Strengthening FDI and SME Linkages in Czechia



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Foreword

Although it remains fraught with uncertainty, the global economy is slowly starting to stabilise after enduring a succession of recent shocks, including the COVID-19 pandemic, Russia's war of aggression against Ukraine, inflationary pressures and geopolitical tensions. These events have led to significant disruptions in global value chains (GVCs) and tighter business conditions affecting local economies and societies. As the international community continues to reflect on and adapt its policy responses to address the immediate impacts of these shocks, signs of a full economic recovery remain subdued. Global foreign direct investment (FDI) flows continue on a declining trend and remain below pre-pandemic levels for the second consecutive year. Meanwhile, governments revert back to more prudent fiscal policies and phase out temporary support for small and medium-sized enterprises (SMEs) who bear the brunt of the uncertain economic landscape. Against this backdrop, there is stronger pressure than ever for more resilient, sustainable, and inclusive growth.

Since the early 1990s, Czechia has experienced strong economic growth that contributed to a successful convergence towards OECD and EU average incomes. Building on its geographical location, strong industrial base and low labour costs, the country has attracted significant FDI, which has been fundamental for the Czech integration in European production networks. Czech enterprises are highly integrated in GVCs but focus mainly on low value added activities as a large part of the economic activity is based on compiling and assembling processes. To build a more resilient and sustainable economy, Czechia needs to boost the innovation and productivity of SMEs and provide them with the support needed to engage in higher value added activities as suppliers and partners of foreign multinational enterprises (MNEs).

Beyond its direct contribution to capital and employment, FDI can serve as a conduit for domestic SMEs to access international markets and benefit from knowledge spillovers that result in the diffusion of innovation, new technologies and skills in local economies. FDI and SME linkages can contribute to the growth and upgrading of smaller firms and to productivity gains for the economy as a whole if diffusion channels and supportive conditions enable spillovers. Governments at national and subnational levels have a crucial role to play in building FDI-SME ecosystems and setting conducive institutional and policy frameworks. The OECD with the support of the European Commission (EC) is conducting a multi-year project to advise governments on developing FDI-SME ecosystems to drive resilient, sustainable and inclusive growth.

This report provides an assessment of FDI and SME linkages in Czechia and proposes policy options to improve their contribution to productivity and innovation. It provides a diagnostic assessment of the enabling conditions for FDI spillovers on Czech SMEs and explores the extent to which spillover channels are at play. It also assesses Czechia's institutional environment and policy mix across the areas of international investment, SME development, innovation and regional development. The last chapter of the report looks at FDI-SME spillovers and related policy approaches through a regional lens, focusing on the regions of Ústí nad Labem and South Moravia.

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Acronyms and abbreviations

AI	Artificial Intelligence
AMSP CR	Association of Small and Medium-Sized Enterprises and Crafts of the Czech Republic
ANI	National Innovation Agency
API	Business and Innovation Agency
BIC	Business Incubation Centre
CCAVs	Clean connected and autonomous vehicles
CEE	Central and Eastern Europe
CFEs	Company formality centres
CICE	Competitiveness and Employment Tax Credit
CIT	Corporate income tax
ČMZRB	Czech-Moravian Guarantee and Development Bank
CoG	Centre of government
CRDI	Council for Research, Development, and Innovation
CRM	Customer Relationship Management
DESI	Digital Economy and Society Index
EC	European Commission
EFTA	European Free Trade Association
EPCI	Public establishment for inter-municipal cooperation
EPL	Employment Protection Legislation
ERP	Enterprise Resource Planning
ESA	European Space Agency
ESIF	European Structural and Investment Funds
EU	European Union
FAs	Foreign affiliates
FDI	Foreign direct investment
FDIRR	Foreign Direct Investment Regulatory Restrictiveness
FUAs	Functional Urban Areas
GDP	Gross domestic product
GERD	Gross Domestic Expenditure on Research and Development
GVA	Gross value added

GVCs	Global value chains
HEIF	Higher Education Innovation Fund
HEIs	Higher Education Institutions
IAPMEI	SME Competitiveness Agency
ICT	Information and communication technologies
IoT	Internet of Things
IP	Intellectual property
IPA	Investment Promotion Agency
ISIC	International Standard Industrial Classification of all economic activities
IT	Information technologies
JIC	South Moravian Innovation Centre
KEF	Knowledge Exchange Framework
KPI	Key Performance Indicators
LLD	Least developed districts
M&E	Monitoring and evaluation
MIT	Ministry of Industry and Trade
MNEs	Multinational enterprises
MoF	Ministry of Finance
MRD	Ministry of Regional Development
MSMEs	Micro, small and medium-sized enterprises
NAP	National Acquisition Platform
NCA	National Cluster Association
NFIA	Netherlands Foreign Investment Agency
NRB	National Development Bank
NUTS	European nomenclature of territorial units for statistics
OEMs	Original Equipment Manufacturers
OPEIC	Operational Programme Enterprise and Innovation for Competitiveness
OPTAC	Operational Programme Technologies and Application for Competitiveness
OPRDI	Operational Programme Research and Development for Innovation
PAR	Public Administration Reform
PMR	Product Market Regulation
R&D	Research and development
R&D&I	Research, development, and innovation
RCA	Revealed comparative advantage
RCI	Regional Competitiveness Index
RDS21+	Regional Development Strategy of the Czech Republic 2021+
RIA	Regulatory Impact Assessment
RIS3	National Research and Innovation Strategy for Smart Specialisation

RTA	Revealed Technological Advantage
RVO	Netherlands Enterprise Agency
SCM	Supply chain management
SGI	Sustainable Governance Indicators
SMEs	Small and medium-sized enterprises
SPEs	Special Purpose Entities
STRI	Services Trade Restrictiveness Index
TACR	Technology Agency of the Czech Republic
TL	Territorial Level
TRIPS	Trade-Related Aspects of Intellectual Property
UJEP	University of Jan Evangelista in Ústí nad Labem
UniCRE	Unipetrol Centre for Research and Education
VAMs	Voluntary Associations of Municipalities
VC	Venture capital
WIPO	World Intellectual Property Organisation
WTO	World Trade Organisation

Executive summary

Since the 1990s, Czechia has experienced robust economic growth, benefiting from its strategic location, strong industrial base, and competitive labour costs, aiding its convergence towards OECD and EU average incomes. However, its labour productivity remains below these averages, highlighting potential structural issues that may hinder productivity-enhancing capital reallocation. Despite being services-oriented, the manufacturing sector, particularly in automotive and high-tech industries, is more prominent than in neighbouring economies, offering a comparative advantage in producing various low- and high-technology goods. The country shows technological prowess in nanotechnologies, pharmaceuticals, and environmental management technologies, which it can capitalize on to further develop key industries by attracting investment and bolstering domestic SMEs. Czechia's specialisation in assembling processed goods with imported intermediate inputs suggests, however, that foreign multinational enterprises (MNEs) based in Czechia limit procurement from local suppliers, impacting the potential for FDI spillovers on SMEs.

Over the past decade, FDI has shifted from traditional manufacturing to low-technology services such as finance and real estate. While the automotive industry's share of FDI has declined, non-automotive manufacturing industries have increased their share, suggesting potential development of diversified FDI-SME ecosystems that can benefit overall growth and productivity. Despite the COVID-19 pandemic and geopolitical tensions, FDI inflows have remained resilient, with only a moderate decline between 2019 and 2020, followed by a strong recovery. Sectors with high FDI stocks exhibit higher labour productivity, but they account for a small share of business R&D expenditure. Foreign-owned firms in Czechia are also twice as productive as domestic firms, particularly in low-technology services, highlighting the potential for FDI spillovers. However, in manufacturing, productivity differences between foreign and domestic firms are narrower, indicating potential parity in operations and opportunities for knowledge exchange.

Czechia’s economy is dominated by low productivity micro firms, which minimally contribute to value added and turnover relative to their share of employment. The lack of medium-sized enterprises points to significant challenges in scaling-up and difficulties in knowledge and technology transfers within key sectors that attract substantial FDI. SMEs in Czechia lag behind larger firms in terms of exporting, but have significantly improved their performance in introducing product, process and organisational innovations and in collaborating with other innovative firms over the past decade. They outperform their EU peers in the use of certain digital technologies (e.g. cloud services, e-commerce) and in providing training to their employees. Many Czech enterprises report, however, difficulties in recruiting employees with “above average” digital skills and accessing the necessary finance to scale up their operations.

Affiliates of foreign MNEs import about half of their intermediate inputs, while sourcing less locally compared to other OECD economies, limiting growth opportunities for domestic firms. They also export their outputs or sell to other foreign affiliates operating in the Czech market, reducing the potential for FDI-SME spillovers through buyer linkages. In contrast, strategic partnerships around joint R&D and innovation projects are common and create technology transfer opportunities. Cooperation with competitors on innovation is increasing among Czech SMEs, offering potential for wider economic spillovers through imitation or tacit learning. The potential for knowledge transfer through other channels such as the movement of skilled workers from foreign MNEs to local SMEs is limited. Job-to-job mobility, particularly

in the science and technology related sectors, is much lower in Czechia than in many peer economies. Higher wages in foreign MNEs also further discourage labour mobility to domestic firms, limiting skills spillovers.

The Czech FDI-SME policy framework, although relatively integrated, involves multiple ministries and agencies, which may lead to fragmentation resulting in more bureaucracy and policy complexity. Policy coordination can also be a major challenge and cause delayed reforms. Inter-agency collaboration primarily relies on informal channels and highlights a potential area for a more structured and formalised coordination mechanism to take place. Streamlining FDI-SME governance and improving policy coordination is pivotal. Differences between the implementation of national policies at the local and national level suggest an opportunity for enhancing cooperation among ministries, national implementing agencies, regional branches, and regional innovation centres. This coordination could facilitate a closer alignment between national objectives and local actions. Although Czechia has adopted several strategic documents outlining SME and investment policy priorities, these require a comprehensive government approach for effective implementation. The number of different strategic documents may potentially complicate policy coordination, underscoring the need for a more integrated and streamlined approach.

The Czech institutional framework balances comprehensive policy development with the specific needs of SMEs and FDI. The framework's emphasis on coordination and comprehensive evaluation mechanisms allows for the creation of policies that are not developed in isolation but reflect the interconnected environment. Recent reforms were directed towards supporting domestic SMEs and strengthening the spillover channels through which FDI affects SMEs. The reforms encompass a comprehensive set of policies and programmes targeted at enhancing SME performance, attracting productivity enhancing FDI, and strengthening agglomeration economies. Whilst also promoting strategic partnerships between SMEs and affiliates of foreign MNEs and fostering value chain linkages. Despite these efforts, there is still potential to further improve and strengthen support for business R&D through legislative strategies as well as place-based approaches. Czechia has made significant strides though they remain below the OECD and EU average.

The need for pursuing place-based efforts is exemplified by the cases of Ústí nad Labem and South Moravia. Both regions have distinct features that attract innovative FDI and SMEs. Ústí nad Labem is characterised by strong industrial sectors, particularly in mining and manufacturing, while South Moravia excels in its innovation ecosystem, IT and services sectors. South Moravia primarily focuses on attracting FDI into high value-added activities, supported by its infrastructure and educational framework. Both regions could enhance their ability to attract FDI with strong spillover potential by improving digital and transport infrastructure and capitalising on their geographical locations and large stock of brownfields. There is further potential in enhancing cooperation across municipalities, which are currently fragmented, to improve public service delivery and coordinate development strategies, thereby increasing attractiveness for FDI and international talent. In Ústí nad Labem, there is scope to enhance regional branding by aligning local strengths to communicate the regional quality of life, such as lower cost of living or proximity to natural and urban settings and capitalise on regional competitive advantages to meet business demand from domestic and foreign enterprises. In South Moravia, there is room to further leverage its innovation-led business ecosystem to promote inclusive development. Additionally, it is crucial to maximise knowledge and technology diffusion through increased collaboration with academics, the public sector, and the private sector.

1 Overview and key policy considerations

This chapter provides an overview of key findings and policy considerations outlined in the country study to strengthen FDI and SME linkages in Czechia. Specifically, it presents the main challenges and opportunities for foreign direct investment (FDI) and small and medium-sized enterprises (SMEs) and examines their role in supporting productivity and innovation. Based on an assessment of Czechia's regulatory and policy framework, the chapter also derives recommendations for policy reform to strengthen the spillover potential of FDI and the productive capacities of Czech SMEs, including in the regions of South Moravia and Ústí nad Labem.

1.1. The enabling conditions for FDI and SME linkages in Czechia

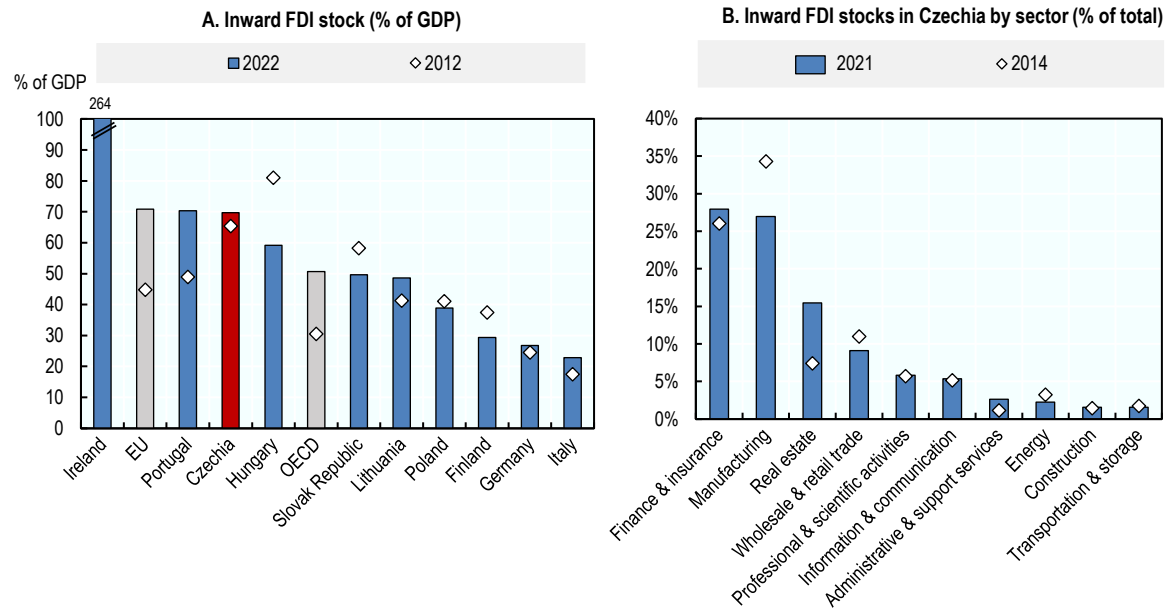
Benefiting from its strategic geographical location, a strong industrial base, and competitive labour costs, Czechia has achieved robust economic growth, supporting its successful convergence towards OECD and EU average incomes. Despite a strong economic record, Czechia's labour productivity, measured as output per person employed, still lags behind the OECD and EU averages, pointing towards potential structural issues that may impede productivity-enhancing capital reallocation. The stalling of labour productivity levels in key segments of the economy, including in the FDI-intensive manufacturing and finance sectors, also raises the question of whether domestic firms are able to benefit from the knowledge and technology that foreign firms bring in these sectors. Considerable and widening disparities in GDP per capita and labour productivity across subnational regions also exist.

Although the economy is predominantly services-oriented, the importance of the manufacturing sector in terms of value added, employment and exports is higher than in neighbouring CEE economies – mainly driven by the automotive sector and other high-technology manufacturing industries. The Czech economy holds a comparative advantage in the production of several low- and high-technology goods (e.g. fabricated metals, plastics, motor vehicle components). Similarly, a technological advantage – in terms of number of patents submitted for specific technology fields – is observed in nanotechnologies, pharmaceuticals and environmental management technologies (including for green transportation). Czechia can capitalise on existing advantages in the production and export of these products to further develop key industries by attracting investment and strengthening the capacities of domestic firms, including small and medium-sized enterprises (SMEs).

Czechia has seen rising exports as a share of GDP over the past decade, surpassing many advanced European economies and the OECD average. The Czech economy has been specialising in assembling processed goods using intermediate inputs from abroad. This may have important implications for FDI and SME linkages since it indicates that MNEs based in Czechia import a large proportion of intermediate inputs, limiting procurement from local suppliers.

Czechia has experienced a significant influx of foreign direct investment (FDI) since the late 1990s. This has been pivotal in integrating the Czech economy into GVCs and bolstering international trade. The COVID-19 pandemic and the geopolitical upheavals following Russia's war of aggression against Ukraine impacted global trade and investment. However, FDI inflows into Czechia remained rather resilient, with only a moderate 7% decline between 2019 and 2020, followed by a robust recovery in subsequent years. Over the past decade, sectoral patterns of FDI have shifted, moving away from traditional manufacturing towards low-technology services (e.g. finance and insurance activities, real estate) (Figure 1.1). The finance and real estate sectors have seen the largest relative increase in total FDI stock, while the relative contribution of manufacturing, particularly the automotive industry, has declined. Concurrently, non-automotive manufacturing industries have seen an uptick in their share of FDI stocks, indicating the potential development of FDI-SME ecosystems across a broader and more diversified range of industrial sectors with benefits to aggregate growth and productivity.

Figure 1.1. Foreign direct investment trends in Czechia



Source: OECD (2023), International Direct Investment Statistics, http://www.oecd.org/investment/statistics.htm; and Czech National Bank (2023), FDI positions in the Czech Republic, https://www.cnb.cz/cs/statistika/

Although sectors that account for large FDI stocks are on average more productive, they account for a small share of business R&D expenditure. Only 4% of greenfield investments have involved R&D activities, a higher share than neighbouring CEE economies but significantly below leading European countries. Foreign-owned firms in Czechia are twice as productive as domestic firms, particularly in low-technology services (e.g. finance and insurance, real estate). This productivity gap highlights the potential for FDI spillovers, as foreign firms, often larger and more export-oriented, possess superior access to finance, skills, and innovation assets. However, in some sectors, such as manufacturing, the productivity differences between foreign and domestic firms are narrower, suggesting a potential parity in operations and opportunities for knowledge exchange within these industries.

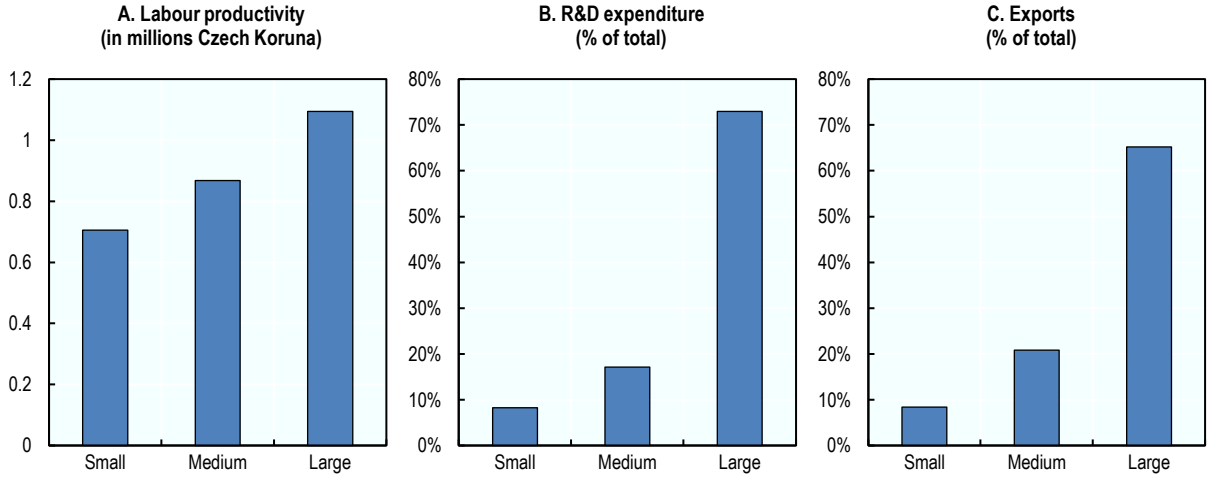
Czechia's economy is dominated by low productivity micro firms that make up 96% of the business population, accompanied by limited business dynamism as illustrated by the low enterprise birth and death rates. These micro firms, contribute disproportionately little to value added and turnover relative to their employment share. The notable absence of medium-sized enterprises indicates systemic challenges in scaling up operations and fostering knowledge and technology transfers to smaller businesses, particularly in sectors that are crucial to the domestic economy and have attracted significant FDI levels. Overall, SMEs have an important role in the lower technology manufacturing sector, accounting for 46% of employment and 45% of value added (e.g. manufacture of metals, machinery and equipment, leather and textile products).

As in other OECD economies, SMEs in Czechia are lagging behind larger firms in terms of direct and indirect exporting, reflecting their limited capabilities to expand operations abroad and serve as suppliers of foreign firms (Figure 1.2). SMEs are also less engaged in FDI-intensive sectors (e.g. automotive, electronics and fabricated metals) that could present opportunities for supplier linkages with foreign multinationals. Czech SMEs report facing important barriers to innovate (e.g. high costs, lack of qualified employees, lack of internal finance) but have significantly improved their performance in introducing product, process and organisational innovations and in collaborating with other innovative firms over the past decade. They are, however, responsible for a small share of business R&D expenditures, signalling

weak business-science linkages and limited opportunities for SMEs' involvement in inter-firm collaborations in knowledge-intensive activities.

Czech SMEs are on par with SMEs in the EU in terms of digital transformation. Their performance is higher in the use of certain digital technologies, including cloud services, the Internet of Things (IoT), 3-D printing and e-commerce. The digital intensity gap between large and small firms is more pronounced in certain supplier and customer management technologies (e.g. CRM and ERP software), which are often a prerequisite for SMEs to form buyer-supplier linkages with large multinationals and benefit from spillovers in GVCs. While Czechia performs well in terms of basic digital skills and has a relatively high proportion of ICT graduates, 76% of Czech enterprises report difficulties in recruiting ICT specialists. Overall, SMEs prioritise investments in the skills development of their employees and outperform their EU peers in the provision of staff training. Access to finance is, however, constrained, with declining new SME business lending and late payments impacting the supplier relationships of smaller firms. Alternative sources of finance are in limited use by Czech SMEs, posing challenges to their scaling up and to the funding of innovative and riskier ventures.

Figure 1.2. Performance of small and medium-sized enterprises in Czechia



Note: Data for labour productivity and R&D expenditure are from 2020 while for exports from 2021.
Source: OECD (2022[1]), Trade by Enterprise Characteristics database; OECD (2022), Structural Demographics and Business Statistics (SDBS); and OECD (2021) Research and Development Statistics Database

1.2. FDI spillovers at play for Czech SMEs

For FDI-SME spillovers to occur, domestic SMEs should be exposed to activities of foreign multinational enterprises (MNEs) either directly or indirectly. When SMEs are exposed to MNE activities they form linkages. Strengthening these linkages enhances productivity spillovers through the diffusion of knowledge, technology and skills to domestic firms, and by improving the innovative and scale-up capabilities of SMEs. Core channels of FDI-SME diffusion include value chain relationships, strategic partnerships, labour mobility, competition and imitation effects.

Foreign MNEs can obtain intermediate inputs from local suppliers (i.e. supplier linkages) or by importing from abroad. Opting to source inputs locally creates opportunities for growth for domestic firms, in particular SMEs. In Czechia, foreign affiliates import almost half of their intermediate inputs and source significantly less inputs locally compared to most OECD economies (Figure 1.3). This trend is observed across other small EU countries, including Central and Eastern European (CEE) economies, while foreign MNEs

operating in larger economies like Germany and Italy tend to rely more on local suppliers due to the size of their domestic markets. Among foreign affiliates' local suppliers, domestic-owned firms are responsible for almost one third of the inputs sourced. Although the majority of them are non-multinational firms – a category that likely includes most Czech SMEs –, their contribution to foreign affiliates' sourcing structure is lower than that of domestic-owned firms in the OECD area, which are on average responsible for 50% of the sourced inputs. In contrast, other foreign affiliates operating in Czechia are more important sources of intermediate inputs (23% of total sourcing vs 13% at the OECD), suggesting some clustering of foreign affiliates in Czechia, which tend to buy from and supply each other.

Similarly, foreign affiliates' output is mostly exported or sold to other foreign affiliates operating in the Czech market, indicating a lower potential for FDI-SME spillovers through buyer linkages. Such linkages are often a source of productivity spillovers because they allow domestic firms to access new, higher-quality or cheaper intermediate inputs. Many MNEs also offer training to their customers on the use of their products and provide information on international quality standards.

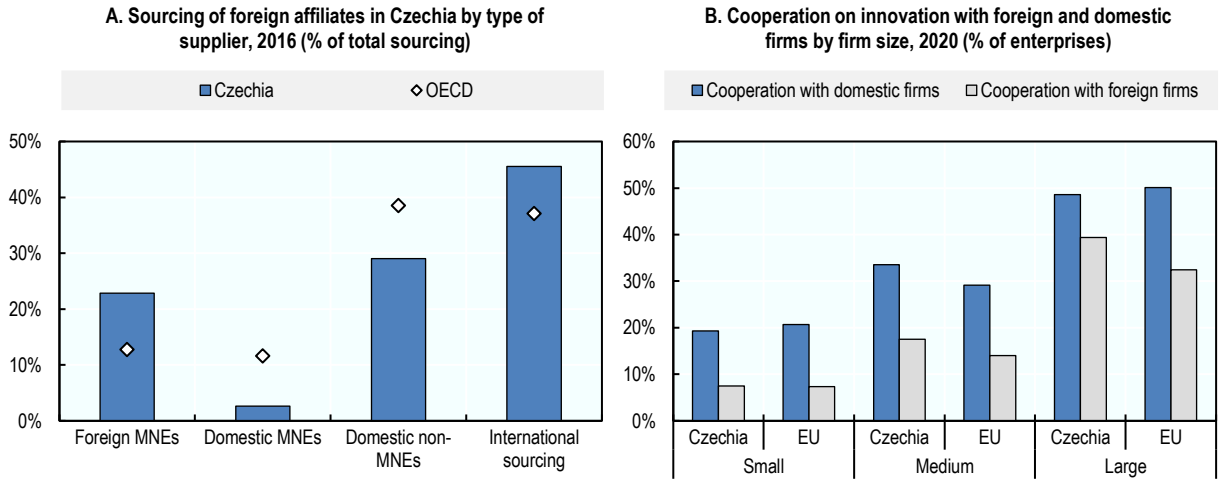
Beyond supplier-buyer linkages, foreign MNEs and domestic SMEs can establish strategic partnerships around the development of joint R&D and innovation projects, which can create opportunities for technology transfer, especially in high-technology and knowledge intensive industries. In Czechia, foreign MNEs and domestic SMEs establish cooperation through strategic partnerships in R&D and innovation particularly in high-technology and knowledge-intensive industries. Overall engagement in cooperation among Czech firms is moderate, with smaller enterprises lagging behind larger ones. Strategic partnerships particularly with foreign firms are less common among smaller Czech firms, indicating potential challenges in fostering linkages with foreign firms (Figure 1.3). Although Czech firms engage in technology licensing agreements at levels comparable to or higher than many comparator economies, foreign firms in Czechia appear to be less involved in such partnerships compared to their counterparts elsewhere.

Labour mobility can serve as a channel for knowledge spillovers, particularly through the movement of MNE workers to local SMEs. In Czechia, however, job-to-job mobility is lower than in many peer economies, especially in science and technology related sectors. While job mobility within the local labour market is limited, conditions for mobility of highly skilled foreign workers are relatively restrictive, with less favourable permit duration and labour market mobility conditions compared to neighbouring countries. Moreover, wages in foreign firms are significantly higher than in domestic firms especially in the services industry (e.g. information and communication, finance, and professional services), discouraging labour mobility and associated skills spillovers to domestic firms. The potential for FDI-SME spillovers through labour mobility also depends on FDI's skills intensity, as well as training and learning opportunities that SMEs have in the domestic economy, amongst other factors. Czechia is among the few countries, where foreign firms do not outperform their domestic counterparts in terms of training opportunities. This could be linked to the concentration of FDI in sectors creating few jobs such as the capital-intensive real estate and finance sectors as well as in low-value added manufacturing linked to assembly and processing, which may not always require highly specialised and technology-intensive skills.

FDI-SME spillovers may also materialise through market interaction mechanisms driven by competition and imitation effects. Competition effects arise when MNEs enter the market, influencing domestic companies operating in the same sector or value chain segment, even if not geographically located in the same region. Conversely, imitation effects occur at a more local level when domestic firms emulate the practices of foreign MNEs, leading to enhancements in their productive and innovative capacities. In Czechia, cooperation with competitors on innovation is relatively common, suggesting potential for FDI-SME spillovers through tacit learning. However, same sector cooperation on innovation, particularly with foreign firms, is notably lower compared to other peer economies. A considerable share of SMEs in Czechia perceive competition as a barrier to innovate. This perception may reflect challenges in keeping

up with new and potentially higher quality standards set by competitors, potentially resulting in fewer knowledge spillovers from foreign companies through imitation effects.

Figure 1.3. Supplier linkages and inter-firm cooperation on innovation



Source: OECD (2019), Analytical Activity of Multinational Enterprises (AMNE) Database; and Eurostat (2020), Community Innovation Survey 2020

1.3. The institutional and governance framework for investment and SME policy

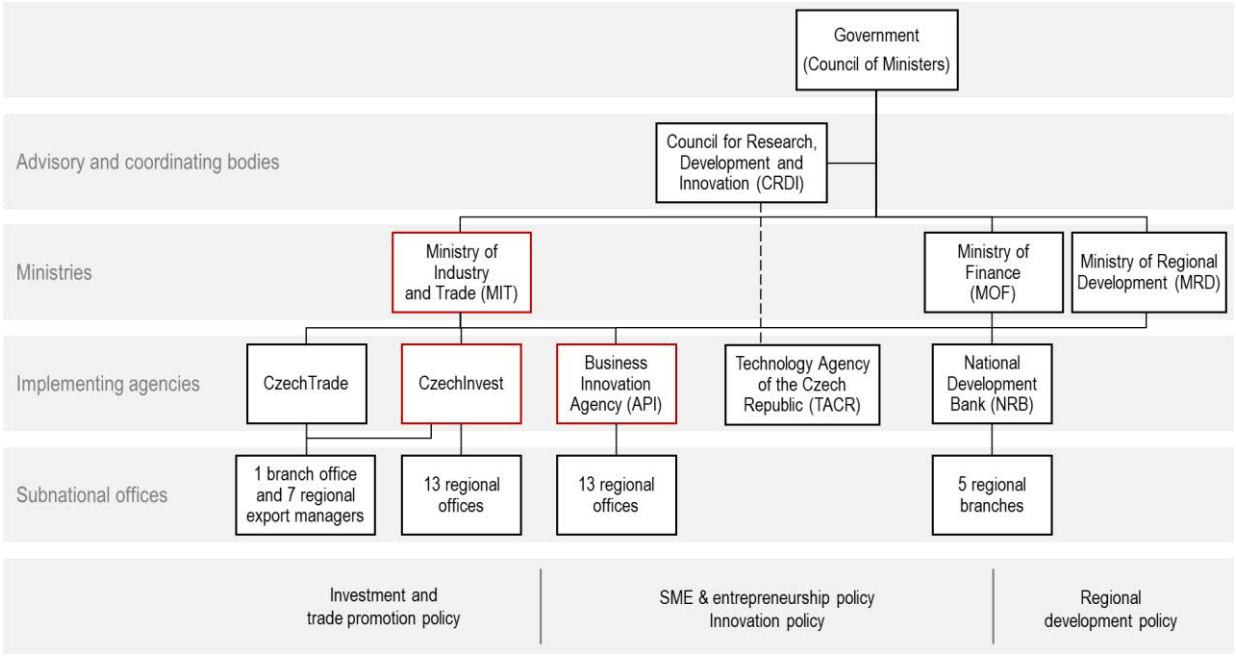
The governance framework for FDI-SME policy in Czechia is relatively integrated, yet it reveals the complexity inherent in a system where responsibilities are dispersed across numerous ministries. This structure ensures that multiple policy areas are taken into account, but may also lead to fragmentation. The institutions involved are the Ministry of Industry and Trade (investment promotion and facilitation through CzechInvest, SME and entrepreneurship policy which is implemented on the administrative level through the Business Innovation Agency); the Ministry of Finance (SME and entrepreneurship policy and regional development policy through the National Development Bank); the Ministry of Regional Development (regional development policy including managing EU funds and establishing subnational business support as the main mandate). Also, the Technology Agency of the Czech Republic (TACR) under the Council for Research, Development, and Innovation (CRDI) aims to foster the innovation capacity of Czech enterprises by financing R&D activities and facilitating networking effects (Figure 1.4).

In Czechia, the promotion of innovation and regional development is managed by a range of agencies, reflecting a common pattern seen in OECD countries. Responsibilities for innovation promotion are shared primarily between the Ministry of Industry and Trade and the recently established Ministry for Research and Innovation as they both have mandates in innovation policy, while the Council for Research, Development and Innovation works an advisory body to the Government. The Ministry of Regional Development outlines the regional development strategy.

