics observed in countries like Pakistan, where the army and intelligence services have created a state-within-the-state, insulated from the rest of the society and preying on it. A similar trend toward “*Pakistanization*” of state institutions and business sectors is taking place in Romania¹⁸.

18 <https://www.contributors.ro/pakistanizarea-armatei-si-serviciilor>

One of the most evident outcomes of political cartelization in Romania is the counter-selection of personnel for key public decision-making roles, ranging from positions within ministries to leadership roles in agencies and state-owned companies. This phenomenon affects both the public and private sectors, particularly impacting those segments of the private sector that frequently interact with public entities. Additionally, there is a trend towards the syndication of powerful interest groups, resulting in the formation of what are termed **extraction groups**. This concept echoes the ideas presented by Nobel Prize-winning economist Mancur Olson in his theory of collective action, where organized groups systematically extract resources from the unorganized masses.

In his remarkable book about why democratic societies may fail¹⁹, Olson argues that stable societies develop over time a strong network of distributional coalitions or interest groups which operate according to a logic of collective action, extracting a disproportionately high level of public resources for their own benefit at the expense of the wider society. Additionally, they use democratic institutions to block the majority's ability to reverse the situation, effectively cementing their advantage and influence within the system. Eventually, this arrangement leads to suboptimal allocations, rent-seeking and long-term economic stagnation.

Since 2022, Romania has shown signs indicative of soft-illiberal regimes attempting to close the political arena. These include manipulating the electoral calendar and rules, and widespread clientelization of the mass media using budget resources. Additionally, SLAPP lawsuits²⁰, which target activists challenging these powerful extraction groups, have become more frequent. There is also an increased trend of cartelization within professions related to the rule of law. This trend manifests in the concentration of private practice and the creation of preferential access to public resources for magistrates and other special categories of public employees. These privileges often take the form of (very) early retirement and (very) high special pensions, further entrenching their benefits at the expense of the broader public interest. For instance, the Olson-group of special pensioners cost the state 0.85% of GDP in 2023, and in a few years the estimate is that their cost may represent 1.5% of GDP²¹.

Whether these Olson extraction groups will push Romania towards authoritarianism in the long term remains uncertain. However, even if Romania continues to operate within democratic norms, the proliferation of these extractive groups and the visible counter-selection of administrative cadres and political leaders will significantly hinder the country's ability to align with the European Union's strategic priorities set for 2035 (as explained at points 2 and 4 above, and in Chapter 4 of this report). These priorities include transforming the economic growth model by emphasizing innovative production and management, adopting strategic diplomatic stances on European issues, and accessing EU funds that are increasingly directed towards complex pan-European projects or those contingent upon reform commitments.

Socially and civically, political cartelization driven by Olson-type groups—presented as 'grand coalitions for stability'—relies on a passive citizenry that participates in public life primarily through plebiscites and referendums, rather than being involved in relevant decision-making or oversight on a permanent basis. The political-military cartels foster precisely this type of environment by subtly introducing discreet restrictions or chicanery into the operating and funding mechanisms of independent media, watchdog organisations and civil society, and by discouraging private philanthropy from getting involved in subjects deemed too political - in fact pretty much anything that might be of public interest.

19 Mancur Olson, 1982. *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities*. Yale University Press

20 Strategic Lawsuits Against Public Participation (SLAPP), also known as intimidation lawsuits.

21 <https://www.euronews.ro/articole/cat-reprezinta-pensiile-speciale-din-pib-ul-romaniei-cifrele-anuntate-de-bnr>

II. The Fourth Industrial Revolution: technology, innovation, and the labor market

The Covid-19 pandemic accelerated the global trend towards digitalization. In its wake, the Russian aggression in Ukraine and the diminution of US power underpinning the international legal order have entrenched risks to supply chains and globalized business models. The global cheap labour and energy model under the umbrella of Pax Americana is unravelling. Overnight confiscations of investments worth billions in Russia, repeated logistics crises in the Red Sea, reputational risks from working with dictatorships, have all stressed the need for a change. Near-shoring has become an imperative for several industries, including auto, a dominant component of Romania's GDP growth in the past decade. Advances in AI and automation more generally, which had been building up for decades are starting to meet with increased demand from societies.

Several major demographic trends are common to Romania and the rest of the EU, as mentioned in the chapter on migration. However, the challenges are even more serious in Romania: a rapidly aging population in conditions of low labour participation makes it difficult to adapt to the technology advancements. These could lead to increased inequality, further loss of trust in institutions and widespread dissatisfaction with public sector performance. Such technological shifts include artificial intelligence, but also automation which may reduce the number of unqualified jobs, and the emergence of new economic sectors. They have both quantitative and qualitative impacts on the labour force and require a degree of flexibility which is currently lacking, both in the labour force as such and in the institutional framework. Also, the level of local innovation, both technological and in business models, is likely to be correlated with the capacity of the economy to adapt in general to technological change. The chapter will examine different types of economic activities and technology developments that would affect differently the rural vs urban communities.

TECHNOLOGIES DRIVING CHANGE

When we talk about the Digital Age, Industry 4.0, or the Fourth Industrial Revolution, very often we overlook that these new technological tools have their own characteristics and uses. They are therefore more likely to strongly impact certain industries, affect others less, and leave some unchanged. However, radical change in one sector is bound to impact the other sectors through increase labour needs, economic growth, and rise of prices. In this section we will examine some of the technologies that are likely to have a bigger impact.

At its core, the Fourth Industrial Revolution is the trend towards automation and data exchange in manufacturing technologies and processes which include cyber-physical systems (CPS), Internet of Things (IoT), cloud computing, cognitive computing, and artificial intelligence (AI). The use of ubiquitous connectivity (4G, soon 5G and satellites) allows data to flow in large quantities over vast distances making programming, control, and customization easier. Advances in additive manufacturing (3D printing) allow faster development of prototypes and create an entirely new industry of extreme customization for highly specific applications in high-end engineering such as medical or aircraft manufacturing.

In manufacturing, these new tools fit into a continuum where machines can perform ever more difficult and complex tasks with less oversight. This transformation has already been taking place in many advanced manufacturing sites across the EU and the globe. As labour has become expensive and in short supply, manufacturers in countries like Germany, France or the UK have added new autonomous layers. As labour follows the same trends in Central and Eastern Europe, more factories will take that tried and tested route, with countries such as Czechia already embarking on that path. In the end, manufacturing will follow agriculture in replacing

Case Study: The 1st Romanian Unicorn

- UiPath, a company founded in Romania and now operating out of the US, has developed tools that automate front and back-office functions.
- Over 20 years, various automation and AI applications were created helping functions such as HR, accounting and procurement streamline and automation operations.
- The company is currently valued at \$11.12 billion

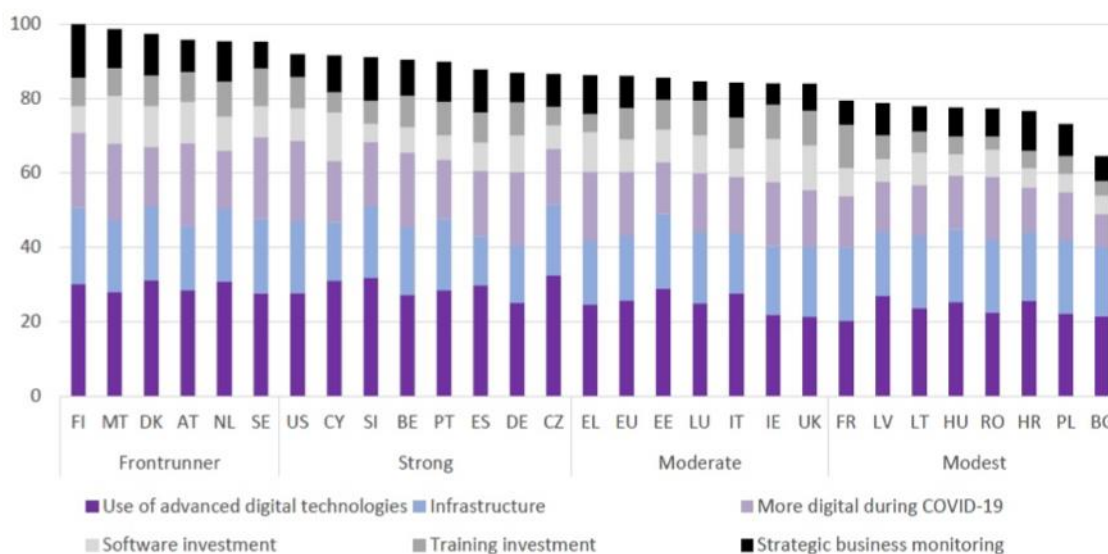
people with machines for increased productivity. As agriculture has moved from employing 80% of a starving population to under 5% feeding many more, so too will industry.

The new AI tools being developed have seen these techniques moving outside the plant and into the office. Where hundreds of junior lawyers spent weeks perusing the minutia of caselaw, a trained generative A.I. can deliver that in seconds. This is equivalent to the revolution brought on by search engines. The ability to process huge

amounts of information is fast becoming a routine task done with a prompt. That in and of itself should allow professionals to devote time to serving more clients and better. Whilst machines cannot replace deep expertise, they tend to be more efficient than humans in performing repetitive functions, and the combination of machine learning and computational power allows machines to carry out highly complicated tasks. The key however is for those humans to be equipped with the knowledge to understand that information, interpret it correctly and apply it.

Figure 1

EIBIS Corporate Digitalisation Index, by country



Source: EIBIS (2021).

Whilst Romania’s infrastructure for access to digital services is relatively good, Romanian companies, overall, remain well behind their EU peers. After an uptick during the COVID-19 pandemic, mainly for larger companies, the gap remains high in adopting new technologies. This is likely impacted, as explained in the section regarding ability to adopt, by access to finance and support. As most Romanian companies are Small and Medium Enterprise (SMEs), which have been heavily hit by the changing economic environment and by increases in taxes and bureaucracy, it is very likely that they will continue to lose competitiveness at local, EU and global level. The risk is that although tools are available to improve their productivity, access global

markets and improve their workforce, they will be unable to do so. To understand this, we must understand the key drivers behind uptake of new tools, detailed in the following section.

KEY DRIVERS

Uptake of technology and its impact on employment has been debated since at least the times of Aristotle. Every change brings the need to adopt and adapt. After centuries of denial, the first three industrial revolutions have shown that, in the long term, economic growth does increase jobs, wages and the quality of life, be it through increasing demand in the improved sector or through creating new sectors. We are now on the ledge of a fourth revolution in how goods, services and growth are created. This revolution too will be disruptive. It will help and enrich those countries, companies and individuals ready to adopt, but it also risks punishing those unable to adapt.

The European Commission and the Organization for Economic Cooperation and Development (OECD) have identified several drivers helping actors reap the benefits of the Digital Age: education, reducing disparities, both social and of attainment, and ability of organizations to implement.

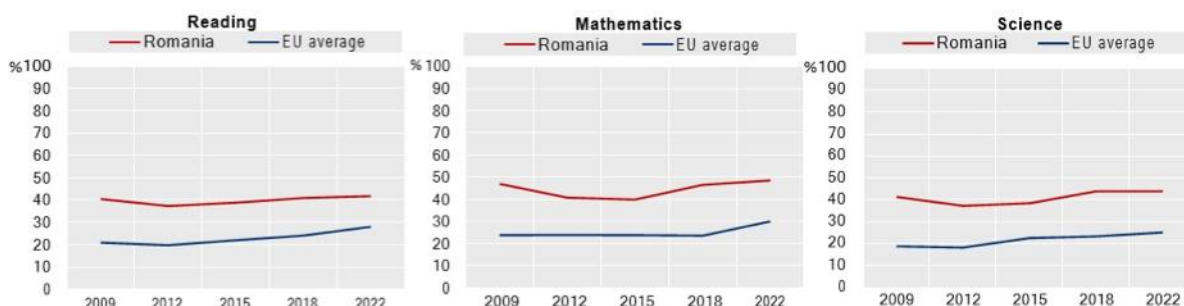
Education

Education is a key debate topic in Romania resulting in successive and often contradicting reforms that have not been able to meet their stated objectives or society’s expectations. Its failures, which even with competent policy action will take many years to correct, undermine prospects of widespread benefits in the transforming economic paradigm.

Figure 2

A high share of students in Romania underperform in at least one PISA subject

Percentage of 15-year-old students performing below Level 2 in reading, mathematics, and science, 2022



Note: In PISA, proficiency Level 2 is considered the baseline level of proficiency students need to participate fully in society.

Source: OECD (2023^[5]), PISA 2022 database, <https://www.oecd.org/pisa/data/2022database/>.

In the context of digitalization, education is crucial to equip students not just with key IT skills, but more importantly with core competencies that enable them to function well in a society where reproducing facts is no longer sufficient. Adaptability, reasoning, critical thinking are becoming basic skills in the digital economy. A division of society between creators and users of machines which need both basic and advanced skills, threatens the value of those that can do neither.

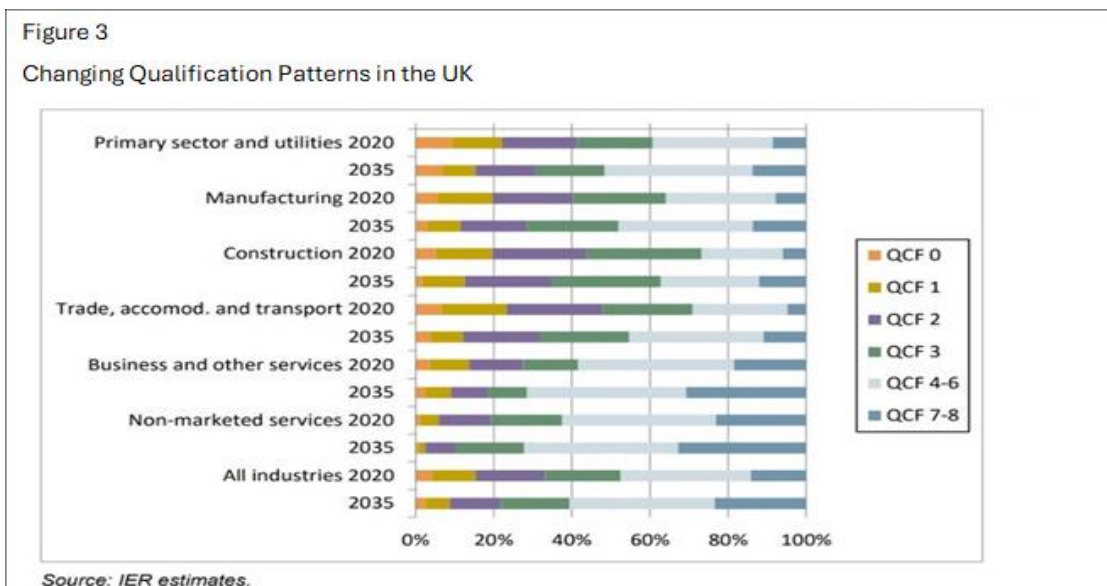
Counterintuitively, to be able to function in such an environment, an employee needs to have a good grasp of the facts, to be able to correct the machine when it errs, but also the ability to connect and analyze these facts critically, put them in the right context and use them to enhance their productivity and their outputs. In applying the paradox of automation, i.e. when a machine commits an error, it will continue to repeat and multiply it until it is corrected, humans must be able to understand what the machine does and be prepared to correct it. This contradicts the often-cited belief that having facts and information at one’s fingertips makes it redundant to know those facts beforehand.

Moreover, as existing jobs transform to more complex sets of tasks supported by machines even in professional or intellectual contexts, an adequate basic education enabling a grasp of both specialized and general subject becomes paramount. Without this core strength, employees will experience rapid downward social mobility as their ability to produce value versus an ever-improving AI loses out.

Romania’s education sector has been experiencing decreasing professionalization on the back of years of corruption, politicization, and incoherent reforms. The results so far have shown that a worryingly high majority of graduates lack even those basic skills needed to function in society (figure 2). Romania also ranks last among EU member states with just 19% of 25-64 year olds having a university degree (compared to EU’s average of 34.3%)

Continuing the current trends in education risks further undermining Romania’s ability to function in the modern knowledge economy. With almost half the graduates unable to meet minimum reading requirements, and over half incapable of basic math and science, the numbers of minimally competent future employees will continue to decrease. Since Romania’s population will continue its descent to a projected 17.8 million by 2030, the country faces a major risk of being left out of the benefits of new industries. Shortages of qualified employees are already chronic, due to migration, and, in the years to come, these risk weighting down economic growth. As the shortage of qualified employees will increase also in advanced economies, the pull effect for those Romanian graduates that are competent will accelerate creating a demographic calamity. Thus over 65s will be depending on a smaller and less productive group of adults.

The study “The Skills Imperative 2035” by the National Foundation for Education Research, analyzing UK education and skills needs, predicts that the UK will require an increase in university educated graduates in the following period to be able to meet the economy’s demands. It also estimates the impact of changes in the economy based on various professions (Figure 3). Whilst a comparison is clearly spurious as the two education systems have only their name in common, the study does offer an indication of possible changes in qualification needs.

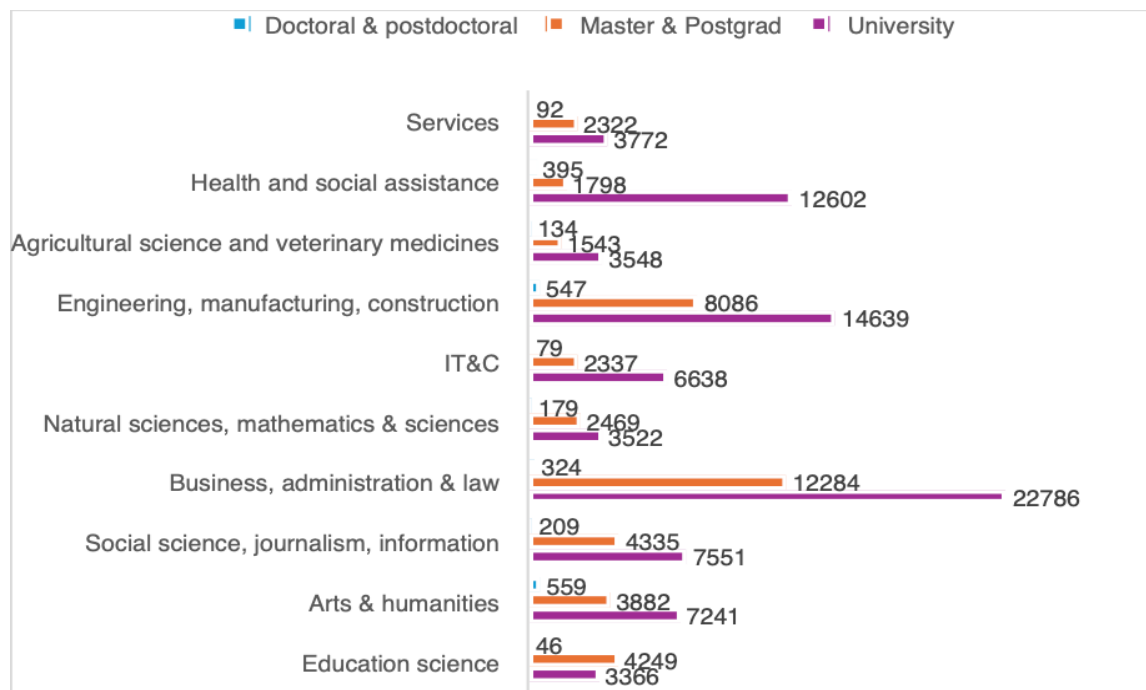


When comparing the baseline scenario from the UK with the current situation in Romania there are several differences: a higher proportion of postgraduate students, and a much larger focus on engineering and sciences. This is despite the similar proportion of services employment in both countries. In fact, according to the European Commission, Romania’s doctoral graduates have taken a dip in latter years, likely as an effect of recurring scandals about plagiarism.

