



Summary

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V4 to fully align with the European Green Deal

The Visegrad Group (V4) countries - Poland, Czechia, Hungary and Slovakia - represent around 15% of the EU's population and 7% of its GDP. The group is highly integrated into European supply chains and, as important European players, have the ability to influence EU negotiations and legislation.

The region faces challenges in effectively aligning with the RePowerEU and European Green Deal objectives, while improving its income status and sustaining economic development. Its players need to rethink how energy is utilised and which technologies are used.

Role of climate sustainability investments

The depletion of natural sources and a high dependence on non-European energy and commodity supplies have left not only the V4, but the whole of Europe in a delicate political, economic and strategic position. The European Green Deal and RePowerEU should allow the EU to partially reclaim its energy and economic independence and strengthen the resilience of its supply chains on the road to long-term sustainability.

Climate investing promotes long-term investment perspectives and allows climate externalities to be properly taken into account. Climate-sustainable investing supports economic growth while reducing and ultimately eliminating climate change pressures.

Preconditions for a successful transition

However, a successful transition to a sustainable economy will require key preconditions to be met. It is crucial that governments and decision-makers consider the transition towards a sustainable economy as a top priority. In the V4 region, sustainability is often perceived as an adjunct to business as usual in both the public and private sectors, and climate ambitions remain low. Understanding of ESG (environment, social and governance) criteria is limited. Lack of relevant information, expertise, stakeholder engagement, policy coherence and guidance, effective communication on the topic, and a clear commitment from public authorities in this area have been major obstacles.

Available financing represents another prerequisite for a successful transition. Direct support from public finance, public-private co-financing, blended finance and public guarantees incentivising climate sustainable projects will accelerate the transition. A full understanding of sustainability by the local banking sector, reflection of sustainable assets that show lower financial risks, and appropriate targeting of public incentives would all encourage the banking sector to finance sustainable projects.

V4 region's fossil fuel burden

In terms of the climate aspects of sustainability, the V4 region plays an important role in the decarbonisation of the EU economy, contributing by around 16% to EU greenhouse gas emissions. The carbon intensity here significantly exceeds the EU average and is particularly high in the most populous countries, Poland and Czechia, with the energy sector being the key driver. The V4 energy sector highly depends on coal, oil and natural gas, of which oil and gas are largely imported. As a result, per-capita energy-sector emissions are almost double the EU average.

Energy sector in the spotlight

As the future energy carrier for heating, transport, and hard-to-abate sectors, electricity decarbonisation remains a key challenge and simultaneously an opportunity on the net-zero pathway by 2050, and the V4 region is no exception. The future path away from fossil fuel-based electricity production should focus on renewables.

However, the energy transformation of the V4 region has long been negatively affected by the ambivalent attitude of its political elite towards green transformation. This has significantly hampered the large-scale green energy deployment in all V4 countries. Firmer commitments to renewables are therefore expected from the V4 governments in the revised national energy and climate plan to be proposed by 30 June 2023.

There is a huge potential to exploit wind energy sources in the whole V4 region. In Poland, for example, in order to achieve the power sector decarbonisation target, around 75% of overall power production in 2050 could be generated by wind power plants, studies suggest. Photovoltaic has become one of the economically viable and scalable sustainable technologies. Thanks to many advances in photovoltaics and battery storage technologies in recent years, the costs of solar energy production have rapidly decreased.

Given the predicted increase in penetration of wind and photovoltaic energy sources and the transformation of hard-to-abate industrial and transport sectors which are heavily reliant on large amounts of renewable electricity, large investments in grid reinforcement and modernisation and increased flexibility of multi-directional electricity systems will be necessary to avoid grid overloading and power outages in the region.

Investment conundrum for industry

Similar to the energy sector, the main high-emission industrial sectors – cement, chemical and steel are at the early stages of the transition path. Deep decarbonisation here will require the deployment of multiple innovations. Fuel switching, electrification, adoption of circularity business concepts, technological processes adjustments, carbon capture and utilisation technologies and hydrogen use should move hand in hand to achieve the ambitious net zero pledges. However, looming uncertainty around the scalability and operating costs of the best available technologies and about carbon prices may still pose an investment conundrum.