The Ministry of Industry and Trade (MIT) plays a central role. It bears the primary responsibility for investment, SME, and entrepreneurship policy, alongside its remit in energy, industrial, and trade policy. Hence, this ministry, is responsible for policies related to FDI-SME linkages, distributing responsibilities across several departments. While various departments within the MIT often collaborate, particularly in policies related to FDI-SME linkages, this cooperation typically relies on informal channels, highlighting a potential area for more structured and formalised coordination mechanisms.

The observed differences between the implementation of national policies at the local level suggest an opportunity for enhancing cooperation among ministries, national implementing agencies, their regional branches, and regional innovation centres (which are typically established by regional governments and have no direct link to national ministries). This enhancement could facilitate better alignment between national objectives and local actions, ensuring a more harmonious policy execution process and ensure the connection between national, regional, and local delivery of FDI, SME and innovation services. The empowering of regional innovation centers, one-stop-shops, and business consultation centres can be a step in the right direction. To enhance the effectiveness of this collaboration, greater tailoring of national policies at the subnational level should be combined with due coordination among national agencies operating locally and regional innovation agencies through regular meetings and consultations on an ad hoc basis.

Figure 1.4. The institutional environment for FDI and SME linkages in Czechia



Note: The main institutions acting upon FDI and SME linkages are designated in red. All the other institutions provide a complementary contribution to FDI and SME linkages.
Source: OECD elaboration based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023).

In Czechia, several strategic documents have been adopted in recent years to articulate priorities related to investment and SME policy. National strategies and action plans can be important instruments for policy coordination as they are crosscutting in nature, and often require a whole-of-government approach to ensure their effective implementation. The number of different strategic documents in Czechia heightens the risk of making policy coordination more complex. These national strategies collectively address a wide range of areas including skills development, digital transformation, research and development, international market access, and the low-carbon transition. They are implemented through a collaboration of government bodies, with a significant role played by the Council for Research, Development, and Innovation (CRDI) and the Ministry of Industry and Trade.

In terms of policy development and evaluation, there is a notable opportunity to implement comprehensive evaluation frameworks to gauge policy impacts effectively. More than half of FDI-SME policy initiatives have integrated monitoring and evaluation (M&E) criteria, and Czechia outperforms the OECD average in

terms of Regulatory Impact Assessment (RIA) implementation. There is still, however, room for enhancing the use of M&E in the policymaking process.

The current governance structure also shows gaps in involving a broader spectrum of stakeholders, including SMEs and local communities, in the policymaking process. This suggests an avenue for fostering richer and more varied inputs into policy formulation and evaluation, as well as the necessity to establish robust feedback mechanisms for building more responsive governance structures. These mechanisms can serve as valuable tools for ongoing policy refinement, ensuring that policies remain relevant and effective in achieving their intended outcomes.

One of the notable attributes of the Czech institutional framework is its ability to balance comprehensive policy development with a nuanced understanding of the specific needs of SMEs and FDI. The framework's emphasis on coordination across various policy areas and government levels ensures that policies are not developed in isolation, but rather in a manner that reflects the interconnected nature of economic growth, innovation, and regional development. This approach, coupled with the MIT's extensive involvement in a wide range of policy areas, demonstrates the Czech government's commitment on strenghthening SMEs and their innovative capacity and, to lesser extent, enhancing the impact of FDI on the domestic economy. The utilisation of various departments within the MIT to address different facets of the SME and FDI ecosystem showcases the government's understanding of the intricate linkages between different economic sectors and their role in fostering a robust SME sector and attracting productivity-enhancing FDI. However, it is imperative to continually evolve and adapt the institutional framework. Strengthening formal coordination channels, without compromising the existing flexibility and adaptability which are critical in a dynamic economic landscape, could serve as a valuable enhancement to the Czech government's policy execution, ensuring that the strategic objectives are harmoniously integrated across all departments. Enhancing formal collaboration, alongside the strategic focus on coherent policy development and implementation, could stand out as a key strength of the Czech institutional framework in fostering a conducive environment for SMEs and maximizing the benefits of FDI.

Box 1.1. Policy recommendations on the institutional and governance framework

- **Strengthen inter-ministerial and inter-agency coordination** through formal bodies and consolidation of responsibilities to improve efficiency in partnership with regional, publicly-funded organizations specializing in innovation services for SMEs.
- **Define clear, specialised functions for each agency** to avoid overlap and focus on specific FDI-SME policy areas. Establish distinct mandates for each agency, ensuring they focus on specific areas like start-up support or SME financing, to avoid functional redundancy.
- **Create frameworks for better alignment of national policies with regional and local priorities.** Greater tailoring of national policies at the subnational level should be combined with coordination among national agencies operating at local level and regional innovation agencies, to avoid an inconsistent quality of support or the provision of overlapping services in regions and places.
- **Implement a framework for regular impact evaluations** to assess the effectiveness of FDI-SME policies, using both quantitative and qualitative metrics.
- **Facilitate regular, structured dialogues with a diverse range of stakeholders** inside and outside national government.

1.4. The policy mix for strengthening FDI spillovers on Czech SMEs

Public policy plays a pivotal role in enhancing the performance and quality of FDI-SME ecosystems. An integrated approach, combining policy measures in investment, SME development, innovation, and regional development with a supportive regulatory framework, can increase policy effectiveness. Such integration might strengthen the attraction of FDI that enhances productivity and facilitates spillovers to local SMEs. The challenge lies in ensuring that the policy mix is well-aligned with the country's economic structure, policy priorities, and geographical specifics.

Czechia's policy mix for strengthening the synergy between FDI and SMEs focuses more on enhancing domestic SMEs' capacities than on creating new pathways for FDI impact**.** Czechia has many policies focused on supporting domestic SMEs, compared to a smaller number of policies aimed to assist foreign companies in entering and operating in the Czech business environment. In the policy mapping conducted by the OECD in 2023, approximately 70% of the policy measures were directed towards enhancing SME performance, 27% focus on attracting productivity-enhancing FDI, and 20% on strengthening agglomeration economies (total above 100% as some policies might have multiple targets (Figure 1.5, Panel A). This could imply that while Czechia’s government is working to strengthen its domestic SMEs, there might be room to increase efforts in attracting and facilitating investments from foreign companies, which could further enhance the potential for FDI spillovers on the domestic economy. When it comes to strengthening the spillover channels through which FDI affects SMEs (i.e. FDI-SME diffusion channels), Czech policies aim to primarily promote strategic partnerships (30%) between SMEs and foreign affiliates (FAs) and to foster value chain linkages (23%) (Figure 1.5, Panel B). There is a relatively lower emphasis on addressing issues related to labour mobility and competition within the policy mix (accounting for 5% of mapped policies each) (Figure 1.5, Panel B). However, this analysis does not imply less policy relevance in the areas where less measures are taken, and methodological limitations should be kept in mind in interpretation. Considering the number of policy initiatives that target these policy objectives is only a partial measure of policy focus in a given area. The policy mix analysis takes into account other aspects relating to policy design and implementation, including the sectoral and value chain targeting of implemented

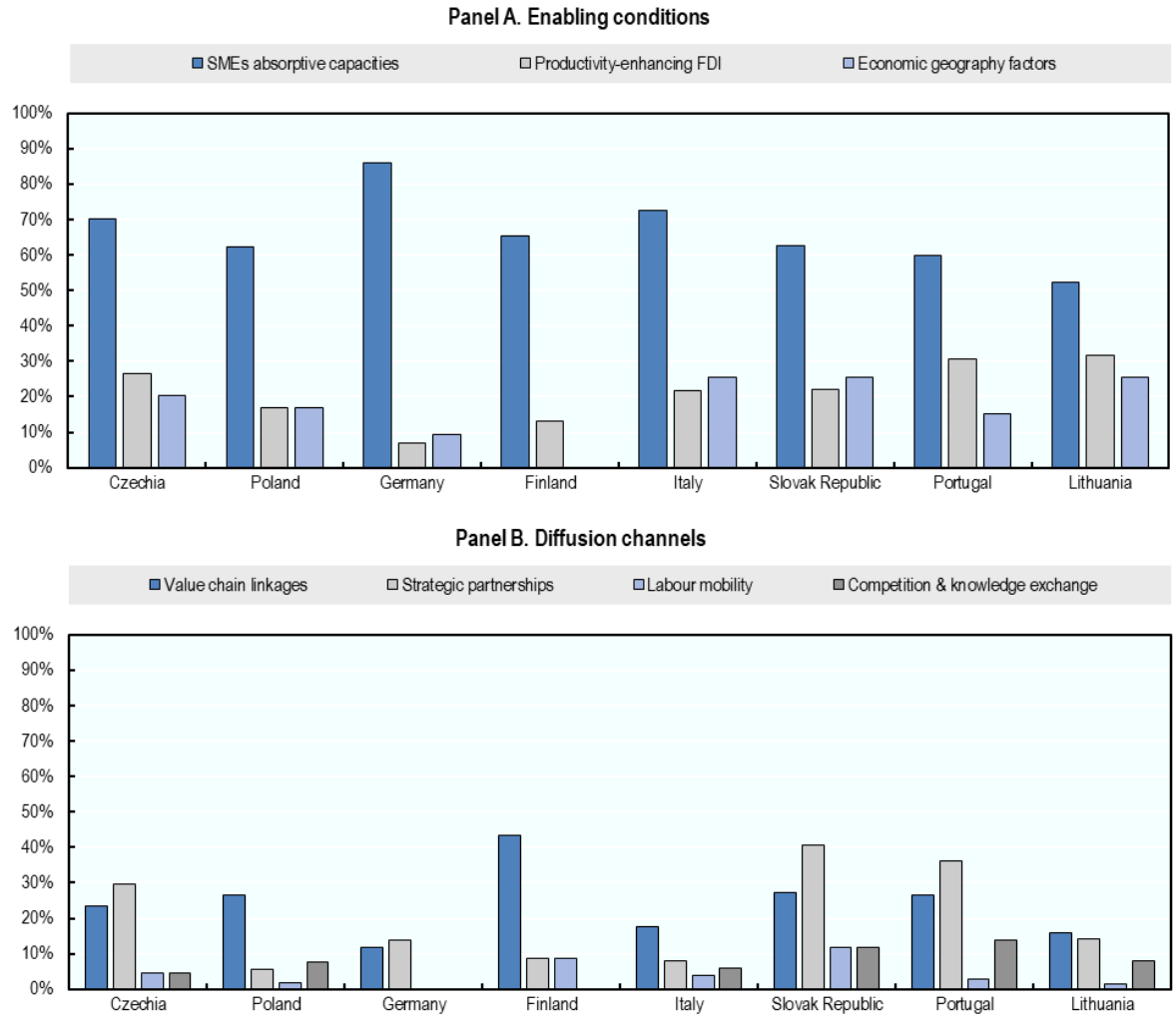
measures, the uptake of public support schemes, the number of beneficiaries, the quality of the regulatory environment, and the type of policy instruments used to achieve specific policy objectives, amongst others.

Czechia primarily relies on financial support, technical assistance and facilitation services to strengthen FDI linkages with domestic SMEs. Financial instruments include grants, loans, tax credits and other forms of direct or indirect funding. Technical assistance, information provision and facilitation services include a wide range of business support measures and services (e.g. consulting, business diagnostic assessments, information, matchmaking and networking, training and skills upgrading, business incubation, etc.). An important factor reflected in the chosen mix of policy instruments lies in Czechia's emphasis on matchmaking services, industry-specific collaboration platforms and business networking events.

Despite the many SME support programmes, SME access to these programmes can be challenging. The delivery of these schemes is fragmented across multiple government agencies, raising barriers to SMEs access to available support. Policy initiatives are predominantly aimed at specific types of firms (e.g. startups), sectors of the economy, or sub-national areas. Initiatives tailored for SMEs also target universities and research centres with the aim to foster business-science linkages and ease the transfer of knowledge to local SMEs. Meanwhile, policies towards private investors, business angels and venture capital funds contribute to improving SMEs' access to funding. Policy initiatives focusing on specific sectors are also an important part of the policy mix, representing 49% of targeted policies (Figure 1.6, Panel B). Czechia's smart specialisation strategy aims to create a long-term competitive advantage by attracting more knowledge-intensive FDI and enhancing the innovation capacity of SMEs in selected priority sectors. The National Research and Innovation Strategy for Smart Specialisation (RIS3) 2021–2027 focuses on technology-intensive sectors and value chains such as advanced materials, digital and green technologies, and smart cities, which are all areas with significant potential for knowledge-based innovation and long-term growth.

Figure 1.5. Orientation of the FDI-SME policy mix in Czechia and benchmarking countries

% of mapped policy measures

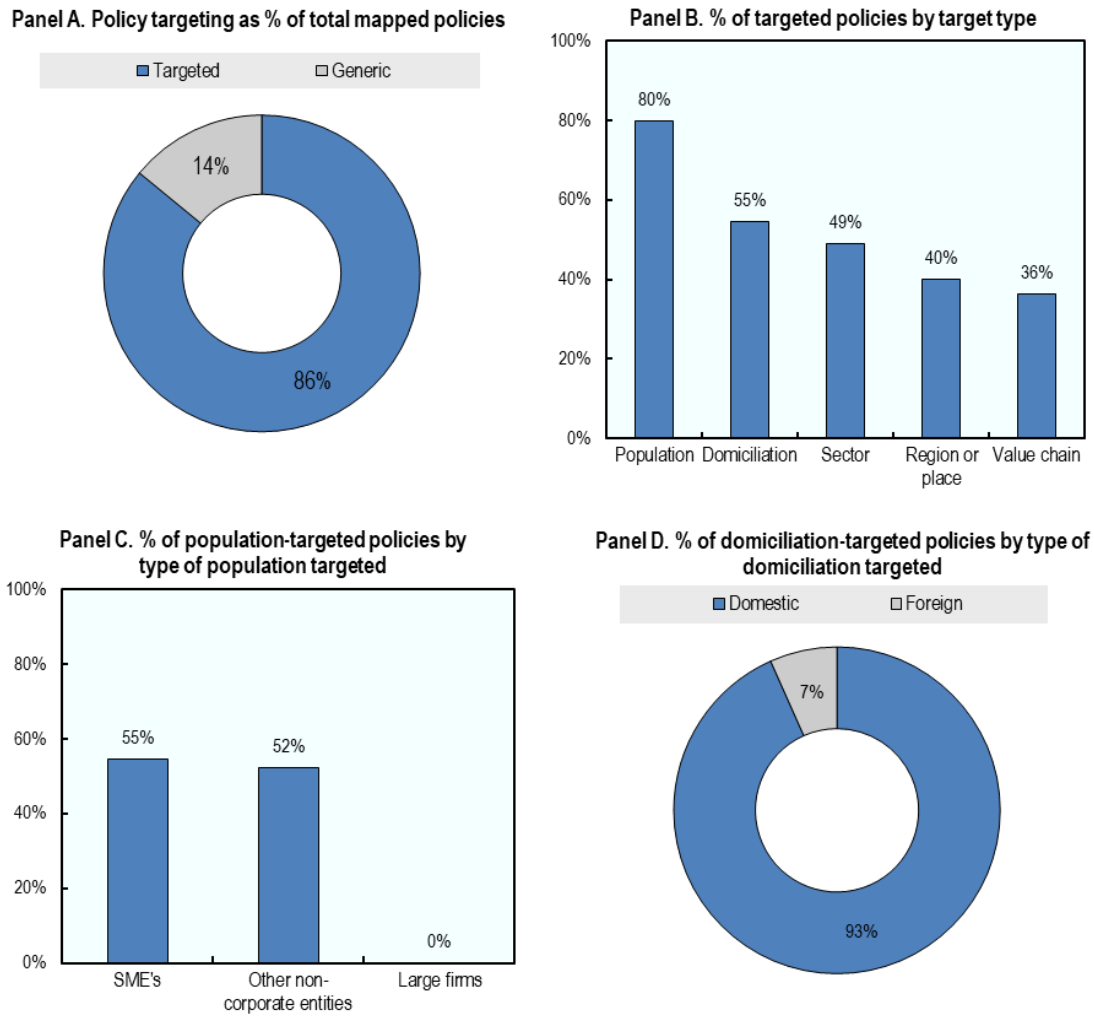


Note: Shares are calculated as a % of the total of national initiatives in place. Total may be higher than 100% when policy initiatives respond to several policy objectives at the same time.
Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

The place-based approach of Czech policies indicates a strategic focus on the regional development of economically and socially vulnerable areas, with 40% of targeted policies taking a place-based approach (Figure 1.6, Panel B). For example, CzechInvest focuses its investment incentives on economically and socially endangered areas according to the *Regional Development Strategy of the Czech Republic 2021+* and structurally disadvantaged areas like the Moravia-Silesia, Ústí and Karlovy Vary regions. By doing so, they seek to attract FDI to these areas and foster the growth and development of local SMEs, thereby facilitating the creation of FDI-SME linkages that can contribute to regional economic resilience and prosperity.

There is a strategic emphasis on enhancing the competitiveness and integration of SMEs within different value chains in Czechia. Thirty-six percent of targeted policies focus on specific value chains (Figure 1.6, Panel B). These initiatives aim to attract FDI into sectors where Czech SMEs are active or have growth potential. This can facilitate technology transfer, enhance local capacity, and foster innovation.

Figure 1.6. Most FDI-SME policies in Czechia target specific populations, domiciliation, sectors, regions, or value chains



Note: Panel A: Shares of generic and targeted policies as a percentage of the total 64 policies mapped. Panel B: Shares of policies by target type, as percentage of total targeted initiatives (55). As policies can be directed at more than one type of target, the sum is above 100%. Panel C: Shares of policies by type of population targeted, as percentage of total population-targeted policies (44). SMEs-targeted policies include initiatives applying to SMEs only or providing preferential conditions to them. Other non-corporate entities include investors (business angels, venture capitalists or VC funds, banks, financing institutions, etc.); universities; research organisations; entrepreneurs; individuals with specific roles or skillsets (e.g. managers, highly-skilled, researchers); government institutions and sub-national governments (e.g. municipalities); and others. Panel D: Shares of policies by type of domiciliation targeted, as percentage of total domiciliation-targeted policies (30). It demonstrates distribution of policies specifically targeting domestic or foreign firms.
Source: EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Recent legislative efforts have aimed at enhancing the business climate, emphasising the simplification of regulations and reduction of regulatory complexity. Czechia maintains a relatively open economy compared with other OECD countries and this market openness may facilitate the attraction of productivity-enhancing FDI, fostering an environment that is generally welcoming and non-discriminatory toward foreign investors. However, labour market regulations remain an area for improvement, and there are concerns about administrative burdens on start-ups, barriers to competition and regulations surrounding the interaction between policymakers and interest groups. For example, transparency in legislative

processes could be enhanced, and concerns persist regarding bureaucratic hurdles, lengthy administrative procedures, and frequent changes to laws and programme rules.

Czechia offers a diverse range of investment incentives, from tax allowances to direct grants, designed to entice both domestic and foreign investors across various sectors, including technology, manufacturing, the production of strategic products, and business support services. The set of instruments used is more diversified than in some peer countries. Czechia's policy framework includes the differentiation of incentives based on the scale of investment, targeted sectors, and regional needs, addressing the varied demands of investment projects and regional economic conditions. For example, CzechInvest's investment incentives for manufacturing or for technology centres include corporate income tax (CIT) relief for up to 10 years, job creation grants as well as training and retraining grants, conditioned to a minimum investment size, certain level of added value, and an exclusive availability in districts with an unemployment rate of at least 7.5%. However, in current economic situation with extremely low unemployment rate these cash grants are almost unobtainable and their conditions should be revised. The investment incentives for the production of strategic products is similar with a cash grant of up to 20% of eligible costs conditional to a minimum investment size.

There is room to strengthen public support to business R&D which is currently below the OECD and EU average. The Czech government supports business R&D through comprehensive legislative strategies such as the Innovation Strategy of the Czech Republic 2019–2030, which was endorsed by the government in February 2019. The largest share of public support to business R&D takes the form of grants or loans for R&D and innovation or internationalisation activities; business consulting and training services; or technology acquisition and digitalisation. Czechia has made progress in diversifying its traditional investments in engineering into new fields of R&D and innovative technologies. According to the Czech Statistical Office, in 2022, R&D spending rose by 9.3% year-on-year to a record CZK 133.3 billion mainly due to R&D investment by businesses. However, despite the significant potential of some domestic research organisations and infrastructures, the overall quality and performance of public R&D still has room for improvement.

Several Czech policies and programmes adopt a place-based approach, especially in the support provided to business enterprises in the fields of R&D and innovation. This is the case for investment incentives available to domestic and foreign investors, and certain SME R&D and innovation programmes supported by the EU Structural and Investment Funds (ESIF). However, most FDI-SME policies are applied equally across all Czech regions, with few targeting specific regions for preferential treatment. Direct innovation support, such as grants, in Czechia is generally provided from the national level and it is mostly funded from the ESIF and a few national programmes, while indirect support in the form of advisory services (mentroing and coaching, match-making services) is provided regionally through regional innovation centres. There could be more emphasis on innovation and technology diffusion around regional development policies, with a deeper involvement of subnational offices of the main implementing agencies, conditional on the allocation of the additional resources of these subnational offices, and regional innovation agencies. Strengthening the linkages between regional development action plans and the needs of local FDI-SME ecosystems is crucial and could be done, for example, by enchancing mechanism through which regional development agencies interact with business associations and industry representatives at the local level.

The establishment and development of cluster organisations has been actively supported by several institutions, including the MIT, CzechInvest, and the National Cluster Association (NCA). MIT plays a significant role in supporting the expansion of Czech companies abroad and the development of clusters through the Association of Small and Medium-Sized Enterprises and Crafts of the Czech Republic (AMSP CR). CzechInvest facilitates FDI and local start-ups, implements business development programmes, and in cooperation with MIT provides support to clusters and industrial parks. The NCA brings together entities

and individuals with the goal of coordinated and sustainable development of industry-specific cluster initiatives.

The impact of FDI-SME spillovers resulting from labour mobility hinges on the effectiveness of labour market regulations. The labour market policy in Czechia has focused on removing domestic barriers to labour market participation and addressing labour and skill shortages. According to the 2023 EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages, regulatory measures are the only type of policy instrument deployed to facilitate the mobility of skilled workers from foreign affiliates of MNEs to local SMEs. These measures intend to simplify visa application procedures for hiring skilled foreign workers in sectors of strategic importance. Even though regulatory measures are important to set rules and standards, a multi-faceted approach that includes technical assistance, information and facilitation services, financial support schemes, and a strong governance framework can provide a more comprehensive and effective solution to improve labour mobility.

Labour mobility also relies on the presence of policies and programmes that promote the transition of employees from foreign MNEs to local companies. Enhancing collaboration between domestic SMEs and affiliates of foreign MNEs operating locally is a priority objective for Czechia, which mainly does so by supporting value chain linkages and strategic partnerships. There are also multiple policies aimed at bridging the skills gap to strengthen FDI-SME linkages such as educational initiatives, incubation programmes, international exposure, and investment incentives. Despite existing policies targeting the upskilling of the SME population, further support for the diffusion of emerging technologies could be beneficial for SME as well as for MNEs. More industry-specific training programmes, particularly for sectors crucial to the Czech economy, could be also developed.

Box 1.2. Recommendations on the policy mix

- **Increase the focus on attracting FDI in high-technology and knowledge-intensive sectors,** particularly by shifting investment incentives towards grants and tax relief measures that support productivity growth and involve science-to-business collaboration.
- **Simplify administrative processes for technology-intensive investments,** especially those in collaboration with Czech R&D institutions, to make Czechia more attractive for these investments.
- **Enhance the capabilities of SMEs to absorb new technologies** and innovations by expanding access to technical assistance, capacity-building, and innovation funding schemes.
- **Reduce administrative burden for SMEs.** Transparency in legislative processes could be enhanced and efforts could be made to minimise bureaucratic hurdles, lengthy administrative procedures, and frequent changes to laws and programme rules.
- **Encourage partnerships between academia, research institutions, and industry** to foster innovation and technology transfer, by advocating for a more flexible interpretation of the EU State Aid Framework for R&D & Innovation on the use of R&D infrastructures by business enterprises.
- **Strengthen the integration and coordination between various policy measures,** reducing administrative fragmentation and ensuring harmonisation across different sectors and regions.
- **Address labour market rigidity and enhance skills development** to provide SMEs with access to a skilled workforce, essential for maximising the benefits of FDI. Provide technical assistance and information & facilitation services to businesses and foreign specialists. These services can provide necessary training and skills development, helping workers adapt to new job markets and technologies.

- **Support the development of industrial clusters through multi-year sectoral action plans i**nvolving both public and private sector interventions, aimed at addressing growth bottlenecks.
- **Pursue a smart specialisation strategy** by focusing on sectors where Czechia has or can develop a competitive edge, aligning FDI attraction with national and regional strengths.
- **Cluster and expand initiatives like Sectoral Database of Suppliers, Czech Business Partner Search, and the Exporter's Directory into one functional program with proper funding** and **insure the sufficient cooperation and coordination among the institutions involved** to promote supplier linkages and partnerships between foreign MNEs and Czech SMEs, particularly in knowledge-intensive value chains.
- **Improve SMEs' access to finance and technical support,** especially for start-ups and smaller firms, by simplifying access to existing financial support schemes and enhancing the technical assistance offered to SMEs.
- **Implement a more balanced regional development approach by initiating and sustaining a multi-level dialogue between national authorities and regional stakeholders** to identify and target the types of FDI that align with regional development goals to reduce disparities by promoting FDI in less developed regions, fostering equitable growth across all regions. Ensure policies for attracting knowledge-intensive investment and upgrading SMEs are integrated into regional and local development strategies, promoting a place-based approach to investment and innovation.

1.5. Applying a regional lens: Ústí nad Labem and South Moravia

A regional approach can help strengthen FDI and SME linkages in Czechia by taking into account the country's diverse economic and social landscapes. On the one hand, tailoring FDI attraction strategies to regional specificities can enhance the innovation and growth potential of local SMEs, primarily by creating environments that promote knowledge spillovers and technology transfer. On the other hand, strengthening the right regional conditions can also help leverage SME growth through foreign investments and support higher value-added activities, strengthening the regional business ecosystem and leading to the internationalisation of local economies.

The Ústí nad Labem and South Moravia regions have distinct geographic, economic and demographic features that are relevant to attract innovative FDI and SMEs. Ústí nad Labem is in the midst of an economic transition, aiming to diversify and modernise its traditionally industrial sectors, notably mining and manufacturing. In contrast, South Moravia stands out for its vibrant innovation ecosystem, IT, and services sectors and the presence of advanced research institutions and universities in Brno.

Both regions can benefit from better digital and transport infrastructure to help capitalise their geographical location to attract FDI with strong spillover potential.

- Improved internet fibre rollout is warranted given that the penetration rate of fiber optic in Czechia (7.6%) is almost half of the OECD average (13.2%) (OECD, 2023[2]). Expanding this infrastructure is vital to firms in accessing digital business tools needed to remain competitive in today's economy. Beyond improving infrastructure, improved digital literacy can support SMEs to transition to more innovative industries, and the public administration to simplify administrative procedures for international investments.
- Greater investments in cross-border programmes can better connect internal markets with large bordering European markets (Austria, Germany, Poland, Slovak Republic), offering trade opportunities and new connections for the local economies.

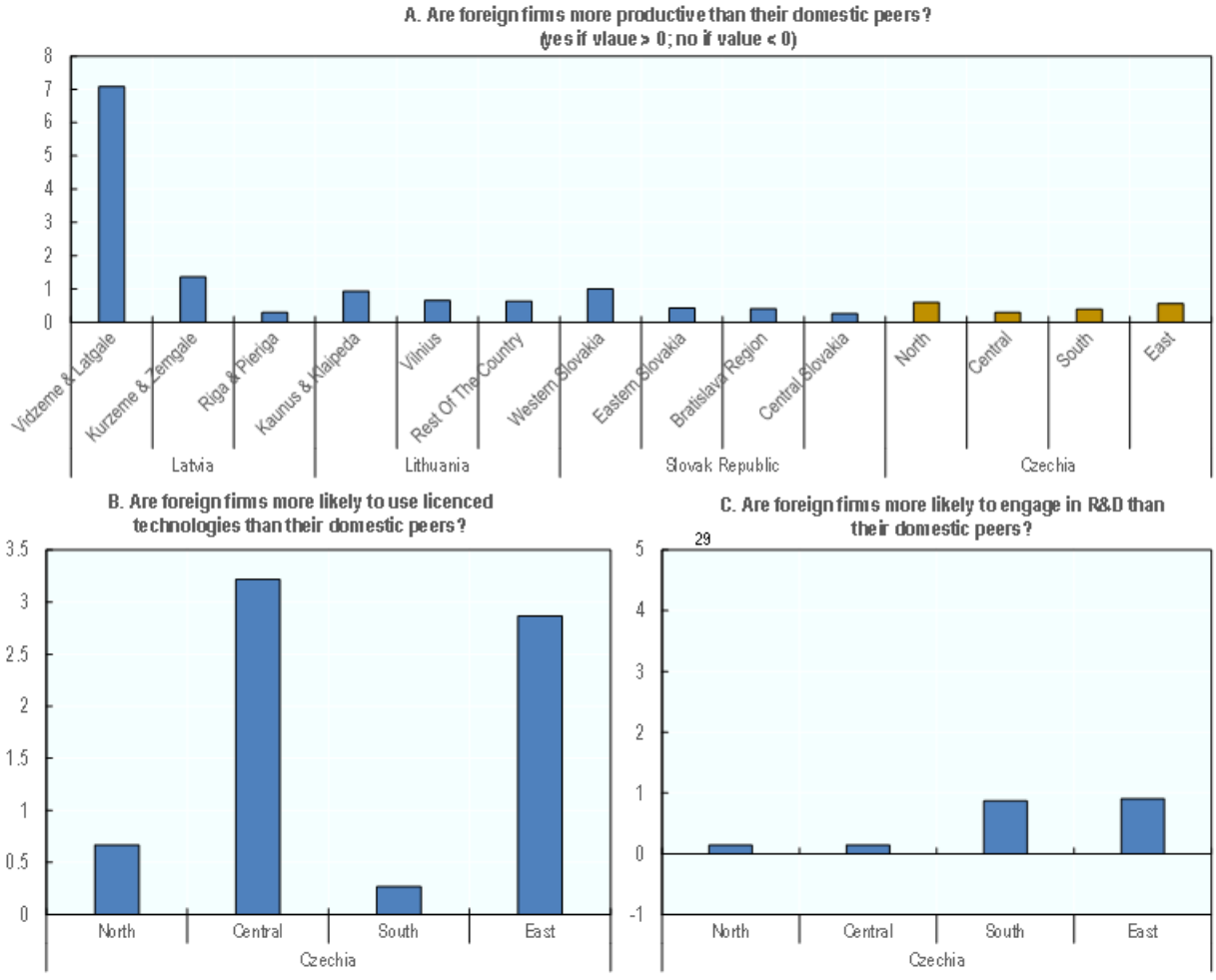
There is scope to improve cooperation across municipalities within regions to enhance public service delivery and coordinate development strategies to increase attractiveness for FDI and international workers. Czechia records the highest degree of municipal fragmentation across OECD (average area of a Czech municipality is 13 km², significantly smaller than the OECD average of 234 km). This municipal fragmentation has led to siloed investments in public services resulting in a lack of economies of scale and scope, for example in technical and administrative capacities.

There is also an untapped opportunity to better link local businesses with foreign companies, thereby promoting knowledge and technology spillovers. The productivity gap between foreign companies and local firms in these two regions is relatively higher than the rest of the country, yet it remains lower than that observed in several OECD countries, such as Latvia, Lithuania, and the Slovak Republic (Figure 1.7). For example, the 'North' region, which includes Ústí nad Labem, demonstrates a foreign firm productivity premium of about 0.595 – indicating a larger gap between the productivity of foreign versus domestic firms – while the 'South' region, containing South Moravia, has a premium of around 0.394. These figures imply that foreign firms are making a positive contribution to productivity in these areas and could represent an opportunity for local businesses to learn and adopt new technologies and practices. However, realizing this potential requires a supportive policy environment that encourages collaboration and technology transfer between firms. Establishing local 'one-stop shops' could streamline administrative processes, providing easier access to regional, national, and European support programmes, and extending comprehensive support to SMEs that goes beyond financing. Such measures would enhance their capacity to innovate, scale-up, and ultimately increase their productivity.

In Ustí nad Labem there is scope to better map and brand regional economic characteristics to align local strengths with the needs of international companies. While the region is diversifying from its industrial legacy towards higher value-added industries, it struggles to be perceived as an attractive destination for highly skilled workers due to its historic mining and migration legacy. Thus, a regional branding strategy can leverage the competitive advantages of the region, including the lower cost of living, access to a large set of brownfields (around 4,000 only in Usti), and proximity to the German market amongst others. Furthermore, in Ústí nad Labem, the polycentric settlement patterns require additional efforts to promote cooperation across development plans and strategies of the different cities to attract and link FDI with local business. A platform for city cooperation could help the region improve its attractiveness by achieving better public service delivery and reaching a common vision for local development, including FDI attraction and local SME ecosystem development (see Box 1.3).