Whether Romania’s notoriously inflexible universities will be able to adapt to the changing needs of the market is difficult to predict.

Figure 4

Romania: Higher Degree Graduates by Field of Study (2021)



Source: National Statistics Institute

The study “Labour force shortage analysis in Romania - size, impact and measures”²² estimates Romania’s labour force shortage in 2023 to be of 0.55 million people. The most important causes of this are a deficit in skills and qualifications, lack of intraregional mobility of workers, and the demographic decline. The impact of this shortage is estimated at €7 billion in 2019, the year of the study. It also estimates that the biggest pressures will be felt in manufacturing and agriculture, where the need for automation will become dire. As we have seen however in the years after the pandemic, employers of low skilled workers have found it cheaper to pressure authorities to increase non-EU migration quotas. At what point an ever-larger group of migrants will trigger a backlash is very difficult to foresee.

The gap in education is aggravated by outward migration. A study on the Romanian diaspora commissioned by the Government²³ indicated that Romania may have up to 4.6 million citizens abroad²⁴, of which 38% have at least upper middle education and 50% university degree or higher.

Disparities

Romania is experiencing deepening inequality across several dimensions: urban vs rural, regional, but also socially within these environments. This is normal after decades of forced

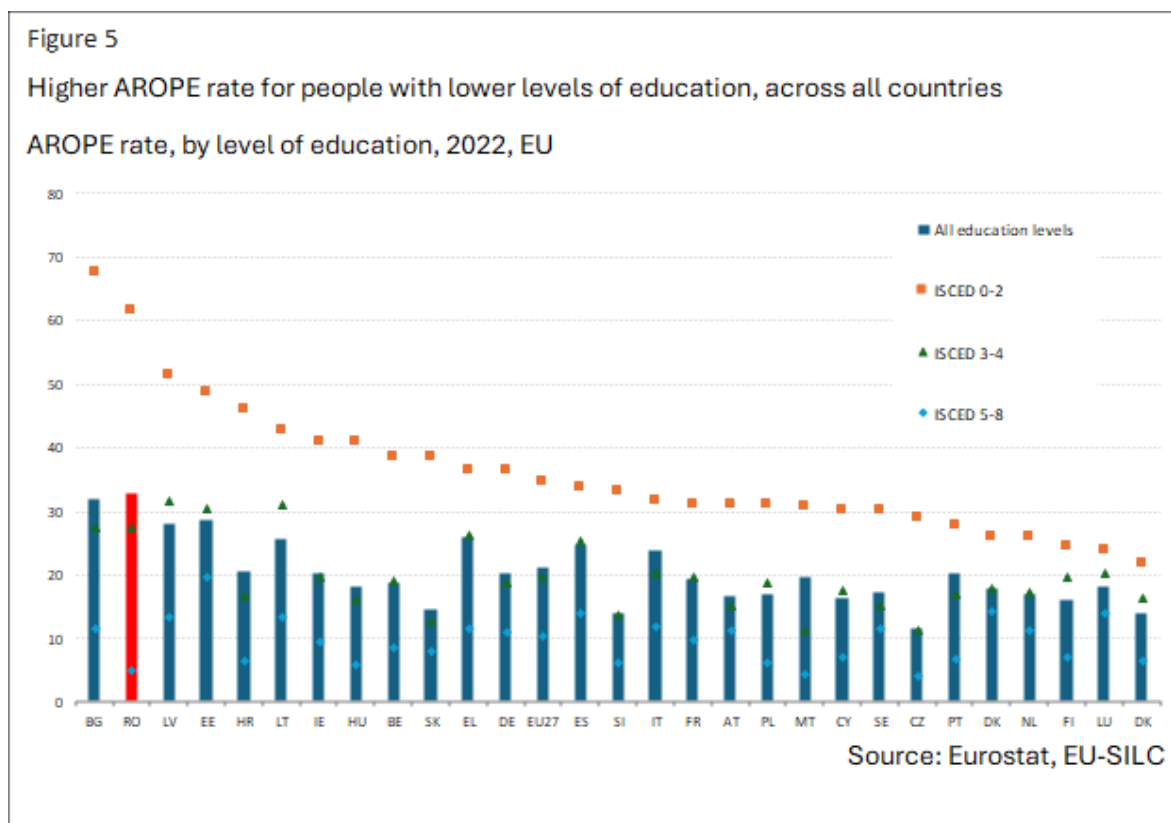
²² <https://intapi.sciendo.com/pdf/10.2478/icas-2021-0021>

²³ <https://dprp.gov.ro/web/wp-content/uploads/2023/06/Studiu-privind-diaspora-romaneasca-.pdf>

²⁴ Other estimates for the diaspora figure are around 3.6 mn people.

downwards equality up to a certain point. Nevertheless, no successful efforts have been carried out to address the structural causes of growing disparities. Starting with infrastructure and the provision of basic services, health, education, clear water, energy, these growing disparities create handicaps for those groups trapped in poverty and tend to become intergenerational.

The European Commission, in its 2023 Country Report noted that “Regional disparities remain high, driven mainly by labour productivity gaps between regions. In 2021, Romania’s productivity was below the EU average (at 86%) and varied extensively between regions, from 162% of the EU average in the Bucharest-Ifov capital region to 51% in Nord-Est. The less developed regions lack key assets such as transport infrastructure or skilled workers and have been more strongly affected by depopulation.” Disparities are visible also in education: 42% of the population in Bucharest has a university degree, compared to South Muntenia, North-East and South-East, at just 14%. Regional GDP is in 2018 3.6 times higher in Bucharest-Ifov than in North-East region, and the gap widens; in 2000, the proportion was 3.2/1. Over the past 20 years, the employment rate has increased only in Bucharest-Ifov (+9.3%). All the other regions recorded declines between 9.8% (North-East, where the decline in employment was mitigated by outmigration and rapid depopulation) and 23.9% (South-West, which has become more recently an outmigration “pool”). This split suggests that when looking at the uptake of new technology, it is likely that when adopted new technologies to improve productivity will deepen this divide. In



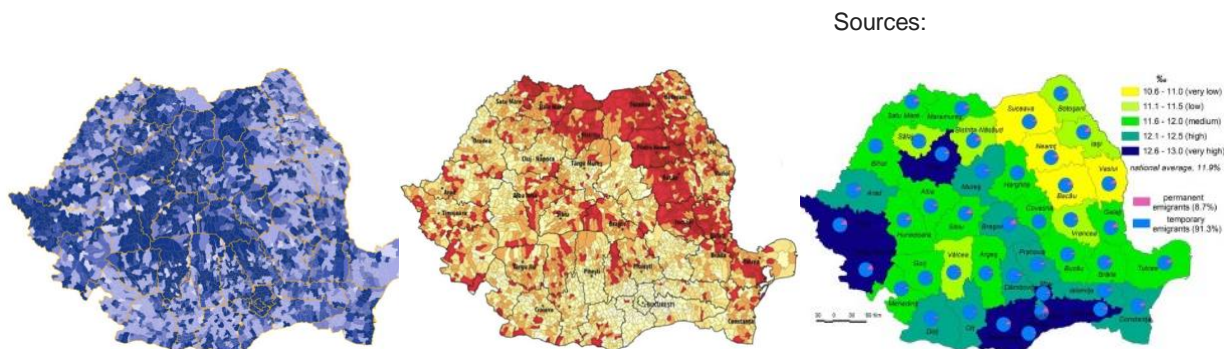
turn, these regions will continue to attract talented people from low productivity areas deepening the vicious cycle. Similar divides exist between urban and rural. The difference between large cities and rural localities concerning the risk of poverty or social exclusion is 29.8% in Romania, compared to 14.6% in Austria, 11.1% in Poland or 0.1% in Czechia²⁵.

25 <https://monitorsocial.ro/indicator/romania-se-polarizeaza-intre-orase-mari-cu-o-prosperitate-inalta-si-localitati-urbane-si-rurale-mai-mici-in-care-saracia-este-considerabila/>

Furthermore, the At Risk of Poverty or Social Exclusion (AROPE) rate shows that without education and training, accessing employment and higher earnings is more difficult. In Romania, the difference between those with lower levels of education and those with higher levels of education is among the highest in the EU at 30%.

An additional complication concerns the patterns of out-migration affecting differently urban and rural areas and more vs less developed regions (Figure 6). A detailed study²⁶ focusing on the correlation between socio-economic development and out-migration found that some of the poorest regions in North-East Romania had the highest levels of out-migration before 2007, depopulating rapidly. After EU integration the data is more mixed. Out-migration increases also in regions that are highly developed, such as Western Romania or Bucharest-Ilfov, as well as from other areas of low economic development (South Muntenia). North-East Romania has currently lower levels of net migration also because of immigrants from the neighboring Republic of Moldova, and because it simply depopulated faster and earlier. Migrants fall into one of two main categories, either highly-qualified - mainly ITC and physicians, or students; or less-qualified - construction, agriculture, social services, seasonal work. Migrants from more developed regions are urban and highly-educated. Romania clearly suffers increasingly from brain drain: if the EU's share of highly skilled population living abroad is 10%, for Romania it is over 23%. This will have long term implications on the capacity of the country to accelerate economic development in high tech industries.

Fig. 6: Level of economic development (dark blue more developed) vs migration before 2011 and migration in 2011-2021. An intensification of migration from highly-developed regions can be observed in recent years.



<https://www.sciencedirect.com/science/article/abs/pii/S0040162521008015>; <https://adevarul.ro/blogurile-adevarul/efectele-depopularii-cauzate-de-migratia-economica-2069950.html>;
<https://www.mdipa.ro/uploads/articole/attachments/617a9abd3e3dd369578610.pdf>

Romania's situation is further complicated by lower levels of workforce participation, and thus of ability to access the opportunities of training and improving revenue. The share of people aged 15-29 who were neither in employment nor in education and training (NEET) in Romania is the highest in the EU at 19.8%. It is staggering that there continues to be no debate about these significant missed opportunities. Without well designed and well applied policies, an increasingly larger proportion of the population is simply left out of the economy, languishing in intergenerational poverty and lack of opportunity.

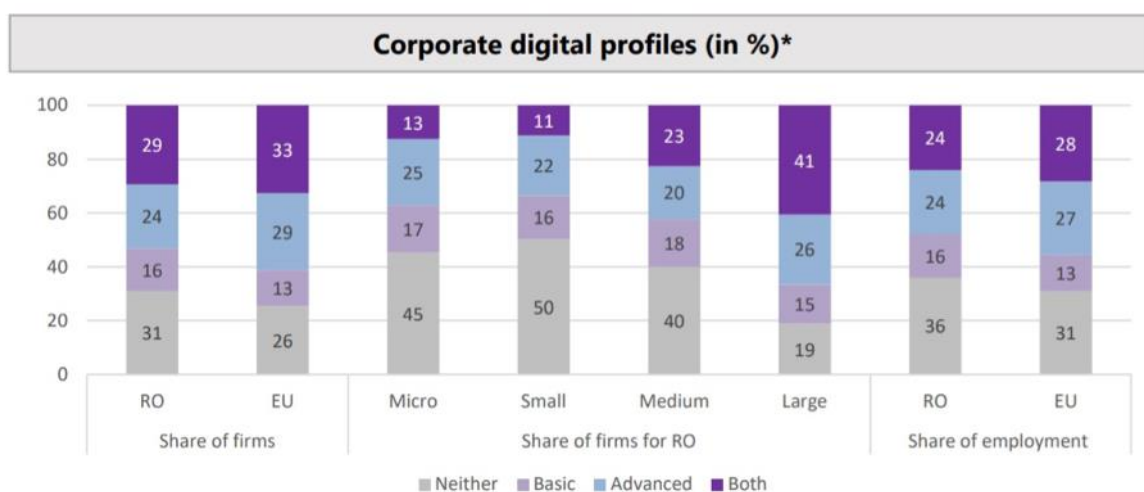
²⁶ https://rcin.org.pl/Content/141359/WA51_176117_r2019-t37_EuropaXXI-Mitrica.pdf

Ability of Organizations to Implement

Another key driver of uptake in any new technology is the organizations' ability to invest and integrate capabilities into their operations. A European Investment Bank survey of companies across the EU found that companies that are digital have performed better during and after the pandemic than those who were not. Investment in digitalization was seen as vital to preventing business disruption both in how it worked and how it interacted with the market.

On average, 46% of companies in the EU accelerated their investment in digital tools as a response to the pandemic. Two key barriers were identified in the EU: infrastructure, in this case broadband internet, and finance. In this regard, Romania where 46% of companies have also accelerated investment, stood to benefit from the sudden need for digital with its newer and faster connections. In terms of finance however, the survey shows a clear gap between large companies and small & medium enterprises (SMEs). This suggests that small companies who are not able to keep up investments are likely to succumb to larger competitors.

Fig. 7. Digital Savviness & Ability of Companies in Romania

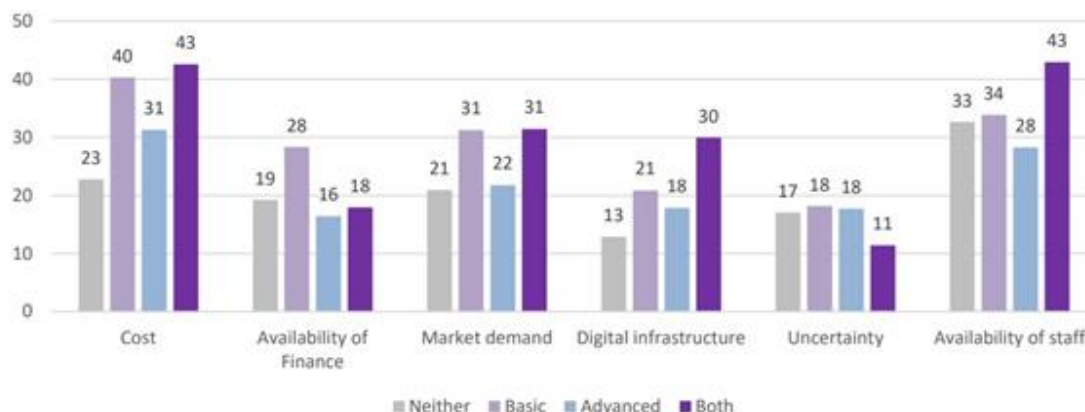


Source: Digitalization in Europe 2021-2022, EIB Report

According to Romania's National Statistics Institute, SMEs represent 50.2% of total employees, and 34.6% of total turnover. That is a significant share of the country's business activity with clear implications in terms of access to digitalization. For these companies barriers are higher and much more difficult to surpass. Two stand out: finance, considering SMEs find it much more difficult to access market-based financial solutions and availability of staff, which is directly correlated with the outputs of the education system and with workforce participation.

Figure 7

Major obstacles small and medium enterprises face when investing in digital technologies (in %)



Source: EIBIS 2021 AOM — sample of EU SMEs in manufacturing and services (2021).

Regulation

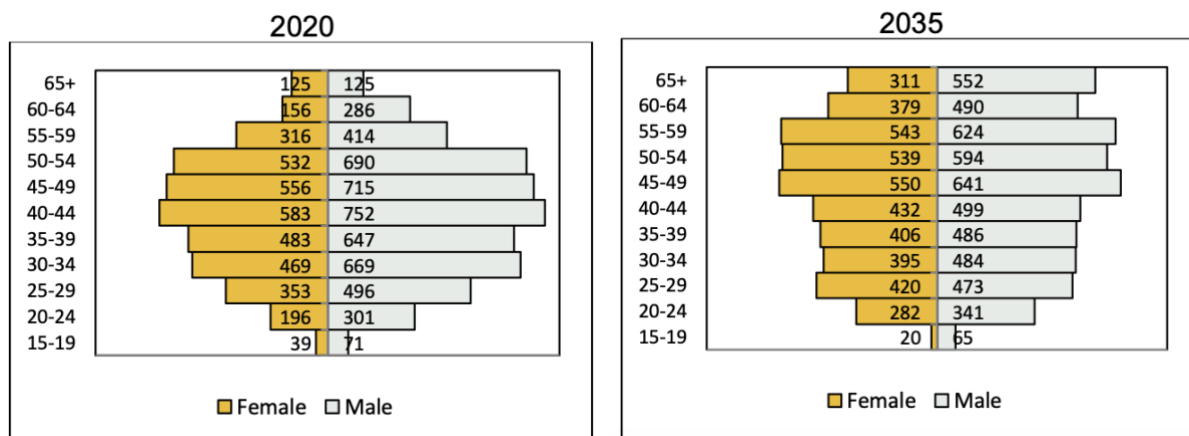
The many questions that new technologies pose make most companies wonder about their safety, conformity to existing legislation and reliability. As the example of CNC machines has shown, before adequate regulations and guidelines are implemented, businesses tend to avoid spending large amounts of money and adopting on a wide scale. The EU data protection legal framework, the Digital Services Act as well as the upcoming framework on AI are likely to set a level playing field not just for development of these technologies, where the EU is anyway severely lagging, but for their wide-scale adoption by large and small business alike.

Historically, Romanian implementation of EU rules has tended to gold-plate in the extreme and create, wherever possible, new barriers for organizations and individuals. The risk is that even with a well-balanced EU regulatory framework, locally created barriers will make it even more difficult for organizations to integrate new tools.

ROMANIA IN 2035 AND BEYOND

Apart from the problems resulting from the current status of the education system and the inconsistency of reforms to date; the migration patterns; and the uncertainties of the Fourth Industrial Revolution that affect Europe in its entirety, Romania faces a demographic challenge which is more pronounced than in other European countries. After 2030, the generations of the 1960s boom (“decretei”) will exit the labor force, and much smaller cohorts of the population would be of working age, as described in Chapter 1. The population aged 15-54 will decline sharply both as a result of lower birth rate and migration of working-age people (see Figure 9). At the same time, demand for social and healthcare services would increase substantially, in proportion with the aging of the population. The European Centre for Development of Vocational Training CEDEFOP expects that the high-skilled labor demand in Romania would increase by 35% in 2035 compared to 2021. This would follow the sectors with the highest expected growth: professional, scientific and technical activities, as well as financial and insurance activities. ITC is expected to register the highest growth in demand for skilled labor.

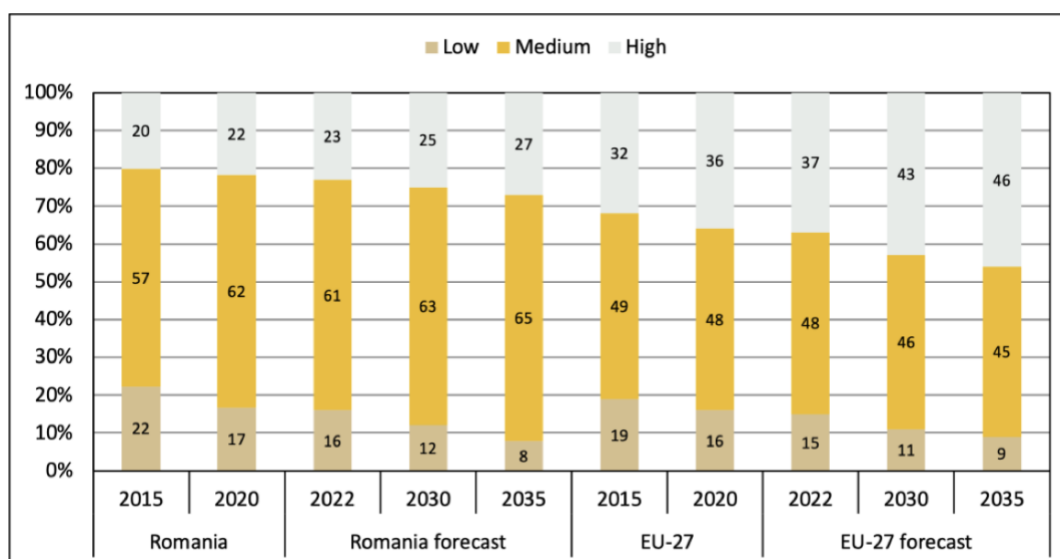
Fig. 9. Romania’s demographic trends over 2020-2035



Source: https://www.cedefop.europa.eu/files/skills_forecast_2023_romania.pdf

According to the same study, Romania is worse off than the average of EU-27 in terms of shares of highly qualified employees; the baseline scenario, given the current trends, is that the gap would remain (see Figure 10). According to the projections, the employers would have difficulties in finding qualified professionals; a part of lower-qualified jobs, for which there will be a shortage of supply given the trend of increase in the level of educational attainment, would be filled by people with a medium level of education.

