E3G

BRIEFING PAPER FEBRUARY 2023

FINANCING THE TRANSITION IN CENTRAL AND EASTERN EUROPE

INVESTING IN THE FUTURE OF CZECHIA AND POLAND

DAVID NEMECEK, JUREI YADA, TSVETELINA KUZMANOVA

The transition to climate neutrality is an ecological, social, political and economic opportunity for countries in Central and Eastern Europe (CEE). It offers a means to face multiple crises and establish a competitive position in the global economy. This briefing shows how Czechia and Poland can use the transition to their benefit – including significant gains for their GDP. We also explore why the transition in the region has so far been slow.

Czechia and Poland are significant political players and have the potential to develop activities that would support a green economy. These two industrial powers can be strategic partners and leaders not only within the region, but also in the European Union as a whole. To do so, they must create the policy and generate the financial flows to achieve the climate transition. The estimated investment gap is €168 billion in Czechia and €380 billion in Poland by 2050.[1,2]

While the transition offers multiple benefits, the countries face several barriers. These include: a lack of public and political support, insufficient policy guidance, suboptimal use of public funds, under-developed capital markets, and the scarcity of skilled labour. Czechia and Poland should explore opportunities to face the transition. This will minimise risk, create synergies and build an attractive regional market for transition investment.

[1] McKinsey & Company, 2020, **Pathways to decarbonize the Czech Republic**

[2] McKinsey & Company, 2020, **Carbon-neutral Poland 2050: Turning a challenge into an opportunity**

Key recommendations

Build up public and political support

> The Czech and Polish governments should build and communicate positive transition narratives that consider the needs of all stakeholders.

Provide targeted policy guidance and technical assistance

> The Czech and Polish governments should build a comprehensive body of transition-aligned policies and strategies to guide the economy on the transition path. This includes sectoral pathways for transition to climate neutrality and technical assistance, especially for SMEs.

Maximise the impact of public investments

> Development banks and state funds in Czechia and Poland should align funding and project assessment with the EU Taxonomy, Corporate Sustainability Reporting Directive (CSRD) and Corporate Sustainability Due Diligence Directive (CSDDD). Blended financial mechanisms should be offered to finance transition-oriented projects non-bankable by banks and markets.

> Czech and Polish financial regulation and supervision authorities should scale up Paris-aligned capital requirements and climate stress testing, to motivate private investment in the transition. Czechia should follow Poland's lead and join the Network for Greening the Financial System (NGFS).

Develop capital markets

> Czech finance authorities should design and implement a strategy to develop capital markets that is aligned with the transition and inclusive towards SMEs, following their Polish counterparts.

> The Czech Ministry of Finance should consider issuing green or sustainability-linked bonds, to invest in the transition and send a clear market signal.

Foster investment in skills

> Public administrations at national and regional levels in both countries should invest in internal capacities to deliver the transition to climate neutrality. Businesses should invest in upgrading and upskilling aimed at increased value added and innovation for the future green economy.

> Governments and businesses in Czechia and Poland should proactively invest in the just transition, offering requalification opportunities to workers impacted by decarbonisation.

E3G

Financing the climate transition can bring multiple benefits for Czechia and Poland

Seizing the green business opportunity

The transition is a key opportunity for Czech and Polish businesses and investors to increase their resilience. Both countries have high potential as producers for the future green economy, despite their past reliance on high-emission industries.[3] Investing in the transition is an opportunity to find ways to avoid fossil fuel traps by identifying and investing in marketable green solutions.[4] This will open doors to Czechia and Poland becoming more competitive in the global economy, which they have struggled to achieve until now.

Businesses can access the abundance of EU funds to reduce the risk and costs of developing green projects and investments. This is especially topical given the European Commission has recently announced plans to "water down state aid regulations and pump cash into strategic climate-friendly businesses". This is a reaction to the US Inflation Reduction Act and the related green subsidy package that favours US businesses at the expense of non-US counterparts.[5]

Transition investments in offshore wind, heat pumps, electric and hydrogen-based vehicles, and electrified agricultural equipment could boost Poland's GDP by up to 2% per year.[6] The transition to a green economy in Czechia would increase the country's GDP by 0.3–2.2% by 2030 and even further by 2050.[7] Key sectors such as renewables and construction would particularly benefit. A platform of progressive businesses and civil society called the Czech Second Economic Transformation has launched initiatives to ignite the essential new transformation of the Czech economy. Such efforts can play a big part in coordinating planning of the net zero transition and its delivery across the economy.