In the case of South Moravia, the region could further mobilise its innovation-led business ecosystem to promote inclusive development beyond Brno. While South Moravia's focus on attracting FDI in high value-added activities is well-supported by its infrastructure and educational framework, greater collaboration is needed between academia, public and private sectors to further diffuse foreign know-how and technology into the local economy. The collaboration on R&D projects, particularly in burgeoning fields such as advanced manufacturing or biotechnology, is vital for fostering innovation. In South Moravia, for instance, the synergy between the biotech research at Masaryk University and local SMEs has already yielded positive results (Masaryk University, 2024[3]). Engaging companies in educational initiatives, such as structured internships, joint research programmes, and innovation workshops, allows for the direct application of academic research to industry challenges. For instance, in Ústí nad Labem, the Unipetrol Centre for Research and Education (UniCRE) collaborates deeply with academic institutions, including the University of Jan Evangelista Purkyně. Their focus areas include research activities supporting the chemical industry, with goals like integrating into European research structures and promoting science and development (Unicre, 2022[4]).

Figure 1.7. Labour productivity and innovation performance of foreign firms by region in Czechia and selected peer economies, 2022



Note: North region is a proxy for Usti nad Labem and South for South Moravia.
Source: Czech Statistical Office (2020[5]) https://www.czso.cz/csu/czso/home

Box 1.3. Policy recommendations to improve FDI-SMEs linkages in the regions of Ústí nad Labem and South Moravia

- **Establish a collaborative platform for regional development in Ústí nad Labem**, fostering a joint vision to attract FDI and integrate it effectively with the local economy. This initiative could be spearheaded by the regional office and encourage synergistic policy and resource alignment, enhancing coordination among the region's three Functional Urban Areas to foster a larger, integrated economic and social ecosystem.
- **Improve regional branding to better promote the competitive advantage of the regions** for international firms and workers. It involves investing in regional branding initiatives that accurately reflect the unique regional advantages (e.g., lower living cost compared to the capital city, environmental amenities among others) and promote available job and career opportunities to attract talent.

- **Enable regional governments and municipalities to lead redevelopment initiatives for brownfields**, transforming them into hubs of innovation and entrepreneurship. This is of special relevance for Ústi nad Labem due to its high stock of brownfields (over 4 thousand). For this, the national government and the regions should build on the National Brownfield Regeneration Strategy and assist coordination between municipalities and investors to facilitate new business developments.
- **Leverage the strategic position of border regions in Czechia.** It could be done by developing cross border programs with neighbouring countries (Germany, Austria and Slovak Republic) to i) benefit SMEs by facilitating easier access to cross-border supply chains, expanding customer bases, and fostering collaborative opportunities with foreign partners and to ii) develop programs for academic partnerships across educational institutions.
- **Facilitate business services beyond financing to provide comprehensive support for local SMEs and investors.** It can be done through a regional 'one-stop shop' for business support to provide administrative guidance and information about innovation opportunities, connect firms and university projects or EU funds and regional programmes.
- **Better link universities and research centers with business to strengthening the regional innovation ecosystems.** This should involve setting up contact points or joint forums to align business needs with the research agendas of local academic institutions, such as the University of Jan Evangelista in Ústí nad Labem and the Brno Technological Park.
- **Promote inter-municipal cooperation on public service delivery to enhance regional attractiveness for FDI.** Such collaboration could lead to better healthcare, education, and infrastructure development, as well as streamlined administrative processes, creating a more welcoming environment for both local and international enterprises and talent.

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Annex 1.A. FDI spillovers on SMEs: conceptual framework

FDI is an important source of finance for developed and developing countries and can play an important role in supporting a resilient and sustainable recovery from the COVID-19 crisis. Harnessing FDI for sustainable development, and particularly productivity and innovation, requires strong linkages with small and medium-sized enterprises (SMEs) in host countries. Foreign multinational enterprises (MNEs) do not just choose countries but locations in specific sub-national regions, and hence, FDI-SME linkages need to be considered and strengthened through place-based approaches.

SMEs contribute significantly to economic growth and social inclusion, and they can also play a key role in building resilience and more sustainable growth during the post COVID-19 recovery. In the OECD area, SMEs account for almost all enterprises, about two-thirds of total employment and 50-60% of value added (OECD, 2021[6]). To achieve their full potential, SMEs need to increase productivity and scale up innovation capacity. They are often less productive and innovative than larger firms where size is often identified as a major barrier to higher performance. Yet, some SMEs can be more productive and innovative than large firms, signalling that size is no fatality. In digital-intensive sectors, for example, smaller firms can show higher productivity levels (OECD, 2019[7]). SMEs play a key role in shifting innovation models by adapting supply to different contexts or user needs and responding to new or niche demand (OECD, 2018[8]).

Changes in the global trading and investment environment offer new opportunities for SME upgrading. Participation in global value chains (GVCs) enables SMEs to enhance productivity by absorbing technology and knowledge spillovers, upgrading workforce and managerial skills and raising innovation capacity (OECD, 2018[8]). This can be achieved by linking their business activities with foreign affiliates of MNEs (and domestic owned companies) and/or by directly integrating in GVCs as exporters, i.e. by supplying companies located abroad.

In this context, beyond the contribution to capital investment and employment generation, FDI can play an important role for knowledge and technology spillovers in host economies, resulting in increased productivity of local firms, especially SMEs. While productivity and innovation capacity of SMEs are influenced by a variety of market, policy and other factors (OECD, 2019[7]; OECD, 2021[6]), this report focuses on the specific role of FDI and related policies in Czechia. This introductory chapter introduces the conceptual framework to assess FDI spillovers on domestic SMEs and outlines how this framework is implemented for the case of the Czechia (OECD, 2020[9]).

The conceptual framework to assess FDI spillovers on domestic SMEs

Spillovers from FDI on domestic SMEs depend on a set of main enabling factors:

- **Potential for FDI spillovers:** FDI spillovers are possible as foreign firms are often more productive than domestic ones. Foreign MNEs are often larger than domestic firms, where size is found to be associated with higher productivity and a key determinant to overcome fixed costs for investment abroad (Helpman, Melitz and Yeaple, 2004[10]). Affiliates of foreign firms – through their links with parent companies – have typically greater access to technology, better managerial skills and more adequate resources for capital investment than domestic firms (Alfaro and Chen, 2012[11]). These capacity differences between foreign and domestic firms make it possible for SMEs to benefit from knowledge and technology transfers. The potential for FDI spillovers is further influenced by the volume of FDI inflows (i.e. the economy's relative dependence on FDI) and a number of FDI characteristics that illustrate to what extent FDI is effectively embedded in the local economy. These characteristics include (a) the sector in which the investment occurs and the activities that the foreign company undertakes, (b) the main motivations behind the FDI decision (e.g. market-

seeking, resource-seeking, asset-seeking, efficiency-seeking), (c) the type of FDI (e.g. greenfield versus mergers and acquisitions), (d) the country of origin of the foreign investor, including the geographical and cultural proximity to the receiving country and the degree of foreign ownership.[1]

- **Absorptive capacities of domestic SMEs:** Absorptive capacity refers to the ability of a firm to recognise valuable new knowledge and integrate it productively in its processes, i.e. to innovate (OECD, 2021[6]; 2019[7]). The stronger its absorptive and innovative capacity, the higher its chances to benefit from FDI. SME absorptive capacity depends on the firm's prior capital endowment and level of productivity, i.e. its level of financial, human and knowledge-based capital and its efficiency in creating value from it. Beyond existing endowments of these resources, absorptive capacity also depends on SMEs' ability to access strategic assets related to finance, skills and innovation as well as on the broader business environment. Not all SMEs are the same and their heterogeneity greatly contributes to explain their performance. SMEs vary in terms of age, size, business model, market orientation, sector and geographical area of operation. This means that different types of SMEs have different growth trajectories and therefore different chances to enter into knowledge sharing relationships with foreign multinational enterprises (MNEs) and to benefit from FDI spillovers.
- **Economic geography factors:** This refers to geographical and cultural proximity factors, where the latter is defined by factors such as the differences between home and host countries in terms of language, culture, political systems, level of education, and level of industrial development (Johanson and Vahlne, 1977[12]). The localised nature of FDI means that geographical and cultural proximity between foreign and domestic firms affects the likelihood of knowledge spillovers, which often involve tacit knowledge, and whose strength decays with distance. Thus, productivity spillovers from FDI on local firms are often concentrated in the same region of the investment. Agglomeration effects, notably through the presence of local industrial clusters, have also been reported to affect FDI attraction and FDI spillovers. Clusters embed characteristics such as industrial specialisation (through specialised skilled workers and suppliers) and geographical proximity that make knowledge spillovers more likely to happen, including from MNE operations.
- **Other economic and structural characteristics of the host country:** The degree to which FDI-SME spillovers materialise also depends on other economic and structural characteristics of the host country and its sub-national regions. These factors relate to the regional/national endowment as well as the macro-economic context, structure of the economy, sectoral drivers of growth, productivity and innovation as well as to the level of integration in the global economy, beyond FDI. These factors are often necessary conditions for FDI spillover potential, SME absorptive capacity and economic geography factors to turn into actual productivity gains for domestic SMEs.

While adequate enabling conditions are necessary, FDI spillovers only occur if domestic SMEs are exposed to MNE activities. Such exposure may occur through a set of diffusion channels:

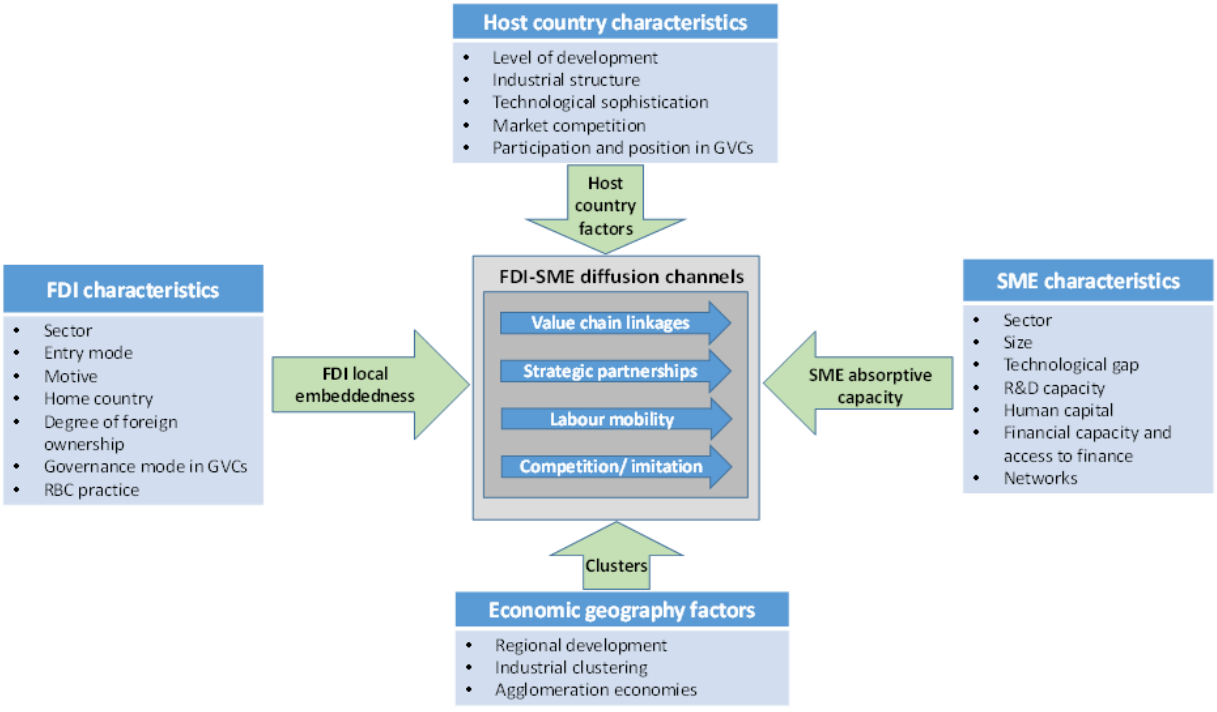
- **Value chain linkages** involve knowledge spillover from foreign MNEs to suppliers (upstream) and customers (downstream). Linkages help domestic companies extend their market for selling and raise the quality and competitiveness of their outputs. They can also generate knowledge spillovers when MNEs require better-quality inputs from local suppliers, particularly SMEs, and are therefore willing to share knowledge and technology with domestic companies to encourage their adoption of better practices.
- **Strategic partnerships** involve knowledge and capacity transfer in formal collaborations, for example in the area of R&D or workforce/managerial skills upgrading. These partnerships can take many forms, including joint ventures, licensing agreements, research collaborations, globalised business networks (i.e. membership-based business organisations, trade associations, stakeholder networks), and R&D and technology alliances.
- **Labour mobility** can be an important source of knowledge spillovers in the context of FDI, notably through the move of MNE workers to local SMEs – either through temporary arrangements such

as detachments or long-term arrangements such as open-ended contracts – or through the creation of start-ups (i.e. corporate spin-offs) by (former) MNE workers. Firms established by MNE managers are often more productive than other local firms. Similarly, workers who moved from foreign-owned to domestic firms retain skills and competences, including management skills, acquired in the foreign firms and thus contribute more to the productivity of their firm than workers without foreign firm experience.

- **Competition effects** occur with the entry of foreign firms, which heightens the level of competition on domestic companies and puts pressure on them to become more innovative and productive – not least to retain skilled workers. The new standards set by foreign firms – in terms of product design, quality control or speed of delivery – can stimulate technical change, the introduction of new products, and the adoption of new management practices in local companies, all of which are possible sources of productivity growth. This rising competitive pressure due to foreign firm entry and related productivity spillovers may also be associated with new incentives for workers to improve skills and SMEs to engage in skills upgrading.
- **Imitation effects** occur when foreign firms can also become a source of emulation for local companies, for example by showing better management practices. Imitation, reverse engineering and tacit learning can therefore become a channel to strengthen enterprise productivity at the local level. Foreign firms may also participate in innovation clusters and collaborative innovation activities where cross-fertilisation of ideas can increase productivity, both of domestic and foreign firms.

The scope for productivity and innovation spillovers on domestic SMEs is ultimately determined by the interaction of enabling factors and diffusion channels. Public policies aiming to enhance these spillovers address these different aspects and cut across a range of policy domains, including investment policy and promotion, SME development, innovation and regional development.

Figure 1.8. Understanding FDI spillovers on domestic SMEs: conceptual framework



Source: OECD (2023[13]), Policy Toolkit for Strengthening FDI and SME Linkages, https://doi.org/10.1787/688bde9a-en

2 Enabling conditions for FDI and SME linkages

This chapter assesses key enabling conditions for FDI spillovers on SMEs in Czechia. It first examines the economic, structural and geographical characteristics of the Czech economy, and then assesses the spillover potential of foreign direct investment and the capacities of Czech small and medium-sized enterprises to benefit from knowledge and technology transfers. The chapter points to Czechia's strengths, challenges and opportunities in these enabling conditions

2.1. Summary of findings

Benefiting from its strategic geographical location, a strong industrial base, and competitive labour costs, Czechia has achieved robust economic growth, supporting its successful convergence towards OECD and EU average incomes. Despite a strong economic record, Czechia's labour productivity, measured as output per person employed, still lags behind the OECD and EU averages and performed only higher than that of certain Central and Eastern European (CEE) economies, pointing towards potential structural issues that may impede productivity-enhancing capital reallocation. The stalling of labour productivity levels in key segments of the economy, including in the FDI-intensive manufacturing and finance sectors, also raises the question of whether domestic firms are able to benefit from the knowledge and technology that foreign firms bring in these sectors. Despite favourable economic growth over the past two decades, there are also notable disparities in GDP per capita and labour productivity across subnational regions, and these gaps have been widening over time.

Although the economy is predominantly services-oriented, the importance of the manufacturing sector in terms of value added, employment and exports is higher than in neighbouring CEE economies – mainly driven by the automotive sector and other high-technology manufacturing industries. The Czech economy holds a comparative advantage in several low- and high-technology manufactured goods (e.g. fabricated metals, plastics, motor vehicle components), i.e. it exports relatively more these goods than the rest of the world. Similarly, a technological advantage – in terms of number of patents submitted for specific technology fields – is observed in nanotechnologies, pharmaceuticals and environmental management technologies (including for green transportation). Czechia can capitalise on existing advantages in the production and export of these products to further develop key industries by attracting investment and strengthening the capacities of domestic firms, including small and medium-sized enterprises (SMEs).

The country's trade openness, measured in terms of exports as a share of GDP, has improved over the past decade, surpassing many advanced European economies and the OECD average. Holding a downstream position in GVCs, the Czech economy specialises in later stages of production, particularly in assembling processed goods using intermediate inputs from abroad. This may have important implications for FDI and SME linkages since it indicates that MNEs based in Czechia import a large proportion of intermediate inputs, limiting procurement from local suppliers.

Czechia has experienced a significant influx of foreign direct investment (FDI) since the late 1990s. This has been pivotal in integrating the Czech economy into GVCs and bolstering international trade. The COVID-19 pandemic and the geopolitical upheavals following Russia's war of aggression against Ukraine impacted global trade and investment. However, FDI inflows into Czechia remained rather resilient, with only a moderate 7% decline between 2019 and 2020, followed by a robust recovery in subsequent years. Over the past decade, sectoral patterns of FDI have shifted, moving away from traditional manufacturing towards low-technology services. The finance and real estate sectors have seen the largest relative increase in total FDI stock, while the relative contribution of manufacturing, particularly the automotive industry, has declined. Concurrently, non-automotive manufacturing industries have seen an uptick in their share of FDI stocks, indicating the potential development of FDI-SME ecosystems across a broader and more diversified range of industrial sectors with benefits to aggregate growth and productivity.

Although sectors that account for large FDI stocks are on average more productive, they account for a small share of business R&D expenditure. Only 4% of greenfield investments have involved R&D activities, a higher share than neighbouring CEE economies but significantly below leading European innovators. Foreign-owned firms in Czechia are twice as productive as domestic firms, particularly in low-technology services. This productivity gap highlights the potential for FDI spillovers, as foreign firms, often larger and

more export-oriented, possess superior access to finance, skills, and innovation assets. However, in some sectors, such as manufacturing, the productivity differences between foreign and domestic firms are narrower, suggesting a potential parity in operations and opportunities for knowledge exchange within these industries.

Czechia's economy is dominated by low productivity micro firms that make up 96% of the business population, accompanied by limited business dynamism as illustrated by the low enterprise birth and death rates. These micro firms, contribute disproportionately little to value added and turnover relative to their employment share. The notable absence of medium-sized enterprises indicates systemic challenges in scaling up operations and fostering knowledge and technology transfers to smaller businesses, particularly in sectors that are crucial to the domestic economy and have attracted significant FDI levels. Overall, SMEs have an important role in the lower technology manufacturing sector, accounting for 46% of employment and 45% of value added, particularly in the textiles, metals, machinery and equipment sectors.

As in other OECD economies, SMEs in Czechia are lagging behind larger firms in terms of direct and indirect exporting, reflecting their limited internal capabilities to expand operations abroad. SMEs are also less engaged in supplying FDI-intensive sectors (e.g. automotive, electronics and fabricated metals) that could present opportunities for supplier linkages with foreign multinationals. Czech SMEs report facing important barriers to innovate (e.g. high costs, lack of qualified employees, lack of internal finance) but have significantly improved their performance in introducing product, process and organisational innovations and in collaborating with other innovative firms over the past decade. Small and medium-sized firms are, however, responsible for a small share of business R&D expenditures, signalling weak business-science linkages and limited opportunities for SMEs' involvement in inter-firm collaborations in knowledge-intensive activities.

Czech SMEs are on par with SMEs in the EU in terms of digital transformation. Their performance is higher in the use of certain digital technologies, including cloud services, the Internet of Things (IoT), 3-D printing and e-commerce. The digital intensity gap between large and small firms is more pronounced in certain supplier and customer management technologies (e.g. CRM and ERP software), which are often a prerequisite for SMEs to form buyer-supplier linkages with large multinationals and benefit from spillovers in GVCs. While Czechia performs well in terms of basic digital skills and has a relatively high proportion of ICT graduates, 76% of Czech enterprises report difficulties in recruiting ICT specialists. Overall, SMEs prioritise investments in the skills development of their employees and outperform their EU peers in the provision of staff training. Access to finance is, however, constrained, with declining new SME business lending and late payments impacting the supplier relationships of smaller firms. Alternative sources of finance are in limited use by Czech SMEs, posing challenges to their scaling up and to the funding of innovative and riskier ventures.

2.2. Economic, structural and geographical characteristics of the Czech economy

FDI and SME linkages and their potential for productivity and innovation spillovers depend on economic, geographical and structural characteristics of the host country, including the macroeconomic context, the structure and technological sophistication of the domestic economy, the main sectoral drivers of growth and the level of integration in the global economy. These factors matter for MNEs' investment location decisions and affect the capacity of local SMEs to exploit the knowledge transmitted through international production networks.

2.2.1. Czechia has seen robust economic growth over the past decade but has been hit hard by recent crises

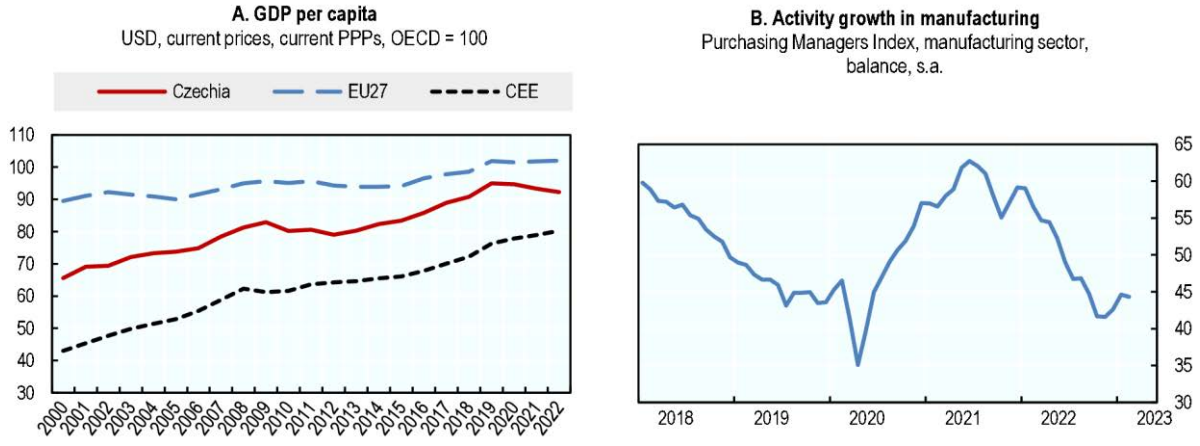
Since the 1990s, Czechia has exhibited a remarkable trajectory of economic growth, aligning itself more closely with the average income levels of OECD and EU economies. Building on its strategic geographical location at the centre of the European market, strong industrial base and low labour costs, the country has attracted significant foreign direct investment, which has been fundamental for the economy's integration into global value chains (GVCs), particularly following its accession to the EU. Czechia's GDP per capita reached 92% of the OECD average in 2022, standing above the average income levels of Central and Eastern European economies (80%) (Figure 2.1, Panel A).

Following the 2008 global financial crisis, EU-financed public investments and private investments were the main drivers of economic growth, particularly in the manufacturing and ICT sectors, supported by rising profits and access to credit, that boosted employment and raised wages (OECD, 2018[1]). The macroeconomic environment, characterised by prudent debt policy and sound fiscal management, contributed to strong business and consumer confidence, further enhancing the country's attractiveness as an investment destination. Despite these positive trends, labour shortages, exacerbated by demographic shifts and record-low unemployment rates, emerged as a significant challenge to sustained economic growth during the past decade.

The global economic landscape shifted dramatically with the onset of the COVID19 pandemic and the subsequent lockdowns that had profound social and economic consequences. The Czech National Bank estimated that the first containment measures affected about 40% of the Czech economy, with sectors like retail trade, transport, accommodation and manufacturing among the hardest hit. Czechia's strong integration into GVCs amplified the economic repercussions of the pandemic as exports of goods and services fell strongly due to the drop in external demand and bans on international movements (OECD, 2020[2]). The automotive industry, a key sector that drove Czechia's industrialisation process in previous decades, was forced to halt production for several weeks due to global supply chain disruptions, impacting many Czech SME suppliers that operate in the automotive and other supporting industrial sectors.

While manufacturing activity gradually returned to pre-crisis levels after the first phase of the pandemic, Russia's war of aggression against Ukraine led to steep increases in energy and commodity prices that further weakened consumer and business sentiment, dampening household consumption and private investment (Figure 2.1, Panel B). Although exports showed some recovery in the latter half of 2022 as supply chain bottlenecks eased, the services industry faced headwinds due to weakened demand and rising input costs. Inflation reached a 30-year high of 18% in September 2022, while the labour market remained tight with an unemployment rate of 2.1% at the end of 2022, the lowest in the OECD. Although Czechia faced additional fiscal pressures due to the costs associated with supporting Ukrainian refugees, their arrival provided a slight relief to the labour market tightness, with a significant portion finding employment in sectors with high labour demand.

Figure 2.1. Czechia's GDP per capita levels and manufacturing activity



Source: OECD Productivity database, https://stats.oecd.org/; and OECD (2023[3]), OECD Economic Surveys: Czech Republic 2023, https://doi.org/10.1787/e392e937-en

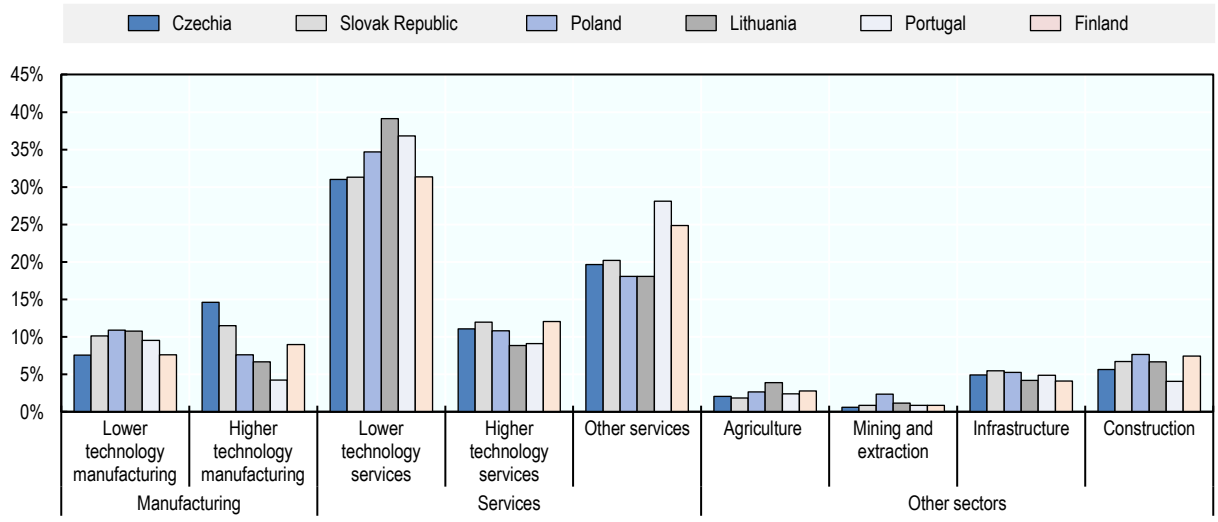
2.2.2. While low technology services dominate the Czech economy, the automotive industry drives the performance of manufacturing

Understanding the technology intensity of economic activity is important to assess the potential FDI and SMEs have to drive productivity and innovation in Czechia. Higher technology manufacturing and services help to differentiate, customise and upgrade products and often drive aggregate productivity and innovation, particularly in advanced economies like Czechia. Figure 2.2 compares the structure of the Czech economy with that of selected EU peers, with industries being grouped in four main categories (lower and higher technology manufacturing and lower and higher technology services) based on their technological intensity. Box 2.1 clarifies the sectoral classification that is used here, as well as in the remainder of this report.

Czechia has a services-oriented economy with the services sector being responsible for 63% of value added. The servicification of the economy is less pronounced than in peer EU economies, which report significantly higher shares, including the Slovak Republic and Poland (65%), Lithuania (67%), Finland (69%) and Portugal (75%) (Figure 2.2). In Czechia, the services sector is largely concentrated in activities with lower technological intensity such as wholesale and retail trade, real estate, transport and other logistics services (31% of total value added), while higher technology services (e.g. IT and other professional and information services) account for 11% of the total. Other services related to public administration, education and health, entertainment and accommodation services account for another 31% of total value added. These services and some other industries (agriculture, mining and extraction, infrastructure, construction) are not classified into the four groupings based on technological intensity since they are either highly specialised and would require a more focused analysis, or their potential for FDI and SME linkages and spillovers is limited.

Figure 2.2. Structure of the Czech economy and selected EU countries

% of total value added by key sectoral groups, 2019*



Note: For a clarification of the sectoral classification based on technology intensity used in this figure, as well as throughout the rest of this report, see Box 2.1.*Data for Czechia and the Slovak Republic are of 2019; for Poland and Finland of 2018; and of Portugal and Lithuania of 2017.
Source: OECD STAN Database for Structural Analysis (ISIC Rev. 4 SNA08) 2020 ed. (accessed 25 August 2023).

The share of manufacturing in total value added is 25% higher than that of all peer EU economies, mainly driven by the higher contribution of high technology industries (Figure 2.2). The motor vehicles industry alone is responsible for 21% of manufacturing value added (and 36% of high-tech manufacturing value added), driving the country's performance in this sectoral group. Other high-tech industries such as machinery and equipment, electrical equipment and repairs and installation of machinery contribute a further 8-9% of total value added each, reflecting a relatively diversified industrial base built around the automotive sector. Overall, when accounting for the contribution of industries and services adjacent to the automotive sector, such as those related to transport equipment, repair of motor vehicles and motorcycles, as well as transportation services, Czechia's broader mobility ecosystem is responsible for one fourth of the economy (23%). Lower technology manufacturing – mainly fabricated metal products; rubber and plastics; and wood and paper products – account for 8% of total value added, a lower share than most comparator countries.

Box 2.1 Classification of economic activities

The conceptual framework described in Chapter 1 explains that FDI's local embeddedness and absorptive capacities of SMEs are key determinants for FDI spillovers on SME productivity and innovation to take place. They depend, among other things, on the economic sectors and activities in which investment takes place and SMEs are operating. Given the focus on productivity and innovation spillovers, the sectoral analysis in this and the following chapters is based on technology- or R&D-intensity. As such, most analysis based on sectors (e.g. regarding economic structure, including of SMEs; GVC integration both through trade and FDI; and FDI-SME diffusion channels) focuses on four main sectoral groupings based on R&D-intensity, which are adapted from Galindo-Rueda and Verger (Galindo-Rueda and Verger, 2016[4]): higher technology manufacturing, lower technology manufacturing, higher technology services and lower technology services. Table 2.1 provides an overview of the industries covered in these groupings. R&D-intensity is measured by the ratio of business R&D expenditure relative to gross value added in each industry covered in a given group. It is important to

note that sectoral classifications may vary across data sources covered in this report. Table 2.2 lists industries based on ISIC Rev. 4 two-digit sectors, which is the classification applied for most of the data used (e.g. OECD and Eurostat data). Commercial datasets like Financial Times' fDi Markets and Refinitiv have their own classification of sectors but for the purpose of this report they were also classified according to the four groupings described above.

The classification has the caveat that R&D-intensity is an imperfect measure of innovation and innovation potential across industries. Not all firms that are successful at developing or implementing innovation are necessarily R&D performers. Many of these firms are successful adopters of technology which they have not developed. Measuring R&D intensity or embedded R&D in their purchases may not effectively characterise the innovative performance of firms or industries. Other OECD indicators measure skill intensity, patenting activities and innovation by industries that facilitate a more refined description of the overall knowledge intensity in different economic activities, although these measures are not always widely available across a majority of OECD countries and partner economies (OECD, 2015[5]). Another caveat of this classification is related to the fact that it is not entire sectors that involve either higher or lower technologies but it is specific activities or segments within these sectors that involve different technology intensities. This caveat needs to be considered for any conclusions made in this report.

Table 2.1 Sectoral grouping based on R&D-intensity

Economic grouping	Industries covered based on ISIC Rev. 4
Lower technology manufacturing	Food products, beverages and tobacco; Textiles, wearing apparel, leather and related products; Wood and products of wood and cork; Paper products and printing; Rubber and plastic products; Other non-metallic mineral products; Basic metals; Fabricated metal products
Higher technology manufacturing	Chemicals and pharmaceutical products; Computer, electronic and optical products; Electrical equipment; Machinery and equipment; Motor vehicles, trailers and semi-trailers; Other transport equipment; Other manufacturing; repair and installation of machinery and equipment
Lower technology services	Wholesale and retail trade; repair of motor vehicles; Transportation and storage; Publishing, audio-visual and broadcasting activities; Financial and insurance activities; Real estate activities
Higher technology services	IT and other information services; Professional, scientific and technical activities; Administrative and support service activities.