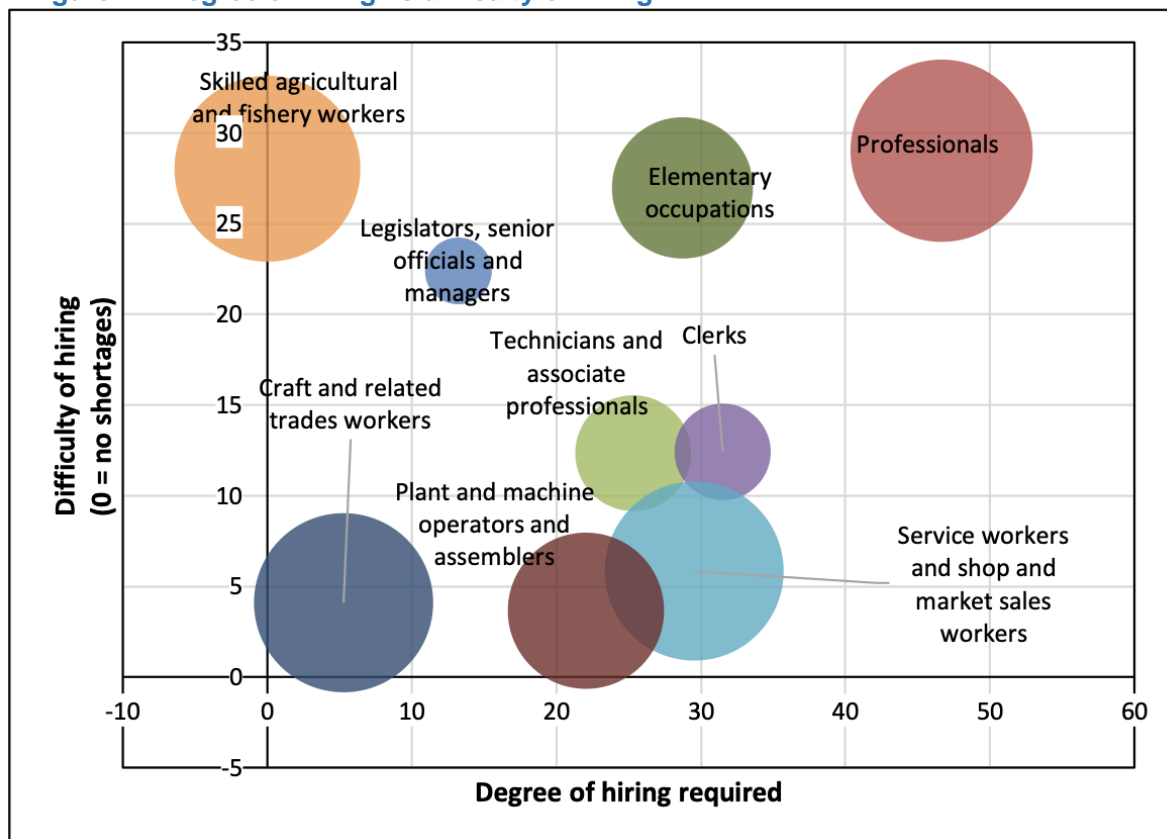
Fig. 10: Labor force share by level of qualification, 2021-2035 vs future hiring difficulties



Source: https://www.cedefop.europa.eu/files/skills_forecast_2023_romania.pdf

The scenario presented by CEFEDOP is a baseline case, considering the current demographic and technology trends. Other factors may appear, though it is unclear to what extent they would make a substantial impact on Romania’s economy by 2035 and in which direction. For example, as mentioned in the previous chapter, Romania has become in recent years a destination for migration from outside the EU, and not only because of the wave of refugees from Ukraine. It is

Figure 11: Degree of hiring vs difficulty of hiring



unclear to what extent the inflow of migrants would change the overall picture. Most likely, while immigration numbers will explode in the following years, the largest share would consist of low-skilled labor in the first stage – for constructions, retail sales, and social services. In the long run, Romania will need increasing numbers of foreign workforce to compensate for high skilled jobs as well where there are already significant gaps, such as medical services.

In a country facing a declining population and rising costs in social assistance and healthcare, the Digital Age offers significant potential. This potential has been further accelerated by geopolitical shifts that necessitate nearshoring. Romania's progress is no longer confined by its geographical boundaries and size. With a smaller, well-educated population, smart policy decisions, and the right incentives, Romania has the potential to become highly competitive on both continental and global scales. New technologies are enhancing the productivity of agriculture and manufacturing sectors and enabling the rapid scaling of services to meet global market demands. In this landscape, it is crucial for Romania to establish clear policies, especially to increase its ambitions of attracting more EU funds for strategic technologies, such as battery production, or participating in pan-European initiatives like the supergrid for electricity, as discussed in the Energy chapter. Developing specialized industries necessitates building a coherent cluster of activities, ranging from resource procurement to logistics chains and skilled labor in related fields; the direction of policies can either facilitate or impede this development.

Unfortunately, the few success stories are exceptions rather than the norm, thriving in spite of the local environment or only by relocating. This reflects the plight of many talented and hardworking Romanians. Hindered by a failing education system, disregard for deepening inequality, and ineffective policymaking, Romania's population and workplaces encounter formidable challenges. If the status quo persists until 2035, these problems are likely to worsen. A disillusioned and disconnected populace, justifiably anxious about their

unpreparedness for change and modernity, will likely continue to support a system riddled with cronyism, corruption, and mediocrity. The greatest risk is that Romania may drift away from the modern world, falling prey to cynical forces that oppose modernity to preserve their corrupt power. Ultimately, the tools of the Digital Age are neutral; their impact, whether beneficial or detrimental, remains in the hands of people.

III. The Energy Transition under Climate and Geopolitical Uncertainties

Faced with the latest climate projections, the EU's energy and climate ambitions have increased significantly with the adoption of the Green Deal in 2020, of the Fit-for-55 in 2021 and of the RepowerEU in 2022. The goal is to achieve net zero emissions by 2050, accelerating the pace of reduction by 2035 also under the imperative to reduce imports of fossil fuels from Russia. To ensure a climate impact on a global scale, the EU also has the ambition to “champion” the fight against climate change globally, by setting a model for the rest of the world and using international diplomacy. While the political commitment to final climate targets is clear, reaching the full decarbonization goal in practice would have deep implications on how we produce and consume energy. The scale and pace of the restructuring needed amounts to a new “industrial revolution”, going well beyond incremental, patchwork adjustments to the existing energy systems. It will have the same explosive implications on physical infrastructures and on society at large as the introduction of electricity or the railway in their time.

To summarize the state of play and the main directions of EU policy, the dilemma and constraints are illustrated below.

1. Resources: We know that the available renewable or decarbonized energy resources, with the technologies that are already available, or theoretically possible, would be more than abundant to cover the needs expected for 2050 and well beyond. The constraint is not the availability of resources, but access and use, at affordable cost. By 2050, with the technologies scientifically known today, we would likely continue to need fossil resources for certain industries, such as petrochemicals, though this may change as well with innovation until then; if not, we would be able to capture or offset the additional emissions. All studies and strategies at the EU level consider the net-zero goal can be achieved by energy efficiency; massive electrification; and development of sectors “downstream” of electricity, such as green hydrogen produced from green electricity and its further applications such as synthetic fuels. In brief, we can indeed reduce to a certain extent the energy we waste today by using it more efficiently - effectively reducing the consumption that is based today on fossil fuels, such as heat in homes, oil in transport, or inputs in energy-intensive industries built in the 20th century. But we would still need a “clean” way to procure the energy we cannot save, and the total demand for energy in 2050 will possibly be higher than today. Electricity is the easiest energy source to decarbonize; thus, it is expected to become at least 75% of total energy consumption in 2050 compared to less than 25% today²⁷. Despite the abundance of renewable sources, there are physical constraints to transport this energy from where it is available in large quantities to where it will be needed, while consumption itself will shift more and more towards large urban centers, and to match the variability of intermittent renewables with the demand.

2. Path dependency: Infrastructure, whether for energy, factories, buildings, or transport, has long life cycles. The typical lifespan for power or gas grids, plants and factories, buildings built today are in the range of 30-60 years if not longer. This is why any infrastructure that we build today will have to already meet the needs for well beyond 2050, including those related to climate. This makes the standards for new construction very high²⁸. At the same time, one can

27 The 75% includes also the electricity use to produce hydrogen. <https://etipwind.eu/publications/getting-fit-for-55/>

28 There are exceptions, e.g. in RepowerEU the development of gas infrastructure such as LNG terminals and interconnectors is allowed to allow medium-term diversification of gas away from Russia. Other exceptions are likely to follow because of intense lobbying from various industries. Gas grids lobby for the refurbishment and extension of existing pipelines compatible with a mix of gasses, typically 20% hydrogen - 80% methane; gas producers and grids

conceive the extension of lifespan for existing assets only to the extent this does not conflict with the development for future decarbonized infrastructure. Naturally, existing gas and electricity grids have physical rigidities, and cannot easily cope with the integration of new capacities operating differently than existing ones and responding rapidly to new demands. It is tempting to put barriers to market entry of technologies that significantly challenge the current operations and processes of the existing infrastructure. To overcome this expected resistance, regulators must imagine rules concerning network access, infrastructure developments, and tariffs, to encourage the opening of the energy markets for these new technologies. The major challenge here is that regulation itself is reactive and cannot adequately forecast the innovations to come at ever faster pace in the next years. In the meanwhile, the energy system must function without interruptions, meaning that the interoperability of “the old” and “the new” must be continuously ensured.

3. Climate priority: The sooner we cut emissions, the better, given their cumulative effect. One ton of greenhouse gas emissions (GHG) reduced today per year means 25 tons in total by 2050, unlike one ton reduced only in 2050. The climate benefit of “front-loading” radical measures to reduce emissions is substantially higher for GHGs which have the highest greenhouse effect, in particular for methane, which is 28 times more potent at trapping heat in the atmosphere than carbon dioxide. This imperative conflicts with the short-term, political-cycle vision. Decision-makers are inclined to postpone difficult, unpopular policy measures for later when it will no longer be their concern. There is also a clear conflict between two policy objectives: to decarbonize faster, making emitters pay, and to avoid EU’s deindustrialization as energy-intensive industries can relocate to countries with lower climate ambitions. The pressures to relocate have only increased during the peak energy prices in 2022, even though at the time the EU responded swiftly with ad hoc state aid measures; still, energy prices in Europe continue to be high in global terms. The EU seeks at the same time to re-industrialize and friend-shore critical high-tech industries after the pandemic and after realizing the dangers associated with dependencies on autocratic regimes including China. This means that the conflict will only intensify²⁹.

4. Governance: EU policy is, de facto, divided into 27 national policies, with Brussels as a mediator seeking a decent compromise. Brussels negotiates the EU-wide targets with member states, allocates amounts of EU funding for projects of European interest, and then negotiates once more the preparation and implementation of national strategies and targets with each of the national capitals. This approach is illustrated by the national long-term strategies to implement the Green Deal, or the National Energy and Climate Plans. But the fragmentation goes even further. Pan-European institutions and stakeholders are often simple associations of national stakeholders retaining their national view. In energy, for example, this is the case of the European associations of electricity and gas grids (ENTSO-E and ENTSO-G, respectively), or the European Union Agency for the Cooperation of Energy Regulators (ACER). There is no “pan-European grid”, nor a “pan-European regulator”; and member states are determined to retain control on their own energy policies. A national grid is interested first and foremost in optimizing its tariff revenues at national level - including, for example, to maximize income from cross-border tariffs, in contradiction with the free movement of energy across the EU. In other words, such EU-level associative institutional arrangements preserve the conflict between EU-

lobby push for gas as a “transition” fuel, which would entail two transitions, doubling the costs, from coal-to-gas now and from gas-to-renewables later. While various claims of stakeholders may be legitimate, they require much stronger critical assessment and sometimes pushback, so as to avoid the long term “lock in” into technologies that fall short of the “net zero” goal, and avoid the wastefulness of investing in what would become stranded assets well before the end of their normal lifecycle.

²⁹ <https://www.delorscentre.eu/en/publications/energy-intensive-industries>

wide priorities and national visions. This adds to other challenges of democratic governance inside the EU, where various business groups from different sectors have a voice in Brussels and national capitals to protect their various economic interests. Fragmentation also exists in the policy instruments which the EU employs, creating significant distortions in the market signals. For example, the EC uses both the “polluter pays” principle (in which emitters of GHG pay for carbon emissions within the ETS scheme) and encourages subsidies to renewables in various forms, from national state aid schemes to EU funds. The production of energy from renewable sources is thus double rewarded and develops faster than the infrastructure can keep pace. This aggravates the grid bottlenecks for the uptake of renewables and the congestion in electricity transmission: as a result, we saw in early 2024 increasing periods of time when spot electricity prices are negative, but balancing costs explode. Such events increase the risks for investors and do not lower end-consumer prices; the market simply shows us that the grid is the key constraint, and it is the grid that needs accelerated support, not the production of renewable electricity. Furthermore, the decision to allocate high budgets for very specific measures not yet at least pre-tested in market conditions (e.g. carbon storage or hydrogen infrastructure) may also lead to costly investments into assets that could turn out in the end to be much more inefficient than other solutions. Finally, multiple pre-determined targets (the “trio” of energy efficiency, emissions, share of renewables) are “over-specifying” the problem. The real goal is just one: to cut emissions. This can be achieved with varying combinations of the other two and, possibly, other instruments (e.g. more nuclear); specifying targets for energy efficiency and renewables share may constrain inefficiently the options available in reality.

5. Resilience to new threats. Though EU key policy documents on energy, particularly since 2020, acknowledge threats such as pandemics, climate disasters, armed conflict, or critical dependency on politically hostile suppliers, these threats are not effectively taken into account into the modelling exercises to forecast the possible evolution of energy systems. Even in the political discourse these threats are new. It is only recently that the EU energy policy included measures to accelerate the decoupling of Russian gas as a critical means to ensure energy security, with the adoption of RePowerEU in spring 2022; the document also mentions that the deployment of new technology such as renewables or batteries should not make Europe more dependent on China. Maintaining strategic autonomy would require at the same time to set up inside Europe or in friendly countries industries to produce the critical technology and extract / recycle materials for which the markets are now strongly dominated by unfriendly regimes. Beyond politics, climate change will pose significant threats. Extreme weather events are likely to occur, disrupting energy supply: in 2022, a one-in-500-year drought across Europe led to a 7% reduction in power output across the EU as the drought affected both hydropower in Northern Europe and nuclear generation in France. The fact that Northwestern and central Europe experienced in 2021 the lowest average wind speed in 40 years meant that 2021 was also the first year in decades when wind power output declined despite an acceleration of installed capacity. Such climate-related events are only expected to intensify and increase in frequency. Even though such climate impacts are already well covered by EU-paid research, the findings have not yet made their way systematically into EU’s energy policy. Last but not least, the impact of Russia’s war in Ukraine and the intensification of military conflicts around the globe should be eye-opening for analysts on the dangers of intentional man-made disasters. Terrorist attacks against power plants and grid stations, massive cyber-attacks on infrastructure, disruptions on transport routes, the use of energy as blackmail by hostile autocracies, or even the prospect of a major intentional nuclear disaster in a power plant are no longer beyond imagination. Indeed, though such “black swan events” are not fit for modelling forecasts, it is crucial that the future energy system has enough redundancy embedded to avoid the worst outcomes on top of what results from any model. Economists do not like redundancy, which means economic inefficiencies, and pure market forces would not support

it. However, redundancy is key to ensure that energy remains available in case one of the risks does happen in real life. The energy security component must be clearly identified and be supported by well thought-out state aid schemes at European level.

6. Complexity. The more complex a system, the higher the risk of failure. The modern-day energy system becomes by policy design and market developments increasingly complex. Until recently, power systems were in general centralized, with large power plants, a grid connecting generation with a relatively rigid consumption, with unidirectional energy flows from producer to consumer. The operation focused mostly on optimizing the use of a few scattered plants, with fully controllable output, at national level, to meet the needs of users which varied during the day or seasonally, but rather predictably. This picture is changing rapidly. A substantial share of renewable power is no longer controllable but intermittent: the wind may not blow, the sun may not shine, even the water can be scarce during extended droughts. This is unlike fossil fuel plants, where production can relatively easily be increased or reduced by simply managing the input of a fuel that is predictable and easy to store. Carbon-free resources are both large and concentrated in certain areas (e.g. North Sea for offshore wind) or small and scattered (geothermal, solar, onshore wind), requiring different technologies to integrate in one system. In their turn, consumers, painfully made aware by the experiences of 2021-2022 that energy is not for granted or cheap, want more control. Technologies today allow consumers, including households, to be no longer passive users of available energy shipped from above by a centralized dispatcher. They can contribute to the general stability of the system by optimizing their consumption during the day or actively delivering energy - and this empowers them and minimizes prices. Beyond the benefits in energy costs and control, the emergence of prosumers and local energy communities also contributes civic engagement within the community. Zooming out at the continent's scale, the increase of interconnectivity across Europe (mandated by the EU to at least 15% by 2030 of each country's electricity demand), the entry of new countries in the European grid (Ukraine in 2022, the Baltics next year) increases exponentially the need to ensure overall system balance. To this one must also add the horizontal integration of different energy sectors: most importantly, between electricity and gas, with the emergence of hydrogen technologies; and the production of various synthetic fuels from the resulting hydrogen. Last but not least, research into new technologies to generate, store, modulate energy generation and use, recycle materials from used energy assets, and convert one form of energy into another has led to a myriad of promising solutions which need to be tested in economic conditions, which would allow some to fail and the best to succeed in a well-functioning market that sends the appropriate price signals. This complexity also requires energy system operators (the grids collecting and distributing energy) to manage and use enormous amounts of data. This is a field where Artificial Intelligence has been taking giant leaps in recent years. The collection, storage and use of granular data, particularly on the consumers' side, poses challenges for data privacy and security, whereas the overall digital system requires increased resilience against cyber-attacks.