Enhancing security

Investing in the climate transition can significantly increase the security of Czechia and Poland, as well as the rest of the CEE region.

[3] Mealy & Teytelboym, 2018, **Economic complexity and the green economy**

[4] E3G, 2022, **How to navigate the new energy security world**

[5] Fleming, Foy & Martin, 2023, **EU makes green pitch to rival US subsidy splurge**

[6] McKinsey and Company, 2020, **Carbon-neutral Poland 2050: Turning a challenge into an opportunity**

[7] Charles University, Cambridge Econometrics & Ministry of Environment, 2022, **SEEPIA**

Russia's invasion of Ukraine exposed how vulnerable Europe's energy security is due to its dependence on Russian gas imports, especially in the CEE region. Supply interruptions and soaring gas prices threatened critical disruptions to the economy and society.[8] Czechia is one of the EU countries most vulnerable to shocks in the gas market, facing a potential GDP drop of 3.5–5.5%, while Poland is facing a drop of 1–2.5%.[9] Financing renewable energy capacity and energy efficiency solutions can mitigate the risks of fossil fuel imports. These measures are at the core of the REPowerEU package. There is significant potential to reduce energy demand; for example, in Poland, the manufacturing sector alone accounted for 14% of national electricity consumption in 2019.[10]

Investing in adaptation measures and clean solutions aligned with adaptation will also enable the strengthening of both economies' resilience against the physical impacts of climate change. There are pressures related to chronic physical risk and natural catastrophes in Czech and Polish territories, as well as a significant insurance gap for floods in Poland.[11] More frequent and intensifying droughts and floods can lead to damage to infrastructure or issues in agriculture, hence increased pressure on the costs of the insurance industry. In turn, this pressure can shift into socio-economic instability for these countries. Unlocking timely investments for a transition to climate neutrality, including investments in adaptation solutions and in cleaner, more diversified sources of energy will enable Czechia and Poland to avoid such scenarios.

Delivering social benefits

The cost-of-living crisis has hit vulnerable citizens hard. Inflation and rising energy bills have driven household costs up. Gas prices are soaring (up to €90–330 per MWh) and are not expected to return to pre-crisis prices for at least a few years. The resulting sense of concern but also the reduced spending power among Poles and Czechs can lead to depressed household consumption – down 5% in Czechia, for example.[12] This comes on top of already high energy poverty in both Czechia and Poland, above 14% and 10% respectively.[13]

[8] POLITICO, 2022, **Poland and Bulgaria start life with no Russian gas**

[9] Di Bella et al, 2022, **Natural Gas in Europe: The Potential Impact of Disruptions to Supply**

[10] WISE Europa, 2023, **Poland Decarbonisation of the Industrial Sector: Sustainable Finance as an Opportunity?**

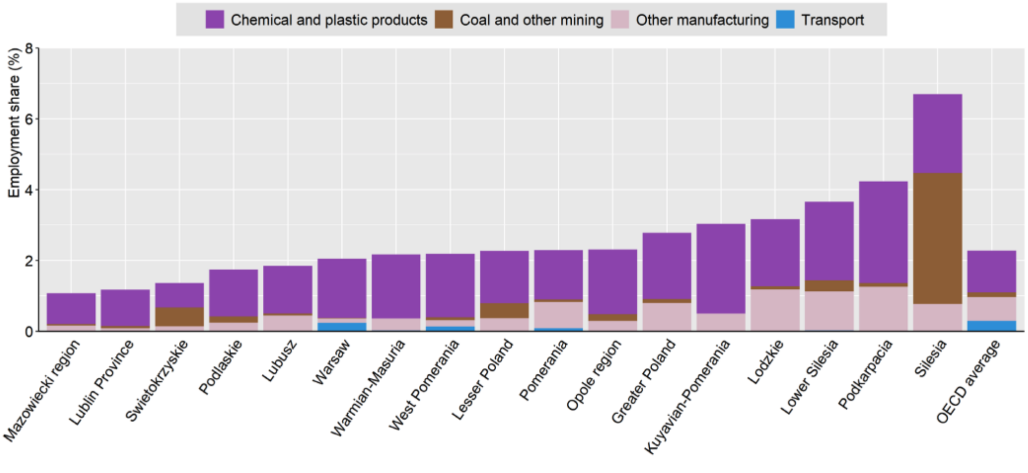
[11] EIOPA, last updated 7 December 2022, **Dashboard on insurance protection gap for natural catastrophes**