Note: A number of industries are not classified into these four groupings as the analysis in this report deliberately avoids focusing on these industries. They include: Mining and extraction (Mining and quarrying; Coke and refined petroleum products); Infrastructure (Electricity, gas, water supply, sewerage, waste and remediation services; Telecommunications); Other services (Accommodation and food services; Public administration and defence; Compulsory social security; Education; Human health and social work; Arts, entertainment, repair of household goods and other service activities). These industries are either highly specialised and would require a more focused analysis, or their role/potential for FDI-SME linkages and spillover is limited.

2.2.3. Czechia has a comparative advantage in low-tech manufacturing and green technologies

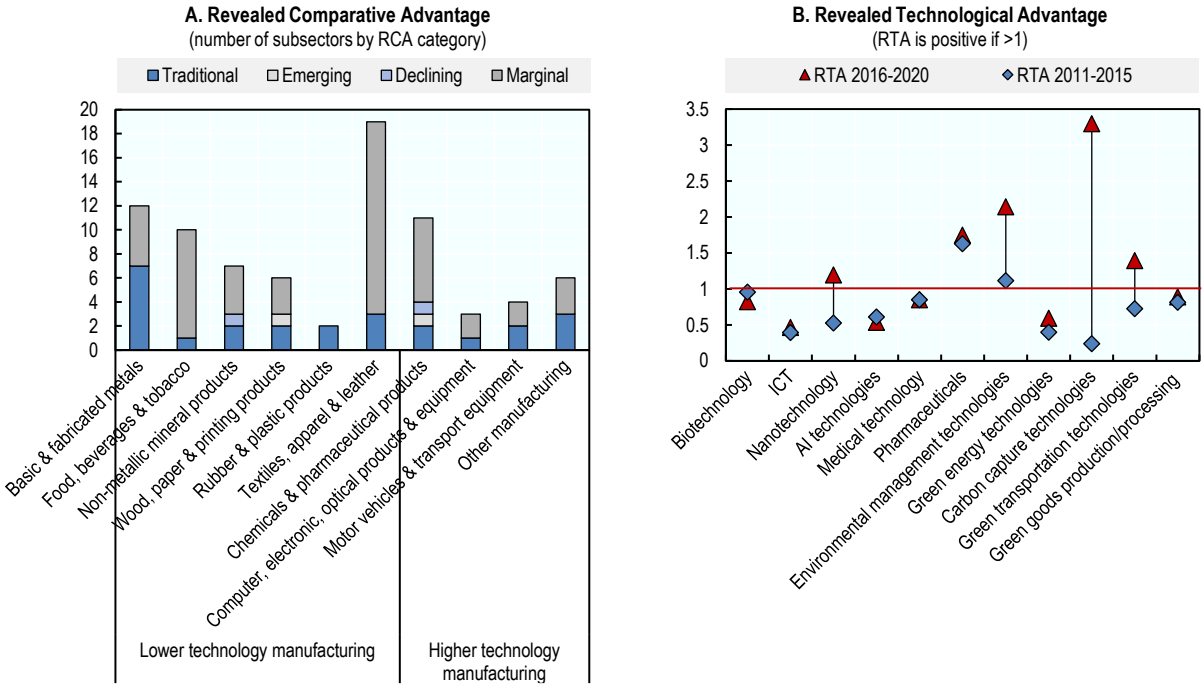
FDI and SME engagement in high value-added activities and sectors with growing markets can support productivity and economic growth. Czechia can capitalise on existing advantages in the production and export of certain products to further develop key industries by attracting investment and strengthening SME supplier capacities. Czechia's production and export basket covers a wide range of manufactured products. Analysing more than 100 manufacturing products over two time periods from 2013-2017 and

2018-2022 allows to distinguish if Czechia has a traditional revealed comparative advantage (RCA) that is persisting over both time periods, whether an RCA is emerging in recent years, or if Czechia has a declining or marginal RCA implying that it lost its RCA in recent years or that it didn't have an RCA in neither of the two periods (see Box 2.2 for information on methodology). RCA is commonly interpreted as a measure of a country's production specialisation and builds on the comparative advantage theory which posits that an economy will export more of a certain product if, other things being equal, it is able to produce it relatively more efficiently than other economies.

Czechia's comparative advantage is observed mostly in low-technology manufacturing, i.e. it exports relatively more in these activities than the rest of the world (Figure 2.3, Panel A). In particular, the country has a traditional comparative advantage in the production and export of basic and fabricated metals (e.g. iron, steel, aluminium and lead products and tools), rubber and plastic products, wood and paper products as well as textiles and apparel. Among high-technology manufacturing sectors, a traditional comparative advantage is observed in the automotive and transport equipment sector (e.g. mostly concerning motor vehicles and railway components), as well as in a few chemical and pharmaceutical products (e.g. soap and pyrotechnic items). Czechia has only a small number of emerging comparative advantages in paper products and in chemicals related to perfurmery and cosmetic use. Based on its current know-how in the production of certain goods, Czechia can further expand and intensify its export portfolio of high technology manufacturing goods to uncover growth opportunities.

Czechia has also developed several technological advantages in recent years, i.e. it produces a relatively higher number of patents in specific technology fields than the rest of the world (Figure 2.3, Panel B). In the period 2016-2020, Czechia held a comparative advantage in nanotechnologies, pharmaceuticals and several environmental management technologies such as those related to carbon capture and green transportation. The increase in patent applications in these sectors certainly strengthens Czechia's position in global technology markets but may also signal the potential for increased R&D investments, collaboration opportunities and an enhanced role in addressing global environmental challenges through innovation. This is particularly relevant for Czechia's automotive industrial ecosystem, which can benefit from emerging innovative solutions in the area of green mobility and accelerate its transition to more sophisticated and R&D-intensive activities (e.g. manufacturing of electric vehicle components).

Figure 2.3. Czechia's comparative advantage in exports and innovation



Note: In Panel A, the RCA of a certain sub-sector is defined as its share of exports on total exports of the country divided by that sub-sector's world export share. In Panel B, the RTA is defined as the share of a technology in a country's overall patents, divided by the global share of this technology in all patents. RCA and RTA values above 1 indicate that the country has a comparative advantage in in certain products or technologies. See methodology in Box 2.2.

Source: OECD calculations based on the ITC Trade Map, https://www.trademap.org/Index.aspx; and the OECD Patent Statistics, https://stats.oecd.org/

Box 2.2. Assessing Czechia's revealed comparative advantage and revealed technological advantage

The revealed comparative advantage (RCA) measures the relative advantage or disadvantage of a country in a given sector, as evidenced by its trade flows. RCA is based on the Ricardian comparative advantage concept and was introduced by Balassa (1965[6]). It is calculated following the approach of Feenstra (2016[7]) and export data from the International Trade Centre (ITC).

Czechia has a RCA in a sector if it exports relatively more in that sector than the rest of the world. Given the high number of sub-sectors, it is useful to classify them into traditional, emerging, declining and marginal:

- **Traditional** subsectors are those in which Czechia has had a RCA in at least three years in both five-year periods used in the analysis: 2013-17 and 2018-22. Traditional sub-sectors are thus those in which Czechia has traditionally had a comparative advantage in exports.
- **Emerging** sub-sectors are those in which Czechia has gained a comparative advantage more recently; that is, Czech producers had a RCA in at least three years in 2018-22, but in less than three years in 2013-17. Consequently, emerging sectors can be considered as potential new growth pools.
- **Declining** sub-sectors are sectors where Czechia has lost comparative advantage in the last decade. These sub-sectors had a comparative advantage in the past, but experienced a RCA in less than three years in 2018-22.

- **Marginal** sub-sectors are those that did not have a RCA in at least three years in both periods. These sectors may therefore be further away from gaining a competitive advantage in Czechia.

The Revealed Technological Advantage (RTA) is the RCA's equivalent in the innovation realm, i.e. it provides an index to measure the relative specialisation of a country in a technology and is based on patent applications. The index is equal to zero when the country holds no patent in a given sector; is equal to 1 when the country's share in the sector equals its share in all fields (no specialisation); and above 1 when a positive specialisation is observed. It is calculated with data from the OECD Patent Statistics database.

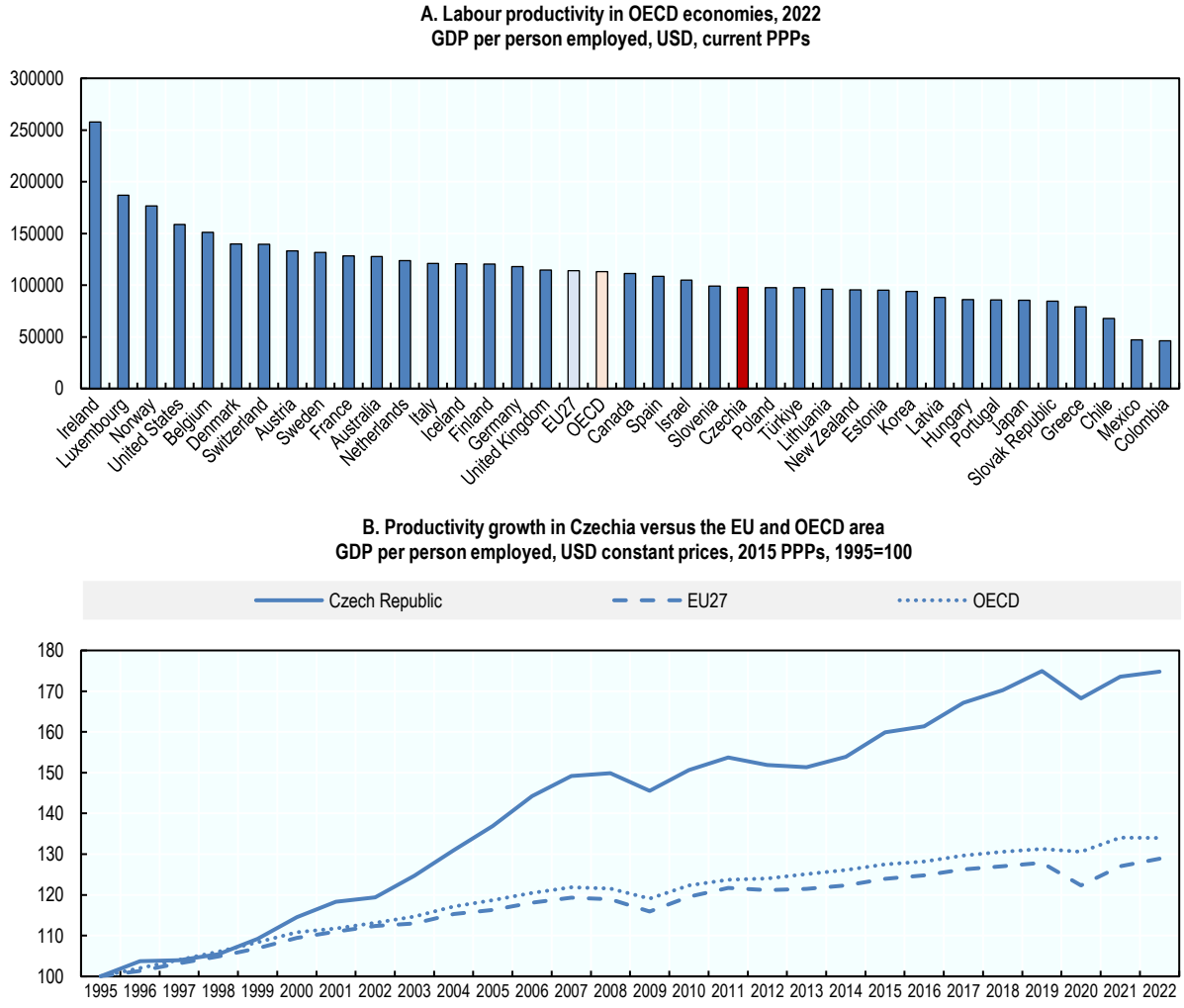
2.2.4. Labour productivity has improved, but still lags behind the OECD average

In 2022, Czechia's labour productivity, measured as output per person employed, lagged behind the OECD and EU averages and performed only higher than that of certain CEE economies such as Poland, Hungary and the Slovak Republic (Figure 2.4, Panel A). Czechia experienced robust productivity growth during the 1990s and early 2000s that contributed to a convergence in incomes and living standards (OECD, 2020[2]). The country's geographical location and its openness to trade and FDI, coupled with the accession to the EU and integration into the single market played a key role in lifting productivity and wages. The aftermath of the 2008 global financial crisis saw a substantial slowdown in productivity growth, with trends remaining persistently below pre-crisis levels since then. While Czechia's productivity growth has consistently remained higher than most OECD and EU economies (Figure 2.4, Panel B), productivity grew by an average of 1.2% annually between 2008 and 2022, a significantly lower rate compared to the 7% peaks reached during the early 2000s.

The COVID19 pandemic and Russia's war of aggression against Ukraine further exacerbated these trends, with Czechia's labour productivity remaining stagnant to its pre-crisis 2019 levels (Figure 2.4, Panel B). The escalating cost of energy and raw materials, coupled with increased economic and geopolitical uncertainty have caused major disruptions and potentially impeded investments in productivity-enhancing activities. This was the case especially in energy-intensive industries like those involving metals, chemicals and automotive manufacturing which account for a large share of gross value added and whose production had to be reduced due to shortages in materials and equipment (European Commission, 2022[8]).

When examining sectoral trends over time, Czechia's productivity challenge precedes the recent crises (Figure 2.5). During the period 2013-2018, labour productivity lagged behind that of peer economies in professional and scientific services, finance and energy. In contrast, it performed relatively better in the manufacturing and ICT sectors, potentially indicating the economy's relative specialisation and competitive advantage in technology-intensive manufacturing activities. The stalling of productivity levels in manufacturing and finance that receive significant FDI flows (see section on FDI spillover potential), raise the question of whether domestic firms are able to benefit from the positive spillovers of foreign firms. Similarly, with the exception of the ICT sector, labour productivity appears to be stagnated in professional and scientific services and follow a rather downward trend in the energy sector.

Figure 2.4. Labour productivity in Czechia versus OECD and EU economies, 2022

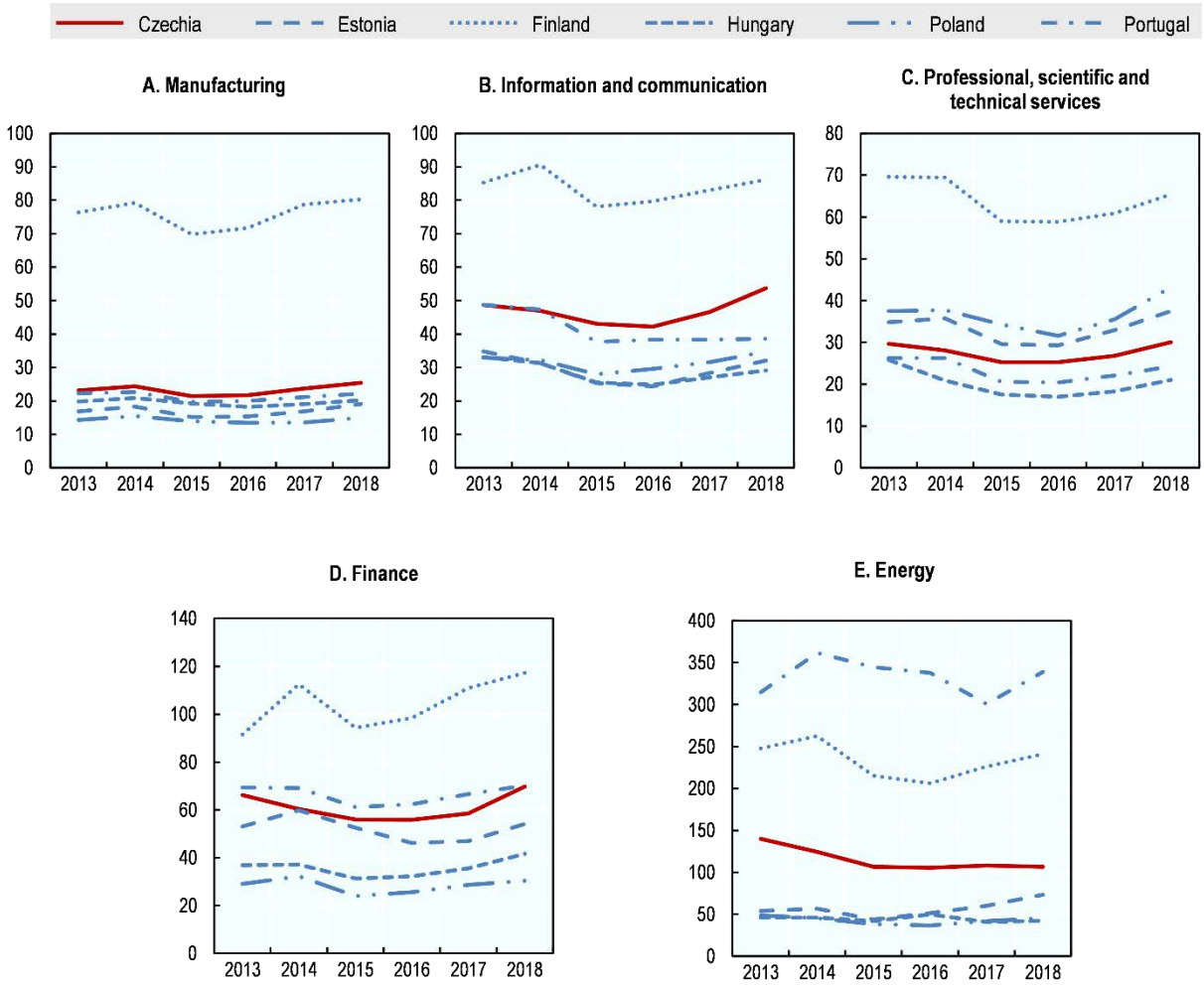


Source: OECD (2023[9]), Productivity Database, https://stats.oecd.org/

While cyclical developments are certainly at play, stalling productivity growth across various sectors points towards potential structural issues. As presented in Chapter 5, administrative and regulatory burdens are higher than the EU average, making processes like setting up a company and obtaining business permits lengthy and cumbersome. The European Commission's 2023 in-depth review of Czechia has also identified the high cost and complexity of resolving insolvencies as a key barrier to spurring productivity-enhancing capital reallocation (European Commission, 2023[10]). A conducive insolvency regime that eases the exit of inefficient firms can strengthen the competitiveness of the economy and allow new innovative firms to bring technologies to the market. Strengthening the education and training systems to better align with market needs, particularly in areas like green and digital technologies, can also help address existing labour shortages and skill mismatches that constrain Czechia's productive capacity. In 2022, labour shortages were reported as a factor constraining production in industry for 23.6% of Czech firms and in construction for 46.6% of firms (ELA, 2023[11]).

Figure 2.5. Labour productivity by sector in Czechia and selected EU economies, 2013-2018

Value added per hour worked by activity



Source: OECD (2020[12]), Annual National Accounts, https://stats.oecd.org/

2.2.5. More than half of total exports are in high-tech manufacturing, especially motor vehicles

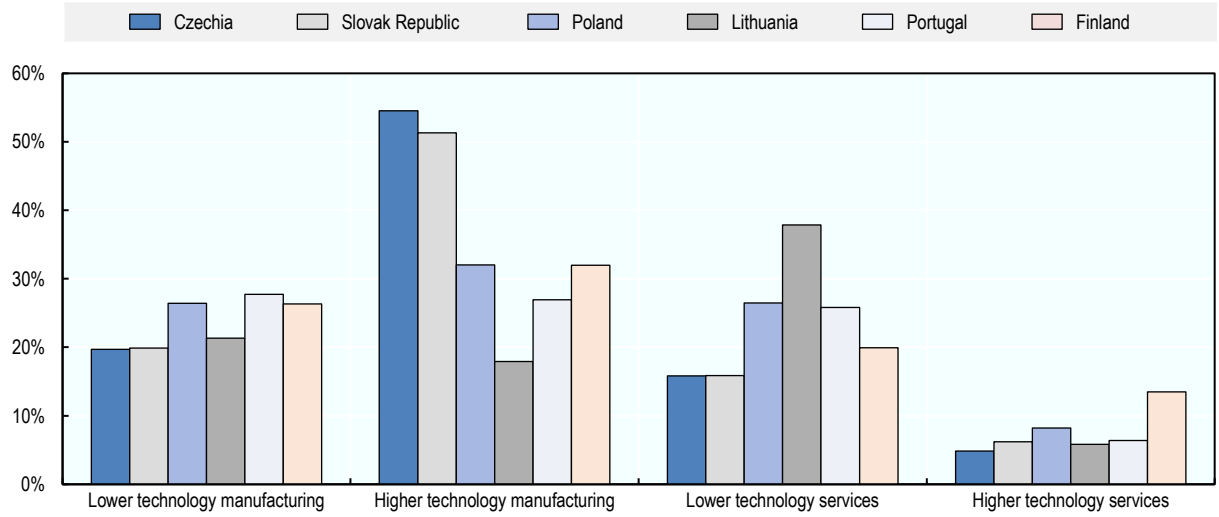
Engaging in international trade has been a key aspect of Czechia's economic policy as illustrated by the country's export performance. Trade openness creates an environment conducive to knowledge transfer, innovation and business growth, all of which are beneficial for realising the full potential of FDI spillovers. Czech exports in relation to GDP have increased steadily over the last decade and stood at 76% in 2022, well above the EU and OECD averages in the same year (56% and 33% respectively) and higher than many advanced European economies (OECD, 2024[13]). Czech exports are, however, below the level of peer CEE economies like Lithuania (86%), Hungary (91%), Slovenia (94%), and the Slovak Republic (99%), indicating that there may be untapped potential for Czech firms to further integrate into international trade as direct or indirect exporters in line with neighbouring economies.

Exports are concentrated primarily in high-technology manufacturing, which accounted for 55% of total gross exports in 2020 – a similar share as the Slovak Republic (51%) but significantly higher than Poland

(32%), Lithuania (18%), Portugal (27%) and Finland (32%) (Figure 2.6). Automotive manufacturing alone is responsible for over one quarter (27%) of total exports, while the share of the broader automotive ecosystem further increases to 34% of total exports when considering the manufacturing of other transport equipment as well as services related to the repair of motor vehicles and motorcycles. Other high-technology products exhibit lower export intensity, yet still higher on average than peer EU economies including in computer and electronic products; machinery and equipment; electrical equipment; and chemical and pharmaceutical products. The export dynamism that these sectors exhibit relative to Czechia's peers highlights the potential for diversification beyond traditional processing and assembly. Some of these high-tech sectors could also support the upgrading of the Czech automotive ecosystem towards higher value added and knowledge-intensive activities including in areas related to e-mobility as well as electric, connected and autonomous vehicles.

Figure 2.6. Structure of Czech exports versus selected OECD economies

Key sectoral groups, % of total gross exports, 2020



Source: OECD (2022[14]), Trade in Value Added Database (TiVA), https://www.oecd.org/sti/ind/measuring-trade-in-value-added.htm

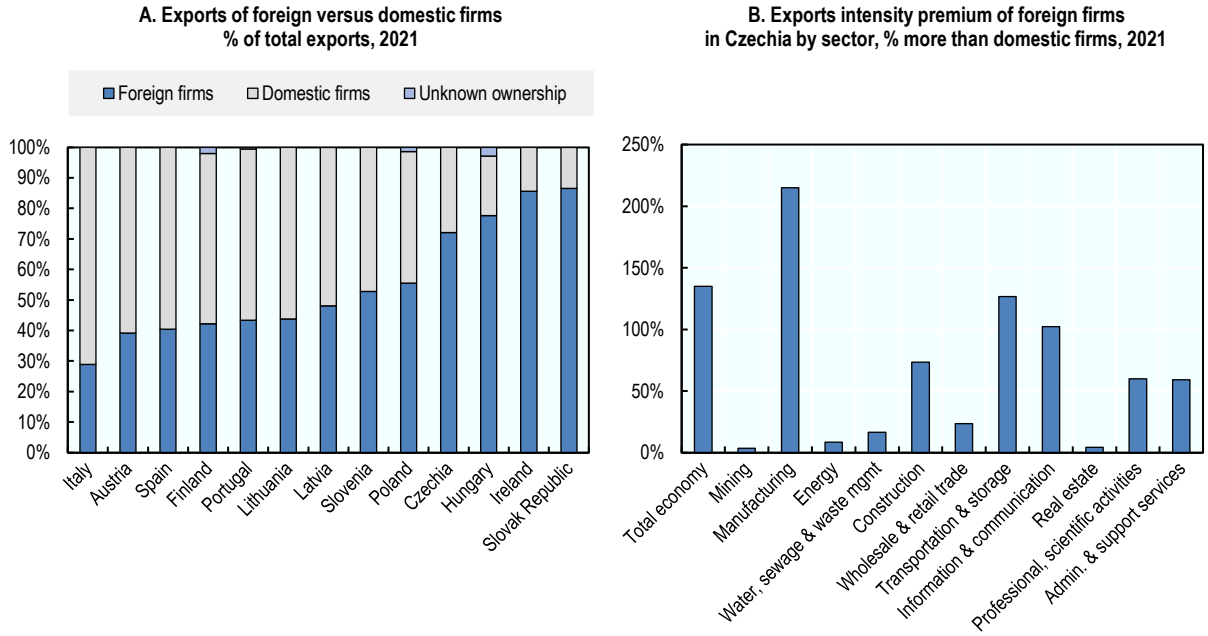
Lower technology manufacturing, which includes metal, plastic, wood and food products, is responsible for 20% of total exports, similar to the Slovak Republic and Lithuania. In line with the country's value-added structure, exports of services are smaller and concentrated mainly in lower technology services (16%), such as retail trade and transportation and storage. Higher technology services such as IT, professional, scientific and technical activities and other support services represent only 5% of total exports.

Foreign firms represent less than 2% of active enterprises operating in Czechia, but they contribute to 72% of gross exports (Figure 2.7, Panel A). Although their export intensity premium over domestic firms is observed across all economic activities, they perform particularly high in manufacturing, almost twice as their average across the entire economy (Figure 2.7, Panel B). Foreign firms' export intensity premium is also high in transportation and storage, information and communication and construction, while their performance is lower in services. Foreign firms in Czechia are more export-oriented than those in many other EU countries (e.g. Poland, Lithuania, Portugal and Finland), but less export-oriented than those in certain small open economies like Hungary, Ireland and the Slovak Republic.

FDI in Czechia has generally been oriented towards export production in sectors like automotive manufacturing (OECD, 2022[15]). Attracting export-oriented FDI has been a key policy goal for many CEE

economies that aimed to accelerate their industrialisation process and enhance their economic stature in global markets. Recent studies have reinforced the notion that FDI can improve productivity by catalysing exports from domestic sectors and by serving as a conduit for domestic SMEs to access international markets (Jana, Sahu and Pandey, 2017[16]; Zhang, 2005[17]). This indirect channel of accessing foreign markets without incurring trade-related costs may benefit smaller Czech suppliers; however, as illustrated in the following sections, it also depends on the productive capacities of Czech SMEs, the economy's position in GVCs and the type of value chain activities undertaken by foreign MNEs.

Figure 2.7. Foreign firms' contribution to Czechia's export performance



Notes: Data for Poland are for 2020 and for the Slovak Republic for 2018.
Source: OECD (2022[18]), Trade by Enterprise Characteristics database, https://doi.org/10.1787/3d347a3e-en; and Czech Statistical Office (2023[19]), Statistics on Foreign Affiliates, https://www.czso.cz/csu/czso/statistics-on-foreign-affiliates

2.2.6. Czechia participates in GVCs mainly through its backward linkages

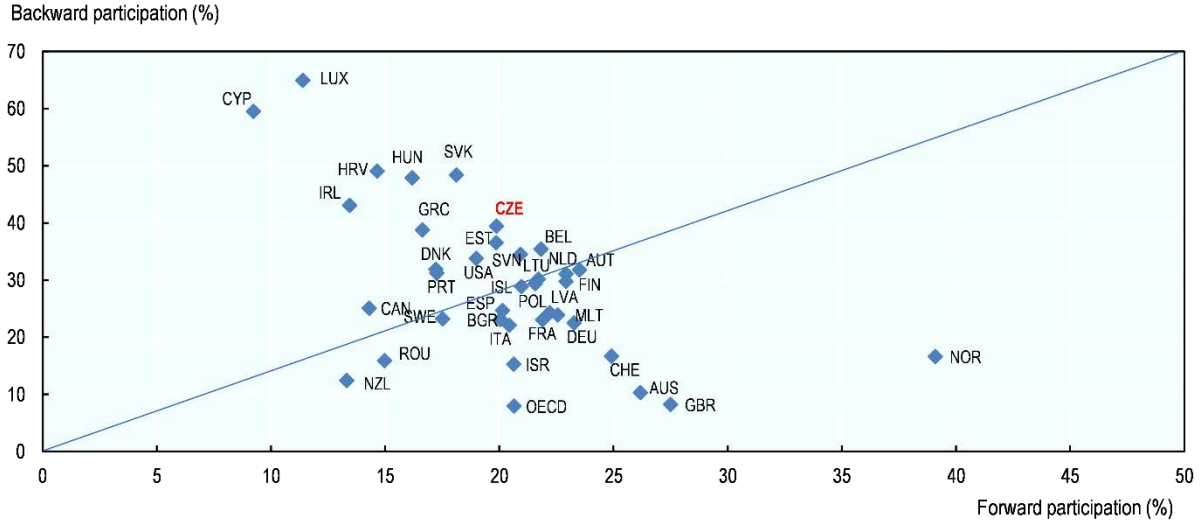
Czechia is strongly involved in GVCs as illustrated by its backward and forward participation which stood at 59% of gross exports in 2020, significantly higher than the OECD and EU averages (29% and 31% respectively) (Figure 2.8). Backward integration, measured by its share of foreign value added in its exports, stands at 39%, which is higher than most OECD countries and similar to other small open economies such as Belgium (35%), Estonia (37%) and Ireland (43%). In contrast, forward integration captured by the share of value added in other countries' exports, stands at 20% on par with the OECD and EU averages. Participation in GVCs can bring new opportunities for productivity growth and innovation. Depending on the economy's position in GVCs, productivity spillovers may occur from both backward and forward participation, by enabling Czechia to use inputs that are not available in the domestic economy or that have an advantage in terms of price or quality; but also by accessing technology and knowledge brought from export destinations (Criscuolo and Timmis, 2017[20]).

Czechia's high level of backward participation and low level of forward participation suggest a relatively downstream position in GVCs: the country specialises in later stages of production, particularly in assembling processed goods using intermediate inputs from abroad, and supplies outputs to final rather than intermediate users (Figure 2.8). This may have important implications for FDI and SME linkages since

it indicates that MNEs based in Czechia import a large proportion of intermediate inputs, limiting procurement from local suppliers. Neighbouring CEE countries like Hungary, Croatia and the Slovak Republic appear to position themselves further downstream, probably due to their greater specialisation in low value-added processing and assembly. More advanced peer economies such as Portugal, Finland and Lithuania appear to have a more upstream position in GVCs pointing towards their relatively important role in early stages of the production process such as R&D, design and technology-intensive component manufacturing.

Positioning closer to the beginning and end of the production process is generally believed to involve higher value added activities and lead to greater technological sophistication. Most value is hypothesised to be generated in upstream activities, like innovation, R&D and design, and downstream activities such as marketing, branding and logistics, while the pure manufacturing or assembly stages are typically associated with limited value creation. Moving upstream in GVCs often requires innovation and developing capabilities in more technologically advanced sectors. Czechia could continue placing emphasis on the diversification of the economy towards manufacturing activities with higher technological intensity and other higher value-added industries that could help the economy move upstream. This shift would require not only investment in the necessary infrastructure and the upgrading of workforce skills to match the demand of technologically advanced industries, but also policies that help foreign firms to source from local suppliers, which could reduce dependency on imported intermediates.