7. Social justice. Global crises, from the pandemic to the energy price crisis of 2021-2022, brought to attention the major vulnerability of the poorest strata in society, which also has explosive social potential and should leave no one indifferent. The energy revolution itself already brings disruptive readjustments of various sectors in the economy. We expect the almost full closure of fossil fuels extraction and use; existing workers and highly specialized professionals will need to be re-skilled to the new fields of the circular economy; given the continent's demography, the easy policy option used so far that those from dying industries retire early, as opposed to being re-skilled, is no longer on the table. The energy sector is already one where qualified personnel is scarce. It requires significant re-skilling and up-skilling of the existing labor force, from the innovation and deployment of new renewables to the

recycling of materials such as rare minerals from batteries or electronic components. Recycling such assets in full would also reduce environmental problems caused by mining elsewhere on the globe and of the toxic waste. Thus, ensuring a “just transition”³⁰ is a crucial initiative of the EU, providing funding and encouraging local buy-in for the “greening” of all the carbon-intensive regions in EU in a decentralized manner, adapted to each region’s special conditions. However, the implementation of the Just Transition mechanism depends also on the willingness, as well as the administrative capacity, of national governments to make it work. Last but not least, some studies indicate that, despite the continent-wide benefits in investments, employment, and reduction of environment problems, EU’s decarbonization policy risks reinforcing existing regional inequalities, bringing more benefits to the already affluent regions in Northern Europe and leaving behind the Southern parts of Europe, which are also significantly more exposed to the consequences of climate change³¹.

A POSSIBLE WAY FORWARD

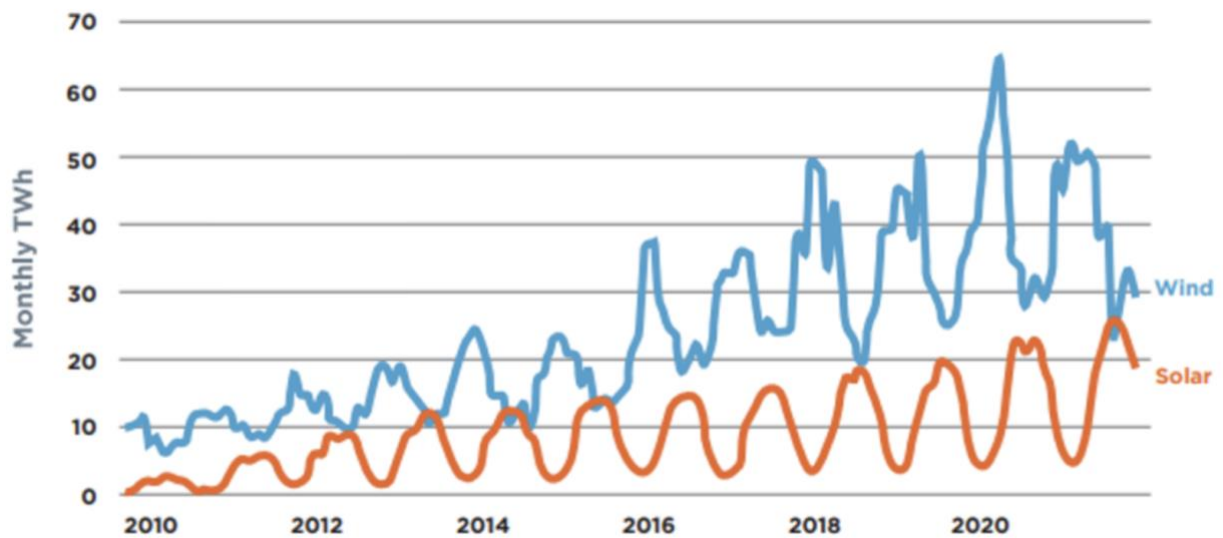
Nothing is more difficult than predicting the future, particularly on horizons as far as 2050, but the future system requires critical decisions to be made well before 2035. There is an abundance of studies, done by reputable think tanks, power grid operators, or EU’s own research centers, on how the energy sector may look like in 2050 in Europe, and these studies guide the policy measures to be undertaken today. No two studies give the same results, diverging wildly in fundamental assumptions, expectations of energy output and consumption by 2050, and imagined system architecture. Most differ also in what “Europe” they consider as the unit of analysis: with or without the Balkans? UK, Norway, Iceland? Ukraine? Some studies focus on overall, “birds-eye-view” of a pan-European energy system, where energy can flow seamlessly from one end of the continent to another on “power highways”. Others favor a territorial approach, focusing on the impact of decentralized systems, energy communities, prosumers, smart cities, largely operating independently from each other and making best use of resources available locally. Behind the modelling chosen by each of these studies lies first of all the researchers’ own sets of values (e.g. centralized or decentralized); assumptions on which technologies may work better in the future; perceptions as to which barriers can be overcome more easily (e.g. local permitting and land use vs cross-border energy flow restrictions); and perceptions of risks (climate, conflicts; both tend to be rather ignored from the actual models). However, one must decide rather quickly on which technologies and infrastructures to place the bet. As explained above, given the immense inertia of infrastructure, the path that will be set in the next decade (before 2035) will determine the possible climate outcomes for 2050 and beyond. There is a high risk of pledging immense public resources, from EU and national budgets, into projects that may not be economic; issuing legislation and regulations that may block the development of more cost-effective technologies; or ignoring critical areas of risk.

Oversimplifying, one can distinguish two broad “visions” on how infrastructure should be developed starting today to meet the needs of electricity beyond 2050. In reality, most forecasts and models proposed by researchers comprise various combinations of the two, though elements from one or the other are clearly predominant.

Figure 1. Complementarity between wind and solar

30 https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/european-green-deal/finance-and-green-deal/just-transition-mechanism_en

31 <https://www.nature.com/articles/s41467-023-37946-3>



Source: Supernode, <https://supernode.energy/blog/a-supergrid-cannot-be-achieved-without-new-innovative-transmission-technology/>. The complementarity of wind and solar is a key argument for a pan-European supergrid to achieve a balanced generation.

1. **Development of a supergrid for electricity**, allowing large quantities of energy to flow freely across Europe. The assumption is that renewable energy is concentrated in certain areas to be connected along the “highways”, wind and hydro in the North, solar in the South, possibly biomass in the East, operating complementarily: winters and night bring more wind in the North, summer and day more solar in the South (see Figure 1). Such a supergrid is illustrated below, though it can be expanded to include also other areas such as the Eastern Partnership countries or North Africa. The supergrid would be completely new infrastructure, based on a different technology than the existing grids, and would require some form of supranational (e.g., EU) ownership or management. The interconnectivity targets for existing power grids (up to 15% of national consumption by 2030) are way below the needs of a system that could transfer freely this renewable energy across the continent with minimal losses. The supergrid could deliver steady flows of energy to the existing power transportation grid in certain “entry points”. This would be not so different to how power plants are connected to the energy grids today.

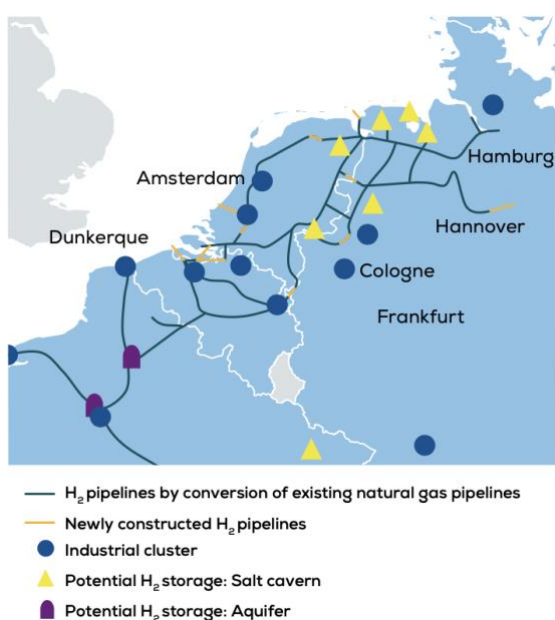
Figure 2: Connecting largescale renewable energy



Source: Supernode, <https://supernode.energy/news/the-politics-of-the-pan-european-supergrid/>; ESPON, <https://soet.espon.eu/maps/index>

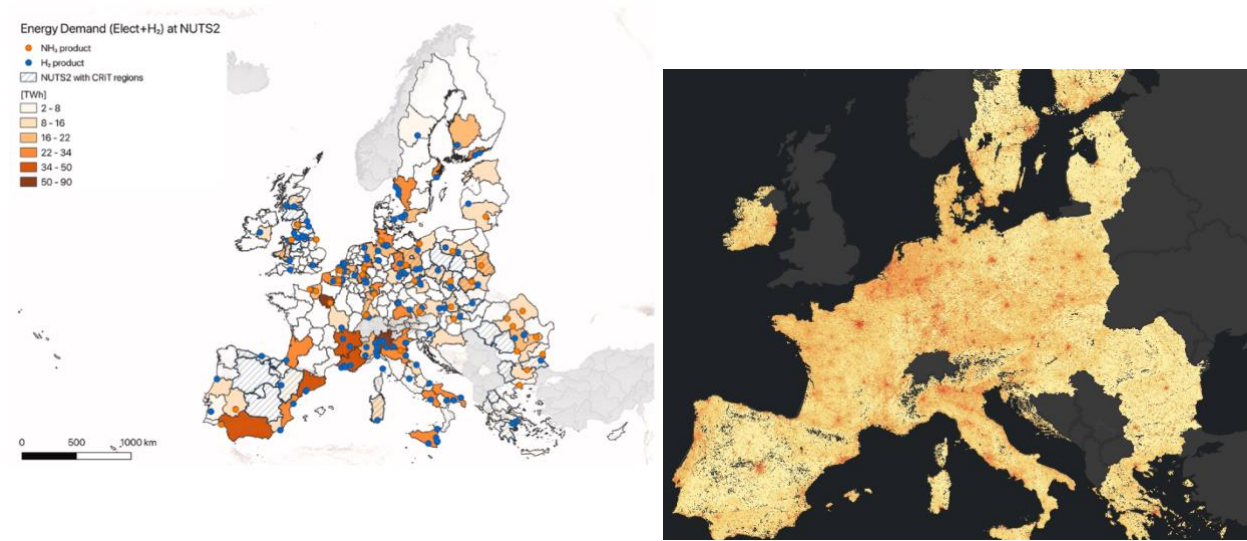
2. **Harnessing locally the enormous potential of renewable energy** available in these resource-abundant regions, while increasing power generation and demand-side management across the entire European territory. In other words, electricity production and consumption should move towards decentralized solutions, closest to the consumer, whereas the “excess” renewable potential in Northern and Southern Europe could be utilized in other ways, e.g. to produce energy carriers such as hydrogen. The hydrogen could then be used locally for large, clustered industrial applications and transported somehow to other places (either by pipeline, or shipped to other places). This second option creates new complications concerning the infrastructure needed for a hydrogen system, either for most localized use or long-range transport.

Figure 3: Planned hydrogen infrastructure, 2040



Source: <https://etipwind.eu/files/reports/Flagship/fit-for-55/ETIPWind-Flagship-report-Fit-for-55-set-for-2050.pdf>

Figure 4: Forecast of energy demand



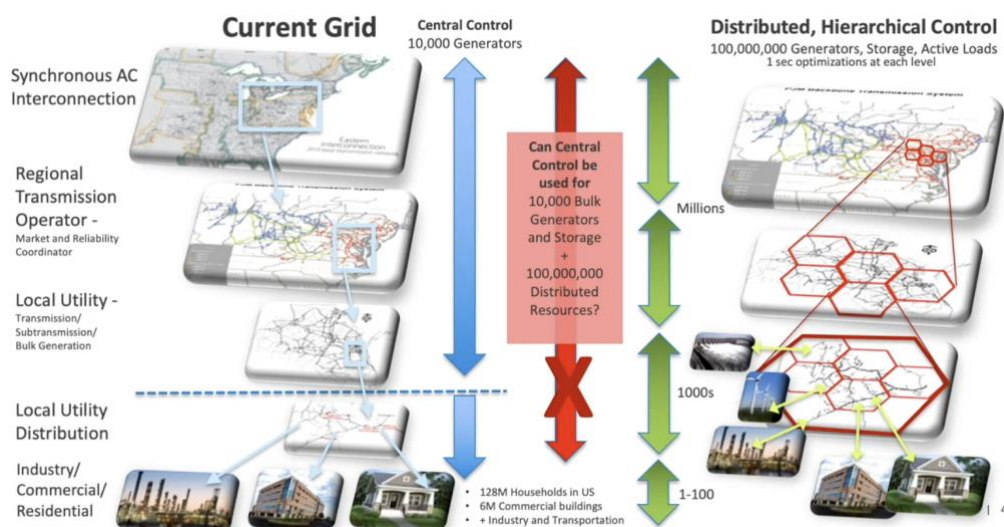
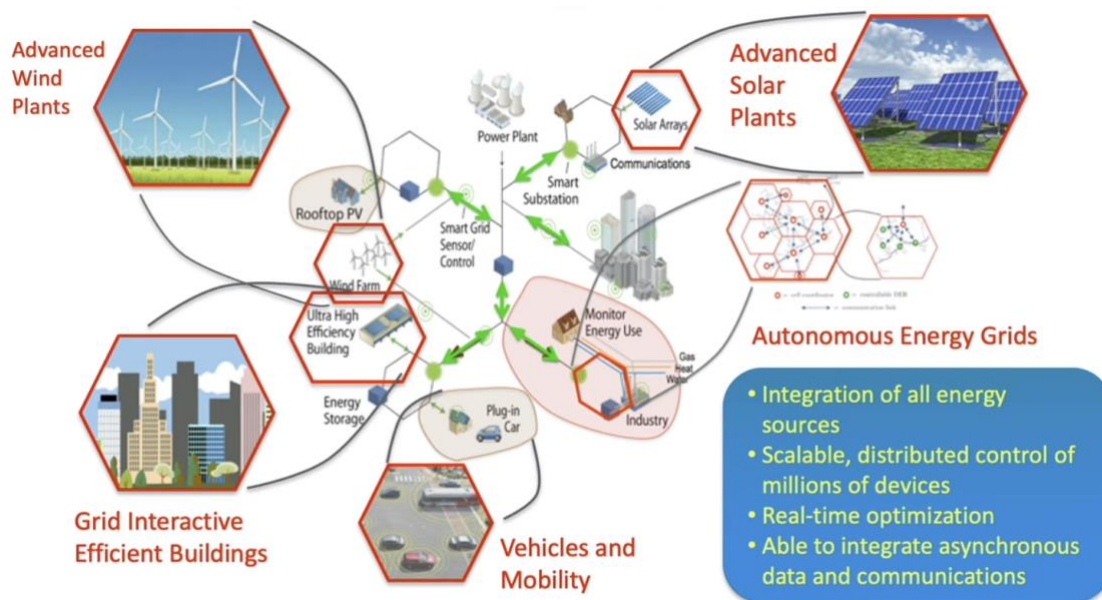
Sources: <https://www.sciencedirect.com/science/article/pii/S0196890420311766> and https://joint-research-centre.ec.europa.eu/scientific-tools-databases/energy-and-industry-geography-lab_en

Table 1: Advantages and disadvantages of the two scenarios

Scenario	Supergrid	Decentralized
Infrastructure needs	<p>High voltage transmission lines (HVDC, superconductors), supranational</p> <p>Power lines can be constructed underground (increased efficiency, reduction of land use restrictions, e.g. by building on state owned land alongside existing railway or road routes)</p> <p>Storage of electricity (primarily other than hydrogen - pumped hydro, air compressors, magnetic etc)</p>	<p>Accelerated development of distribution grids, local</p> <p>High storage needs, including large scale hydrogen and local batteries</p> <p>Additional infrastructure to transport hydrogen or use it locally</p> <p>Significantly higher needs for distribution to change operation mode (bidirectional flows to/from consumers)</p> <p>Higher needs for demand flexibility</p> <p>Significantly higher granular data management</p>
Governance	<p>Supranational grid; national transmission and local distribution</p> <p>Development of a real, fully integrated EU-wide electricity market</p> <p>Requires unified regulation at EU level by one single European regulator (access to grid, tariffs)</p> <p>Likely strong opposition of national electricity transport operators</p>	<p>Primarily local, with national as backup</p> <p>Development of localized markets, pricing design to stimulate flexible demand, storage</p> <p>Requires significant cooperation at local level between local administration, consumers, producers, and horizontal integration of multiple energy sectors in a coherent local energy planning (including heating, public lighting, energy efficiency in buildings etc.)</p> <p>Regionalization of distribution networks</p> <p>Strong challenge on national regulators to adapt regulation of distribution grids to flexible demand, energy communities, network access, approvals of investment plans</p>

Scenario	Supergrid	Decentralized
Generation	Mainly centralized where significant resource available	Fully decentralized, with minimal large scale generation
Risks	Major disruptions to concentrated generation facilities or power lines Cyberattacks Interoperability challenges with existing power lines	Localized; disruption affect only a limited region instead of systemic blackout Individual data protection risks as energy management systems require granular data from consumers
Barriers	European-level permitting and coordination EU funding subject to approval from member states	Local permitting; relationship between distribution grids and local energy communities

Figure 5: Decentralizing power generation



Source: Autonomous Energy Systems, NREL Power Systems Engineering Center

The current power system consists of large power plants, linked to consumers by transmission and distribution grids, where power flows in one direction (from producer to consumer) and generators are turned up or down by a central dispatch to respond instantaneously to demand. By contrast, a decentralized system “zooms in” into multiple, smaller scale “mini-systems” where power flows in both directions, with producers and consumers equally active players in adjusting their output and consumption. In each such small unit a dispatch center manages both local generation, from small producers, prosumers, industrial waste energy, local batteries, electric vehicles which can both consume electricity or supply electricity to the grid from their batteries, smart buildings and home appliances which can vary consumption etc. The “mini-systems” can be integrated into larger scale units - including, ultimately, with a “supergrid”, from which it can get electricity when in deficit or deliver electricity when the energy produced locally is in excess. The decentralized system requires the management of enormous amounts of data from all consumers and producers. When these decentralized units are further integrated into larger units, up to a “supergrid”, the data processing increases exponentially. This poses significant challenges. It requires enormous capacity to process all data, though Artificial Intelligence is already quite promising, coping well with such tasks. It also poses questions of data privacy, risks of hacking and control over the end-users. Data centers collect granular information on energy use and control the energy use to optimize it, for example varying the temperature in a household, triggering the starting time of the washing machine, or re-directing traffic of electric vehicles to optimize overall consumption, unless the consumer decides to actively “override” the system. This type of system requires complex regulation and public intervention to “nudge” the grids to invest in digitalization and to outright change their operation from one direction to bidirectional energy flows. It also implies the development of markets for each layer, local, regional, national, supranational to ensure the right price signals that optimize the allocation of resources.

Neither option is cheap and they both require some costly decisions which are mutually exclusive. Each scenario requires a commitment within the next decade costing trillions of EUR in investments by 2050 just in public infrastructure, if the final result is to be indeed the full decarbonization of EU’s economy by then. Dealing with this type of system-scale uncertainty with long-term, irreversible consequences and deciding on the predominant option could be addressed by piloting solutions in real life and creating the prerequisites to scale up later whatever solutions come out as the best from the pilots. This type of approach would allow for incremental developments and adaptation to local conditions, while keeping the existing system operational. The challenge, however, is to ensure that the adoption of some technologies **does not foreclose too many alternative options** that might have been much more efficient. One must not spend too much on hydrogen and adjustments to local power distribution grids if the solution would turn out in the end to be a supergrid, or the other way around.

De facto, this “trial and error” is also a main part of EU’s policy so far, composed of a patchwork of measures to support different components of energy efficiency, renewables deployment, decentralized generation such as prosumers and energy communities, but also large scale infrastructure development such as hydrogen or “power highways” for offshore wind in the North Sea. Financial resources are also put into research of new technologies, and in accelerating the development of labor force skills in technologies for the future. However, there is a risk that too many resources are allocated for too specific technologies which may or may not be the optimal solution, e.g. for hydrogen: the uncertainties of green hydrogen prices and the availability of an

international market beyond 2030-2035 would suggest that resources would better be put in innovation and pilot projects, rather than the full scale roll-out in uncertainty apparent today³².