[12] Charles University, Cambridge Econometrics & Ministry of Environment, 2022, **SEEPIA**

[13] Siksnelyte-Butkiene, 2021, **A Systematic Literature Review of Indices for Energy Poverty Assessment: A Household Perspective.** Data from 2017/2018; these figures are now expected to be higher due to subsequent COVID, inflation and energy crisis impact. Follows the UN definition of energy poverty: "the

By prioritising transition planning, policymakers can unlock finance to scale up energy efficiency and provide energy savings. They can also broaden the deployment of renewables for a resilient energy market and tap into EU funds, such as the forthcoming Social Climate Fund.

The transition will have little overall impact on employment, but there will be substantial shifts between industrial sectors. Employment attributed to the green transition in Czechia is modelled to increase by some 1% across the whole economy, and much more in sectors key for decarbonisation, such as construction.[14] In Poland, total employment is predicted to slightly decrease as high gains in some sectors are strongly offset by losses in others. Coal mining will be particularly affected, concentrated in regions traditionally deeply entangled with the sector (especially Silesia, see Chart 1).[15] A successful transition will therefore depend on special measures to requalify workers in some sectors.



Source: OECD, 2021, **Regional outlook 2021 – Country notes: Poland**

Chart 1*: Employment share by regions and sectors in Poland (2017)*

inability to acquire the necessary amount of reliable and high-quality energy which is not only affordable, but also environmentally friendly and safe"

[14] Charles University, Cambridge Econometrics & Ministry of Environment, 2022, **SEEPIA**

[15] European Commission, 2019, **Employment and Social Developments in Europe Quarterly Review**

Recommendations for scaling up financing for the transition in Czechia and Poland

It is necessary to mobilise more finance to reap the benefits of the transition to climate neutrality. In addition to investments in replaced and new assets in a business-as-usual scenario, required investments are estimated to be €168 billion in Czechia[16] and €380 billion in Poland[17] between 2020 and 2050.

The public and private sectors will need to make maximum effort to amass, channel and deploy such resources. This needs to happen in the context of a supportive policy and regulatory environment. Some solutions have received substantial public funding, and part of the private sector has started investing in greening its businesses (such as the Polish energy sector[18]). But governments need to do more to build the necessary conditions for those investments to effectively and consistently contribute to the climate transition in their respective countries.

Recommendation 1: Build up public and political support

The transition to climate neutrality and its financing depends on broad co-ownership of the agenda by public administration, businesses, financial sector, civil society, and the general public. There needs to be widespread agreement on the necessity and the means of the transition: a "new social contract" between the governments and their citizens. This can be achieved through proactive engagement and communication that considers each stakeholder's context.

However, governments in Czechia and Poland are not currently communicating this well enough, leaving citizens of both countries rather sceptical and susceptible to misinformation and anti-decarbonisation populistic politics. Citizens are also concerned about the transition's potential impacts on their wallets and wellbeing.[19] This increases the political deficit needed to enact necessary transition measures in both countries. The transition is seen as an issue that lacks electoral appeal and voting capital. As a result, it is often missing in political programmes and, more importantly, political actions. The lack of a clear plan creates uncertainty for businesses and investors, compounded by the

[16] McKinsey & Company, 2020, **Pathways to decarbonize the Czech Republic**

[17] McKinsey and Company, 2020, **Carbon-neutral Poland 2050: Turning a challenge into an opportunity**

[18] POLITICO, 2022, **The green turn of the Polish energy sector**

[19] STEM, 2022, **Czech (non)transformation 2022**

overall sense of weak leadership by the Polish and Czech governments on climate issues.

Ministries responsible for the transition agenda of both countries should:

> **Build public awareness of the necessity of the transition.** They should invest in a public communication strategy to convey the rationale and principles, and highlight cases where activities related to the transition have brought benefits.

> **Collaborate inclusively with all stakeholders concerned to share the message across all segments of the society and economy.** For example, ministries can team up with associations of banks, associations of businesses and unions who can help them explain the narrative to their members.