Figure 2.8. Czechia's position in global value chains relative to OECD economies



Note: Backward participation in GVCs is foreign value added embodied in a country's gross exports, as a percentage of the country's total gross exports; forward participation is domestic value added embodied in other countries' gross exports, as a percentage of the country's total gross exports. Data refer to 2020.
Source: OECD (2022[14]), Trade in Value Added Database (TiVA), https://www.oecd.org/sti/ind/measuring-trade-in-value-added.htm

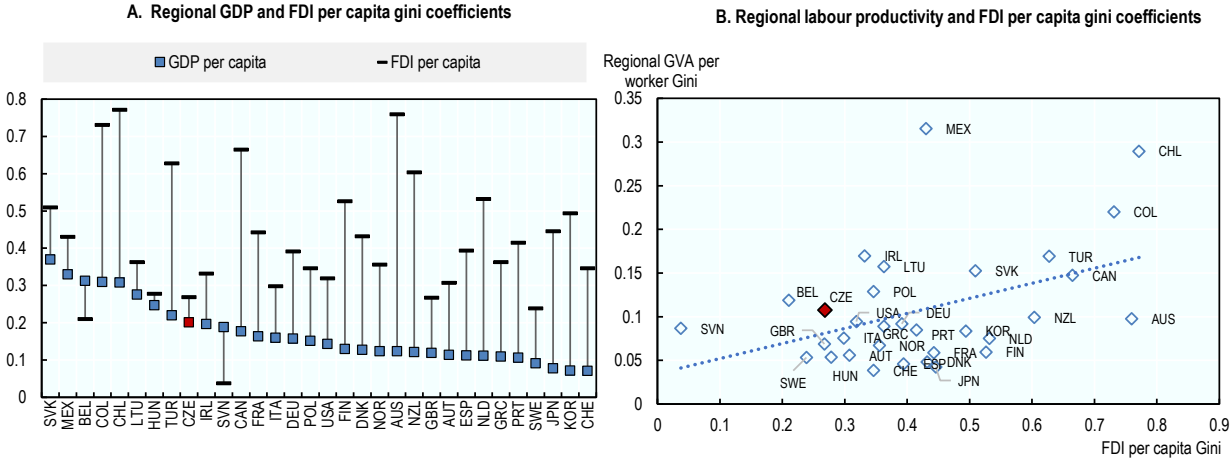
2.2.7. Regional economic inequalities are pronounced, more than disparities in FDI

As it is discussed in more details in Chapter 6, regional economic inequalities in Czechia are more pronounced than in most OECD economies. Despite favourable economic growth over the past two decades, there are notable disparities in GDP per capita and labour productivity across regions, and these gaps have been widening over time (Figure 2.9). Notably, the Northwest and Eastern regions, including Moravia-Silesia, Usti nad Labem and Karlovy Vary lag behind in terms of incomes, employment

opportunities, infrastructure and overall quality of life, and have historically struggled with old and declining industries, aging demographics, high unemployment rates and limited human capital (OECD, 2020[2]).

In contrast, Prague, the capital and largest city, stands out as the most economically developed region, boasting the highest GDP per capita and labour productivity as well as the lowest unemployment rate. The Central Bohemian region, located around Prague as well as southern regions including South Moravia and South Bohemia experience relatively good economic development thanks to their close ties to the capital city and diverse local economies. The same pattern of regional inequalities can be seen in a number of socio-economic indicators. In 2021, the share of population at risk of poverty and social exclusion in the Moravian-Silesian and Northwest regions stood at 15% and 14% respectively as opposed to 3% in Prague (European Commission, 2023[21]). The quality of human capital also varies significantly with 65% of Prague's population having a high level of educational attainment as opposed to 20% in the Northwest.

Figure 2.9. Regional disparities in GDP, FDI and productivity in OECD economies



Note: The Gini coefficient ranges from 0 (i.e. perfect equality among regions) to 1 (i.e. perfect inequality among regions). The adjusted Gini coefficients are calculated with equal weight to each region regardless of its size.
Source: OECD based on Financial Times (2023[22]), fDi Markets Database; and OECD (2022[23]),Regional Database, https://stats.oecd.org/

While disparities in GDP and labour productivity point towards significant variations in economic well-being, Czechia exhibits a lower Gini index for FDI per capita, suggesting that the distribution of FDI across regions is more evenly spread, with less variations in FDI levels in comparison to many other OECD economies (Figure 2.9). Lower disparities in FDI per capita can be seen as a positive sign of economic resilience, reflecting the fact that even regions with lower GDP and labour productivity may still benefit from investment that can contribute to job creation and economic growth. A more evenly distributed FDI can also contribute to economic diversification, reducing the reliance on a few key industries or regions. Further analysis may be needed, however, to understand the specific mechanisms driving these disparities at the subnational level and their long-term consequences. Although Czechia performs better than most OECD economies, investments still disproportionately benefit Prague and its surrounding areas. In 2021, 64% of inward FDI stock was concentrated in Prague, up from 54% in 2014. This is a typical pattern observed In most OECD economies, where the major urban centre of the country concentrates most of the business activity, while less developed, albeit well populated, regions struggle to attract investment (OECD, 2022[24]).

SME and entrepreneurial activity also varies significantly across Czech regions and local districts. A significant factor contributing to these disparities is the unattractiveness of less developed areas for entrepreneurs as reflected by their low business density and start-up creation rates compared to the rest of the country (Ministry of Regional Development, 2021[25]). In 2020, the NorthWest and Moravia-Silesia

regions had the lowest business R&D expenditures as a share of GDP (at 0.33% and 0.81% respectively) while Central Bohemia stood at 1.72%, above the business R&D intensity of the Prague metropolitical area (1.35%). Entrepreneurship and the establishment of new businesses are hindered by both lower educational attainment and a lack of entrepreneurial culture. In these regions, basic knowledge of entrepreneurship is often lacking, and due to limited resources and expertise, startups and small entrepreneurs find it challenging to handle essential aspects of business operations.

2.3. Assessing the potential for FDI spillovers on productivity and innovation

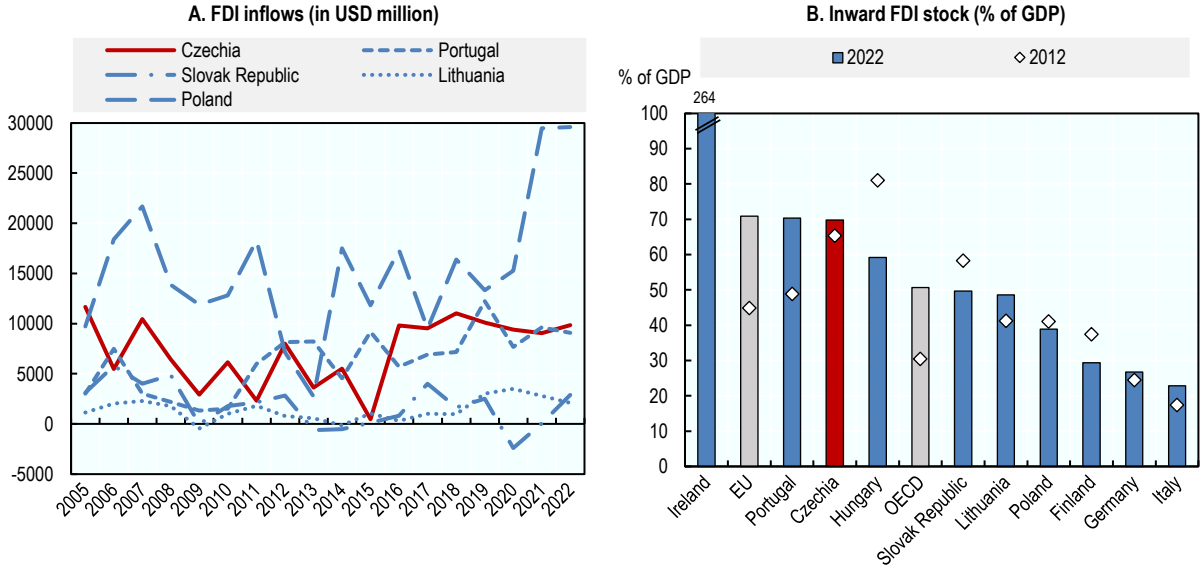
This section assesses the spillover potential of FDI in Czechia. First, it evaluates the volume of FDI inflows and the main inward FDI trends. Then it looks at the productivity gap between foreign affiliates and domestic firms, which is a key determinant of the FDI's spillover potential. Subsequently, this section assesses the level of embeddedness of FDI in the Czech economy by looking at relevant characteristics such as the FDI prevalent type, motives, country of origin, and regional and sectoral distribution.

2.3.1. FDI has been a key driver of Czechia's economic convergence with higher-income countries

Since the late 1990s, Czechia has attracted significant FDI, which has been fundamental for the integration of the Czech economy into GVCs and international trade (OECD, 2020[2]). Building on its geographical location, strong industrial base and low labour costs, the country has experienced strong economic growth that contributed to a successful convergence towards OECD and EU average incomes. In the aftermath of the 2008 financial crisis, FDI inflows followed a downward trend and remained subdued for several years (Figure 2.10, Panel A). Yet, since 2016 FDI inflows have significantly increased and stabilised at USD 10 billion annually, supported by strong GDP growth and increased export demand from neighbouring European economies. In 2022, the FDI stock represented 70% of GDP – a share comparable to that of the EU27 (71%), and significantly higher than that of other EU economies like Hungary (59%), the Slovak Republic (50%) and Lithuania (49%) (Figure 2.10, Panel B).

While the COVID-19 pandemic and Russia's war of aggression had a negative impact on international trade and investment, FDI inflows in Czechia displayed strong resilience, declining moderately (by 7%) between 2019 and 2020 and experiencing a strong rebound in the following years. Most comparators in the region experienced more pronounced declines in FDI inflows: for example, the Slovak Republic and Finland experienced a 196% and 111% drop respectively, while FDI flows in the OECD area declined by 60% on average. Czechia's strong FDI performance occurred despite a deteriorating economic outlook, with annual GDP growth remaining subdued since 2020 due to rising energy costs, weakening domestic demand and generally high uncertainty related to the war and the looming energy crisis (OECD, 2023[3]). Czechia's existing and significant FDI position can help it during the economic recovery. Evidence from previous crises indicates that foreign subsidiaries tend to be more resilient during downturns due to their linkages with, and the financial resources of, their parent companies (Alfaro and Chen, 2012[26]). Furthermore, the reinvestment of earnings by foreign subsidiaries often occurs after crisis peaks (Desai, Foley and Forbes, 2008[27]).

Figure 2.10. Inward FDI trends in Czechia and peer EU economies



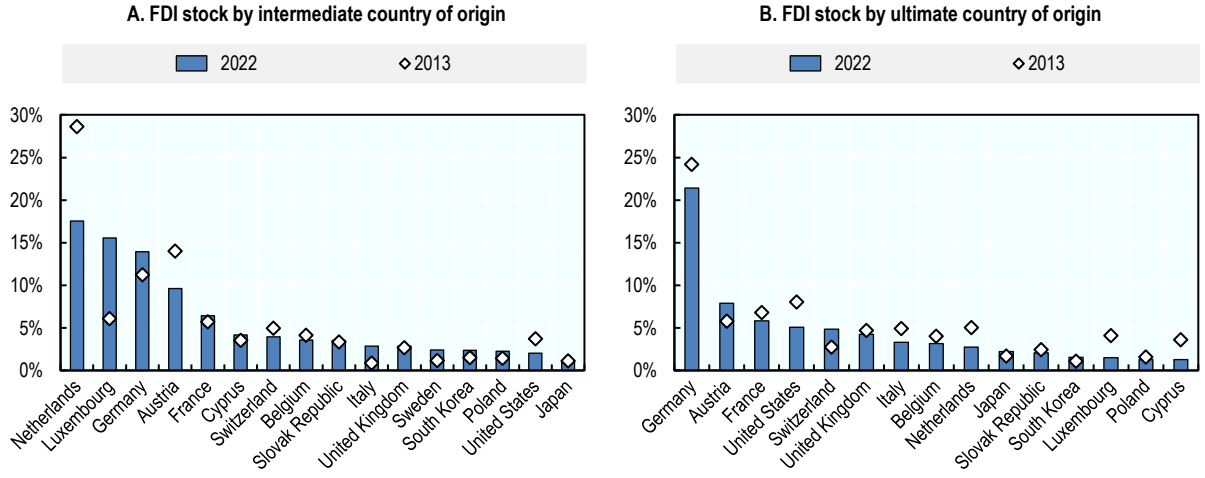
Source: OECD International Direct Investment Statistics, http://www.oecd.org/investment/statistics.htm

2.3.2. Diversifying FDI's geographic origin could enhance the potential for FDI spillovers

FDI diversification in Czechia appears limited with more than 85% of FDI stocks in 2022 coming from EU Member States (Figure 2.11, Panel A). Extra-European FDI accounts for a lower share. Although the limited diversification reflects Czechia's strong economic and trade integration into the EU market, some FDI in Czechia may originate from immediate investing countries through which investments have been channelled. Investors may channel their investment through different countries globally for strategic reasons related to policy and market conditions. For instance, the significant amounts of FDI stocks from the Netherlands and Luxembourg reflect to a large extent the activity of Special Purpose Entities (SPEs) in these countries rather than genuine investment activities of the reporting country itself.

Data by ultimate investing country tend to show a more diversified source of FDI and a greater role for investors from neighbouring countries like Germany and Austria as well as from the US and the UK (Figure 2.11, Panel B). Recent research finds that the more diverse is FDI in terms of country of origin, the higher the positive effect on domestic firm productivity (Zhang, 2010[28]). The cultural and geographic proximity of investors can also help enhance FDI benefits to the local economy (OECD, 2023[29]). It should be noted, however, that official FDI statistics based on the ultimate investor ownership could underestimate the actual presence and weight of non-EU foreign investors (particularly US MNEs) in Czechia as they do not capture investment channelled through existing European affiliates.

Figure 2.11. Czechia's FDI stock by country of origin



Source: OECD International Direct Investment Statistics, http://www.oecd.org/investment/statistics.htm

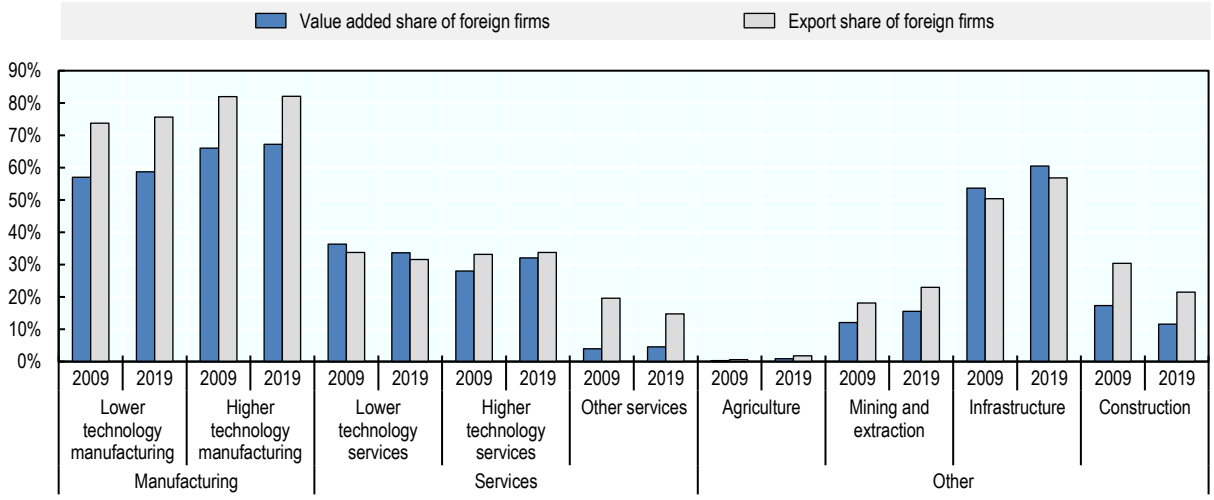
2.3.3. Foreign firms' activity is concentrated on high technology manufacturing, but FDI inflows show signs of diversification towards services

The significant share of foreign firms in the country's value added and exports corroborates the pivotal role of FDI in the Czech economy (Figure 2.12). This is true across most sectors. FDI activity, however, is concentrated in manufacturing, where they accounted for almost 62% of value added and 78% of exports in 2019. In higher technology manufacturing (including the key motor vehicle, machinery and electronic industries), they were responsible for 66% of value added and 82% of exports in 2019 – and these shares saw a significant increase over the previous ten years. Foreign firms are less active in the services sector. In 2019, foreign MNEs accounted for 24% of total value added and almost 30% of exports in services. Their contribution in terms of exports and value added is more significant in lower technology services – namely wholesale and retail trade and real estate activities – than in higher-technology services (e.g. IT services) (Figure 2.12).

FDI spillovers are typically more pronounced in high-tech industries compared to low-tech and labour-intensive ones (Keller, 2009[30]; Nicolini and Resmini, 2010[31]). The concentration of Czech FDI on high-tech manufacturing is therefore seen as beneficial for enhancing these spillover effects. However, the actual impact of knowledge and technology spillovers in high-tech sectors is contingent on the extent of FDI linkages within the wider economy. If these linkages are underdeveloped, the potential for spillovers remains constrained. Additionally, the limited involvement of SMEs in the Czech high-tech manufacturing sector, which is dominated by large firms, could further restrict the scope for FDI spillovers.

Figure 2.12. Foreign firms' value added and exports in Czechia, 2009 and 2019

As % of total value added and exports, by sectoral group



Note: Total value added and export in this figure refers to the total of the four industrial groupings covered. See Box 2.1 clarifying sectoral groupings used in this figure.
Source: OECD (2019[32]), Analytical Activity of Multinational Enterprises (AMNE) Database, www.oecd.org/sti/ind/analytical-AMNE-database.htm

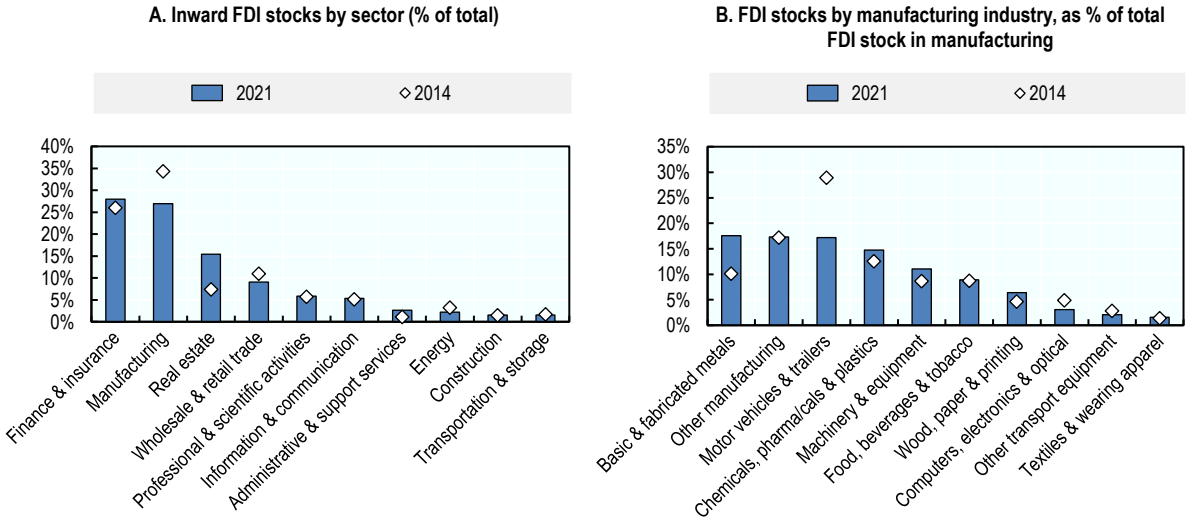
FDI's sectoral patterns show signs of diversification away from traditional manufacturing and towards low-technology services. In 2021, finance and insurance activities accounted for the largest share in total FDI stock (28%), while manufacturing saw a significant decline moving from 34% in 2014 to 26% in 2021(Figure 2.13, Panel A). Other low technology services such as real estate and wholesale and retail trade and repair of motor vehicles also account for 10%-15% of total FDI each. Real estate and administrative and support services are also the two services sectors that registered the largest absolute increase in FDI stock between 2014 and 2021 (52% and 57% respectively). Over the same period, moderate increases in FDI stock were observed in information and communication (5%) and professional, scientific and technical activities (3%). The diversification of FDI towards low-tech services signals some dynamism and potential for attracting FDI in these sectors, and may lead to productivity spillovers, especially considering the higher employment share of SMEs in these sectors.

Signs of diversification are also observed within manufacturing with the share of the automotive industry in Czechia's manufacturing FDI stocks declining by 40% between 2014 and 2021 (Figure 2.13, Panel B). The growth of the automotive sector in previous decades was predominantly FDI-driven, with its substantial integration into GVCs and a focus on supplying primarily to German and wider European markets (Klein, Høj and Machlica, 2021[33]). The sector's twin green and digital transition and the shift towards electric, connected and autonomous vehicles have changed the investment strategies of Original Equipment Manufacturers (OEMs), who increasingly invest in areas beyond the manufacturing and assembly of car components such as semiconductors, batteries and automation. It is also likely that the supply chain disruptions caused by the COVID-19 pandemic brought to a halt reinvestments of OEMs, as illustrated by the significant decline in the production of motor vehicles and transport equipment in Czechia during 2020 (OECD, 2023[3]).

Non-automotive manufacturing industries have increased their share of FDI stocks between 2014 and 2021, signalling the potential development of FDI-SME ecosystems in a larger and more diversified range of industrial sectors, with benefits to aggregate growth and productivity (Figure 2.13, Panel B). Other high-tech manufacturing industries such as chemicals, pharmaceuticals and plastics; machinery and transport

equipment; and computer and electronic products overall account for one third of total manufacturing investment. The largest increases are observed in low-technology manufacturing, namely in basic and fabricated metals (53%%) as well as in wood and paper products (41%), for which Czechia exhibits a strong comparative advantage in exports compared to the rest of the world (see section on Czechia's comparative advantages). These patterns indicate an evolving FDI landscape, steering the economy towards a more diversified industrial base, which could be crucial for job creation and economic growth. This shift could also reduce the economy's over-reliance on the automotive sector, fostering resilience against sector-specific downturns or global supply chain disruptions.

Figure 2.13. Sectoral distribution of the FDI stock in Czechia, 2021 and 2014



Source: Czech National Bank (2023[34]), FDI positions in the Czech Republic, https://www.cnb.cz/cs/statistika/

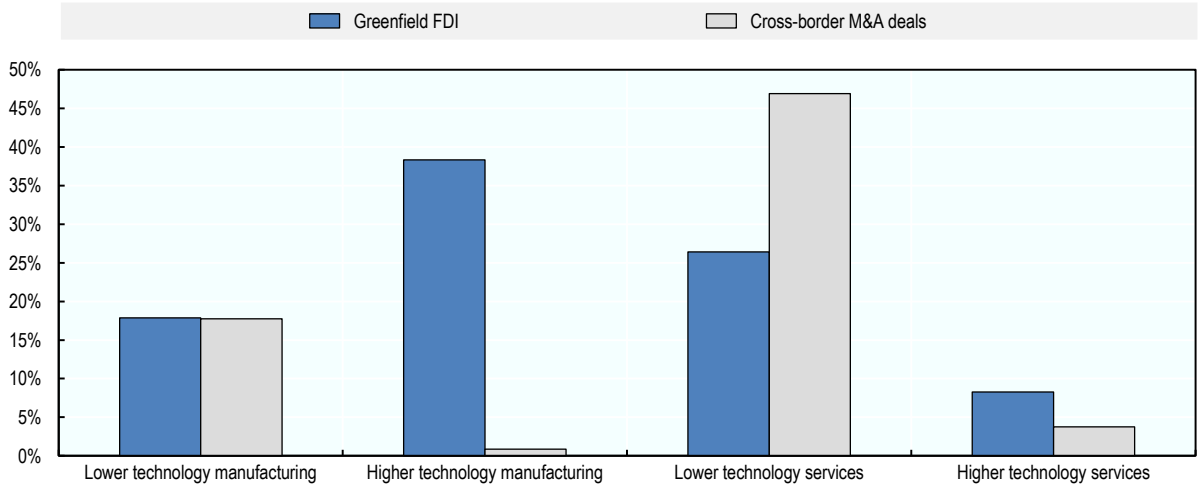
2.3.4. The concentration of greenfield FDI in high-tech manufacturing could facilitate productivity spillovers

High technology manufacturing receives most of greenfield investments, which are more likely to involve knowledge and technology transfers from the parent firm to the new affiliate than mergers and acquisitions (Figure 2.14). Greenfield FDI, i.e. new establishments or expansions of subsidiaries of foreign MNEs, is most prevalent in the automotive (16%), industrial equipment (10%), pharmaceuticals (8%), semiconductors (7%) and other manufacturing parts and components sectors. Taken together, these activities are responsible for more than 38% of all greenfield investments made since 2003. Czechia's type of FDI and sectoral positioning in high-technology manufacturing seem to be well formed to enable FDI spillovers given the technological-intensity of these sectors.

Mergers and acquisitions, by contrast, are more prevalent in lower technology services, where more than 47% of all deals have occurred since 2003; namely in banking and insurance services (33%) and real estate (7%) (Figure 2.14). Acquisitions allow foreign investors to access the host country's technology as well as already established business and knowledge networks. In this case, the deployment of the foreign investor's technology would be implemented more gradually, making additional knowledge spillovers to domestic firms less likely in the short-term, but they may still occur in the longer-term (OECD, 2023[29]). Foreign entry in these services is also likely to enhance competitive pressure in the market and thus involve more indirect spillover potential (OECD, 2019[35]).

Figure 2.14. Sectoral distribution of greenfield FDI and cross-border M&A stocks

% total capital investment (greenfield FDI) and total M&A deal values over 2003-2022



Note: See Box 2.3 clarifying sectoral groupings used in this figure. Detailed sector/activity classifications from Financial Times' fDi Markets and Refinitiv data underlying the analysis in this figure differ marginally from standard classifications based on ISIC Rev. 4 used in other figures in this report

Source: OECD based on Financial Times (2023[22]), fDi Markets Database and Refinitiv

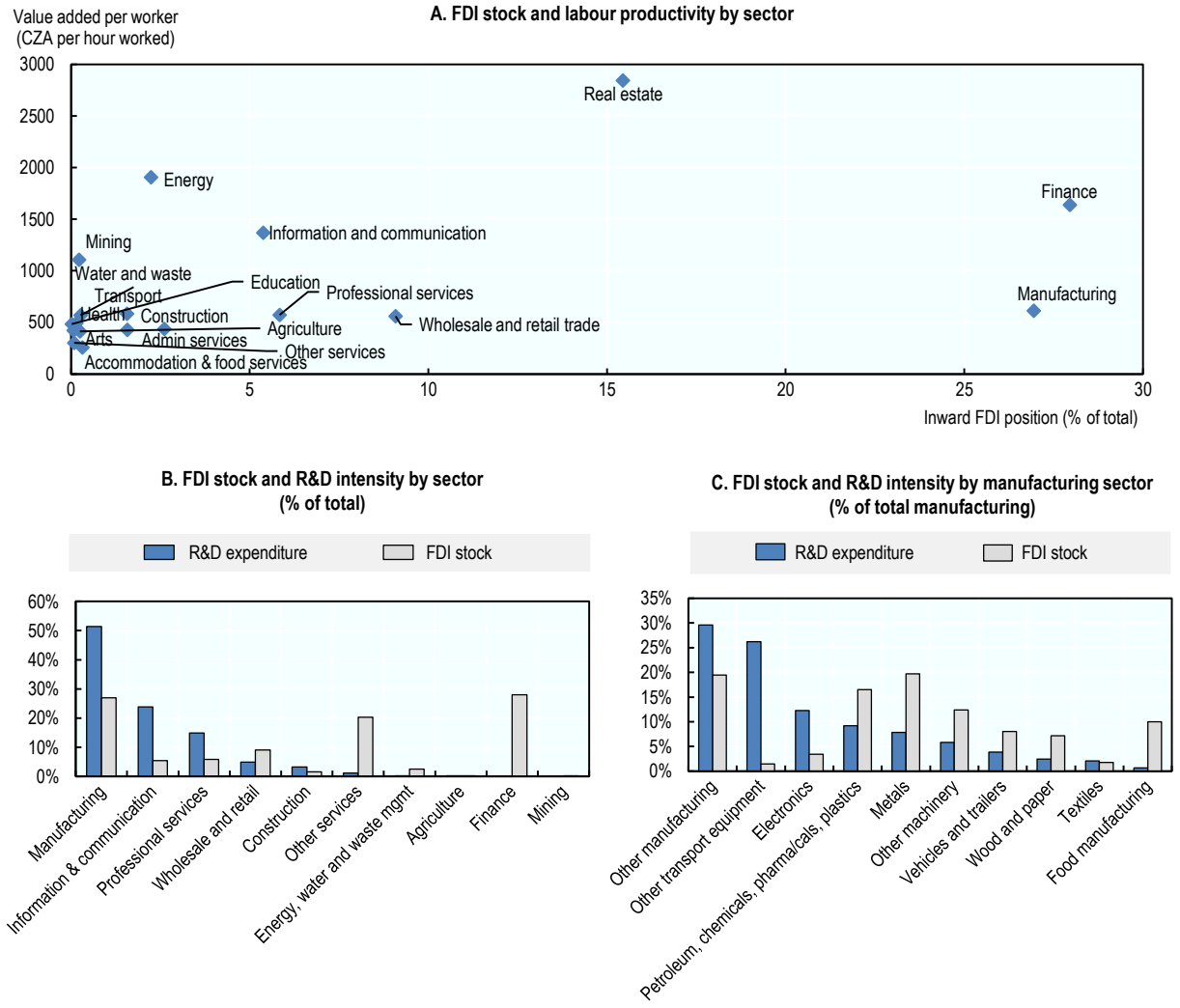
2.3.5. FDI is concentrated in sectors that are more productive, but spend less on R&D

The capital-intensive finance and real estate sectors, which account for a large share of FDI stock in Czechia, are relatively more productive, i.e. an hour of labour produces more value added on average (Figure 2.15, Panel A). Both sectors employ comparatively few workers but involve disproportionately high capital investments. Investments and (measured) labour productivity in both sectors are thus primarily driven by global market dynamics of these assets and less by real economy value added and labour productivity enhancements. The labour-intensive manufacturing sector, by contrast, exhibits moderate levels of labour productivity. Smaller shares of FDI go to sectors with lower average labour productivity, such as wholesale and retail trade, professional and scientific services and construction. The exception is the information and communication sector which despite being highly productive and is known to be technology and skills-intensive, receives only moderate levels of FDI.

R&D expenditure is low in most of the sectors that account for large FDI stocks, including financial services, wholesale and retail trade and real estate and other services (Figure 2.15, Panel B). Although the manufacturing sector, which accounts for 27% of FDI in Czechia, accounts for 51% of R&D expenditure, little FDI is concentrated in the most R&D intensive manufacturing sub-sectors (Figure 2.15, Panel C). With the exception of other manufacturing, which includes electrotechnical, glass, furniture, machinery and construction materials, FDI is largely concentrated in manufacturing industries with low R&D intensity, including metals, chemicals, pharmaceuticals and plastics.

These correlations, however, do not establish a cause-and-effect link between FDI, productivity and R&D intensity. For example, the positive correlation between FDI and productivity does not make it possible to say whether FDI contributed to a higher level of productivity in a sector or whether FDI went to that sector because it was more productive. Several studies have attempted to measure the impact of FDI on productivity and innovation in Czechia, pointing mostly to positive effects. For example, Djankov and Hoekman (2000[36]) find that FDI had a positive and statistically significant impact on total factor productivity growth.

Figure 2.15. FDI stock, labour productivity and R&D intensity by sector

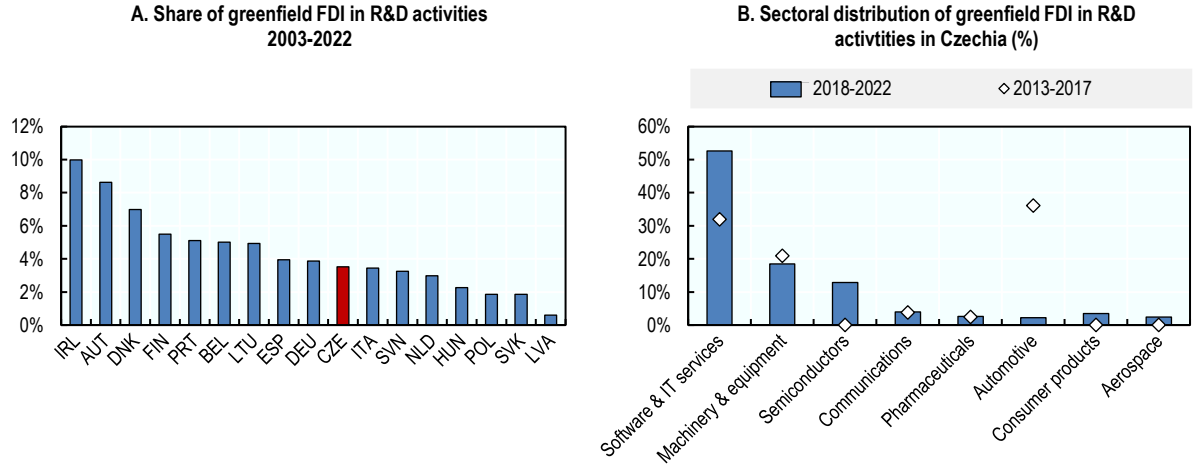


Note: In Panel B, the category "other services" encompasses real estate, accommodation and food services, transport and storage, administrative and support services, arts, entertainment and recreation, health and education.
Source: Czech National Bank (2023[34]), FDI positions in the Czech Republic, www.cnb.cz/cs/statistika/; OECD (2020[12]), Annual National Accounts, https://stats.oecd.org/; Czech Statistical Office (2023[37]), Research and Development (R&D) by sector of performance, www.czso.cz/

The low R&D intensity of FDI in Czechia is further illustrated when looking at greenfield investments and the type of business activities involved. Only 4% of greenfield FDI that took place in Czechia over the period 2003-2022 involved R&D activities compared to 47% and 24% for manufacturing and services activities respectively (Figure 2.16, Panel A). Czechia performs better than its neighbouring CEE economies such as Hungary, Poland and the Slovak Republic but lags behind leading European innovators such as Ireland, Austria, Denmark and Finland. In line with the economy-wide sectoral diversification of FDI (see previous section on sectoral distribution of FDI), R&D investments appear to have moved away from the automotive sector and towards software and IT services, which now account for more than half of R&D investments (53%) (Figure 2.16, Panel B). The significant decline observed in the automotive sector does not necessarily mean that foreign OEMs have stopped investing in innovation. European car manufacturers are increasingly integrating new activities within their internal functions, including those relating to the design of batteries, semiconductors and automation technologies. The increase in the share of R&D investments in semiconductors (13%) and aerospace (2%) could, to a certain

extent, reflect the Czech automotive sector's digital transformation and upgrading to more technology-intensive value chain functions.