Agriculture - a lot to catch up on

Agriculture is at the very beginning of its transition. With more than 1.8m directly employed persons in the V4 region, it is the largest employer among the high emission segments. It is also characterized by high business fragmentation, high reliance on the EU subsidy schemes and the non-CO₂ nature of greenhouse gas emissions. The above might have caused the agriculture's climate impact to receive less attention than other sectors in recent decades. This in turn has triggered less climate-related research, development and investment activities in the areas such as the implementation of precision farming, enhanced fertilisers, improved manure management, sustainable feed additives reducing methane production, alternative proteins, etc.

Only in December 2021 was the agreement on the Common Agriculture Policy reform adapted, aligning it with the European Green Deal. Climate aspects have been transposed to some extent in the V4 national strategic plans for 2023-27; full reflection is likely after 2027.

Technology and outreach investing in retail segments

The transition to sustainability in retail segments such as road transport, local heating and waste management clearly requires the intensive involvement of the general public. Technological changes alone may not always be sufficient, modification of behavioural patterns would often be supportive. Electro-mobility, improved efficiency of building envelopes accompanied by decentralized renewable energy sources, automated waste sorting, and efficient landfill gas capture systems with consequent bio-methane production, all represent directly investable technologies. Modal change from road to rail, efficiency improvements in all energy use in households/buildings, food waste prevention or consumer source separation, all belong among behavioural aspects of the transition. Only a broad portfolio of measures and incentives will often lead to success.

For the fragmented segments, systemic and ongoing educational outreach (both 'how' and 'why') and involvement programs are needed to help businesses, communities and individuals develop a greater understanding of environmental issues and impacts, and consequently encourage their participation in the transition. In agriculture, it will be important to involve and commit farmers, society and government towards the same objective. Technical assistance, awareness raising and capacity building in order to support the transition would also be beneficial.

The public sector's role in accelerating the transition

National policies should support innovations in a technology-neutral way across different technology readiness levels, from basic research to pilot and semi-operational projects. In some segments, new energy-efficient technologies often struggle with low research investment ratios due to, inter alia, a long changeover cycle for new products or market fragmentation. Public support and intensified funding for research and innovation would facilitate the envisaged transition pace. As incumbent industries advance new products, regulators need to revisit and update existing standards and codes more regularly. New solutions are often cross-sector interconnected ("sector coupling"), and there is scope for horizontal collaboration across governmental agencies to bring together research and development, cost and technical analyses with standardization and regulation.

Careful consideration should be given to possible temporary guarantee / risk-coverage schemes and instruments for transition technologies, especially in the critical stage between pilot projects and fully operational technology, and/or fiscal incentives to accelerate the sustainable technology uptake, such as a combination of (interim) tax reliefs, accelerated tax depreciation, tax deduction, etc.

The public sector should set more ambitious sustainable procurement rules which could accelerate the transition to sustainability (e.g., material and energy efficiency in tenders for infrastructure, transport vehicles procurement, deep retrofits of publicly owned buildings). Also, overall (discounted) costs including future operational cost savings should be assessed.

Other transition acceleration ideas include conducting feasibility studies in cooperation with academia and industrial stakeholders to understand the economic feasibility and (prospective) competitiveness of new technologies and product opportunities, or outlining policy scenarios addressing the investment risks and logistical challenges associated with decarbonisation (carbon infrastructures, electricity grid). What-if scenarios would help investors to figure out the best investment options and avoid asset stranding - which remains one of the key financial risks. Also, local availability and feasibility of storage sites should be further analysed as the potential to scale CCS use remains unclear.

Streamlined multi-source sustainable financing

The targeting of available funding from restructuring, innovation and transition funds, recovery plans and operating programs needs to clearly be streamlined to areas that currently or prospectively contribute to the sustainability transition. For transition technologies in the critical stage between pilot projects and fully operational technology, a guarantee / risk-coverage scheme and instruments could be launched. Direct financial support from public sources then helps to overcome the barrier of high up-front costs, mobilise private investments and kick-start the uptake of new technologies.