> **Ensure communication is two-way, and receptive to stakeholders' reality and needs.** This will inform how policies and regulations can be designed and implemented for best effect. Doing so will also build the political capital required for governments to develop and implement transition pathways and financing.

The Czech government can leverage the findings of the recent Fit-for-55 impact assessment to give a clear signal and build evidence-based narratives about the need of transition, expected pathways and specific steps that need to be taken to achieve climate neutrality.[20]

Recommendation 2: Provide targeted policy guidance and technical assistance

Consistent and coherent policies are a prerequisite for the success of the transition. Additionally, tailored technical assistance will allow businesses to deliver on defined milestones and targets in line with EU policy initiatives aimed at financing the EU transition. This includes those that will require companies to publish transition plans (CSRD and CSDDD) to better integrate climate considerations in their business strategies.

Technical assistance to SMEs is especially important, in the form of advice and training on issues related to regulations, business transformation and sustainability. SMEs form the core of both economies, and more than 95% of them are micro-enterprises with less than ten employees.[21] They require support and good communication to bring clarity and allow them to invest in

[20] Charles University, Cambridge Econometrics & Ministry of Environment, 2022, **SEEPIA**

[21] European Commission, 2022, **SME Performance Review**

transformative long-term projects. The Czech solar energy sector, for example, was regulatorily discriminated against for nearly a decade to offset past policy failures that allowed a few businesses to make excessive profits.[22] Although the sector was unstuck last year by key changes to regulation, stakeholders say that the lack of coherent policy guidance resulted in chaos and a risk of investments in solutions that were unhelpful or even inconsistent with the transition.

There is a lot of potential for the Czech and Polish governments to build a strategic and holistic approach to decarbonisation,[23] to support their policymaking and investing with robust evidence and ensure the transition is delivered in line with real needs. Currently, their initiatives[24] too often stand isolated, fail to account for cross-sectional issues and do not deliver a systemic solution.[25] In Poland, the government's recently updated energy policy up to 2040[26] lacks concrete scenarios needed to plan investments to transform the energy sector. In the absence of government guidance, individual companies like the energy company PGE are developing their own decarbonisation pathways.[27] The process lacks an overarching plan and coordination that would help mitigate the risk of carbon lock-in and stranded assets. As a result, there is limited ability to target public spending and deliver environmental and social impact (as highlighted in the assessment of the countries' recovery plans[28]).

The Czech and Polish governments should:

> **Develop sectoral pathways with science-based targets** that would offer comprehensive and feasible transition scenarios that minimise uncertainty and risks.[29]

> **Co-design and coordinate these** with economists and sustainability experts, the financial sector, businesses and business associations, and communicate them to the public.

[22] Energiewende, 2019, **The age of Czech solar power: after years of stagnation, is a rebirth imminent?**

[23] The context of Polish industry is explored by WiseEuropa, 2022, **Decarbonisation barriers to energy-demanding industries in Poland**

[24] These include the National Energy and Climate Plans, environmental policies, hydrogen strategies, and sustainable development plans.

[25] IEA, 2022, **Poland 2022 – Energy Policy Review**

[26] Ministry of Climate and Environment, 2021, **Energy policy of Poland until 2040**

[27] PGE, 2020, **Strategy 2030**

[28] Green Recovery Tracker, 2021, Green Recovery Tracker Analysis: **Czech Republic** and **Poland**

[29] For example, Japan has done this: Ministry of Economy, Trade and Industry, **Japan's approach to carbon neutrality (PDF)**

> **Build a comprehensive and coherent body of transition-enabling strategies and put in place policies** that will motivate and enable investment into the transition, such as green public procurement.

> **Provide businesses, especially SMEs, with the necessary technical assistance** to integrate the entity-level transition planning required by upcoming EU corporate sustainability directives, make sound strategic decisions, attract investors, and deliver on the transition of their business models.

> **Use the technical assistance support from the European Commission**, such as the Covenant of Companies for Climate and Energy.[30]

Recommendation 3: Maximise the impact of public investments

The investments needed for the transition require a strong interplay between the public and private sector. The public sector can mobilise private investment in the transition using targeted subsidies and blended financial instruments. It is less about the quantity of public finance than how its quality and impact can be adapted to reflect a transition logic. Transition in the private financial sector should complement this process, incentivised and guided by the Czech National Bank, the Polish National Bank, and the Financial Supervision Authority.