Figure 2.16. Greenfield investments in R&D in Czechia and selected EU economies



Source: OECD based on Financial Times (2023[22]), fDi Markets Database

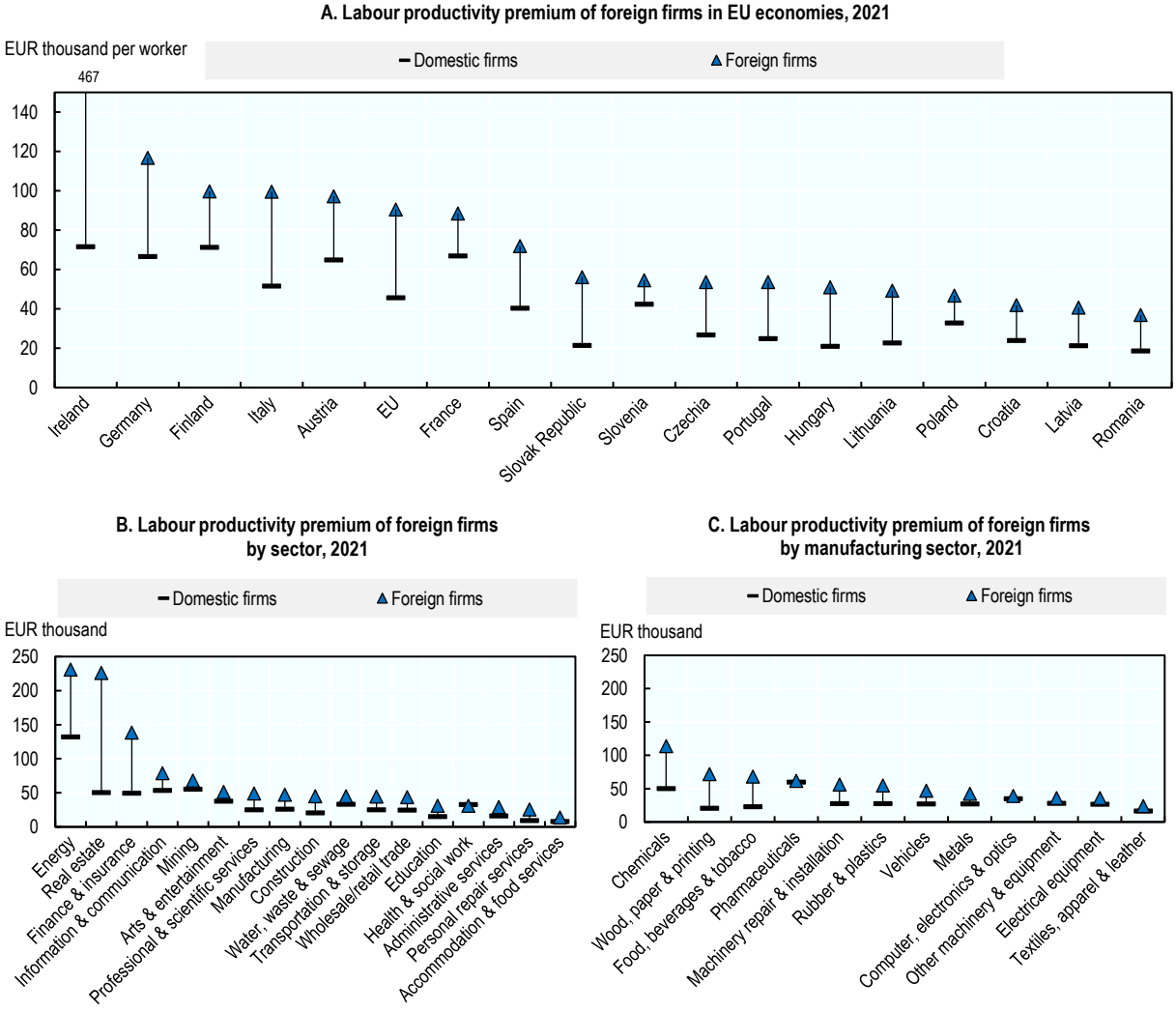
2.3.6. Foreign firms exhibit important productivity premia over domestic ones

Labour productivity, or value added per person employed, is a key metric for evaluating the performance gap between foreign and domestic firms. This gap indicates the potential for FDI spillovers, as more productive foreign firms can transfer knowledge and technology to their domestic counterparts. Typically, foreign firms exhibit higher productivity due to factors related to their larger size, greater export orientation, and superior access to finance, skills, and innovation assets, all of which contribute to higher labour productivity levels (OECD, 2023[29]). However, a too wide productivity gap between foreign MNEs and domestic SMEs might limit the ability of the latter to effectively benefit from these spillovers. Assessing the productivity premium of foreign firms over domestic ones is crucial to estimate the potential for FDI-SME spillovers effectively.

Significant productivity differences between foreign and domestic firms exist in Czechia. Affiliates of foreign firms are almost twice as productive as their domestic counterparts (Figure 2.17, Panel A). This gap is particularly high in Ireland, Germany and Italy and fairly low in CEE economies like Romania, Poland, and Slovenia. While this aggregate indicator provides some insights on potential challenges related to SME capacities to benefit from foreign firms' presence, it is important to dig deeper into sectoral specificities and firm characteristics to better understand domestic capacities in Czechia (see section on SME absorptive capacities).

Studying labour productivity levels of foreign and domestic firms across sectors reveals that foreign firms outperform local ones across almost all key economic activities in Czechia. Foreign firms' productivity premium is largest in the energy sector and in low-technology services such as real estate and finance. The gap is significantly smaller in the rest of the economy, including in manufacturing (Figure 2.17, Panel B). Within manufacturing, the largest performance gaps are observed in chemicals, wood, paper and food manufacturing while sub-sectors with strong FDI presence such as the machinery and motor vehicles industries exhibit narrower gaps between foreign and domestic firms' performance (Figure 2.17, Panel C). Relatively low differences in productivity could illustrate that foreign and domestic firms are operating at par in comparable activities within these industries and thus knowledge exchange is likely.

Figure 2.17. Labour productivity differences between foreign and domestic firms



Source: OECD based on Eurostat (2022[38]), Foreign Affiliates Statistics (FATS), https://ec.europa.eu/eurostat

2.4. Assessing the absorptive capacities of Czech SMEs

This section evaluates the absorptive capacities of Czech SMEs. Absorptive capacity refers to a firm's ability to recognise valuable new knowledge and integrate it innovatively within its processes (OECD, 2023[29]). The stronger a firm's absorptive and innovative capacity is, the higher the chances it has to benefit from FDI spillovers (OECD, 2023[29]; Abraham, Konings and Slootmaekers, 2009[39]; Appelt et al., 2022[40]). SMEs differ in terms of age, size, business model, market orientation, sector, and geographical scope of operations. This results in different growth trajectories, influencing SMEs opportunities to engage in knowledge-sharing collaborations with foreign MNEs and derive benefits from FDI spillovers (OECD, 2023[41]). The assessment considers firm-specific factors when evaluating the absorptive capacity such as productivity, sector, age, size, and geographic location, along with SMEs' access to essential strategic resources like finance, skills, and innovation assets, building upon the conceptual framework of the OECD SME and Entrepreneurship Outlook (OECD, 2023[41]).

2.4.1. Czechia's business population is dominated by low productivity micro firms

Czechia's business population is unevenly distributed, predominantly characterised by a majority micro firms (1-9 persons employed) with limited number of larger enterprises. In 2020, Czechia's economy was composed of approximately 1.6 million active enterprises, with 99.8% of firms classified as MSMEs (employing less than 250 persons) (OECD, 2022[42]). Notably, micro firms dominated the economic landscape constituting 96% of the business population (see Table 2.2. Number of enterprises by size

). Such a pattern aligns with trends seen in other European economies like Poland, Slovenia, Finland, and Germany where MSMEs constitute around 99% of the economic landscape (OECD, 2022[42]). The high rate of micro enterprises in Czechia is not attributed to the countries self-employed as the rate of self-employment is quite moderate and on par with the OECD average, measuring at around 15% in 2021 (OECD, 2023[41]). On the other hand, large firms are limited within the business environment in Czechia accounting only for 0.2% of the total number of firms (Table 2.2).

Table 2.2. Number of enterprises by size

Business economy, except financial and insurance activities

	2017	%	2018	%	2019	%	2020	%
Micro (1-9 persons employed)	971,141	96.0%	993,991	96.0%	1,009,020	96.0%	1,019,450	96.1%
Small (10-49 persons employed)	32,195	3.2%	32,674	3.2%	32,935	3.1%	32,421	3.1%
Medium (50-249 persons employed)	6,881	0.7%	7,043	0.7%	7,041	0.7%	6,799	0.6%
Total MSMEs (1-249 persons employed)	1,010,220	99.8%	1,033,710	99.8%	1,048,990	99.8%	1,058,670	99.8%
Large (250+ persons employed)	1,612	0.2%	1,646	0.2%	1,656	0.2%	1,608	0.2%
Total	1,011,832		1,035,356		1,050,646		1,060,278	

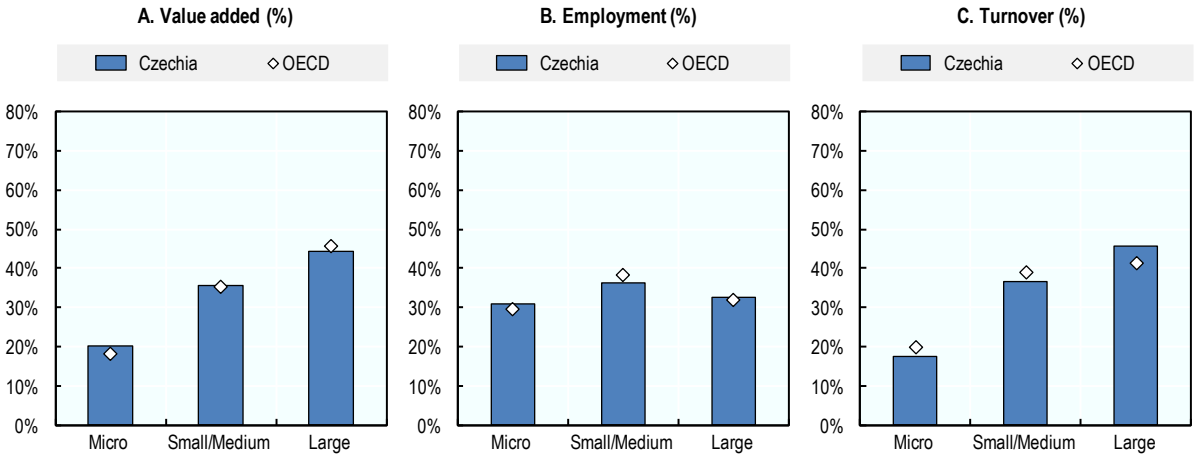
Source: SDBS Structural Business Statistics ISIC Rev 4 (accessed 29 October 2023).

As in other EU and OECD economies, Czechia's business landscape exhibits the existence of the "missing middle" phenomenon, i.e. the relative scarcity of mid-sized firms (10-249 employees) that have successfully scaled up (OECD, 2021[43]). The absence of middle-sized firms is not a recent phenomenon as indicated by the consistently low shares of small- and medium-sized enterprises over the years, which have even slightly declined between 2017 and 2020 (OECD, 2021[43]). Mid-sized firms are often seen as key drivers of innovation, productivity growth and job creation since they have better capacity than smaller firms to invest in R&D and adopt new technologies, while being more agile and adaptive than large firms. Bridging the missing middle should be seen as a way to diversify the Czech economy and enhance its resilience, by ensuring a supportive regulatory framework for micro firms to scale up, fostering an entrepreneurial culture and providing access to strategic resources. (OECD, 2021[43]; OECD, 2022[44]; OECD, 2023[29]). A more balanced distribution of firm sizes can contribute to economic stability and adaptability too, and increase the local embeddedness of FDI: larger firms are more likely than micro firms to establish linkages with foreign MNEs and benefit from knowledge spillovers.

Smaller Czech firms exhibit relatively low labour productivity. Despite the high number of micro firms in the business fabric and their relatively high employment share of 31%, micro firms produce only 20% of value added and 18% of turnover (Figure 2.18, Panel A and B). The presence of these low-productivity micro firms may weigh down the aggregate labour productivity of the Czech economy, highlighting the necessity for policy interventions aimed at enhancing the innovation capabilities of smaller businesses (OECD, 2023[41]). Although the productivity of Czech MSMEs has increased across all sectors between 2010 and

2020, the productivity gap between MSMEs and large firms has widened over the past decade, particularly in lower and higher technology manufacturing as well as higher technology services (Figure 2.19). In contrast, Czech MSMEs appear to be more productive than large firms in lower technology services, with their performance being driven mainly by their relative productivity advantage in the real estate sector.

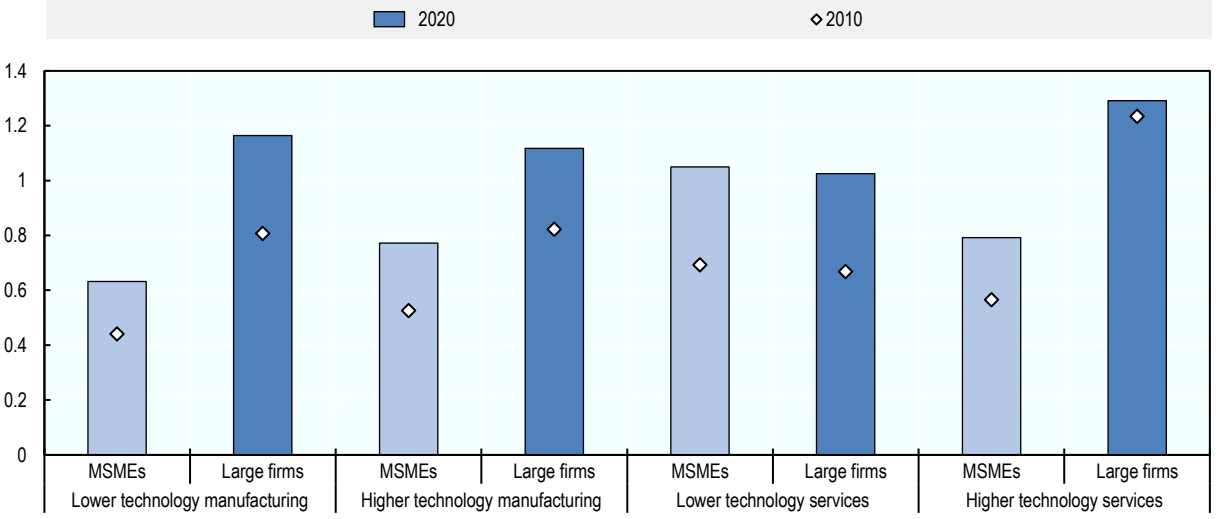
Figure 2.18. SME share of value added, employment and turnover by firm size, 2020



Note: The year of reference is 2020 (or the latest year available).
Source: OECD Structural Demographics and Business Statistics (SDBS) and Trade by Enterprise Characteristics (TEC) databases, 2023

Figure 2.19. Labour productivity trends in Czechia by firm size, 2020 and 2010

In millions of Czech Koruna



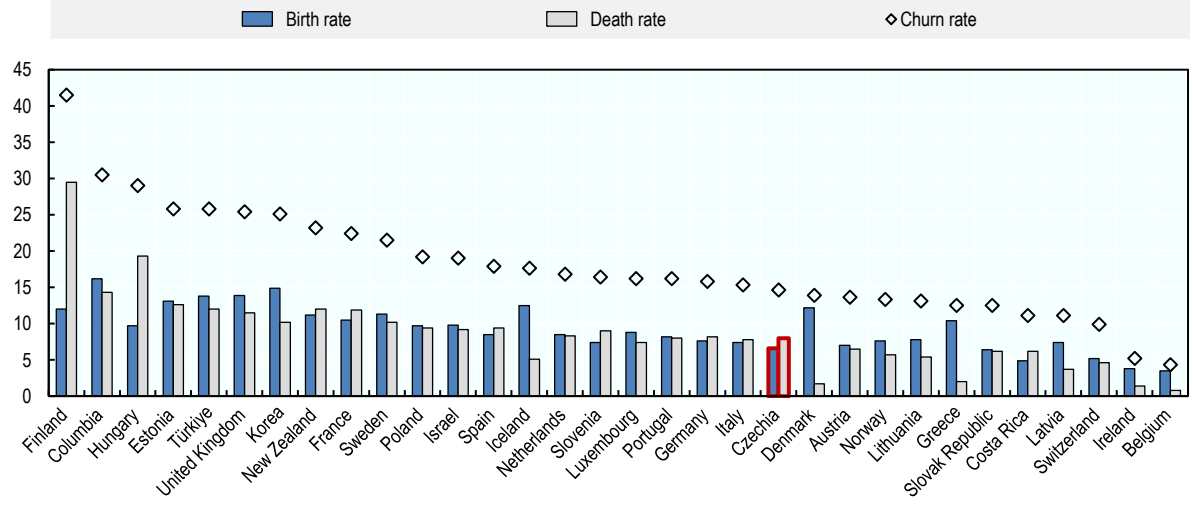
Note: Data on i) financial and insurance activities, and ii) publishing, audiovisual and broadcasting activities, under the lower technology services category are not available and have not been included in the analysis.
Source: OECD Structural Demographics and Business Statistics (SDBS), 2023

2.4.2. Business dynamism is low in Czechia

Business dynamism is relatively low in Czechia as the business landscape is characterised by low enterprise birth and death rates. Both, the rate of business creation (6.6% at the end of 2020) and business death rate (8%) are below the OECD average (business creation rate of 9.3% and death rate of 8.7%). As a result of the Covid-19 pandemic, in 2020 the business creation rate declined while the death rate increased (OECD, 2022[42]). At the same time, the total number of persons employed in SMEs declined by 42.8 thousand (1.8%) in 2020 due to the challenges posed by the pandemic (OECD, 2022[45]). Czech enterprises exhibit a relatively high 5-year survival rate (standing at 43.5% in 2020) suggesting business resilience when faced with supply chain disruptions, price volatility, or various shocks (OECD, 2023[41]; OECD, 2022[44]; OECD, 2022[42]).

Czechia has a relatively low enterprise churn rate of 14.6%, which is below the OECD average of 18% and that of leading economies like Finland (41.5%) and France (22.4%) but slightly higher than that of Lithuania (13.1%) and Latvia (11.1%) (Figure 2.20). Churn rates are calculated as the sum of birth and death rates of all enterprise firms and they assess the rate at which new firms enter and exit the market (OECD, 2017[46]). Such an indicator serves as a measure of the country's "creative destruction" and analyses how business dynamism contributes to aggregate productivity growth and innovation (OECD, 2017[46]). While a lower churn rate can suggest economic stability with established enterprises maintaining their market positions (and with associated benefits for long-term investments and employment); it could also be indicative of barriers to market entry and exit in the form of regulatory hurdles, access to finance issues and lack of competition, making it difficult for new businesses to start and grow. Higher churn rates on the other hand, correlate with dynamic business environments where there is a lot of entrepreneurial activity, innovation and competitive pressure. Czechia could focus on fostering a more dynamic business environment by reducing barriers to entry, encouraging entrepreneurship, supporting innovation and making the market exit process more efficient.

Figure 2.20. Churn rate of employer enterprises in selected OECD countries (%), 2020

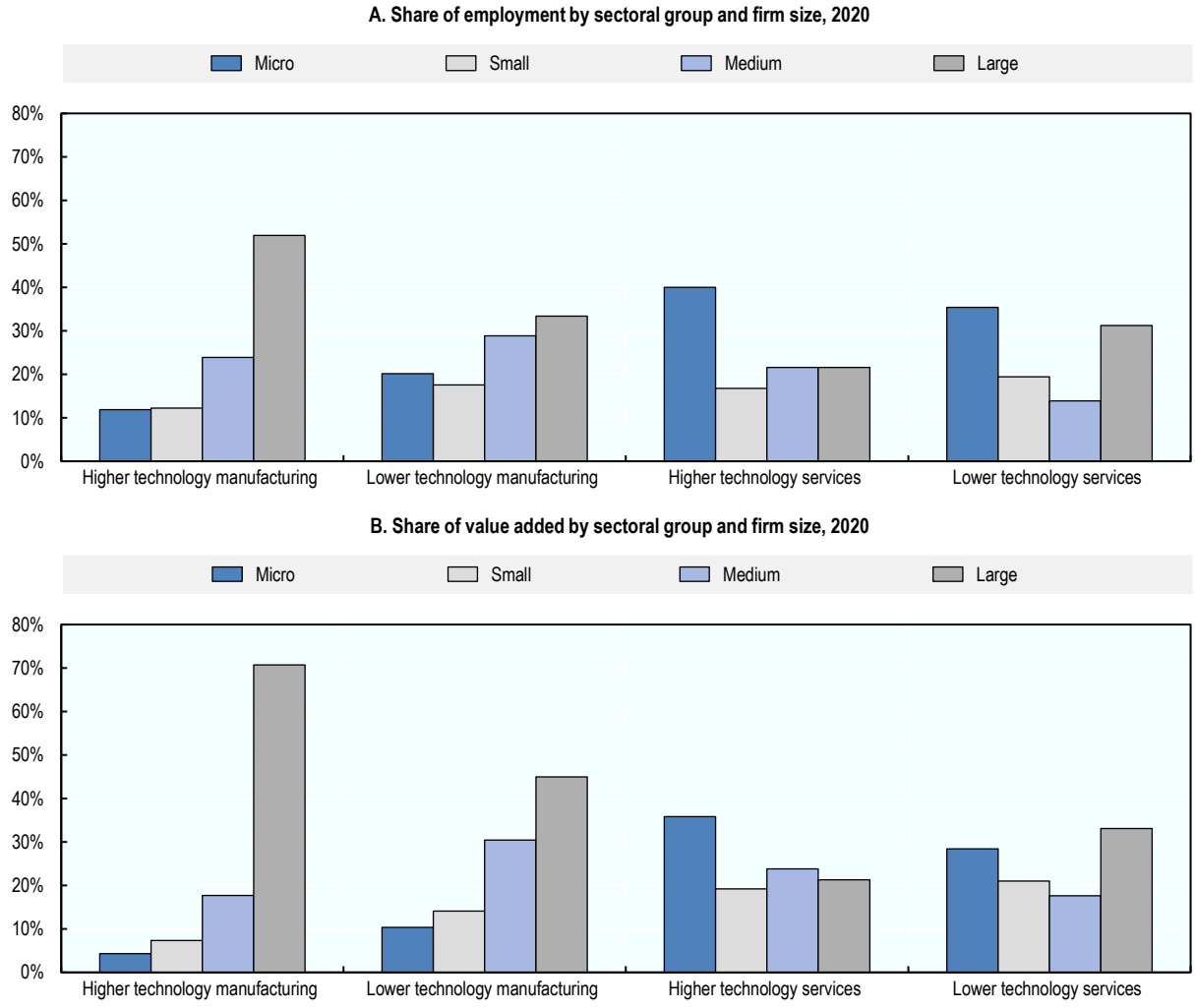


Note: Birth, death and churn rates are given for all employer enterprises. Data for Korea, New Zealand, and Greece is from the year 2019. Data for Columbia, Türkiye, United Kingdom, and Switzerland is from the year 2018.
Source: OECD Structural and Demographic Business Statistics Database (https://doi.org/10.1787/sdbs-data-en) (accessed 26 October 2023).

SMEs have an important role in lower technology manufacturing, accounting for 46% of employment and 45% of value added. Specifically, small-sized enterprises have the highest share of employment in manufacture of wearing apparel, fabricated metal products, and printing and reproduction of recorded media. Whilst for medium-sized enterprises, the share of employment is primarily concentrated in manufacture of leather goods and machinery/equipment. SMEs in higher technology manufacturing account for 36% of employment and 25% of value added. The most concentrated sub-sectors in terms of employment for small firms include – manufacture of fabricated metal products and repair/installation of machinery and equipment. For medium-sized enterprises manufacture of rubber and plastic products (34%) and manufacture of machine and equipment (36%) accounted for the highest share of employment.

In lower and higher technology manufacturing, micro and small enterprises accounted for a much higher share of employment than value added. Micro firms accounted for 12% and 20% of employment in higher and lower technology manufacturing; whilst only accounting for 4% and 10% of value added (Figure 2.21). Similarly, small firms accounted for 12% and 18% of employment in higher and lower technology manufacturing; whilst only accounting for 7% and 14% of value added. These findings suggest that labour productivity within micro- and small-sized firms in the lower and higher technology manufacturing sectors is relatively low. Large firms account for much higher shares of value added than employment across all sectors, suggesting that unlike micro and small enterprises, their levels of labour productivity are very high. The services sector, however, does not show a similar pattern, suggesting that there is not a large productivity difference between firms by size. In general, MSMEs appear to be more concentrated in the services sector and in lower-technology manufacturing in terms of both employment and value added. The underrepresentation of SMEs in higher technology manufacturing may hinder firm access to FDI spillovers and could potentially further slow down productivity growth (OECD, 2022[15]).

Figure 2.21. Share of employment and value added by sectoral group and firm size, 2020



Note: See Box 2.1 clarifying sectoral groupings used in this figure. Micro = 1 to 9 employees. Small = 10 to 49 employees. Medium = 50 to 249 employees. Large = 250+ employees. For the lower technology services two sections are not included due to lack of data: publishing, audio-visual and broadcasting activities, and financial and insurance activities. For the higher technology services the following section is not included due to lack of data: IT and other information services.
Source: OECD Structural and Demographic Business Statistics Database https://doi.org/10.1787/sdbs-data-en.

2.4.3. There is room to improve the internationalisation of SMEs

Czechia's SMEs appear lagging in several forms of internationalisation. As in other OECD economies, the share of SMEs participating in direct exports is particularly low. Micro firms as well as small and medium-sized enterprises account for 4% and 29% of gross exports respectively, ranking below the OECD average of 10% and 31% (Figure 2.22, Panel A). In contrast, Czech large firms outperform their EU peers accounting for the bulk of export activity (68% versus 59%). The diversity of their trade networks is also limited since they tend to focus primarily on the EU market and less so on other export destinations (Figure 2.22, Panel B). According to Eurostat survey data, only 2.4% of Czech SMEs operating in industrial sectors have engaged in extra-EU exports of goods, significantly below the EU average (10%) and peer economies such as Poland (5%), Lithuania (8%), Portugal (9%), and Finland (19%) (European

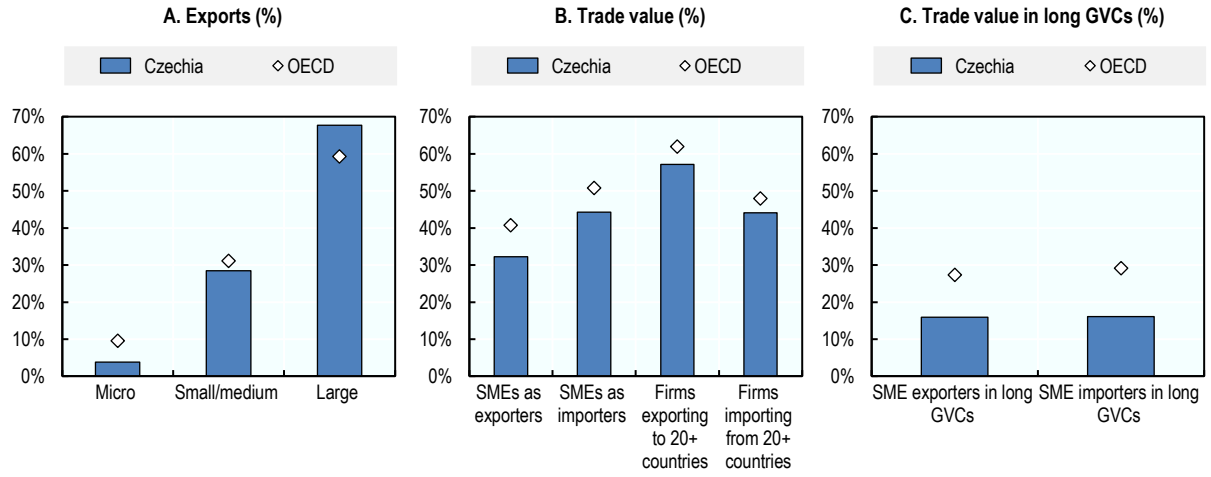
Commission, 2023[47]). Similarly, 3.1% of Czech SMEs report having done electronic sales with the rest of the world, which stands above the performance of Polish (2.7%) and Slovak SMEs (2.6%) but below more advanced peer economies such as Finland (4.2%) and Portugal (5.8%).

These findings suggest that beyond fixed costs, lower productivity and higher variable costs may be factors contributing to the export disparities observed between Czech SMEs and peers in other EU economies. The capacity of SMEs to participate in international trade is often limited by their internal capabilities, such as managerial expertise, technological resources, and innovation assets, as well as various external factors, including access to trade finance, the quality of logistics services and infrastructure and the level of intellectual property protection offered in foreign jurisdictions (OECD, 2021[48]).

Earlier assessments have indicated that looking only at direct exports under-represents their actual participation of SMEs in international trade. Available data from 2014 show that, when considering their indirect exporting activities through the provision of inputs to large direct exporters (buyer-supplier linkages), Czech SMEs are responsible for 47% of the total value added in Czech exports. Although this indirect channel of GVC participation allows more SMEs to access foreign markets without incurring trade-related costs, Czechia's performance still lagged behind most CEE and other peer economies such as Poland (50%), Hungary (52%), the Slovak Republic (56%), Portugal (63%) and Finland (52%).

The challenges that Czech SMEs face in their internationalisation process are high in value chains that are key for the domestic economy and have attracted significant FDI. Czech SMEs appear less engaged in long GVCs than most OECD economies, including in those related to automotive, electronic and metal products as well as in machinery and transport equipment (Figure 2.22, Panel C). Long GVCs are those where the different stages of production – from sourcing of raw materials, manufacturing components, assembly to the final product – are spread across a relatively wide geographic area, often involving multiple countries across different continents. Long GVCs highlight the interconnectedness of global economies and could indicate the degree of exposure of an economy to highly internationalised sectors. Although Czech SMEs' limited engagement in long GVCs may make them less vulnerable to global trade disruptions, it also prevents them from seizing the opportunities that export-intensive and FDI-driven industries bring for business expansion (e.g. automotive sector). Beyond accessing foreign markets, improving the export capacity of Czech SMEs in these key segments of the economy could also strengthen domestic linkages with foreign firms who would be able to source "quality" inputs from Czech firms that are exposed to international competition – rather than by importing.

Figure 2.22. Czech SMEs' participation in international trade compared to the OECD average



Note: SMEs imports and exports as a percentage (%) of total country imports and exports of goods and services respectively, measured in trade value. SMEs include firms with 1-249 persons employed. The diversification of trade networks is measured by the share of all businesses exporting/importing to/from 20 or more countries. SME integration in long GVCs is calculated as the share of SMEs in all imports and exports of the top 10 longest value chains based on the OECD Inter-Country Input-Output (ICIO). These are manufacturing of: textiles (13), wearing appeal (14), leather and related products (15), rubber and plastics products (22), basic metals (24), computers, electronics, and optical equipment (26), electrical equipment (27), other machinery & equipment (28), motor vehicles, trailers and semi-trailers (29), and other transport equipment (30).
Source: OECD Structural Demographics and Business Statistics (SDBS) and Trade by Enterprise Characteristics (TEC) databases, 2023.