Of course, given that it is already a high risk that resources would be invested in projects and initiatives which could turn out not to be part of the solution for 2050, it is even more important to avoid any investments from public budgets (EU or national in state aid schemes) for which we already know for sure they cannot contribute effectively to the full decarbonization goal. The coal-to-gas transition, or “gas as a transitional fuel”, for example, would leave us either with activities that continue to emit or with stranded assets, e.g. power plants or gas grids built in the 2020s and 2030s for a mix of hydrogen and methane, whose useful life extends until 2060-2080.

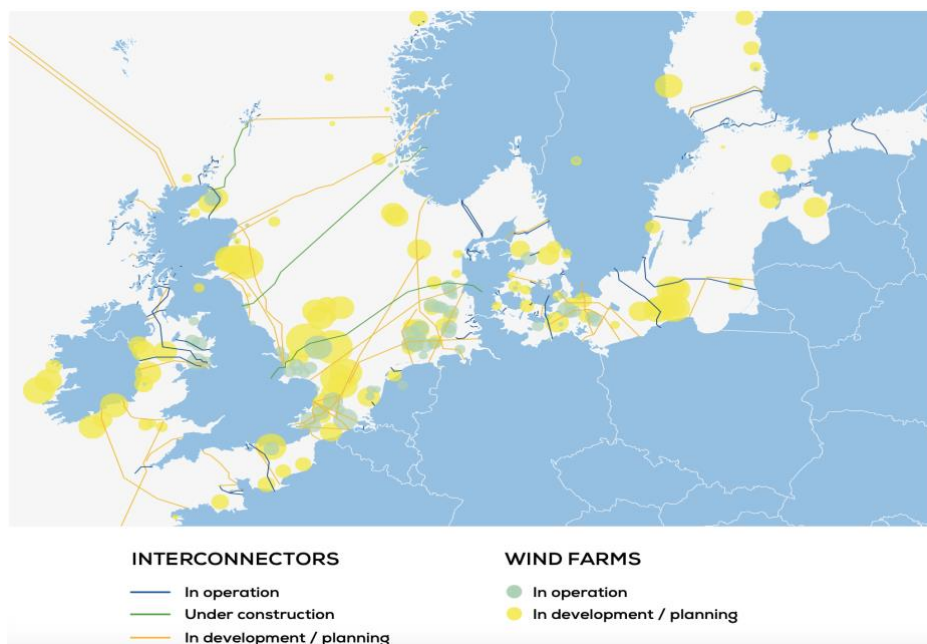
SUPERGRID VS DECENTRALIZED SYSTEMS: HOW THEY COEXIST IN EUROPE

To illustrate the different approaches, the following real-life examples indicate how the energy transition actually already happens, with both centralized and decentralized options developing in parallel.

Nine European countries (Belgium, Denmark, France, Germany, Ireland, Luxembourg, the Netherlands, Norway and the UK) have pledged in April 2023 to increase their joint offshore wind capacity to 300 GW by 2050³³. The initiative builds on previous efforts started a few years back to develop the enormous renewable capacity in the region, creating an offshore hybrid system (a system with dual functionality, combining transmission to the shore and interconnection to other countries). This is a novelty, as traditionally offshore wind developments just use subsea cable connections only to bring electricity to one point in an existing grid of one country: instead the hybrid system would also function as a high capacity interconnection among several European countries. Thus, Belgium, Denmark, Germany and the Netherlands plan to develop the first interconnected system of energy islands and clusters by 2035, which would effectively amount to a green power hub to which other countries can later join. The system will integrate balancing by combining the offshore wind potential with the large hydro capacity in Norway. The technology for transmission of electricity is based on high capacity, direct current lines (HVDC); this is one of the possible technologies that could be used as the “backbone” for a pan-European supergrid. The DC system can physically be interconnected with the existing alternative current (AC) grids in each country in entry points using converter stations. Historically, AC has been preferred for long-distance power transport because of lower losses. However, DC lines outperform AC in long-distance transport in terms of total electricity losses if the cables are under water (such as for offshore wind) or under ground. This significantly simplifies the challenge of land permitting and property issues if pre-existing routes already in the public domain (such as sides of railways or roads) can be used to lay the cables. The DC lines require also less copper than traditional AC transmission lines. Alternative even more economic solutions for the supergrid include superconductors, currently under research.

32 The EU's approach to hydrogen: https://energy.ec.europa.eu/topics/energy-systems-integration/hydrogen_en. The pros and cons of hydrogen are a hotly disputed topic, given the amount of financial resources needed for a hydrogen economy, the relative inefficiency of current technology, the prospect of wasting significant renewable energy instead of putting it to direct use etc.; the push for hydrogen is also the result of intense lobby from the existing gas industry seeking a way forward. <https://foreignpolicy.com/2023/07/14/hydrogen-is-the-future-or-a-complete-mirage/>. By contrast, the solution of a EU super grid is intensely advocated by Ireland, which wants to optimize its offshore wind but is located far from any possible “hydrogen backbone” envisaged by the EU: <https://www.ucd.ie/newsandopinion/news/2022/february/10/pan-europeansupergridcouldcut32fromenergycostssaysnewucdstudy/>

33 <https://www.euractiv.com/section/energy-environment/news/north-sea-countries-aim-for-300-gw-of-offshore-wind-energy-by-2050/>

Figure 6: Offshore wind developments in the North and Baltic Seas.

Source: <https://www.modernpowersystems.com/features/featureonly-connect-a-north-sea-priority-10957326/>, <https://etipwind.eu/files/reports/Flagship/fit-for-55/ETIPWind-Flagship-report-Fit-for-55-set-for-2050.pdf>

2. Major cities and progressive municipalities have started setting themselves ambitious climate targets, e.g. Oslo wants to reach net-zero by 2030. Already the city uses 60% of its energy from Norway's extensive hydro system. The city's climate strategy include a full circular economy focused primarily on food, plastics, electronics and textiles; full decarbonization of transport by an integrated approach of public electric transport, electric vehicles, and incentives for environment-friendly transportation means such as cycling and walking; full decarbonized construction sector by 2025 (including net-zero, renewable-powered buildings and recycling of construction materials from demolitions); and developing waste-to-energy capacities with carbon storage to meet the city's remaining heat and electricity needs. Oslo municipality innovated also by introducing climate budgeting in 2017, tracking emissions alongside money and approving spending only in connection with each measure's needed contribution to reach overall emission targets. Most importantly, the design of the municipal climate strategy required that the local administration undertook extensive consultations with the local business community from each relevant sector; with the state and other public actors; with city residents, preparing a detailed technical paper ahead of the strategy in a collaborative process with all the stakeholders. Such a collaborative approach allows to identify both the city's energy needs and the resources of energy available locally; a high priority is given to encourage processes that recover energy waste from industrial processes for community use. Norway is also actively engaged in EU initiatives to design adequate frameworks for energy communities, focusing on cutting red tape to encourage consumers and neighborhoods to associate and optimize the energy production and consumption at a local level. At the national level, Norway has a well thought-through network regulation that encourages distribution grids to develop local flexible markets, energy generation and storage, and build microgrids for specific areas; incentive-based regulation stimulates distribution operators to integrate energy communities where these effectively contribute to the reduction of future investment costs in the distribution grids.

3. The massive destruction of Ukraine's power sector started in October 2022 with major assets from Ukraine's transmission system (substations) being primarily targeted. Russia's strategy changed in March 2024 by targeting directly Ukraine's big power plants: like most traditional systems, Ukraine's power system is based on a few large-scale generating units (coal, gas, nuclear, hydro) delivering energy to the entire country. Ukraine's reconstruction and survival strategies during the continued war will be particularly interesting for EU because:

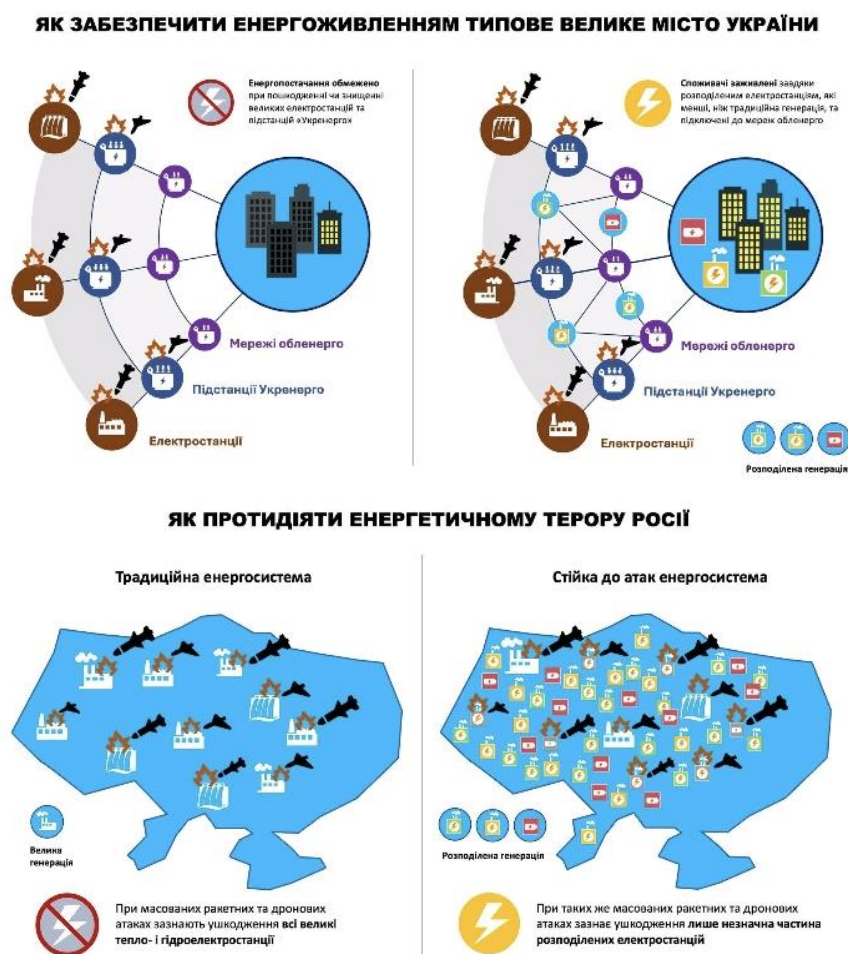
since the winter of 2022-2023, consumers became acutely aware of the need for flexible use and local provision of energy supply; they are actively contributing to such solutions in various forms of partnerships with the municipal authorities and other local stakeholders.

if the overall, system-wide strategy of Ukraine between October 2022-March 2024 was focused on repair of destroyed transmission, the new attacks rendered largely useless previous repairs, as the deficit is now on generation. For example, in just one day, a power plant supplying 50% of the power consumption of Kyiv, plus smaller capacities in 3 other cities, were destroyed. Russia also bombed large, utility-scale solar capacities. However, smaller scale investments in local renewables (e.g. dozens of projects installing rooftop panels to cover the needs for hospitals, small neighborhoods, critical infrastructure objects etc.) are significantly more resilient simply because they are too small and too dispersed for Russia to inflict serious damage, any further destruction to such infrastructure causing only localized interruptions.

while causing immense suffering to the people of Ukraine, the destruction of about 40% of the system in the early phases of the war and possibly another 40% until today also meant that Ukraine is effectively no longer locked in path dependencies of the old system. Surviving the war means that a new energy system architecture, resilient to Russia's continued aggression, will have to take shape. This will require to massively scale up the ad hoc developments of localized projects that took place until now. The plan is currently being prepared by Ukraine's grid system operator Ukrenergo and announced in early April by Ukrenergo's CEO.

Private sector investors from the EU are unlikely to undertake investments in a country currently at war, where demand is being also destroyed unpredictably and where the non-payments from consumers increase. However, EU and its member states have both the financial capacity and a strong self-interest in the reconstruction: any solution that proves successful and resilient under such extreme conditions is definitely a solution fit also for Europe's own energy system. Given the loss of path dependency, the opportunities to experiment are immense. The EU and European states thus have a direct stake to allocate urgently budgets to pilot new technologies that currently in experimental phase and various modes of operation of local systems, also helping Ukraine in the process. There is currently no better testing ground for such technologies than a system which has both the incentive to cut all red tape, active engagement from local communities, strong consumer awareness, and little path dependency.

Figures 7: The decentralization of the Ukrainian power system increases resilience against attacks targeting transmission and power plants



Source: Press conference, Volodymyr Kudrytskyi, CEO of Ukrenergo, April 2024

TOWARDS AN INTEGRATED SYSTEM

To summarize, the path forward for the EU would be to create a framework in which all solutions can be tested in the market before engaging full scale into one path. Infrastructure-wise, this means learning all the lessons from the North and Baltic Sea grid to see if it is cost-effective and if it would make sense at a continental scale; and first piloting aggressively hydrogen technologies from various private sector-led initiatives, to see if they are scalable or better fit for small scale, local use, before committing enormous resources for a hydrogen economy that may not work or may excessively rely on imports. On technology, resources should primarily be targeted at investing aggressively in the research and innovation concerning hydrogen, decentralized solutions, flexibility mechanisms (e.g. storage, flexible demand); and encouraging regulators to share and implement rapidly the best practice examples across Europe. At EU level, the experience from all new, innovative power projects should be systematically aggregated and available for the general public, to the maximum extent possible considering also proprietary information. For research into new technologies financed directly from public funds, EU, national, local, the information should be fully available to all interested parties.

The critical goal is to ensure Europe does not get “locked in” a predetermined path; the first step is to test, minimizing the costs from public resources, by allowing independent producers and active consumers to risk their own money for each of the options mentioned above. They would connect to the system where the market prices indicate it optimal and with the technology that makes sense from the economic standpoint. This requires full-functioning energy markets, with minimal distortions, in each governance level - EU, national, local. Many of the available technologies have not yet been fully market-tested, and this test is critical before misallocating substantial resources for uneconomic technologies. What if, for example, it turns out that it would be cheaper to transport electricity across the continent than to produce hydrogen that would then require its own infrastructure? We do not fully know yet. The key challenge in reality is to let the market sift through the latest inventions, allowing efficient ideas to survive and discarding the others; there is no other means to test for economic efficiency than in the real world. The electricity market design must thus allow all technologies to compete and receive the right price signals. In 2022-2023, the energy prices triggered a flurry of ideas incompatible with market principles to protect consumers against high prices and urgent calls for a massive revision of how power markets work. Fortunately, reason prevailed, and, after an initial moment of panic, the revised market design developed last year remains in line with sound principles of market economy³⁴. Of course,

Apart from the decision of infrastructure (a natural monopoly requiring public intervention by regulation, as well as financial resources), the most significant area of market failure is energy security. Resources would have to be allocated to ensure redundancy at local level. The most resilient scenario, adequately considering the risks of climate disasters, terrorism and military conflicts, is that the future power system would actually include elements of both: a highway covering at least parts of Europe, connected to existing national grids, which comprise various sub-units at local level. For resilience, the system should be able to “localize” the blackouts caused by such natural or man-made disasters. This would require encouraging redundancy at the local level, e.g. by requiring local grids and energy systems to be able to cover a certain percentage of total energy needs exclusively from local sources and providing the financial means to do so. Much of this capacity, available only at local level, would sit idle in normal situations, hence it would not make sense in the market. In this case, idle capacity may consist of local generators, including based on fossil fuels, to be used only as backup if the larger system is for any reason not able to supply electricity for a certain period of time because of a natural or man-made disaster. In brief, the energy system should be able to function in critical emergency situations in a fully decentralized mode. This may require flexibility even in the “taxonomy” - to allow the use of state aid and EU funds for solutions that are critical to energy security even for capacities with emissions, as long as these are kept idle to be used only in dire need. The flexibility of state aid must be ensured in a transparent manner, to clearly separate legitimate concerns of energy security from the simple lobby of existing industries.

34 The high prices of 2022 were in fact a sign that markets do work also for electricity: they regulated demand and supply in a way in which there resulted no shortage: in the power sector that would translate into a blackout. High prices stimulate investments in new capacities - the proper response, albeit in the long run, to a deficit in supply. Consumer protection can be ensured by measures outside the functioning of the market, such as income support, avoiding radical measures such as windfall taxation that discourage investments and render the supply deficit permanent. The market design introduces relatively minor adjustments for instruments such as contracts for difference and PPAs with no negative impact on the functioning of the market.

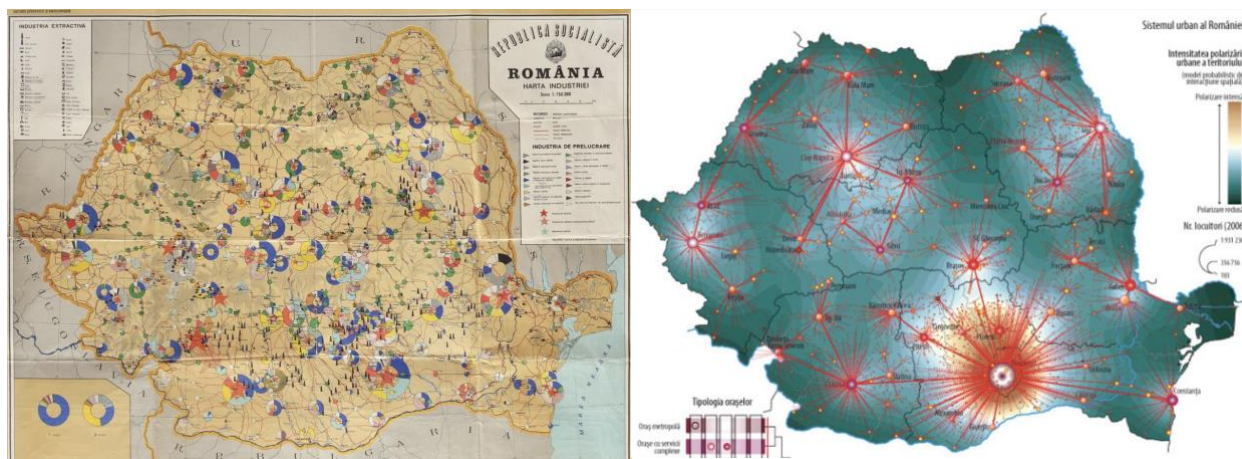
ROMANIA TOWARDS 2035-2050

Romania's energy policy stands in stark contrast to the EU ambitions. De facto, in the past 3-4 years, the country's ambition has been to encourage a significant development of its gas consumption by 2030 and beyond, both for households and in electricity generation, while in practice it hampered the investments in renewable energy and delayed the development of the needed infrastructure for their uptake. In 2022-2023, despite strong market price signals, most investments in renewables took place in spite of, rather than with the support of, the state: they amount to 1.5 GW from prosumers, but only 600 MW in utility-scale solar and wind, well below other EU member states in the same period. Between 2017-2021, investments in renewable electricity had been effectively blocked by the legal framework not allowing certain types of contracts (power purchase agreements - PPAs), permitting difficulties at central and local levels, and barriers to connection to grids, both in transport and distribution. When the main legislative barrier (forbidding PPAs) had finally been removed in 2021, other legal and regulatory measures were introduced and discouraged investments. Currently, technologies for renewable energy which investors would consider in Romania are mature enough for investments to take place in pure market conditions. However, the excessive regulations and consecutive price-distorting consumer protection schemes implemented since 2021 increased the investors' risks, adding to the barriers to market entry. Romania's lack of progress and of investments in the past decades in the energy sector meant that:

- 1) the current system remains even more captive than in other countries to path dependencies from the communist past, as power, gas, and district heating grids had been designed to ensure the supply for energy-intensive industries which for the most part have disappeared and maintain the same architecture today; and
- 2) delays in the roll-out of well-established technologies, such as smart metering for electricity distribution or IT systems to manage the grids, make the entire system not capable to deal even with the technological challenges solved by others more than 15 years ago.