In Czechia and Poland, there are clear gaps in how state funds, national development banks, and central banks are approaching sustainability and the transition. There are some key initiatives: the Czech National Bank has started integrating transition risks into their climate stress tests, while the Polish Financial Supervision Authority has been an active member of the Network for Greening the Financial System (NGFS). However, overall, financial institutions need to be more proactive and strategic. The Czech National Development Bank is key in enabling access to finance to projects and actors often excluded by the market (such as SMEs and high-risk green projects). However, its only sustainability initiative to date is a plan to integrate the EU Taxonomy into its financing criteria.[31] Similarly, the Polish Development Bank (BGK) is still working on a sounder sustainability approach. FIs in both countries are far from considering and assessing their plans for the transition to climate neutrality.

[30] European Commission, 2022, **Covenant of Companies for Climate and Energy**

[31] An initiative financed from the National Recovery Plan; Ministry of Industry and Trade, 2022, **National Recovery Plan** (in Czech)

National development banks and state funds should:

> **Fully integrate sustainability tools (EU Taxonomy, CSRD/ESRS and CSDDD)** into their assessment and financing frameworks

> **Target resources towards transition-aligned projects and business models**, especially those that would otherwise not be financed by banks and private investors. Transition plan reporting requirements at entity level can help to identify strong and promising transition investments.

In addition:

> **Public funding should, where relevant and possible, leverage private co-financing**, to maximise the effectiveness of public financing. To ensure private buy-in, public financers should offer blended instruments, like soft loans and guarantees, rather than covering full costs of transition projects.

> **Central banks and supervisory authorities should scale up monetary policy and financial stability measures**, following the EBA Pillar 3 capital requirements and building up climate stress-testing of transition and physical risks.

> **The Czech National Bank should further develop its climate-related stress tests and join the NGFS**, which coordinates key initiatives globally and offers support to its members.

Recommendation 4: Develop capital markets

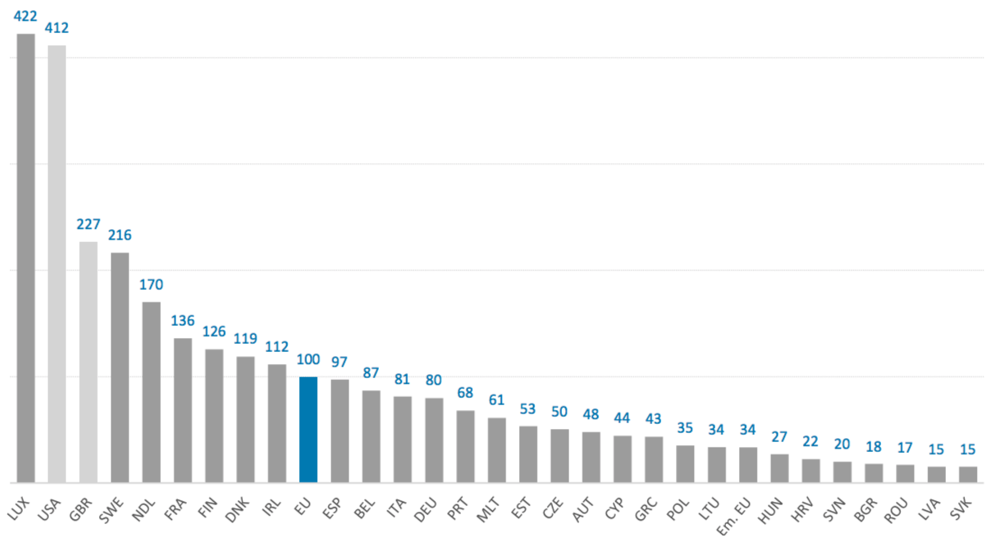
Private investment must follow public funding. Buy-in from both domestic and international investors is essential to cover transition costs and ensure long-term sustainability. While it can be incentivised by targeted public investment, it can also be crowded out by broad-based transfers.[32] By leveraging decarbonisation to attract investors, Czechia and Poland can establish a strong position in the green global economy while securing positive social and environmental impact. Capital markets offer an important source of private funding, not yet developed enough in CEE.