Czech SMEs perform relatively well on innovation but spend less on R&D than their EU peers

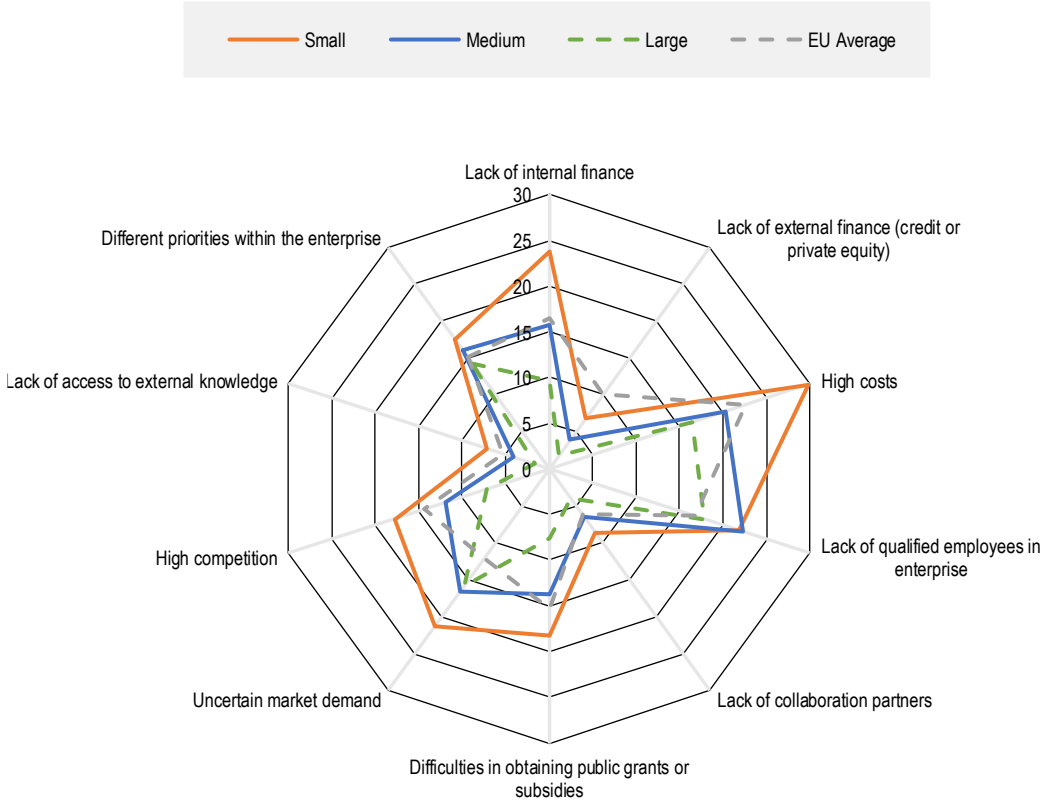
Czechia's innovation system for SMEs demonstrates a moderate performance level, with notable strengths and weaknesses across innovation metrics. The European Innovation Scoreboard 2023 classifies Czechia as a "moderate innovator", standing at 95% of the EU average, but reporting a strong increase (of 26%) in the country's innovation performance relative to the EU between 2016 and 2023 (European Commission, 2023[49]). The country's gross domestic expenditure on R&D (GERD) reached 2% in 2021 and although it is increasing (compared to 1.33% in 2010), it remains below the EU average of 2.26% (European Commission, 2022[8]). Over the past decade, progress has been observed particularly in the quality of applied research systems, digitalisation, and firms' R&D investments while relative weaknesses persist in government support for business R&D, patent applications and the adoption of information technologies. Access to these innovation assets can facilitate FDI spillovers to SMEs as they support the generation of new business ideas, promote economies of scale and specialisation, and increase their productive capacities and potential to collaborate with other knowledge-intensive firms, including foreign ones (OECD, 2022[50]; OECD, 2023[29]).

Czech SMEs face significant barriers to obtaining and utilising the necessary technology, information, and networks required to innovate (OECD, 2021[51]; OECD, 2023[29]). According to the Eurostat Community Innovation survey, these include high costs (50%), lack of qualified employees (44%), lack of internal finance (40%), and uncertain market demand (38%) (Figure 2.23). Among small Czech firms, high costs (30%) are the most important barrier, measuring much higher than the EU average (24%). In contrast, for medium-sized firms, lack of qualified employees (22%) is seen as a major barrier to innovation. The combination of high costs and lack of qualified employees can prevent productive investments which are needed for innovative activities to take place (OECD, 2022[15]). These barriers are reflected in the number of innovative small firms. In 2020, the share of small businesses (10 to 49 employees) in the total

population of innovative enterprises stood at 68% in Czechia, outperforming certain peer economies (e.g. Poland, Lithuania, Slovak Republic) but lagging behind most EU countries.

Figure 2.23. Barriers to innovation among Czech small, medium-sized and large firms

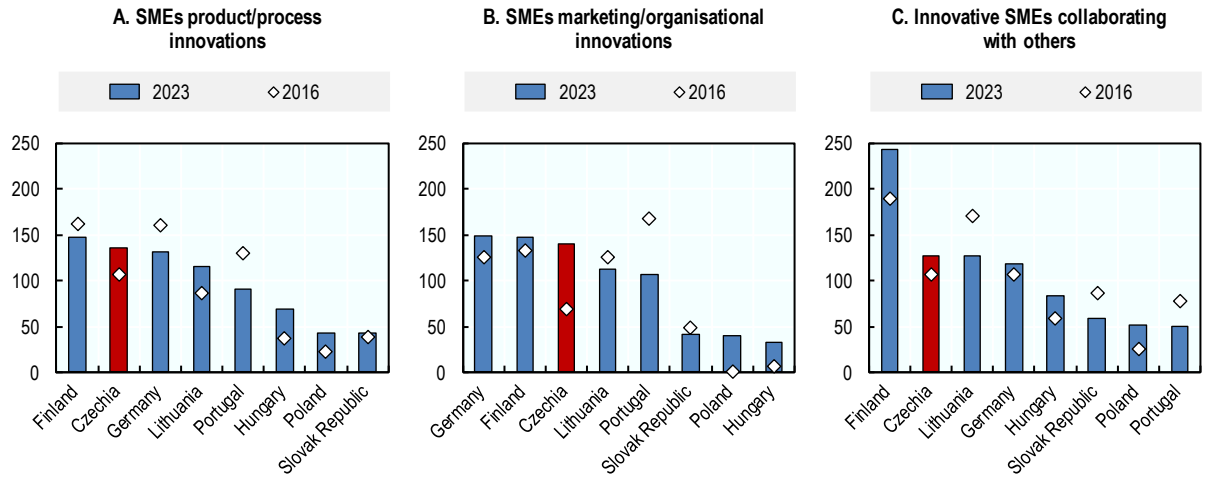
Percentage of innovative firms by type of barriers hampering innovation activities (reported as of high importance), 2020



Note: Large, medium and small: % of innovative firms in innovation core activities (Com. Reg. 995/2012) rating the importance of a barrier as "high", by size class. Small firms = from 10 to 49 employees. Medium-sized = from 50 to 249 employees. Large = 250 employees or more. Micro firms with less than 10 employees are not included. EU: average % of innovative firms of all sizes in innovation core activities (Com.Reg. 995/2012) rating the importance of a barrier as "high".
Source: Eurostat (2020[52]),Community Innovation Survey (CIS), https://ec.europa.eu/eurostat

Despite these challenges, Czech SMEs perform well on certain innovation metrics. Since 2016, they have significantly improved their performance in introducing product, process and organisational innovations as well as in collaborating with other firms to generate innovation outputs – consistently performing above the EU average and outperforming their peers in CEE countries (Figure 2.24). Indicatively, over the same period, several comparator countries experienced a drop in their SME innovation performance, including Portugal (in both product/process and organisational innovations) as well as Lithuania and the Slovak Republic (with regard to SMEs collaborating with other firms). Czechia's improved outcomes signal growing strengths in its innovation ecosystem and the adoption of more sophisticated business practices by the domestic SME population. It may also reflect the effectiveness of recent policy measures aimed at fostering innovation and supporting SMEs' competitiveness (see Chapter 5 on the policy mix).

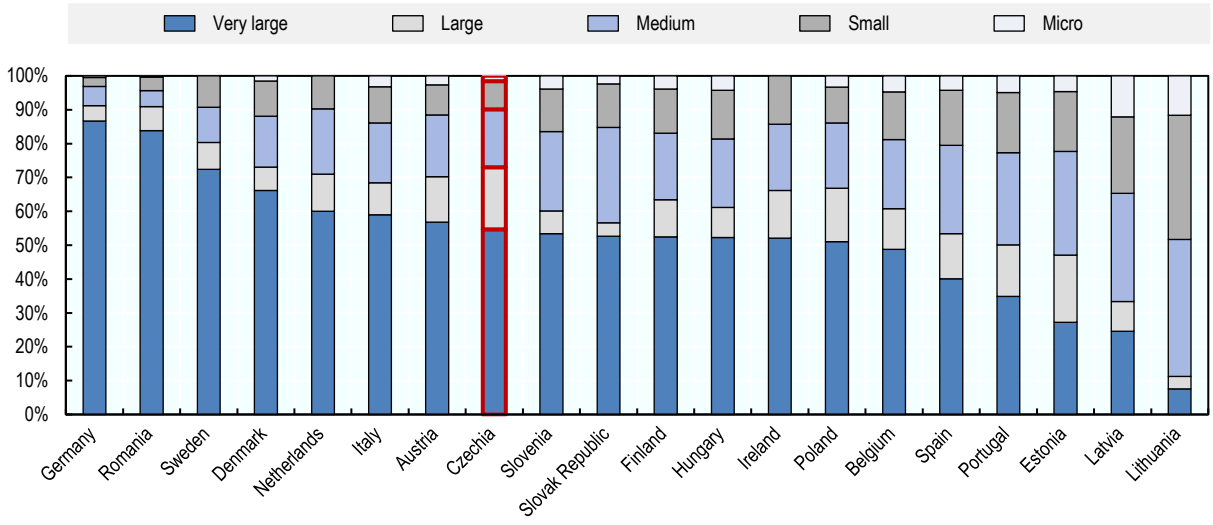
Figure 2.24. SME innovation performance (index, 100 = EU average)



Note: Underlying data relate to share of SMEs who introduced product/process, marketing/organisational innovations or that engage in innovation cooperation activities with other firms (EIS 2023 Methodology Report.docx (europa.eu).
Source: OECD based on Eurostat, (2023[53]), European Innovation Scoreboard, https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en

R&D expenditures by SMEs in Czechia are low by international standards, potentially impairing the development of inter-firm collaborations in knowledge-intensive sectors. Large and very large firms are responsible for 73% of business R&D, marking the 5th highest share among EU economies in this size class, while MSMEs account for only 27% of expenditures (Figure 2.25). In contrast, in the Baltic economies, the bulk of business R&D expenditure is done by MSMEs (89% for Lithuania, 67% for Latvia and 53% for Estonia), reflecting their vibrant startup ecosystem and strong linkages with public and private R&D institutions. In 2021, Czech small and medium-sized firms spent respectively EUR 25.1 and EUR 49.3 per inhabitant in R&D, which is more than certain CEE economies such Poland and the Slovak Republic, but still low compared to more R&D-intensive economies like Portugal (where small and medium-sized firms spent in R&D EUR 37.3 and EUR 55.3 per inhabitant respectively), Lithuania (EUR 38.3 and EUR 35.1) or Finland (EUR 121.1 and EUR 173.1). Czechia could further support smaller firms to invest in R&D and leverage the opportunities that business-to-business and business-to-science linkages offer for knowledge and technology transfer. Stronger collaboration between public R&D organisations and the country's startup ecosystem could attract leading international investors, further stimulating the sharing and exchange of knowledge and technologies.

Figure 2.25. R&D intensity by firm size (% of total business R&D expenditure), 2020



Note: Data for Germany, Romania, Sweden, Austria, Ireland, and Belgium comes from the year 2019.
Source: OECD (2021[54]), Research and Development Statistics Database, https://stats.oecd.org/

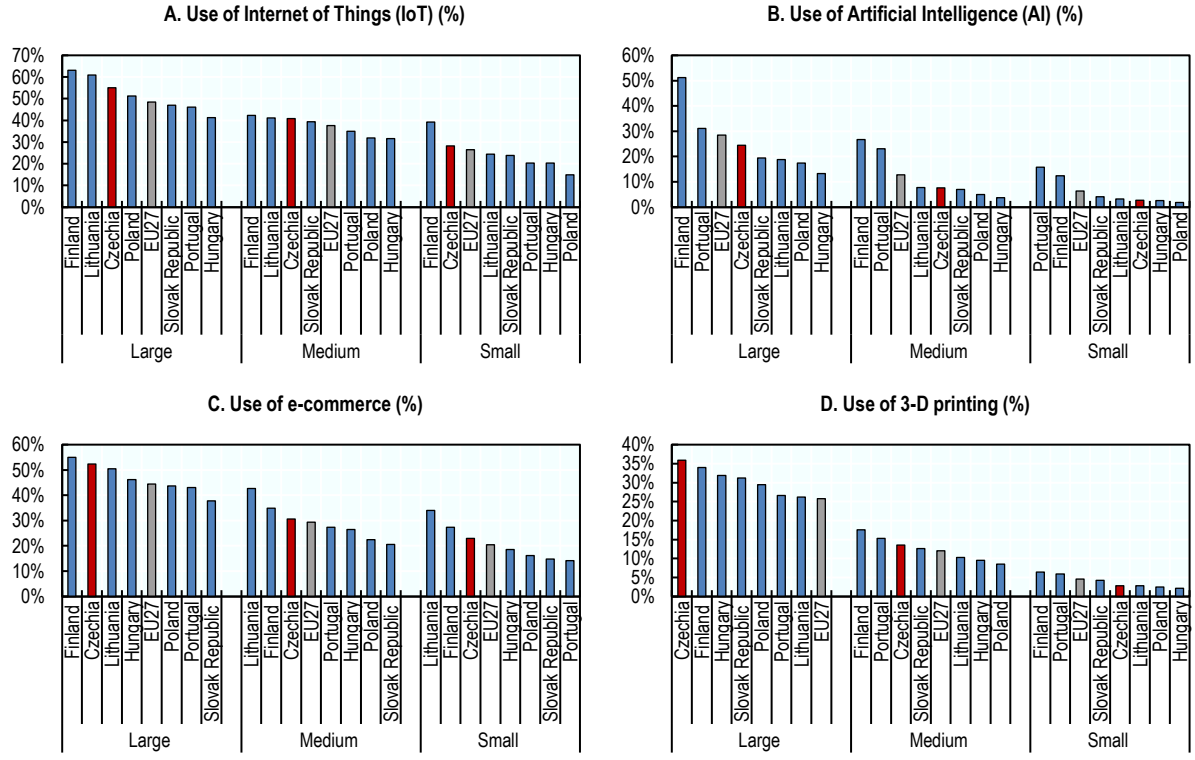
2.4.4. Czech SMEs use digital technologies more frequently than their EU peers, but challenges remain

Czech SMEs exhibit moderate levels of digitalisation. In 2022, Czechia ranked 19th among the 27 EU Member States in the European Commission's Digital Economy and Society Index (DESI) (European Commission, 2022[55]). 68% of Czech SMEs are reported to have at least a basic level of digital intensity compared to 69% of the EU average. A survey of two hundred business executives from medium-sized and large firms found that half of them have a dedicated digitalisation department and another 36% have established a cross-departmental team for this purpose, focusing mostly on digitizing business areas related to production, sales and customer experience (SAP, 2022[56]). According to the Czech Confederation of Industry, while half of large firms have adopted automation technologies and one third of them use robotics technologies, these shares go down to 20% and 8% respectively for small and medium-sized enterprises, illustrating SMEs' relative disadvantage vis-à-vis large enterprises (SPCR, 2020[57]). Approximately 50% of SME employees in Czechia use digital tools (such as a computer with Internet access), a share that is among the lowest in the OECD area (OECD, 2023[41]). Despite that, Czech SMEs still perform better than their EU peers in most digital technologies, including the use of cloud services, the Internet of Things (IoT), 3-d printing and e-commerce (Figure 2.26). They lag behind, however, in the use of Artificial Intelligence and big data. Differences in technology adoption widen as technologies become more advanced, requiring substantial digital infrastructure that SMEs may lack (OECD, 2021[51]; OECD, 2022[15]).

The digital gap between large firms and SMEs is more pronounced in the adoption of supplier and customer management technologies (Figure 2.27). The largest gap is observed in Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) software as well as in employing ICT specialists. In contrast, SMEs and large firms exhibit smaller (but still substantial) gaps in sharing electronically supply chain management (SCM) information, receiving orders over computer networks and purchasing cloud computing services. The use of these technologies if often a prerequisite for SMEs to form buyer-supplier linkages with large multinationals and benefit from spillovers in GVCs. Digital technologies open

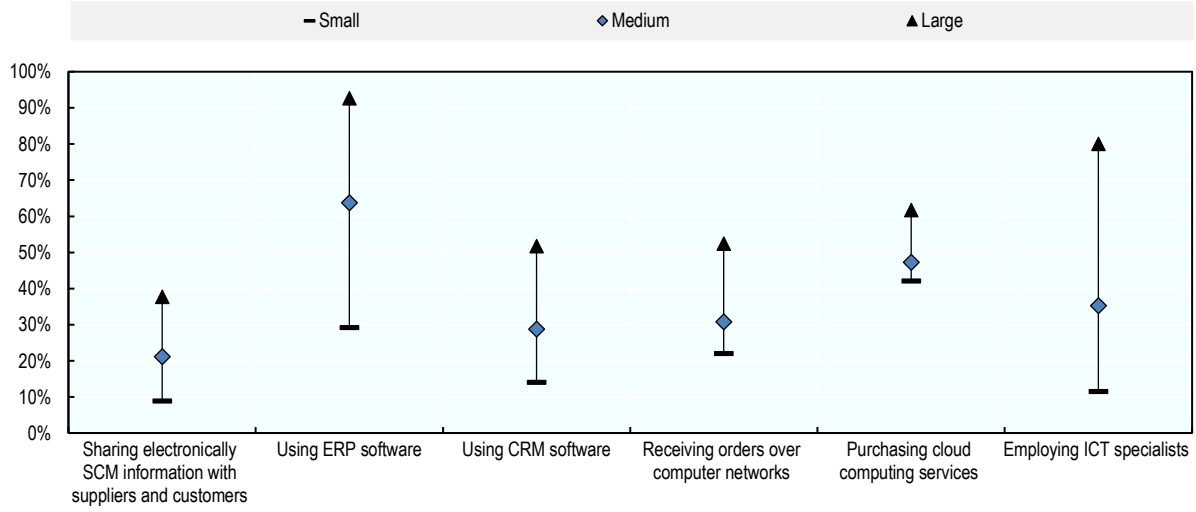
opportunities for SMEs to reduce costs, enhance their innovation capacity (e.g. improved products or services with AI, or new business models based on the licensing of data) and support their scaling up.

Figure 2.26. The use of digital technologies by Czech SMEs, 2021



Note: Data for the use of 3D printing and robotics comes from the year 2022.
Source: OECD (2021[58]), ICT Access and Usage by Business Database, https://stats.oecd.org/

Figure 2.27. SMEs use of supplier and customer management technologies, 2021



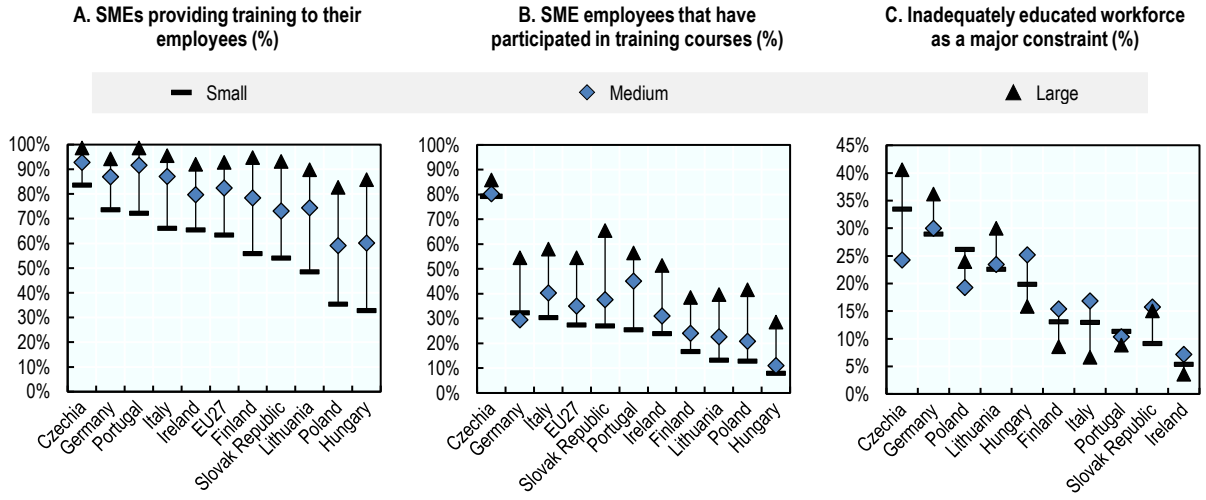
Note: Data for businesses receiving orders over computer network comes from the year 2020. Data for businesses sharing electronically SCME information with suppliers and customers comes from the year 2017.
Source: OECD (2021[58]), ICT Access and Usage by Business Database, https://stats.oecd.org/

2.4.5. Czech SMEs provide on-the-job training to their employees, but digital and production-related skills shortages could be further addressed

SMEs face significant challenges in recruiting and retaining skilled employees since they lack the resources and networks needed to identify talent and often offer less attractive compensation than large firms. Highly skilled workers are a key asset for competition in a knowledge-based economy and for facilitating the assimilation of technology and innovation as well as the expansion into new markets (OECD, 2023[29]).

Czech SMEs outperform their EU peers in staff training. In 2020, 84% of small and 93% of medium-sized firms had provided on-the-job training to their employees – much more than the EU average (64% and 83% respectively) and significantly above the performance of all peer EU economies (Figure 2.28, Panel A). Czechia also exhibits one of the narrowest performance gaps between SMEs and large firms, indicating that barriers related to firm size may not affect Czech firms ability to invest in the skills development of their employees in the same way they do in other EU economies. SMEs in ICT services and finance (92%) were more likely to provide training compared to those in professional, scientific and technical activities (82%) and wholesale and retail trade (83%). Similarly, participation of Czech employees in education and training activities financed by their enterprises is the highest in the EU27, with participation rates ranging from 79% for small firms, to 80% for medium-sized firms and 86% for large ones (Figure 2.28, Panel B). Notably, training participation rates in Czechia are more than double those achieved in peer CEE economies like Hungary, Poland, Lithuania and the Slovak Republic.

Figure 2.28. On-the-job training and skills development in Czech SMEs



Note: Panel A shows the share of enterprises that have provided continuing vocational training (CVT) to their employees; Panel B the share of employees that have participated in CVT courses; and Panel C the share of enterprises that identify inadequately educated workforce as a major constraint for their business operations. Data are from 2020 for Panel A and Panel B, and from 2019 for Panel C

Source: Eurostat (2020[59]), Continuing Vocational Training in Enterprises Survey, https://ec.europa.eu/eurostat, and World Bank Enterprise Surveys (2022), www.enterprisesurveys.org

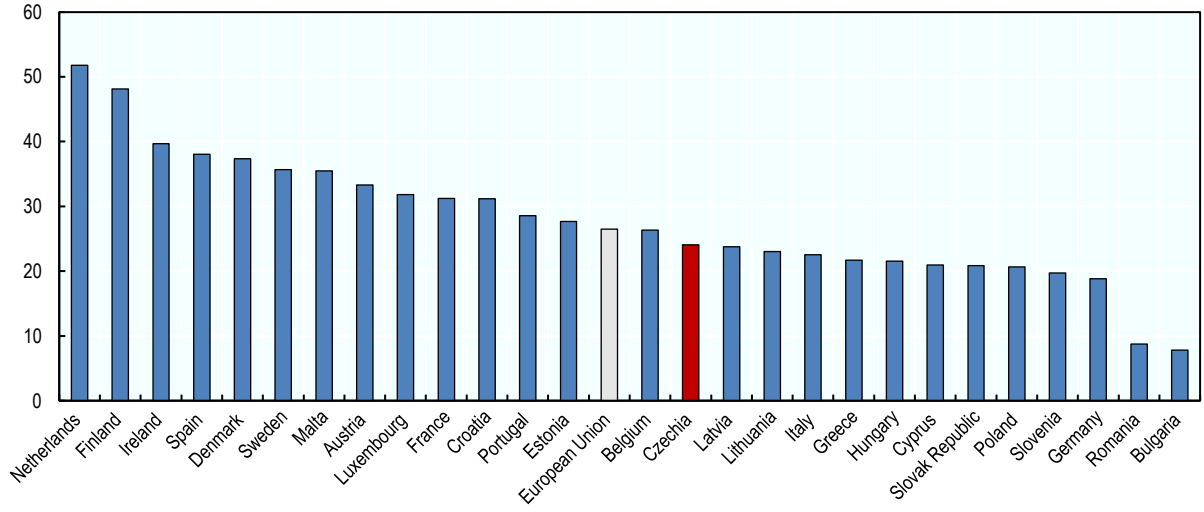
In spite of staff training efforts, the lack of qualified staff remains a major barrier to innovation, pointed out by 22% of innovative SMEs (Figure 2.23). Overall, the inadequately educated workforce appears to be a more serious constraint for Czech small (34%) and large (41%) firms compared to those in comparator countries (Figure 2.28, Panel C). Like other OECD economies, the digital transformation of manufacturing and the shift towards services sectors, which tend to be more reliant on highly skilled workers, have increased the demand for tertiary educated workers with more specialised skills. Although education

attainment is high and adult skills are above the OECD average in literacy, numeracy and problem-solving in technology-rich environments, skills shortages in growing sectors are large (OECD, 2023[3]). Czechia faces shortages in skills related to the handling of business processes and production technologies, particularly in professional, scientific and technical activities, information and communication, transportation and storage and manufacturing (Figure 2.30). In contrast, the sectors with the largest surpluses are construction, administrative and support services as well as accommodation and food services (OECD, 2018[60]). Despite these findings, Czechia performs better than peer EU economies, maintaining relatively low skills imbalances in comparison to other EU countries (Figure 2.29).

While Czechia performs well in terms of basic digital skills and has a relatively high proportion of ICT graduates (5% vs 3.9% EU average), 76% of Czech enterprises report difficulties in recruiting ICT specialists, marking the highest percentage in the EU (European Commission, 2022[8]). In 2022, 51% of small and 31% of medium-sized firms reported that they choose to perform their ICT functions through external suppliers (as opposed to own staff). According to the EU Digital Economy and Society Index, approximately 24% of individuals have "above basic" digital skills in Czechia, standing below the EU average of 26% (European Commission, 2022[61]) Czechia performs much better than other CEE economies like Slovenia (20%) and the Slovak Republic (21%) but significantly worse than more advanced economies like Finland (48%), Ireland (40%), and France (31%). Leveraging above basic digital skills is essential to enhance SMEs' competitiveness and facilitate the adoption of digital tools and processes that could help them engage in knowledge-intensive activities with foreign firms (European Commission, 2022[61]). Upgrading the domestic talent pool can also help raise productivity and move the Czech economy up the GVCs. Further strengthening Czech SMEs' capacity to identify and retain digitally savvy employees will also be key in the context of technological change – especially given the substantial number of jobs at risk due to job automation in the automotive and electronic manufacturing sectors.

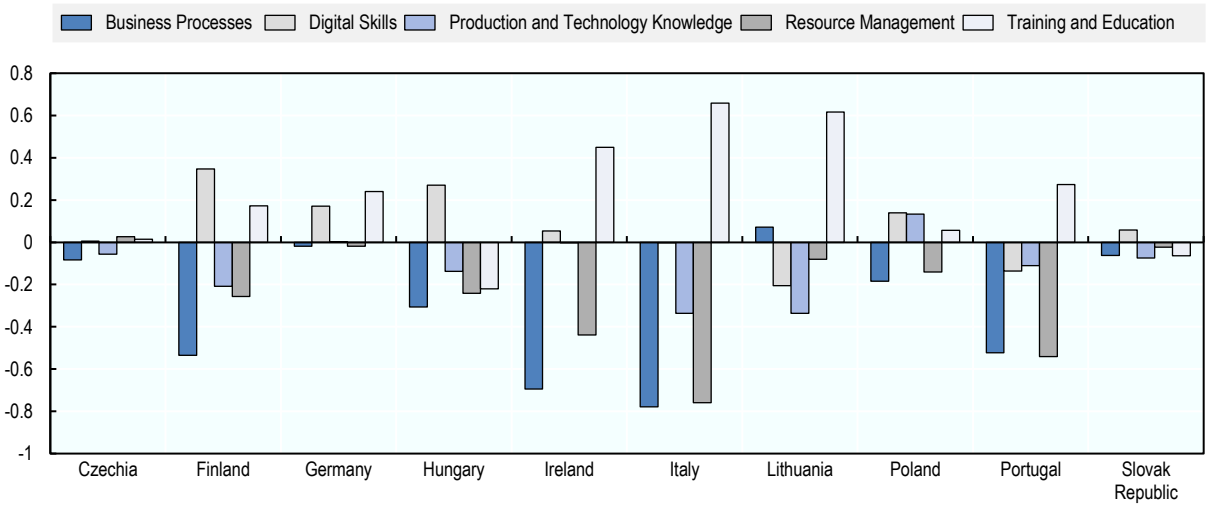
Figure 2.29. Above basic digital skills in EU economies, 2022

% of all individuals aged 16-74 having carried out activities requiring "above basic" digital skills in the previous three months, 2022



Note: People with "above basic" digital skills in each of the following four dimensions: information, communication, problem solving and software for content creation (as measured by the number of activities carried out during the previous 3 months). Selected activities are related to internet or software use.
Source: OECD based on the EC (2023[62]), Digital Economy and Society Index (DESI), https://digital-strategy.ec.europa.eu/en/policies/desi

Figure 2.30. Skills imbalances in selected EU economies, 2022



Note: Business processes includes skills on the following: clerical, customer and personal service, sales and marketing. Digital skills include skills on the following: computer programming, digital content creation, digital data processing, ICT safety, networks and servers, office tools and collaboration software, web development and cloud technologies. Production and technology knowledge includes skills on the following: building and construction, design, engineering, mechanics and technology, food production, installation and maintenance, production and processing, quality control analysis, telecommunications, transportation. Resource management includes skills on the following: administration and management, management of financial resources, management of material resources, management of personnel resources, time management.
Source: OECD (2022[63]), Skills for Jobs Database, https://www.oecdskillsforjobsdatabase.org/press.php#CZ/

2.4.6. Diversifying SME sources of finance could help address the funding gap for innovation

Czechia has an overall weak investment environment which makes it difficult to finance new SME projects, in particular those involving inter-firm collaboration (OECD, 2022[50]). Czech SMEs rely on predominantly traditional means of financing, utilising credit lines and overdrafts (49%), leasing (48%), bank loans (40%), and grants or subsidised bank loans (33%) (European Commission, 2023[64]). Other sources of finance are used less frequently, such as own funds (31%), trade credit (18%) and factoring (6%), while equity capital is relevant only to 2% of surveyed SMEs. This could be an issue since conventional debt financing may not be well-suited for funding innovative, risky and uncertain ventures, requiring a wider array of finance solutions to be used to support SMEs scaling up.

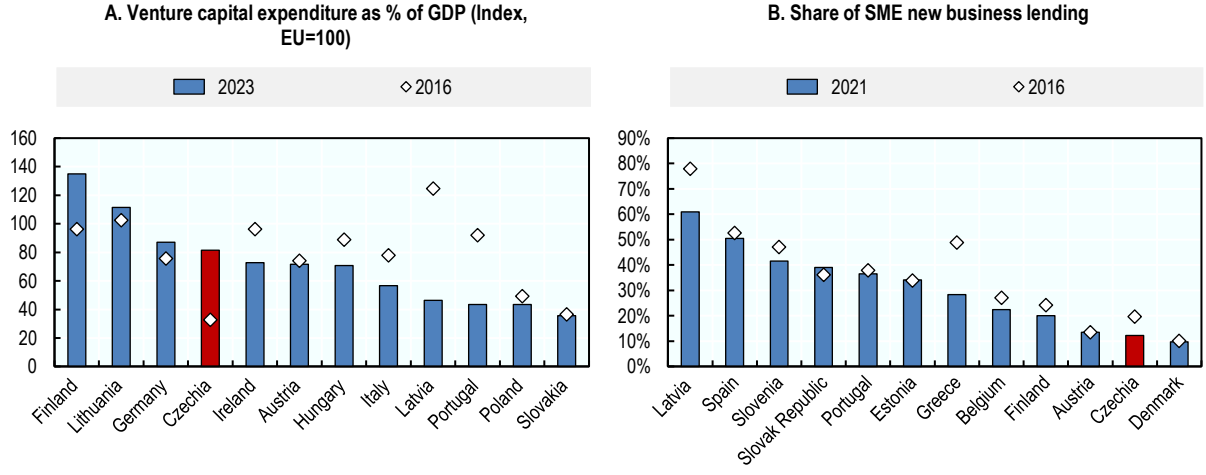
Czechia maintains high bank liquidity allowing established companies and entrepreneurs to access bank loans easily in times of economic stability, though, current high interest rates make it more difficult for SMEs to borrow, especially for those that are highly indebted. According to the EC 2023 SME Performance Review of Czechia, the annual average of interest rates for small business loans stood at 3.25% for Czech SMEs as opposed to 2.61% of the EU average in 2021. SMEs also have a higher perception of financial risk due to frequent rejections of loan applications (OECD, 2022[45]). Although the situation in this area has significantly improved over the past decade, 16.3% of surveyed Czech SMEs have reported rejected loan applications, double the EU average of 8.2% (European Commission, 2023[47]).