In brief, in the energy sector, in order to get to where Europe wants by 2050, Romania needs to take a giant double leap. First, it needs to catch up with the past 30 years of backlogs in investments and shifts in demand (e.g. from overdeveloped socialist industrial hubs to urban and household consumption). Second, it has to jump onboard the technological revolution that poses a challenge to all EU member states for full decarbonization by 2050.

Figure 8: legacy of the power system in Romania.



Romania’s energy system was built to meet the needs of communist industrialization, when household consumption amounted less than 5% of the total. The future system will have to meet the needs of rapidly expanding urbanization and decentralized industries around development poles.

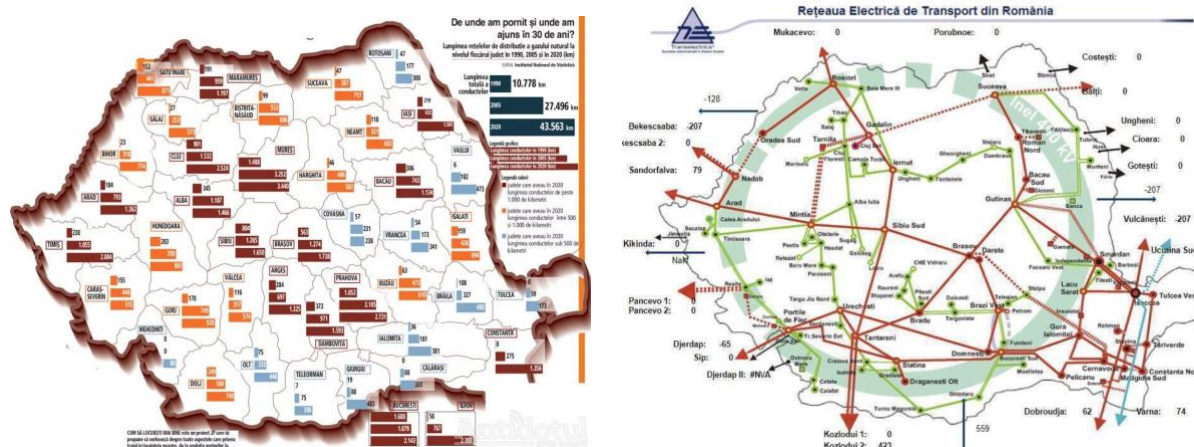
Sources: https://www.reddit.com/r/Romania/comments/ol2fq/harta_economica_a_romaniei_inainte_de_1989/ and <http://www.mdlpl.ro/documente/atlas/index.htm>

Progress is slow even though significant funds have been and are available from the EU under various mechanisms to accelerate the overhaul transformation of the entire sector towards its full decarbonization. No less than 20 bn EUR can be accessed only in the decade 2020-2030 in the Operational Programs, the Recovery and Resilience Plan, the RePowerEU, the Modernization Fund, and the Transition Fund, for a broad range of interventions in energy supply, transport, and consumption, as well as for the restructuring of the fossil fuel industry and re-skilling the labor force. The Government also recently introduced a state aid scheme to further accelerate the deployment of renewables, through a Contracts-for-difference mechanism designed to support the installation of an additional 5 GW of electricity by 2030. Some of the more progressive measures, such as the limited rollout of smart metering, increase of interconnectivity for gas and electricity, and digitalization of some power substations, happened because of EU support - either financial, or by conditionality in the NRRP. De facto, in the absence of a national strategy for energy, administrative capacity, political will and competence, the obligation to prepare various policy documents such as the National Resilience and Recovery Plan, the Operational Programs, or the National Energy and Climate Plan³⁵ have played the role of substitutes for guiding policy documents. The issue remains implementation - as projects are delayed, the result is low absorption of EU funds³⁶.

35 <https://energie.gov.ro/wp-content/uploads/2024/02/Planul-National-Integrat-in-domeniul-Energiei-si-Schimbarilor-Climatice-2021-2030-Proiect-Actualizare-Versiune-21.12.2023-limba-engleza.pdf>

36 For example, as of 2023, the last year when funds from the 2014-2020 EU budgetary cycle can be used, the finalization rate of energy components of the Large Infrastructure Operational Program has barely reached 15%.

Figure 9: Expansion of gas grids and electricity grid priorities, same as 20 years ago.



Source: <https://www.zf.ro/cum-sa-locuiesti-mai-bine/locuiesti-bine-confortul-obtine-lemn-foc-calitatea-locuirii-bogatia-20895505> and www.transelectrica.ro

In practice, Romania’s energy policy since 2019 is driven by plans to expand gas consumption to households and for electricity generation and replacing coal-fired power plants with large capacity with gas-fired large-scale capacity. Here is a clear rupture between Romania’s vision and EU’s: if the RePowerEU envisages halving the gas consumption over 2027-2030 across the entire EU, and other countries already consider a full gas phase-out by the mid-2030s, Romania may more than double its own gas consumption by 2030 if all the announced projects materialize. The underlying assumptions are as follows:

Romania “has” its own domestic gas production: in addition to the existing deposits currently operational, which produce about 9 bcm per year (but declining at a rate of 2-3% per year), recent discoveries in the Black Sea and onshore may be about 200 bcm. The amount is misleading: it is quite significant in comparison with the consumption of the countries in the region (Romania 10 bcm, Moldova 1 bcm, Bulgaria 3 bcm, Serbia 2-3 bcm, Hungary 9 bcm), but enough for the current consumption over less than a decade. There is also a more or less explicit expectation that Romania would use inside the country the gas from own production (instead of exporting it); and it would compete with the entire region for gas from Azerbaijan or LNG from Greece and Croatia. The NECP mentions numerous gas development projects, consisting of gas interconnectors, storage deposits, and even a LNG port at the Black Sea.

Romania “controls” its own gas production. The state-owned company Romgaz owns half of the large project in the Black Sea Neptun Deep (100 bcm) and is the sole owner of a smaller onshore deposit at Caragele (30 bcm). As explained below, the Ministry of Energy primarily understands its role as a shareholder in the energy sector, not as policymaker.

Extension of gas grids to households in rural areas, particularly along the routes of large, newly built interconnectors, is considered a “popular measure”, and access to a new utility is viewed as a “sign of welfare”. While this may have been true before 2020, it is questionable whether households would now actually connect to the grids, provided they become available, considering the widespread concern about gas price increases in 2022, the volatility of gas prices expected in the next few years, and the costs of the “last mile connection” (the equipment in each house). However, right at the peak of the gas prices in 2022, the government decided to allocate no less than 13 bn RON (2.6 bn EUR) in the multi-annual program Anghel Saligny for the construction of such networks. Some of the contracts have already been signed and works are

on-going in several clusters of municipalities. It is questionable whether grid operators would be interested in taking over the management of these new (non-economic) infrastructures, once they are built. While people tend to be happy with the new “free infrastructure” paid for by the central budget, it is also questionable whether enough households would actually use it to achieve breakeven revenues to cover for maintenance. All in all, there is a high risk that a large amount would be buried in the ground. Instead, a better use and equally popular would have been to undertake works for energy efficiency in buildings and pilot new, renewable heating solutions such as various options involving individual and collective heat pumps.

The “coal-to-gas” transition in the electricity sector implies that about 2 GW of coal-fired plants, central and local, would be replaced with gas capacities of comparable size in the next 3-4 years. This approach is captured in all policy documents, the NECP, the restructuring plan for the lignite company CE Oltenia, the NRRP commitment for a coal phase-out. This policy choice apparently greatly simplifies matters for the decision-makers. It allows the Ministry of Energy to retain most of the control over its “own producers”; it replaces each 1 MW of coal roughly with 1 MW of gas (and a bit of solar, for good measure); and it poses no challenge to the grids, as gas is just as easily controllable as coal and the connection to the grid remains unchanged. To avoid the challenge from Brussels, and to apply for EU funds to build the new plants, the Ministry “greenwashes” the projects: as the argument goes, at some indefinite moment in the future, for both households with gas heating and for gas-fired power plants, the gas would be replaced with hydrogen. But even the Hydrogen Strategy unveiled in 2022 does not find the option to use hydrogen in the existing gas grids as a viable one, proposing instead the use of hydrogen locally, in industry and transport. Romania’s approach of the coal-to-gas-to-hydrogen double transition is consistently being pushed back by Brussels, e.g. by not allowing EU funds to be used for grid extensions in the NRRP or in the new Operational Programs. But gas-fired power plants would be eligible for the Modernization Fund, even though it is not plausible that at some point later on they could be connected to a hydrogen source. Put simply, the EU is not happy, but has to “pick its fights”.

While documents prepared for Brussels audiences must meet in form EC’s requirements and provide convincing arguments that the country would contribute to EU’s collective goals, there is no guarantee for their implementation, and no enforcement from Brussels beyond the refusal to approve direct financial support. The Long-term buildings renovation strategy approved in 2020 remains on paper. Ten-year network development plans (TYNDPs) for electricity and gas transmission grids present the same projects from year to year, extending just the deadlines, and will continue to do so as long as the energy regulator does not clearly enforce their implementation and penalize delays. State-owned projects such as a power plant developed by Romgaz, partly covered from EU by revenues from ETS, are delayed by years: the 400-MW Iernut plant should have been finalized in 2019 but remains unfinished today. The simple presence of mega-projects in these policy documents, such as nuclear reactors 3&4 at Cernavoda, the hydro pump storage unit at Tarnita, the gas-fired plants of CE Oltenia or, more recently, the small modular nuclear reactor at Doicești, is no guarantee that they would ever see the light. On the contrary, since they are official priorities, the power grid has to acknowledge them as future generators and simply limits the connection capacity whenever an investor applies for connection for a new power plant.

In other words, Romania’s government remains a strong opponent to EU’s energy and climate goals, which emerges with every discussion with Brussels on the country’s commitments to the targets on energy efficiency, renewables and emissions. The reasons for this resistance are explained below.

First, the Ministry of Energy does not internalize its role as policymaker in the energy sector. It views itself primarily as the shareholder in 80% of the traditional power generation, and in 50% of gas production. The “unbundling” requirement of EU energy directives (the requirement that the interests of gas and power grids need to be separated from the interests of producers, to avoid market foreclosure to competition) meant that the gas and power grids were transferred

back in 2011 to another government unit, now the General Secretariat of the Government. District heating is de facto in the responsibility of the Ministry of Administration and of local administrations. As a result, the Ministry of Energy acts more like an investment fund in state-owned companies, protecting them from any competition, rather than a government body in charge with strategies and plans for the development of infrastructure and markets to respond to consumers' needs. The knee-jerk reaction of the Ministry, whenever it has to submit a plan to Brussels (operational programs, NRRP, RePowerEU, Modernization Fund), is to propose projects targeted directly at its own companies. The first iteration, without exception, consists of Brussels sending back the plans and requiring the Ministry to propose competitive measures, compatible with state aid rules, with support available to all market players instead of the select few. The proposed plans are constrained by the fragmentation and lack of inter- and intra-governmental cooperation between ministries, agencies, and local administrations. The power and gas grids, district heating, private sector, or rare minerals, are outside of the control and outside of the Ministry's interest.

Second, the capacity across the board in the administration is low, with key positions in ministries, agencies and state-owned companies generally not filled based on competence. There is little cooperation with peers from ministries, agencies, or stakeholders from other EU countries for exchange of know-how. There is no policy practice, and decisions are made ad hoc, without proper impact analysis or consultations. No mechanisms are in place to ensure that a strategy, once adopted, is also implemented and proper budgets and staff are allocated to priority measures. Key competencies on state aid and evaluation of competitive calls are missing: though the Ministry now has exclusive competence to promote such measures for the acceleration of investments in particular energy sub-sectors, each of the competitive calls on EU funds stumbled upon difficulties to prepare guidelines for applicants, organize the calls, and evaluate the applications. Unless administrative capacity constraints and the very understanding of the role of the Ministry changes profoundly, Romania will not be capable to make best use of the available resources and the only developments will continue to be those which can happen with minimal public intervention, and against the opposition from the state-owned grids. Most likely, the energy sector in 2030-2035 will look much like today, with possibly new gas being extracted from the Black Sea and several more GW of renewable electricity, much of it from prosumers and developed by the industry for own consumption, if possible, not connected to the grid. The good news is that the lack of capacity to finalize projects will reflect also on the construction of gas plants by the Ministry's state-owned companies. This would keep gas consumption largely at the current level and allow some exports in the region.

Despite the gloomy picture of low capacity at the central government for a national energy policy, the situation can be changed if Europe's future energy policy moves as explained to a rebalancing of governance levels, following the twin development of a supergrid and decentralized energy. Romania's wind capacity, including its potential for offshore wind and the concentration of onshore wind in Dobrogea, may be integrated in a pan-European grid of supranational interest. This would be possible if, for example, the EC would require member states to apply streamlined permitting procedures, particularly on land use. As explained above, such a supergrid needs to reflect the European interest and should be a truly European institution, separated from the interests of national grids.

At the same time, more progressive local administrations can devise local sustainable energy plans, in partnership with local stakeholders - consumers, businesses, energy producers, industries which generate excess energy, local distribution grids. Some municipalities, such as Oradea or Brasov, are actively engaged in international networks such as Smart Cities, cooperate with peers from other countries, and undertake initial steps for comprehensive local sustainable strategies. Municipalities can access directly EU funds (e.g. for research); or funds for sustainable projects from Norway or Switzerland, and some already do so. The experience of cities which have already implemented aggressive strategies for sustainable energy suggests the following steps:

The municipality commits to implementing a local energy strategy and appoints a key person to coordinate it. It also “maps” its departments and responsibilities (e.g. district heating, energy efficiency in buildings, procurement etc), and the key energy stakeholders at local level. The mapping includes resources, data available, and interests of all stakeholders. It also includes taking stock of available resources and ideas in international networks (e.g. Smart Cities)

The responsible person organizes effective consultations with all internal and external stakeholders to identify the energy needs and resources available, as well as the stakeholders’ views on what level of ambition can be achieved. The municipality formally commits politically to a target (e.g., carbon neutrality by 2035), based on consultations with stakeholders.

A detailed energy profile of the municipality is created. It includes a large set of data on energy consumption and resources, patterns of consumption and production, building stocks, potential uses of available resources, forecasts of demand etc. Data needs to be collected in close partnership with the community. Even the data collection itself can be a community-building exercise, e.g. by developing an online map with various data which can be filled in by municipal employees and by stakeholders directly.

Detailing the target: it can include intermediate steps and clear indicators, such as: for carbon neutrality by 2035 emissions must be reduced by 40% by 2030, which requires the insulation of 80% of the buildings and inclusion of 100 MW of solar in the local energy consumption.

Establishing priorities: from all possible measures, with support from energy specialists, the set of potential paths to reach the targets should be presented and prioritized. The municipality’s budget can be linked to the targets to ensure prioritization.

Finding financial resources: EU and national funds are available for various projects contributing to decarbonization. They must be used in a manner that ensures leveraging of private sector resources for maximum impact.

Planning the activities: the strategy must have a clear action plan, with deadlines and responsible departments and staff. Each measure from the action plan should be properly consulted with stakeholders.

Feedback. The implementation of the strategy will lead to lessons learned; some actions and measures may turn out to work better than others and the strategy should be adapted accordingly.

A combination of decentralized solutions and a supergrid may thus be the best option for Romania, as well as for other countries where the central governments lack the ambitions and the willingness to fully undertake commitments for decarbonization by 2050. The question is whether Romania, at the central and local government levels, would have the capacity to undertake such ambitious goals.

IV. What role for Romania in the new EU-35?

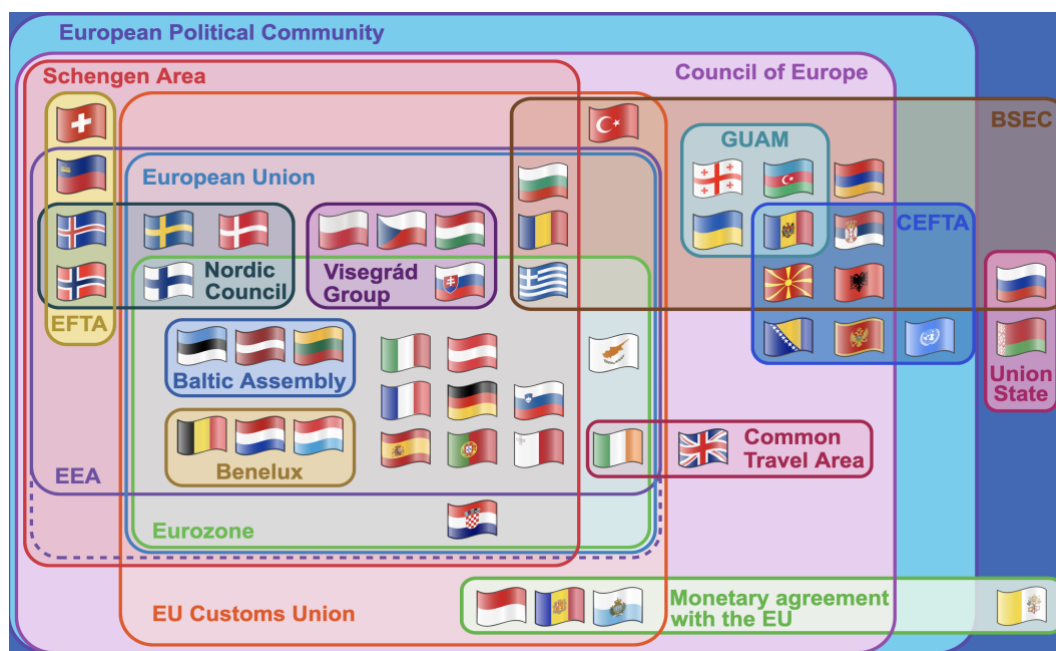
EU, A STRUCTURE CREATED IN BETTER TIMES

Despite its bumpy ride, marked by significant advancements and occasional setbacks, the integration of Europe over the past several decades stands as a remarkable success story. The European project has ushered in peace, economic prosperity, and freedom for a population nearing half a billion. However, the EU currently faces unparalleled challenges, including escalating global conflicts, climate change, and internal strains that test the foundational values established in mid-20th century. Within the next decade, the EU must essentially reinvent itself to emerge as a global economic and political leader, capable of addressing climate and demographic challenges in a socially inclusive manner, and continuing to champion democracy and the rule of law both domestically and internationally.

Today the monumental task ahead for EU decision-makers, member states, aspiring countries, citizens, stakeholders, and societies at large, is to craft the ideal European institutional framework to effectively confront and adapt to these challenges within a rapidly closing window of less than ten years.

Central to this endeavor is defining **the future composition of Europe**. Presently, no fewer than ten countries are exploring various degrees of engagement with the European Union—ranging from full membership aspirations to seeking deeper integration into EU markets and enjoying the freedoms associated with the continent. Within the EU itself, there is an ongoing and vigorous debate about its **future structure**, oscillating between evolving into a “federal union” and remaining a looser association of sovereign nations that collaborate extensively while pursuing individual national interests. The UK’s departure following the 2016 referendum exemplifies the enduring tension between desires for “more” versus “less” Europe—a dynamic that persists across the continent. Meanwhile, other European nations have adopted diverse models of integration, from strong economic collaboration and a common market as policy-takers with no direct influence on EU policy decisions (like Norway, Switzerland, Iceland), to full EU membership with various “opt-outs” such as not adopting the euro or participating in the Schengen area.