The Czech and Polish financial systems are predominantly bank-based with shallow capital markets. Both Czech and Polish commercial banks have acted as key catalysts of the transition by introducing sustainability-oriented strategies and products, many of them motivated by their Western European mother

[32] Schnabel, 2023, **Monetary policy tightening and the green transition**

banks.[33] Nevertheless, capital markets are an opportunity to find additional funds for the transition, promising diversification of funding resources and enhancement of private investors' involvement.[34]

The depth of the Czech capital market is 50% of EU average, while the Polish is 35% (see Chart 2 below), leaving a high concentration in the banking sector and raising the risk of limited financing for non-bankable but strategic transition projects.[35] The Czech National Bank sees initiatives to develop local capital markets, like the EU's Capital Markets Union (CMU), as misaligned with traditional and functioning banking in Czechia.[36] By contrast, the Polish Ministry of Finance has issued several green bonds and recently started designing a strategy to develop accessible and vivid capital markets, signalling clear ambition.



Source: Breen, Bierbaum & Wright, 2022, **The Politics of EU Capital Markets**, New Financial

Chart 2: Depth of capital markets based on economic activity across 27 sectors, 2018–2021. Values are rebased to EU average = 100

Capital markets in Czechia and Poland should be systematically developed to unlock additional domestic and international investment. The CMU aims to allow for more accessible listing, sustainability-related disclosures via the European

[33] PWC, 2022, **Green finance in Poland – 2022 edition**

[34] EBRD, 2018, **Poland Country Strategy 2018–2023 (PDF)**

[35] Breen, Bierbaum & Wright, 2022, **The Politics of EU Capital Markets**, New Financial

[36] Breen, Bierbaum & Wright, 2022, **The Politics of EU Capital Markets**, New Financial

Single Access Point,[37] improved financial advice and data availability, support for early-stage projects rejected by banks, and enhanced relevant financial education.[38,39] Alongside those goals, the Polish capital market development strategy will include recommendations for public administration and other stakeholders to create a Polish ecosystem of sustainable finance products and services.[40]

To develop capital markets:

> **The Czech Ministry of Finance and Czech National Bank should develop a national capital markets development strategy** aligned with the transition to climate neutrality and ensuring an effective access to finance to smaller entities like SMEs.

> **The Czech Ministry of Finance should move towards issuing sovereign green and sustainability-linked bonds** to finance an ambitious transition and kick-start the demand for such projects and financial products in local markets.

> **The Polish Ministry of Finance should further develop their strategy** in line with the CMU and ECB's vision of green capital markets.[41]

> **The Prague Stock Exchange should provide listed companies with ESG reporting and transition planning guidance** in accordance with EU legislation and international norms and report according to ESG standards to support local businesses and investors in reporting and transition planning and ensure their competitiveness in global markets, better visibility and access to investors.

[37] European Commission, 2021, **Proposal for a regulation of the European Parliament and of the Council establishing a European single access point providing centralised access to publicly available information of relevance to financial services, capital markets and sustainability**

[38] Although most of the actions should have been finished by end 2022, the implementation was slowed down for various reasons and has numerous gaps. The overall approach has been criticised for missing coherence, which would ensure development of capital markets aligned across varying member economies (Mark Truchet, EUROFI, 2022, **Capital Markets Union: Where are we? (PDF)**).

[39] European Commission, 2020, **Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – A Capital Markets Union for people and businesses – new action plan**

[40] Ministry of Finance, 2022,**https://www.gov.pl/web/finance/poland-initiates-work-on-a-roadmap-for-the-development-of-sustainable-finance-in-the-country Poland initiates work on a roadmap for the development of sustainable finance in the country - Ministry of Finance - Gov.pl website (www.gov.pl)**

[41] European Central Bank, 2021, **Towards a green capital markets union for Europe**

E3G

Recommendation 5: Foster investment in skills

A successful transition necessitates skilled experts. It will require investments in general financial literacy, and specific climate and sustainable finance expertise, to populate key roles across both the private and public sector. Currently, public administration[42] and businesses are not well prepared and face a shrinking skilled labour force,[43] forming one of the main roadblocks for the transition in both Czechia and Poland. According to local stakeholders, professionals trained in sustainability, finance and business are desperately needed to handle and effectively steer ESG and green financial markets. For example, the low capacity of public administration[44] is one of the key barriers to implementing the EU Cohesion Policy and structural funds. In business, SMEs often lack the right capacities and resources.