Fig. 1. The many shapes of Europe



Source: https://upload.wikimedia.org/wikipedia/commons/6/6a/Supranational_European_Bodies.svg

The European model has demonstrated considerable adaptability to accommodate various needs and aspirations. However, it is crucial to recognize that the prosperity, peace, and freedom

enjoyed by the EU are fundamentally grounded in **core values such as the rule of law and liberal democracy**. These values are non-negotiable, and any compromise on these principles could prove detrimental to the entire European project and its accomplishments to date. While adherence to the rule of law, democratic legitimacy, pluralism, and other foundational European values are essential prerequisites for any country's entry into the elite EU circle, recent years have demonstrated that these values are not as immutable as previously believed. The decline of democracy globally has not spared Europe, as evidenced by developments in Hungary, Poland, and more recently, Slovakia³⁷.

Recent adversities, including the Eurozone crisis, challenges in migration and demography, the pandemic, hybrid aggression from authoritarian regimes, urgent climate change issues, the EU's lag in high-tech innovation compared to the US and China, and a growing disengagement of European citizens from politics, have accumulated significantly. However, it was Russia's war in Ukraine and Ukraine's subsequent bid for EU accession that finally catalyzed a serious and committed discussion on necessary internal reforms within the EU. This period of reflection and action is critical for ensuring that the union can effectively respond to its current trials while remaining true to its foundational values.

Before 2022, the EU had become somewhat complacent, suffering from a decade of "enlargement fatigue" which contributed to a sense of disengagement and an overall loss of direction both within the Union and its neighboring areas. Since the admission of Croatia in 2013, no new members were welcomed, nor did negotiations with other potential members make significant progress. However, the full-scale invasion by Russia necessitates urgent and unavoidable reforms, redefining Europe's role on the global stage and addressing all the aforementioned challenges to establish sustainable, resilient institutional structures for the future.

The political discourse began to shift in 2022 with the introduction of the European Political Community, a concept pushed primarily by France. By 2023, France and Germany had commissioned a group of experts, the "Group of Twelve," to draft a blueprint for the EU's internal institutional reform³⁸. Many of their recommendations are currently being integrated into the EU's official statements and technical work³⁹, although some aspects, such as the reform of election procedures for the European Parliament, are progressing more slowly than the experts had envisioned. Part of the delay can be attributed to the numerous elections scheduled for 2024—both national and European—which tend to shift decision-makers' focus from long-term strategic planning to short-term campaigning.

In summary, according to the Franco-German report, the **EU needs to reform its internal functioning and institutions** to significantly enhance its capacity to act, to strengthen the rule of law and democratic legitimacy, and to prepare the institutions for enlargement itself. It's important to recall that the existing treaties under which the EU currently operates—the Maastricht Treaty of 1993 and the Treaty of the Functioning of the European Community of 1957, substantially amended by the Lisbon Treaty in 2009—stem from a tradition of "EU Constitution-building" that was suitable, and even revolutionary, for different times. These foundational documents were crafted to meet the needs of a much smaller EU, initially composed of a select group of countries with well-established democratic institutions, committed to cooperating in some areas more than others, and primarily aimed at preventing further conflicts.

While the circumstances have evolved, the treaties were based on the post-war and post-1989 optimism that humanity, or at least the "civilized" world, was moving inexorably towards democracy and liberal values. The prevailing assumption was that countries with the right mix of democracy and rule of law to join the EU would never regress to illiberalism, corruption, or authoritarian governance. Assuming that EU members would always act appropriately, that

³⁷ <https://www.eiu.com/n/campaigns/democracy-index-2023>

³⁸ <https://www.auswaertiges-amt.de/blob/2617206/4d0e0010ffcd8c0079e21329bbbb3332/230919-rfaa-deu-fra-bericht-data.pdf>

³⁹ https://commission.europa.eu/document/download/926b3cb2-f027-40b6-ac7b-2c198a164c94_en?filename=COM_2024_146_1_EN.pdf

decisions would always be made in good faith, and that all parties would be willing to compromise to address legitimate concerns, the treaties favored consensual decision-making on some of the most challenging policy issues. In this framework, the institutional structure of the Union was designed to provide various forums for debate among equal partners, ideally equipped to achieve collective outcomes for the highest benefit of all.

While it might seem utopian in the context of today's realities, this arrangement has, in fact, worked unexpectedly well. The EU has managed to make decisions on almost everything of importance, sometimes with delays, but even in areas outside its supranational competencies. The EU's unified response to the health crisis during the 2020-2021 pandemic serves as a prime example of this capability. However, there is growing concern that some member states may no longer be acting in good faith, using their veto power over EU joint positions either under external malign influence or to extract personal political and economic benefits, not always in the interest of European citizens.

Additionally, there is deep anxiety about the rise of populism in recent years, which could introduce more divisive forces into the EU's decision-making processes. Such forces often play into the hands of external, aggressive regimes like Russia, China, and others. As the war in Ukraine continues and conflicts intensify around the globe, European politicians are confronted with the reality that the world can be a hostile place, deeply resentful of the EU's way of life and values. For the first time, it has become imperative for European leaders to acknowledge that threats to the European project may arise not only from external sources but also from within. This newfound awareness is prompting a reevaluation of how the EU can protect and advance its ideals in an increasingly complex and adversarial international landscape.

ABANDONING UNANIMITY

As the European Union faces the risk of some members regressing on rule of law and democracy, and potentially exploiting the EU's decision-making processes, it becomes clear that significant streamlining of its internal functions is necessary. This need is especially acute given the current composition of 27 members, with the potential addition of up to ten more in the future. Even with a slightly smaller configuration of EU-35, as is currently analyzed in the internal documents of the Union and described in Chapter 1 of this report, the current mechanisms will increasingly fall short, particularly if swift adoption of radical new policies, such as a much stronger common defense policy, is required.

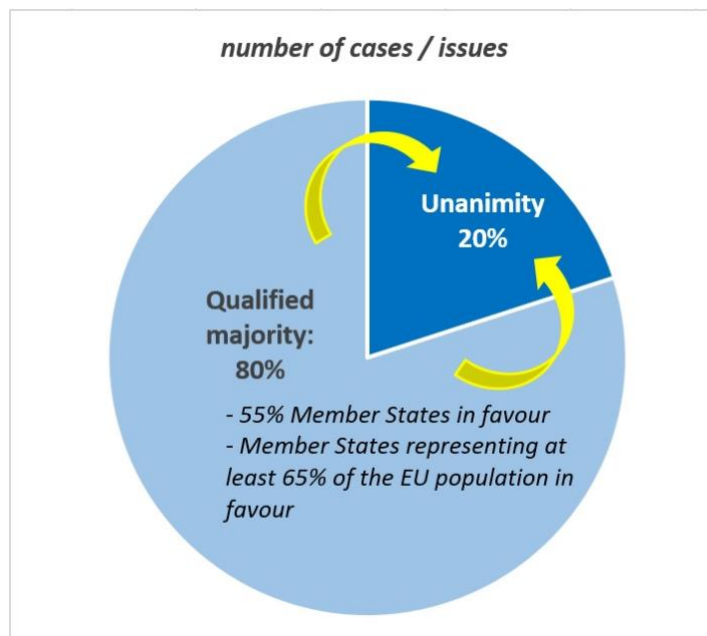
The EU's most crucial decisions, which today require unanimity, are untenable in the face of disagreement or the influence of vested interests. A veto from a single country, representing less than 1% of the Union's population, could block any decision within a potentially 35-member group. This is not only a challenge for the EU's efficiency, potentially stalling entire EU policies over narrow national interests, but it also presents a perfect opportunity for hostile foreign influence at a time when Europe must be prepared for aggression. For instance, the accession of Ukraine could theoretically be blocked by just one veto from one member state on one negotiation chapter, highlighting how the requirement for unanimity poses a significant vulnerability for enlargement and makes it a prime target for Russian interference.

To mitigate the risk of internal deadlock, decision-making should transition to qualified majority voting (QMV) in the European Council, the main decision-making body of the Union, for most areas currently requiring unanimity; today these areas generate about 20% of the votes in the Council, see Fig. 2. For some decisions the EU could shift to QMV without formally amending the Treaties⁴⁰, though for others, especially those involving major fiscal policies or defense and

⁴⁰ E.g., through *Passerelle* clauses allowed for in the Treaties to change voting rules for specific areas, and other flexibility measures.
[https://www.europarl.europa.eu/RegData/etudes/STUD/2020/659420/EPRS_STU\(2020\)659420_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2020/659420/EPRS_STU(2020)659420_EN.pdf)

military implications, a Treaty reform would be necessary. Additionally, the streamlining process should include limiting the maximum number of European MPs to avoid exceeding the current cap of 751 even after enlargement; reducing the number of Commissioners or dividing their roles between "lead Commissioners" and second-tier ones; and extending the "trio" of rotating EU presidencies to a "quintet" to foster a longer-term policy vision.

Fig. 2. How the European Council votes on issues, and changes proposed



While the adoption of qualified majority voting (QMV) for all policy decisions presents certain drawbacks, this has ignited a lively debate. Smaller countries might feel disadvantaged, concerned that their interests and perspectives could be consistently overlooked in EU decision-making processes. To address this issue, the report suggests the possibility of implementing a "sovereignty safety net," allowing a country to have its concerns seriously heard and debated within the European Council. Alternatively, each member state could choose to "opt out" of specific policies, particularly those where other EU members prefer deeper integration and might form various cooperative configurations for this purpose. Additional safeguards could be introduced to ensure that all legitimate voices are taken into account.

For instance, the current QMV threshold—55% of member states representing 65% of the EU population—could be recalibrated to reflect new power dynamics in an enlarged EU, such as adjusting the thresholds to 60% of member states and 60% of the population. To further enhance democratic legitimacy and ensure a closer connection directly with European citizens, decisions made by the Council should be co-decided with the European Parliament, except in areas of foreign, security, and defense policy.

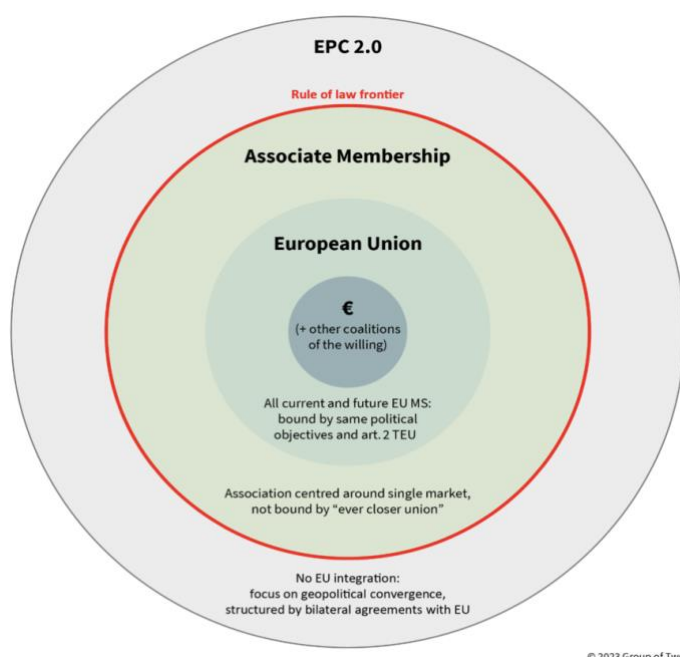
However, permitting countries to "opt out" risks opening a Pandora's box of selective participation, with member states choosing to engage in some policies while avoiding others. To maintain EU cohesion, the areas where opt-outs are permissible must be clearly defined and should not compromise the fundamental values and freedoms of the EU, such as the rule of law. Additionally, any "opt out" should be accompanied by a strengthening of QMV in new policy areas.

The Franco-German report highlights that "opt-outs" would create varying levels of integration within Europe, from a tightly integrated core to a looser association with the EU. Such flexibility, while accommodating diverse national preferences, could inadvertently marginalize countries in the outer tiers of integration. These peripheral countries might then feel like "second-rate"

members, potentially undermining Brussels' influence over their internal processes. Notably, it is in these countries where citizens often have greater trust in EU institutions than in their national governments and view external conditionality as a supportive mechanism for democratization and rule of law⁴¹.

Another concern is that the EU or countries seeking closer ties might become complacent, settling into the status quo and diminishing the momentum for further integration. This could be particularly harmful to the integration of new members like Ukraine. Over time, the initial enthusiasm for expansion could wane due to various factors, ranging from Hungary's continued pursuit of favorable relations with Moscow to concerns in countries like Poland or Romania about competition in agricultural policy or EU funds.

Fig. 3. A four-tiered Europe



Source: <https://www.auswaertiges-amt.de/blob/2617206/4d0e0010ffcd8c0079e21329bbb3332/230919-rfaa-deu-fra-bericht-data.pdf>

While the four-tiered Europe as such has its disadvantages, a patchwork of different cooperation configurations is however still possible and functions well today, as illustrated in Fig. 1, avoiding the stigma of “being assigned” formally to either “inner” or “outer” circles. Nothing hinders a state to be at the same time a member of the EU, a Visegrad group country, a contributor to the Three Seas Initiative, and more actively engaged than others with formats of cooperation with countries outside of the EU, such as the Eastern Partnership (EaP) or Western Balkans.

Such forms of cooperation may strengthen the EU, allowing countries to feel more comfortable with the idea of QMV in policy areas they perceive less sensitive, and to formulate particular policies as a consolidated group of stakeholders, which would be then debated more consistently inside the EU. For example, the question and extent of support for Ukraine varies across Europe, with Northern countries, the Baltics, and Poland significantly more experienced on what would be the right response to Russia’s aggression, based on their shared past, than countries such

⁴¹ According to the Eurobarometer of Sep 2023, Romanians trust significantly more the EU institutions (58% for EP, 50% for the EC) than the domestic institutions (32% for Government, 29% for Parliament); 57% of Romanians consider that more decisions should be taken at EU level. <https://europa.eu/eurobarometer/surveys/detail/3053>

as Spain or Portugal at the other end of the continent. For the EU itself, it makes much more sense to discuss with a group of countries such as the members of the EaP⁴² on matters of security from Russian aggression, from military to hybrid warfare, as it is precisely these countries which have been systematically exposed to Russia's aggressive imperialism after the dissolution of the USSR, while not benefitting either EU's or NATO's shield.

Strengthened cooperation between EU members who have been exceptionally active in the EaP (Sweden and Poland) and EaP countries can also build a "pole of influence" for the support of EU accession of Moldova and Ukraine. In its turn, Ukraine, through deepened cooperation with closer EU member states, can infuse Europe with a renewed sense of its own values: it is the only country where people die for the defense of Europeanization. Faced with the most brutal war that Europe has seen in 75 years, Ukrainians are now rewriting the social contract, demanding more accountability than ever from their authorities and actively fighting against corruption; Ukraine is thus the only country in the region which managed to improve its democratic governance last year, whereas most others have suffered further decline⁴³.

EaP countries face similar challenges in infrastructure, rule of law, elections, corruption, media and civil society freedoms, and public administration capacity; these issues are also prevalent in the Western Balkans. Given these commonalities, the EU is motivated to foster a stronger unified approach for both the EaP and the Western Balkans, building on existing multilateral frameworks while also pursuing the bilateral agendas of EU accession or closer integration.

HOW TO PENALIZE DEVIATIONS FROM CORE VALUES

To safeguard and strengthen the rule of law as a fundamental value of the European Union, the most effective tools appear to be: (i) the generalization of budgetary conditionality for any EU funds, drawing on the experiences of the NextGeneration EU initiative; and (ii) the imposition of sanctions for violations, such as suspending a member state's rights in the Council. These mechanisms have achieved partial success, as seen in cases like Hungary or Poland, where there has been a temporary suspension of Recovery and Resilience Facility (RRF) funds. However, the deployment of the "nuclear option"—the suspension of a country's rights in the Council—proves ineffective when more than one country is in breach, as the others may block the unanimous vote required today to suspend the country in question. This issue could only be resolved through Treaty revision.

The rule of law is foundational for the trust and reciprocity that are essential to the EU's functioning; this is evident from recent challenges in countries like Hungary, Poland, and Slovakia. The situation underscores that maintaining this principle is not straightforward. While the EU possesses significant leverage to drive reforms in countries aspiring to EU membership—demonstrated by successes in places like Romania, where anticorruption efforts were a condition for accession—the Union's ability to prevent democratic backsliding in existing member states has been inconsistent.

In addition to budget conditionality and the suspension of voting rights, other measures could be considered to mitigate the impact of a member state that diverges significantly from EU norms. One approach could involve restricting such a state's bargaining power on decisions that would otherwise require a unanimous vote, moving towards decisions that require a Qualified Majority Vote (QMV) instead. This shift could help circumvent blockages and maintain the integrity of EU decision-making processes, ensuring that no single member can unduly influence the collective interests of the Union.

⁴² Belarus, Ukraine, Moldova, Georgia, Armenia, Azerbaijan. It should be noted that the Eastern Partnership itself appeared as a reaction to Russia's invasion in Georgia in 2008.

⁴³ Freedom House, Nations in Transit 2024. <https://freedomhouse.org/report/nations-transit/2024/region-reordered-autocracy-and-democracy>

The discussion about adopting QMV, conditioning EU budget transfers, or suspending voting rights in the Council has intensified following significant disagreements over fundamental values with the political leaderships in Hungary and Poland. There's a prevalent belief that QMV could effectively address issues like those arising in Hungary, but the problem of backsliding could expand to more countries. Moreover, QMV may not be sufficient as it doesn't apply to all EU policy areas. Furthermore, while sanctioning countries that violate fundamental EU principles is justified and necessary for immediate corrective action to deter others, it has consistently presented a complex political challenge. Political pragmatism, such as party negotiations for forming majorities or appointing key EU positions, hindered a timely response to Viktor Orbán's initial actions in the early 2010s, which could have prevented further deterioration. With the EU looking to expand, the costs of such expediency and compromise are likely to increase.

The ten prospective EU members face considerable challenges related to the rule of law and corruption. Inadequate responses to these issues within current EU states could undermine the integrity of accession negotiations, sending a counterproductive message to candidate countries. Therefore, Qualified Majority Voting (QMV) should not be considered a panacea for curbing the rise of illiberalism within the EU. Instead, the EU should proactively combat illiberal tendencies directly within its member states, rather than simply trying to contain the influence of rogue countries.

To effectively prevent illiberal drift, the EU needs to engage with and strengthen progressive, liberal forces within each member state. This approach includes enhancing citizen involvement in EU governance through various participatory democracy formats, such as Citizens' Initiatives or wide-reaching consultations. The significance of this engagement was highlighted by the organization of the Conference on the Future of Europe in 2021-2022, suggesting these practices should be more deeply integrated into the EU's decision-making processes⁴⁴.

Moreover, the EU must extend its efforts beyond current measures. Building robust mechanisms to support pluralism and independent voices is essential, particularly in supporting civil society and free media. This could involve providing competitive grants for investigative journalism and NGOs, managed directly from Brussels and overseen by independent experts, ensuring that funding bypasses national governments. Such a strategy mirrors successful US-financed projects from the early 1990s, which played a crucial role in fostering a liberal-minded civil society and media elite that significantly contributed to the democratization of Eastern Europe post-Iron Curtain. By adopting these comprehensive strategies, the EU can more effectively safeguard its foundational values and encourage a more democratic and liberal trajectory within both existing and prospective member states.

A vital tool for enhancing direct communication between Brussels and local stakeholders, bypassing national governments, involves the use of **macro-regional strategies**. Since 2009, the EU has promoted regional cooperation through four macro-regional strategies, facilitating collaboration across regions from EU member states and neighboring countries. These cross-border cooperation mechanisms enable stakeholders outside the national capitals to address local issues and directly experience the benefits of EU membership.

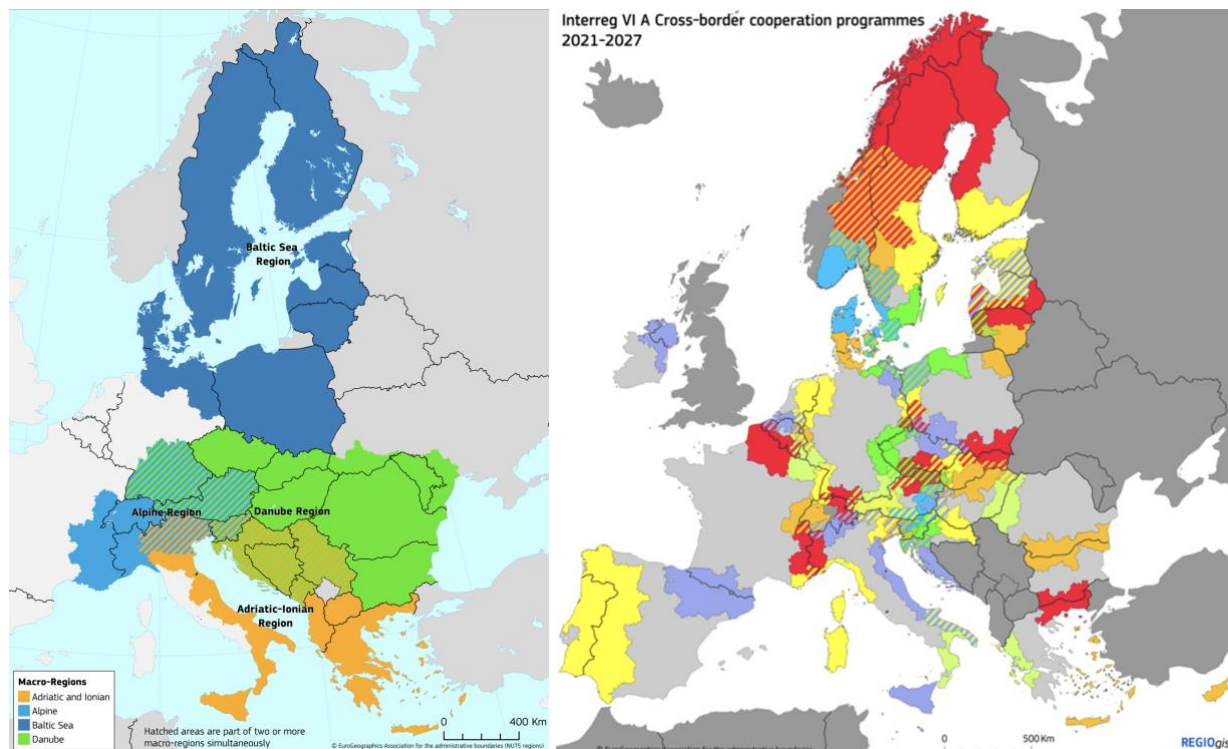
The significance of these mechanisms in bridging the gap between citizens, local businesses, local administrations, and the EU is immense. They represent some of the most tangible means for securing a "buy-in of Europe," especially in the face of Russia's hybrid warfare tactics aimed at weakening European unity. By empowering local actors, including cities and rural communities, the EU can establish bottom-up anchors that effectively counter the "sovereignty" rhetoric propagated by national politicians and dismantle populist, divisive forces.

Strengthening local administrations through various platforms is crucial. Initiatives like the Covenant of Mayors, which fosters cooperation among cities, and the involvement of advisory

⁴⁴ https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/new-push-european-democracy/conference-future-europe_en.

EU institutions such as the European Committee of the Regions are key to balancing the disproportionate influence of national governments within EU structures. These efforts are not only essential for maintaining checks on potentially "rogue" countries but also for promoting a more cohesive and inclusive European identity.

FIG. 4. MACRO-REGIONS AND CROSS-BORDER COOPERATION



Sources: https://ec.europa.eu/regional_policy/whats-new/newsroom/16-01-2023-cohesion-policy-the-commission-adopts-the-fourth-report-on-the-implementation-of-eu-macro-regional-strategies_en and <https://www.aebr.eu/new-cohesion-legislation-enters-into-force-on-1-july>

THE FUTURE OF EU BUDGET AND REDISTRIBUTIONS

There is a growing discourse about the future EU budget, reflecting various anticipated constraints; we touch upon the issue in Chapter 1 of this report. A decade from now, it is likely that available budgets will be smaller due to demographic challenges and increased expenditures on defense, healthcare, environmental sustainability, and economic integration of new member states⁴⁵. While the tax base from high value-added industries is expected to grow, it will likely diminish significantly in sectors like the fossil fuel industry. Such shifts will carry significant distributional consequences that are particularly relevant to Romania.

The necessity to harmonize certain taxes across the EU is becoming more accepted, aiming to facilitate the free movement of goods and services and to prevent the creation of tax havens and opportunities for money laundering. The prospect of the EU collecting its own taxes has always been a contentious issue, as taxation represents a core aspect of national sovereignty. However, adopting EU-wide taxation would mark a decisive step towards a more federal Europe. This approach is gaining traction, especially as the EU considers taking on more robust roles in

⁴⁵ https://commission.europa.eu/strategy-and-policy/strategic-planning/strategic-foresight/2023-strategic-foresight-report_en

defense and in developing a pan-European energy system aligned with the "net zero emissions by 2050" goal.

As also discussed in the energy chapter of this report, one potential solution to fully decarbonize the EU's energy system involves constructing a pan-European supergrid. This would necessitate separating the interests of the supergrid from national power grid operators, which in turn would require the ownership and management of the grid by a pan-European institution alongside a truly pan-European energy regulator. Similarly, if the EU needs to "friend-shore" critical industries and high-tech sectors, this would prompt a realignment of mandates across various tiers of government—EU, national, regional, and local—and necessitate corresponding financial adjustments.

Other changes in the EU budgets can be equally radical. Currently, there is an intense debate about whether post-2027 budgets should continue to be "project-based"—the traditional method of disbursing cohesion funds for both national and pan-European projects—or shift to a "milestone-based" approach, which focuses on financing reforms rather than specific projects, akin to the Resilience and Recovery Facility (RRF). In fact, a "reform-based" approach was recently adopted during the mid-term revision of the 2021-2027 budget, initiating a 2024-2027 program similar to the RRF for the Western Balkans.

As the EU plans for future enlargement, its spending programs are being designed with this in mind, and significant changes in sector-specific policies like the Common Agricultural Policy or Cohesion Funds may be anticipated. While EU enlargement will attract new members and potentially enhance economic cooperation and expand the market, there will also be "losers" of EU funds, particularly among the wealthier countries from earlier accession waves. Furthermore, substantial shifts could occur if regional policy were realigned to focus on macro-regions, or if a multi-tier Europe were implemented. These changes not only reflect a strategic realignment of EU funding mechanisms but also a broader evolution in how the EU conceives of and implements its fiscal policies in response to its growing and diversifying membership.

Last but not least, the EU is becoming increasingly aware of the risks associated with dependencies of supplies on authoritarian regimes, as well as the risks of war. The recent mid-term review of the multi-annual financing framework 2021-2027 introduced the Strategic Technologies for Europe Platform (STEP), in which existing financing sources will mobilize investments in digital and other advanced technologies; and reinforced the Common Defense Fund with additional financing (1.5 bn Euro). The aim of STEP is to strengthen the EU's sovereignty and long-term competitiveness in critical technologies, in order to close the gap with US and China.

This strategy complements other programs and initiatives designed to develop strategic autonomy in crucial supply areas. For example, there is support for domestic battery production to ensure that the EU's accelerated decarbonization efforts do not lead to increased dependency on China. Looking ahead, we can expect significant revisions in state aid policy to prevent the relocation of industries outside Europe and to increase resilience by localizing supply in industries that are particularly vulnerable to disruptions in supply routes, as was highlighted during the pandemic. These changes underscore a broader strategic shift towards greater economic independence and security within the EU.

In summary, the institutional transformation that the EU is set to undergo in the next decade is undoubtedly massive but achievable with dedicated political engagement at the Brussels, national, and local levels. It demands vision and ambition, paralleling the challenges faced by the visionary group who, post-World War II, laid the groundwork for a peaceful and prosperous Europe. Despite anticipated difficulties, this reform is essential to ensure that the EU remains relevant and effective in a rapidly changing global context marked by shifts in geopolitics, climate change, technological innovations, demographic changes, and growing citizen expectations.

Moreover, the challenges of reform should not lead decision-makers to delay the accession of new members until the EU itself has fully adapted; such postponement might be tempting but

would represent a grave political misstep. The strength of the European project has consistently been its commitment to uphold values in the face of adversity; this commitment has driven European societies towards greater integration and cooperation over the decades. Thus, the EU must continue to expand and integrate new members, reinforcing its foundational values and strengthening its position on the global stage.

ROMANIA IN THE EU, 2035-2050

Despite its status as one of the larger EU member states, Romania has never played a leading role in any particular policy area or political initiative, and has not championed ideas and initiatives shaping Europe's future. In practice, Romania has always been a “policy taker” and benefitted the accession in both economic integration and as a net recipient of European funds, as illustrated in Chapter 1; it continues to do so, even though the times have changed.

Geographically, Romania's position makes it one of the most vulnerable EU and NATO members, especially if Ukraine were to lose its ongoing war. It also borders on countries where the Russian influence is strong, such as Hungary or Serbia, which means that it is not immune to threats either from kinetic war or hybrid aggression. Last but not least, Romania has special obligations to its neighboring Moldova: it is estimated that up to one million Moldovans may have Romanian citizenship, though many live abroad in other EU member states.

Indeed, Romania *stands to gain* significantly from both the internal reform of the EU and its ongoing enlargement, *provided* it can enhance its administrative capabilities and diplomatic efforts both within the EU and towards neighboring countries. Since the full-scale invasion of Ukraine, Romania's constructive role in the region has become particularly evident in areas where its public administration demonstrates pockets of excellence—such as certain aspects of its energy sector. These sectors showcase Romania's potential to contribute effectively to regional stability and integration, suggesting that with increased investment in administrative and diplomatic capacities, Romania could amplify its influence and leadership within the European Union.

The experience of the past two years showed that Romania can contribute substantially to the security of the region actively fighting Russian hybrid aggression in neighboring Moldova. Since 2022, Romania has been the key provider of energy security of Moldova, an essential help considering that the Kremlin's attempts to destabilize the country politically were first and foremost related to selective cuts of energy supplies to Chişinău, in the hope of causing massive social unrest. In key moments, such as October 2022, Romania's supplies of electricity avoided extended blackouts in Moldova during the winter. Starting with 2024 Romania will be a key transit country for gas to Moldova, and the two countries signed a Memorandum to deepen their energy system integration, e.g. by developing new electricity interconnections, building market platforms and transferring know-how.

Equally important, Romania's electricity transport operator Transelectrica has been instrumental with technical support for Ukraine and Moldova's synchronization with the European continental power grid ENTSO-E, as an emergency action in March 2022. Without this step, Ukraine would not have been able to keep the power system afloat during wartime, particularly as Russia targeted the country's power grid in the winter of 2022/2023 and the major power plants since March 2024. Though less visible publicly, Romania has contributed military assistance and transport of goods for Ukraine, a vital support for Ukraine's battered economy and for its defense efforts during the war and contributes evidence and legal assistance to the eventual prosecution of Kremlin's war crimes.

Overall, Romania has shown political loyalty to the EU's response against Russia's aggression, which casts it in a favorable light compared to neighboring Hungary, and has made notable contributions in specific policy areas where a few competent and well-intentioned individuals capitalized on the higher political will to support Ukraine. However, Romania's overall performance in the EU context can be described as modest at best, especially when compared to the Baltics, which provide the highest share of military assistance per capita in the EU;

Denmark, which has committed all its reserves to Ukraine; or the Czech Republic, which has mobilized other EU members in a global effort to find millions of artillery shells.

Despite its support for Ukraine, Romania has been notably absent from the protracted discussions on crucial EU future-oriented topics like enlargement and internal reforms. This absence isn't surprising, considering Romania's general passivity in actively shaping EU policy, even in areas where it has a direct stake. This underscores a broader issue of engagement and influence within the EU, suggesting a need for Romania to elevate its involvement and assertiveness in European policymaking to better represent its interests and contribute more effectively to collective EU goals.⁴⁶

The anticipated changes to the EU's internal institutional setup are of critical importance to all member states, including Romania. To navigate these changes effectively, Romanian diplomacy must prepare with urgency and focus. The challenges facing the authorities in Bucharest are multifaceted:

In a multi-speed Europe, **Romania risks to remain in the “outer”, second circle of EU membership**. It is crucial for the government to clearly define the sectors it considers essential for its strategic interests, where it can collaborate with other EU member states, and areas where it might afford to have less decision-making power following the adoption of QMV. Beyond simply catching up with older EU member states in terms of economic convergence, Romania needs to identify sectors where its economy, natural resources, and workforce provide a competitive edge that could attract collective EU support. Politicians, not just populists but also those from mainstream parties, frequently raise concerns about de-industrialization, whether justified or not. Romania should pinpoint sectors where it can introduce innovative industries, such as battery production if it possesses rare mineral reserves, information technology where it already has a competitive advantage, high-tech agriculture, or small modular reactors in the nuclear sector. To achieve this, Romania must develop a robust domestic strategy, for instance, by reducing bureaucratic hurdles and facilitating re-skilling programs, and seek support through the new STEP initiative. Looking ahead, post-2027, funding to re-shore innovative technologies is expected to continue.

The government envisions Romania as a potential "energy hub," leveraging not only its substantial gas reserves but also its wind (including offshore) and solar capacities. Positioned at the nexus of major energy routes, Romania's strategic location enhances its potential as a key player in the energy sector. Recently, in 2022-2023, the EU reaffirmed its commitment to supporting the connection of Georgia and Azerbaijan with Romania via an undersea cable, aimed at optimizing the use of renewable energy sources in the Black Sea and Caspian Sea regions. Whether this project comes to fruition or not, Romania stands to gain from integration into a power supergrid, as detailed in the Energy chapter of this report. The current power grid in Romania faces significant limitations in absorbing large amounts of intermittent renewable energy, which could be more effectively managed at a regional or European level. Future gas platforms in the Black Sea might also serve as infrastructure for offshore wind projects, and the development of offshore wind in the Black Sea would be most feasible in collaboration with Bulgaria and Ukraine. The electricity sector, with its untapped potential in the Black Sea, could be a key driver of long-term economic growth for Romania and provide critical resources for numerous high-tech industries. To capitalize on this opportunity, **Romania would benefit from advocating for a more "federal" approach in managing energy** responsibilities, including a pan-European grid, a pan-European energy regulator, and robust financial support for investments to fully utilize these resources. Additionally, Romania's stake in the success of a potential offshore wind hub in the Black Sea is intertwined with the strategic importance of

⁴⁶ A relevant example is Romania's absence from the discussions on the methane emissions reduction strategy and on the methane regulation since 2020, even though it boasts of being the second-largest gas producer in the EU and this industry is among the largest contributors to the country's budget.

Ukraine's victory, underscoring the geopolitical as well as economic significance of these initiatives.

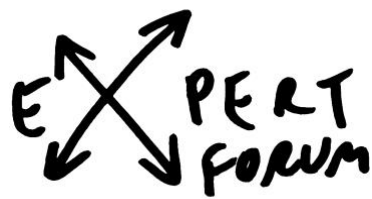
Romania needs to prepare seriously for the prospect of future financial support from the EU being either for **pan-European projects**, or **national, but reform-based** (such as the NRRP). Given the experience with the NRRP, which met with delays in disbursements following by delays in reaching the critical reform milestones, it is urgent that the administrative capacity across the entire central and local government be strengthened. As already mentioned in this report, it is likely that EU budgets will be more and more constrained, first by the accession of new member states, then by the increase of expenditure on new items: defense, health, social protection, state aid for re-shoring of critical industries, climate change mitigation and adaptation. There will be stronger competition for limited funds, and the EU will seek to use budgets also as a means to ensure that difficult reforms, concerning core EU values, are first and foremost being implemented.

Despite the competition for budgets and influence within the EU, it is **crucial for Romania that the EU continues its enlargement process**. Expansion would not only enhance security and prosperity along three of Romania's borders—with Moldova, Ukraine, and Serbia—but it would also enhance infrastructure connectivity, deepen market integration, and open new markets for Romanian products. Looking ahead to future EU enlargement, Romania needs to prioritize upgrading its infrastructure and expanding its multilateral cooperation with both the Eastern Partnership and the Western Balkans. This involves identifying policy areas of joint interest and competitive advantage that would benefit a broader European context. As one of the few EU member states bordering both regions, Romania is uniquely positioned to advocate for a unified EU policy towards these areas. This can be facilitated through the organization of regional summits and workshops, which would allow for the exchange of experiences and insights on key negotiation chapters of the EU acquis. Opting to engage in various flexible cooperation formats represents a much better strategy for Romania than the "four-tiered Europe." Given the ongoing threat from Russia to the region, Romania should take a proactive role in forming a regional "pole of influence." This is especially important in Brussels discussions, to maintain the momentum of support for Ukraine's accession and to ensure continued financial, military, and humanitarian assistance. This strategic positioning not only supports regional stability but also enhances Romania's influence and visibility within the EU.

Romania should champion **more stringent sanctions on Russia**, advocating for actions ranging from the use of the \$300 billion in frozen Russian assets (primarily held in Europe) to a complete separation from Russia's nuclear industry, a sector where Romania already boasts significant independence. As a committed EU member, Romania is well-positioned to relay Ukraine's perspectives and proposals directly to the decision-making echelons in Brussels, working closely with other EU allies supportive of Ukraine. Furthermore, engaging in multilateral regional cooperation with countries that have experienced Russian aggression could enhance Romania's resilience across various sectors. This includes learning how to counter disinformation and drawing on Ukraine's wartime experiences to develop decentralized energy systems. As the conflict continues, Romania also stands to benefit from the temporary relocation of businesses and industries from Ukraine, establishing valuable contacts that could bolster economic cooperation and contribute significantly to Ukraine's post-war reconstruction. This strategic positioning not only supports Ukraine but also strengthens Romania's role and influence within the EU framework.

Multilateral cooperation would help in dealing with challenges with which Romania has not been exposed, but will be in the future, such as migration from the South. In parallel, local authorities and stakeholders should continue and intensify engagement with peers in the available cooperation formats, such as cross-border initiatives and the macro-regional EU strategy for the Danube Region. The more progressive local authorities can also work jointly with peers such as in the Covenant of Mayors to pursue local sustainable development strategy contributing to EU's decarbonization goals.

In the past, Romania was hailed as a model for its **anti-corruption reforms**, establishing robust institutions and best practices for prosecuting high-level corruption, managing incompatibilities, and monitoring statements of assets and interests, as well as reforming the corporate governance of state-owned companies. These reforms should continue to serve as benchmarks for other countries in the region. However, recent years have seen signs of regression in these policy areas. It is crucial for the welfare of the country and its citizens that these reforms be revitalized. It is of utmost importance that Romania prevents any further backsliding that could result in penalties from the EU, such as reduced influence in Brussels or decreased financial allocations due to failure to implement reforms. Overall, good governance needs to be significantly strengthened, which includes substantial budget consolidation and reducing inequalities within the public sector. Ensuring the continuity and effectiveness of these governance reforms is essential for maintaining Romania's standing within the EU and securing its future development.



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