Public institutions and businesses will therefore need incentives and support to take the transition idea on board. While regulations will ensure a sense of urgency, public and private investments in capacity building programmes can help internalise the transition both in terms of its necessity and especially its advantageousness in the current global market. Tailored, sector specific and region-specific efforts are needed in different communities and business segments (especially SMEs) to train stakeholders to understand the complex, multifaceted nature of green and transition projects. Ultimately, this short-term initiative will feed into the long-term process of reforming and updating curricula in education, such as including sustainable finance in university economics and business courses.

These developments must be accompanied by efforts to ensure a just transition, such as helping workers to requalify. For example, the Polish coal company ZE PAK, funded by the EU Just Transition Fund, has offered requalification to 2,400 miners and employment at their sister solar company.[45,46]

[42] Plaček, M, Ochrana, F, Půček, M, 2016, **Shortfall of strategic governance and strategic management in Czech Republic**, *Central European Journal of Public Policy*, vol. 10, DOI: 10.1515/cejpp-2016-0024

[43] EBRD, 2021, **Czech Republic Country Strategy 2021–2026**

[44] Baun, M, Marek, D, 2017, **The limits of regionalization: The intergovernmental struggle over EU cohesion policy in the Czech Republic**, *East European Politics and Societies: and* Clutures, vol. 31, DOI: 10.1177/0888325417720717

[45] IEA, 2022, **Social contract for the mining industry**

[46] Grantham Research Institute on Climate Change and the Environment, 2021, **From the grand to the granular: translating just transition ambitions into investor action**

Czechia and Poland should:

> **Invest in building capacities and expertise in sustainability, finance and business** to succeed in delivering the transition and build a strong position in the global economy.

> **Invest in ministries' internal capacities** and attract skilled professionals to take over the transition agenda, while motivating the same process at the regional level.

> **Ensure responsible ministries, state agencies and public financial institutions coordinate with business associations** (especially those dealing with SMEs), to finance and co-design sector-specific and region-specific training programs. Topics should include transition planning, compliance with sustainable finance regulations, and building transition-aligned business models. Governments and businesses can use the support from the technical assistance funding offered by the European Commission or the European Investment Bank.

> **Ensure responsible ministries, regional authorities and businesses tackle the issue of just transition.**[47] Initiatives should be supported by public funds motivating private investment, in concert with EU funds like the Just Transition Fund.

Conclusion

The transition to climate neutrality is the most strategic financial investment to be made this century. Early-mover countries will benefit from higher long-term financial turnover, greater social and economic resilience, and lower adaptation and mitigation expenses. In CEE, first-mover countries can show climate leadership and build a strong position in the global value chains, creating spill-over effects in neighbouring states. The opportunity is there for Czechia and Poland to seize – if they act proactively and decisively.

[47] Specifically in the regions Ustecky, Karlovarsky and Moravskoslezsky in Czechia; Silesia, Małopolska, Wielkopolska, Lower Silesia and Łódzkie in Poland.

E3G

Acknowledgments

The authors would like to thank all those organisations that provided their valuable input to this research in various ways: BGK, British Embassy Warsaw, Centre for Transport & Energy, Chance for Buildings, Change for Better, Climate Bonds Initiative, Czech Ministry of Environment, Czech Ministry of Industry, Czech National Development Bank, Czech State Fund for Environment, Frank Bold, Instytut Reform, Instytut Zielonej Gospodarki, Komercni Banka/Société Générale, PGE, Polish Ministry of Finance, PZU, Raiffeisenbank, SEB and Veolia Poland. The views expressed as well as any errors in this paper are the authors' own.

A special thanks to colleagues within E3G who contributed to this briefing: Kate Levick, Genady Kondarev, Carolina Cecilio, Pierre Garrault, Pietro Cesaro, Daniele Gibney and Julia Kislitsyna.

About E3G

E3G is an independent climate change think tank with a global outlook. We work on the frontier of the climate landscape, tackling the barriers and advancing the solutions to a safe climate. Our goal is to translate climate politics, economics and policies into action.

E3G builds broad-based coalitions to deliver a safe climate, working closely with like-minded partners in government, politics, civil society, science, the media, public interest foundations and elsewhere to leverage change.

More information is available at **www.e3g.org**