Czechia has experienced a decline in its share of SME new business lending, dropping from 20% in 2016 to 12% in 2021 (Figure 2.31, Panel B). The country's overall performance is lagging in comparison to CEE economies like Latvia, Slovenia, and the Slovak Republic, but also other peer economies like Portugal and Finland (Figure 2.31, Panel B). The number of new SME loans shrank more than the total number of new loans, and the SME loan share in total new business loans decreased from 23.9% in 2008 to 20.3% in

2020, potentially due to banks stricter rules for credit risk management and entrepreneurs facing lower order volumes or uncertain economic climate during the Covid-19 pandemic (OECD, 2022[45]; OECD, 2019[65]). Given SMEs' more difficult access to financing, late payments are an important challenge for them than for large companies. In Czechia, 61% of companies experience late payments in comparison with the EU average of 43%, indicating that this is a key barrier to SMEs' resilience and growth (European Commission, 2023[47]). Late payments appear to weigh particularly on Czech firms' supplier relationships and investment capacity, with 24% of them reporting negative consequences on their ability to make payments to their suppliers, and 15% to undertake investments or recruit new staff (European Commission, 2023[64]).

Moreover, there is little access to alternative sources of financing such as venture capital, bond issues, or crowdfunding (Ministry of Industry and Trade, 2021[66]; OECD, 2022[45]). VC investments have experienced fluctuations since their dramatic decline in 2008, indicating the instability of equity financing in the Czech market and their current marginal role in enterprise financing (OECD, 2022[45]). Over the past years, sustained efforts have been made to boost the domestic VC market, with data from the EU Innovation Scoreboard illustrating a more than double increase of VC expenditures as a share of GDP from the year of 2016 to 2023 (Figure 2.31, Panel A). Despite these improvements, Czechia still underperforms the EU average as well as other EU countries such as Finland, Germany and Lithuania. In 2021, VC investments stood at 0.02% of GDP compared to the EU average of 0.08%. The angel investment market is also fragmented and lacks visibility as it involves a limited number of investors. Czechia's National Strategy for the Development of the Capital Market has identified the limited awareness among SMEs about alternative sources of financing and their advantages as a key barrier to the growth of the Czech capital market (Ministry of Finance, 2019[67]).

Figure 2.31. SME sources of finance in Czechia and selected EU economies



Note: Underlying data for Panel A relates to venture capital expenditures which is defined as private equity being raised for investment in companies. Management buyouts, management buy-ins, and venture purchase of quoted shares are excluded. Venture capital includes early-stage (seed + start-up) and expansion and replacement capital.
Source: European Innovation Scoreboard (2023[68]), https://research-and-innovation.ec.europa.eu/system/files/2023-07/ec_rtd_eis-2023-methodology-report.pdf

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3 FDI spillovers at play for Czech SMEs

This chapter examines the extent of FDI and SME linkages in Czechia and the potential for the diffusion of knowledge, technology and skills from foreign multinationals to domestic SMEs. It examines where Czechia stands in the core channels of FDI-SME diffusion – namely value chain relationships; strategic partnerships; labour mobility; and competition and imitation effects – relative to peers in the OECD and the European Union and across economic activities.

3.1. Summary of findings

For FDI-SME spillovers to occur, domestic SMEs should be exposed to activities of foreign multinational enterprises (MNEs) either directly or indirectly. When SMEs are exposed to MNE activities they form linkages. Strengthening these linkages enhances productivity spillovers through the diffusion of knowledge, technology and skills to domestic firms, and by improving the innovative and scale-up capabilities of SMEs. This chapter explores Czechia's core channels of FDI-SME diffusion, namely value chain relationships, strategic partnerships, labour mobility, competition and imitation effects.

Foreign MNEs can obtain intermediate inputs from local suppliers (i.e. supplier linkages) or by importing from abroad. Opting to source inputs locally creates opportunities for growth for domestic firms, in particular SMEs. In Czechia, foreign affiliates import almost half (46% vs 37% at the OECD) of their intermediate inputs and source significantly less inputs locally compared to most OECD economies. This trend is observed across other small EU countries, including Central and Eastern European (CEE) economies, while foreign MNEs operating in larger economies like Germany and Italy tend to rely more on local suppliers due to the size of their domestic markets. Domestic-owned firms are responsible for almost one third (32%) of the inputs sourced by foreign affiliates. Although the majority of them are non-multinational firms – a category that likely includes most Czech SMEs –, their contribution to foreign affiliates' sourcing structure is lower than that of domestic-owned firms in the OECD area, which are on average responsible for half of the sourced inputs. In contrast, other foreign affiliates operating in Czechia are more important sources of intermediate inputs (23% of total sourcing vs 13% at the OECD), suggesting some clustering of foreign affiliates in Czechia, which tend to buy from and supply each other.

Similarly, foreign affiliates' output is mostly exported or sold to other foreign affiliates operating in the Czech market, indicating a lower potential for FDI-SME spillovers through buyer linkages. Such linkages are often a source of productivity spillovers because they allow domestic firms to access new, higher-quality or cheaper intermediate inputs. Many MNEs also offer training to their customers on the use of their products and provide information on international quality standards.

Beyond supplier-buyer linkages, foreign MNEs and domestic SMEs can establish strategic partnerships around the development of joint R&D and innovation projects, which can create opportunities for technology transfer, especially in high-technology and knowledge intensive industries. In Czechia, foreign MNEs and domestic SMEs establish cooperation through strategic partnerships in R&D and innovation particularly in high-technology and knowledge-intensive industries. Overall engagement in cooperation among Czech firms is moderate, with smaller enterprises lagging behind larger ones. Strategic partnerships particularly with foreign firms are less common among smaller Czech firms, indicating potential challenges in fostering linkages with FDI. Although Czech firms engage in technology licensing agreements at levels comparable to or higher than many comparator economies, foreign firms in Czechia appear to be less involved in such partnerships compared to their counterparts elsewhere.

Labour mobility can serve as a channel for knowledge spillovers, particularly through the movement of MNE workers to local SMEs. In Czechia, however, job-to-job mobility is lower than in many peer economies, especially in science and technology related sectors. While job mobility within the local labour market is limited, conditions for mobility of highly skilled foreign workers are relatively restrictive, with less favourable permit duration and labour market mobility conditions compared to neighbouring countries. Moreover, wages in foreign firms are significantly higher than in domestic firms especially in the services industry (e.g. information and communication, finance, and professional services), discouraging labour mobility and associated skills spillovers to domestic firms. The potential for FDI-SME spillovers through labour mobility also depends on FDI's skills intensity, as well as training and learning opportunities that SMEs have in the domestic economy, amongst other factors. Czechia is among the few countries, where foreign firms do not outperform their domestic counterparts in terms of training opportunities. This could be linked to the concentration of FDI in sectors creating few highly-skilled jobs such as the capital-intensive

real estate and finance sectors as well as in low-value added manufacturing linked to assembly and processing, which may not always require highly specialised and technology-intensive skills.

FDI-SME spillovers may also materialise through market interaction mechanisms driven by competition and imitation effects. Competition effects arise when MNEs enter the market, influencing domestic companies operating in the same sector or value chain segment, even if not geographically located in the same region. Conversely, imitation effects occur at a more local level when domestic firms emulate the practices of foreign MNEs, leading to enhancements in their productive and innovative capacities. In Czechia, cooperation with competitors on innovation is relatively common, suggesting potential for FDI-SME spillovers through tacit learning. However, same sector cooperation on innovation, particularly with foreign firms, is notably lower compared to other peer economies. A considerable share of SMEs in Czechia perceives competition as a barrier to innovate. This perception may reflect challenges in keeping up with new and potentially higher quality standards set by competitors, potentially resulting in fewer knowledge spillovers from foreign companies through imitation effects.

3.2. Value chain linkages between foreign MNEs and domestic SMEs

Domestic Czech firms may benefit from the presence of affiliates of foreign MNEs through buy and sell linkages. Domestic backward linkages are formed when foreign affiliates source intermediate inputs from locally established companies. Foreign affiliates can also sell intermediates to local companies. These linkages are referred to as domestic forward linkages (OECD, 2023[1]). This section examines domestic backward and forward linkages of foreign affiliates in Czechia. Box 3.1 clarifies the conceptual relationship between foreign firms' sourcing, value added and output, relevant to the analysis in this section.

3.2.1. Foreign MNEs source less domestically than their peers in OECD economies

Foreign MNEs established in the host economy can purchase their intermediate inputs from local suppliers or import them from abroad. The decision of a foreign MNE to source inputs for its production from local firms, can open new opportunities for domestic SMEs.[1] For example, purchases of local firms' products by a MNE boosts demand for local firms' products. Through interactions with MNE clients and the need to fulfil a set of associated requirements, local firms may also improve the quality of their products, introduce new management and organisational practices, and reap additional reputational gains over time (see Alfaro-Urena, Manelici and Vasquez (2022[2])). These changes can, in turn, facilitate acquisition of new clients and increasing sales to other firms in the future.

Foreign affiliates in Czechia source lower shares of their inputs locally than foreign affiliates in other small OECD economies, pointing to potentially weak supply chain linkages with the local economy. Though, domestic sourcing of intermediate inputs is more common among domestic firms than among foreign firms. On average, 46% of intermediate inputs of foreign affiliates located in Czechia was sourced via imports in 2016, while the rest was sourced domestically. These patterns are comparable to the average of benchmark OECD economies and of the OECD as a whole (Panel A in Figure 3.2). Foreign affiliates in many smaller OECD economies, especially in Central and Eastern Europe (CEE), source a similar share of their inputs from abroad via imports: 48% in the Slovak Republic and 43% in Lithuania. Meanwhile, foreign affiliates in larger economies, like Poland, Germany, or Italy, tend to purchase more inputs from local suppliers. This reflects, among others, the size of domestic markets and the availability of a larger variety of intermediate goods and services locally.

Domestic sourcing of foreign affiliates can be further decomposed into sourcing from domestic-owned and from foreign-owned firms. On average, 58% of domestic intermediate purchase of foreign affiliates in Czechia was supplied by domestic-owned firms (Panel B in Figure 3.2). This compares to 77% of domestic sourcing in benchmark OECD economies and to almost 80% for the OECD as a whole. As such, foreign

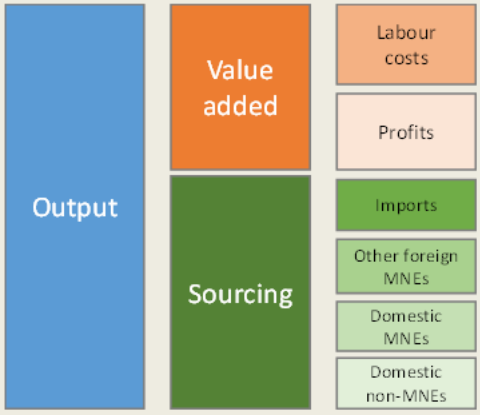
MNEs established in Czechia are relatively more important as sources of intermediate inputs for foreign affiliates (42%) than in comparator OECD countries, suggesting some clustering of foreign affiliates which tend to buy from and supply to each other. Domestic non-MNEs, in turn, account for most of domestic sourcing from domestic-owned firms relative to MNEs (92% vs. 8% compared to 80% and 20%, respectively, among OECD peers).

Box 3.1. Foreign affiliates' output, value added and sourcing: relevant concepts

To understand value-chain linkages between foreign affiliates and local firms through the optic of data presented in this chapter, it is important to clarify how firm output, value-added and sourcing relate to each other. Firms' output can be split into value added and sourcing of intermediate inputs (Figure 3.2). Foreign-owned and domestic firms can differ in their sourcing patterns in general and across sectors.

Overview of different components of firms' output

Figure 3.1. Overview of different components of firms' output

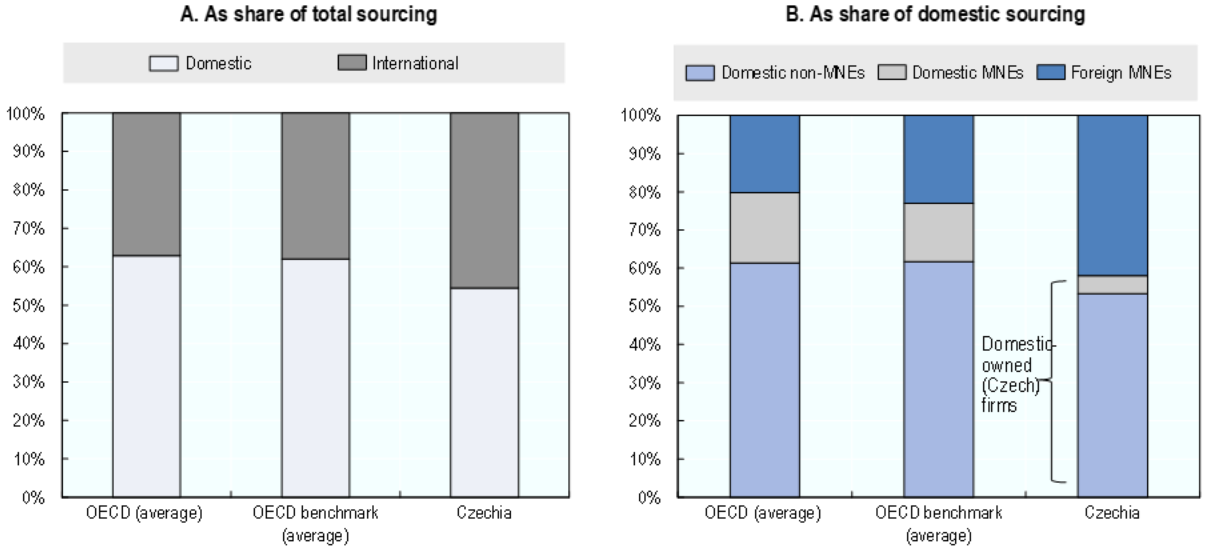


This section focuses on the extent to which foreign firms source intermediates directly from firms established in Czechia as opposed to sourcing of inputs from abroad through imports. In addition, the domestic sourcing structure is therefore further split into sourcing from other foreign affiliates established in Czechia, domestic MNEs (i.e., Czech firms with establishments abroad) and domestic non-MNEs (i.e., Czech firms with no establishments abroad).

The section does not focus on better understanding to what extent value added generated by foreign affiliates stays in Czechia or may be repatriated to home economies, which is also of key interest in the context of the direct contributions that foreign firms have on the growth and development of the host economy. Part of foreign affiliates' value added is used to pay salaries of their (mostly local) employees and therefore "stays" in the domestic economy. The remaining part, including earnings, may or may not leave the host economy. The latter is particularly important in the context of tax policy.

Source: OECD based on (Cadestin et al., 2019[3])

Figure 3.2. Sourcing of foreign affiliates in Czechia and the OECD, by type of sourcing and type of local suppliers, 2016

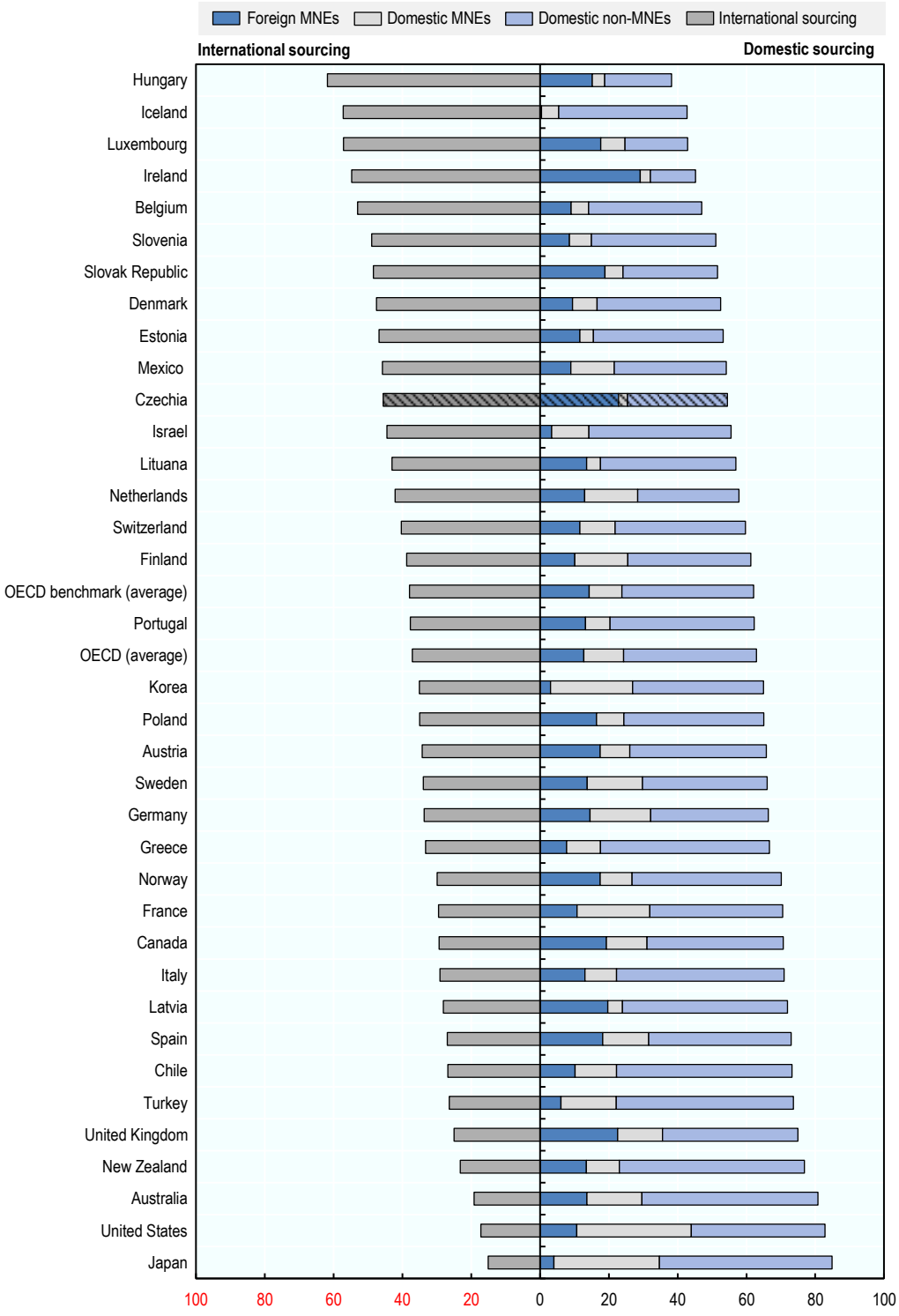


Note: The OECD benchmark countries used in this report are: Finland, Germany, Italy, Lithuania, Poland, Portugal, and Slovak Republic.
Source: OECD (2019[4]), Analytical Activity of Multinational Enterprises (AMNE) Database, www.oecd.org/sti/ind/analytical-AMNE-database.htm

While data splitting these different categories between SMEs and non-SMEs is not available, the shares reported above are indicative of a potentially important contribution of Czech SMEs to local sourcing of foreign affiliates in Czechia. This is because firms that belong to international business groups – based on patterns encountered in empirical studies on characteristics of firms involved in international operations across different countries – tend to be larger than other firms, on average[2]. While these patterns may differ across sectors (e.g., with potentially higher incidence of SMEs with MNE status in digital and other services sectors), generally, SMEs are likely to belong to the domestic non-MNE category (Cadestin et al., 2019[3]), responsible for the highest share of foreign affiliates domestic sourcing in Czechia.

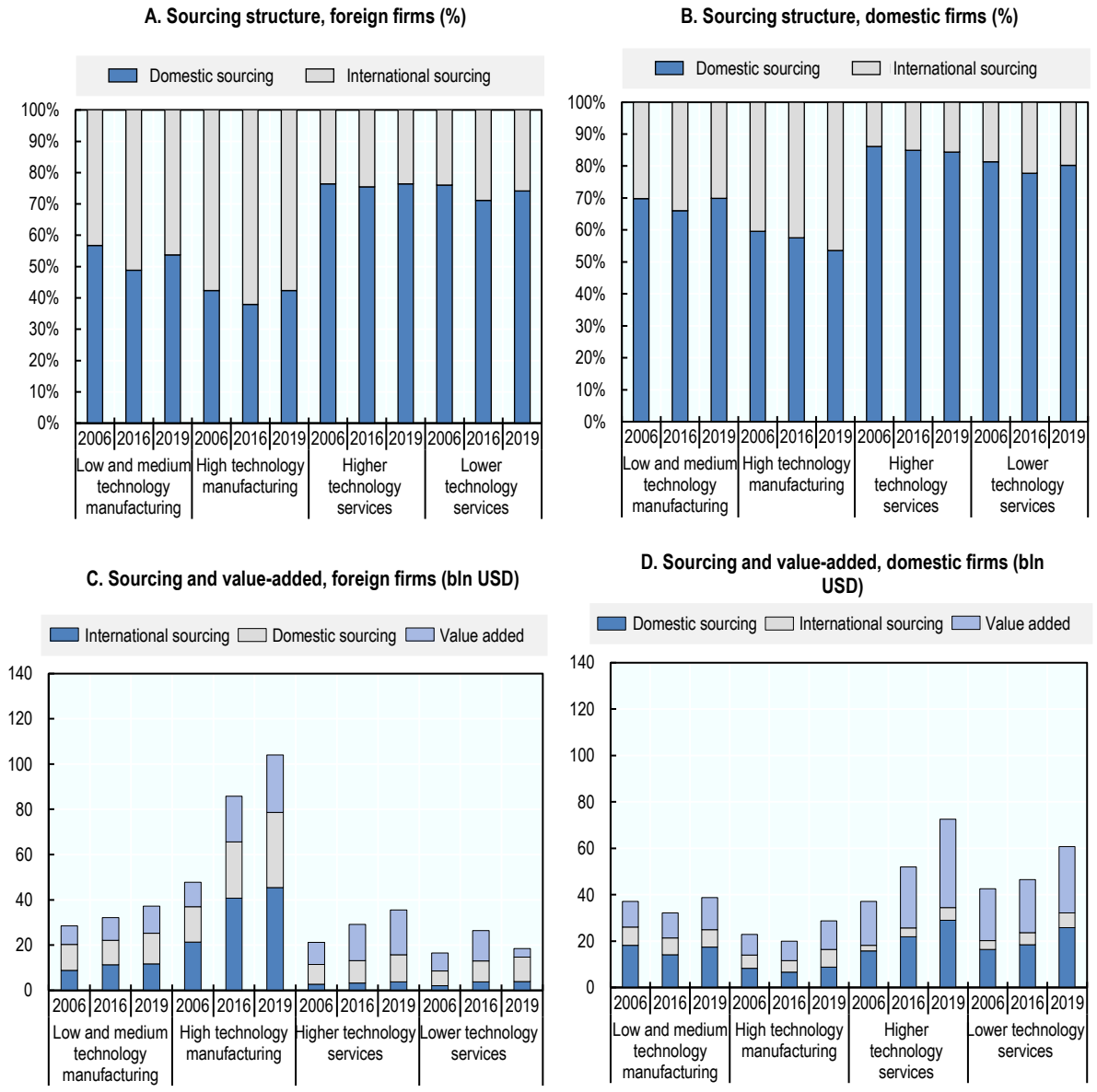
Both foreign and Czech firms rely on domestic – instead of international – sourcing of intermediate inputs in services more than in manufacturing. On average, domestic sourcing accounted for about three quarters of total sourcing by foreign affiliates in services and half of such sourcing in manufacturing in Czechia (Figure 3.4, Panel A). These shares have remained stable over time. This is not surprising given that many services are non-tradable and can be sourced only locally. The share of domestic sourcing is lowest for high-technology manufacturing intermediate inputs, particularly among foreign firms (58% of total sourcing of foreign and 46% of domestic in 2019). However, in monetary terms, domestic sourcing by foreign affiliates is greater in high-technology than in low-technology manufacturing, given the higher overall value of sourcing of foreign affiliates in high-technology than in low-technology-manufacturing in Czechia (Figure 3.4, Panel C). Sourcing from high-technology manufacturing by foreign firms is highest in value when compared with domestic firms. Going forward, it would be beneficial to encourage more local sourcing in Czechia's high-technology manufacturing, given its technology and knowledge intensity, it has the highest spillover potential (OECD, 2023[1]).

Figure 3.3. Sourcing of foreign affiliates, by type of sourcing, type of local suppliers and country of foreign affiliates' location (in % of total sourcing), 2016



Note: Foreign MNEs = foreign affiliates of multinational enterprises; domestic MNEs = domestically owned firms with foreign affiliates abroad; domestic non-MNEs = domestically owned firms with no operations abroad. The OECD benchmark countries used in this report are: Slovak Republic, Portugal, Lithuania, Poland, Finland, Germany, and Italy.
Source: OECD (2019[4]), Analytical Activity of Multinational Enterprises (AMNE) Database, www.oecd.org/sti/ind/analytical-AMNE-database.htm

Figure 3.4. Sourcing of domestic and foreign firms by sectoral groups in Czechia, 2016



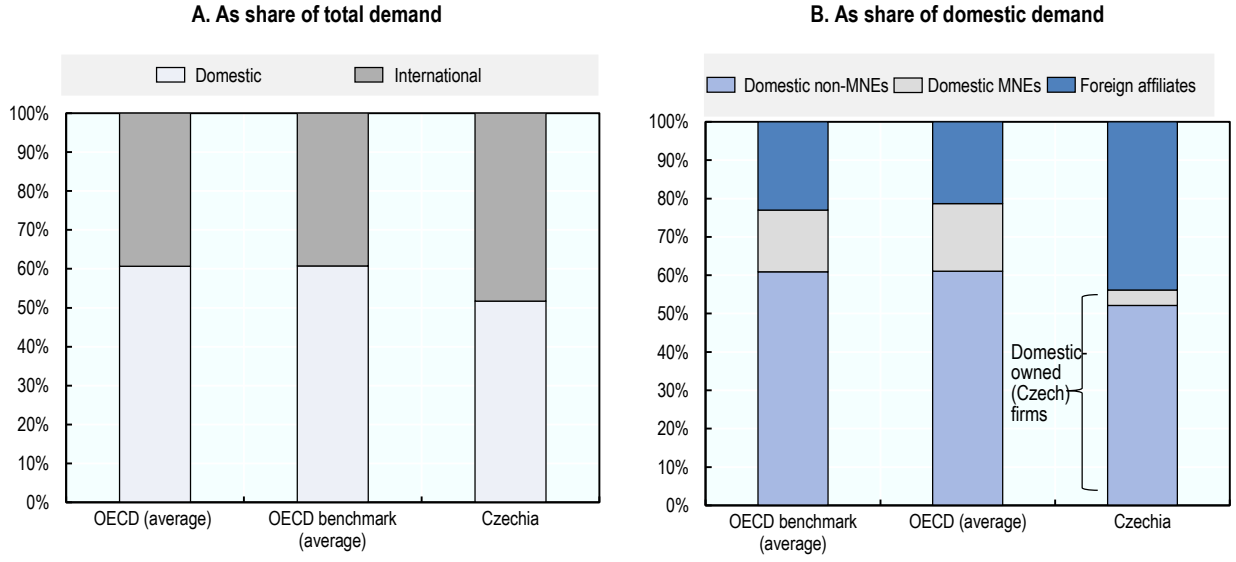
Note: The classification of sectors into the different groups follows the classification outlined earlier in this report (see chapter 2).
Source: OECD (2019[4]), Analytical Activity of Multinational Enterprises (AMNE) Database, www.oecd.org/sti/ind/analytical-AMNE-database.htm

3.2.2. Foreign MNEs export a large share of their output or sell it to other foreign MNEs in Czechia

Foreign affiliates of MNEs may not only serve as buyers of intermediate goods and services, but also as suppliers to other companies in the host country (forward linkages). Such relationships may allow local firms access to new, higher-quality, or cheaper intermediate inputs (Criscuolo and Timmis, 2017[5]). In addition, many MNEs, especially in industrial sectors such as machinery, offer training to their customers on the use of their products and provide information on international quality standards (Jindra, 2006[6]). They may also help set the standards for the industry, which in turn can help better diffuse innovation. Firms adopting those international standards can more easily integrate in markets abroad.

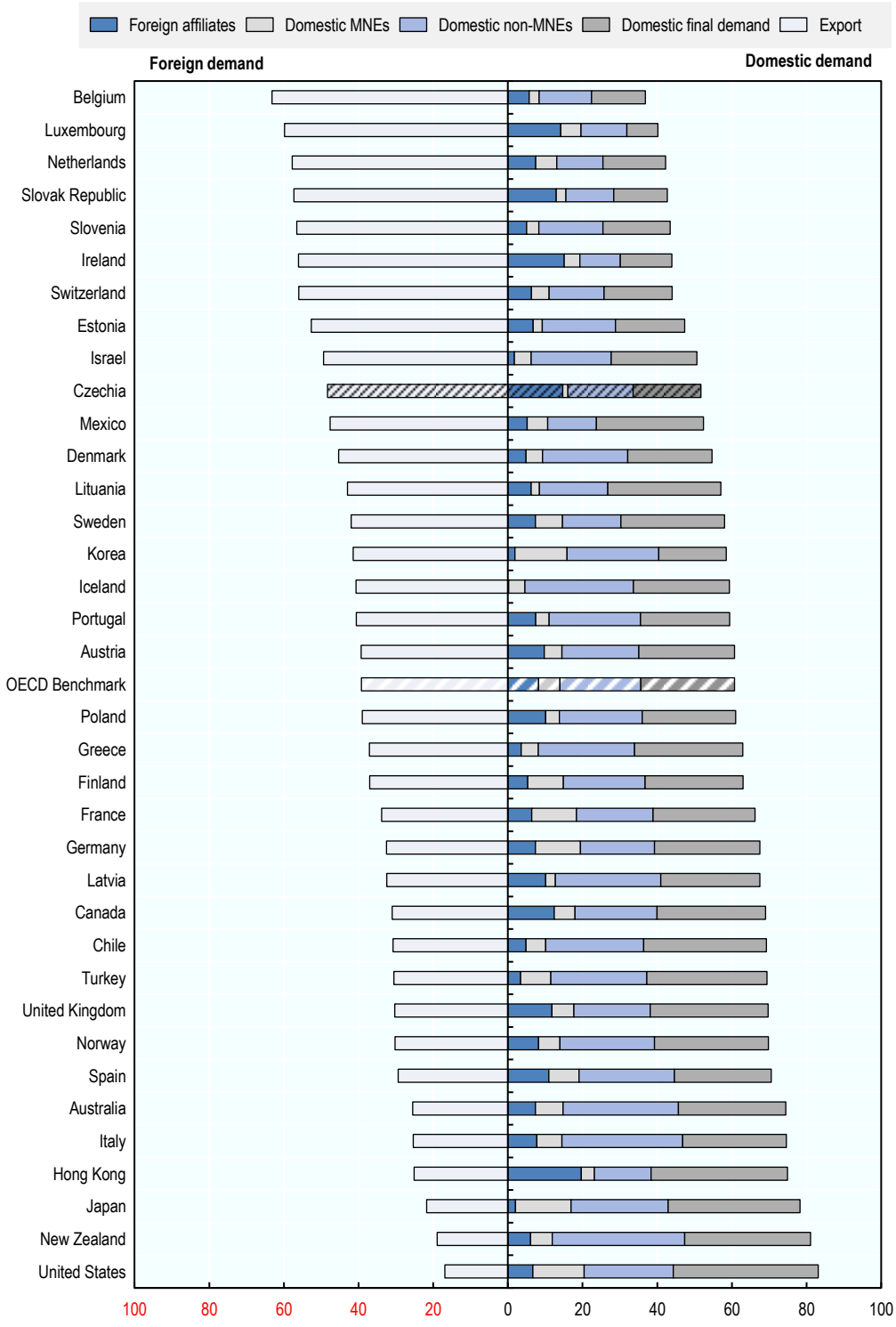
In Czechia, a higher share of foreign affiliates' intermediate output is exported or sold to other foreign affiliates operating in the Czech market compared with peer economies, indicating a lower potential for spillovers through forward linkages. Almost 50% of the output of foreign affiliates is exported compared to nearly 40% among the comparator OECD countries (Figure 3.5, Panel A). The rest of the output of foreign affiliates stays in the domestic economy: 35% is used by the final consumer (41% among OECD peers) and 65% for intermediate consumption by local firms (59% among OECD peers) (Figure 3.6). Therefore, a relatively high share of production of foreign affiliates is used for production of local firms, i.e., feeding back into the domestic supply chains. Foreign affiliates of MNEs are responsible for a large share of that domestic intermediate consumption and this share is much higher than in comparator OECD economies (28% compared to 13%). This reflects an important cluster of foreign MNEs located in Czechia taking advantage of opportunities created by demand of other foreign affiliates, in particular in supply chains related to motor vehicles. These shares are similar to those of the Slovak Republic, which is also highly integrated into the global automotive supply chains (30%) but much higher than other comparator economies.

Figure 3.5. Demand for outputs of foreign affiliates in Czechia and OECD, by type of demand and type of local clients (in % of demand), 2016



Note: The OECD benchmark countries used in this report are: Slovak Republic, Portugal, Lithuania, Poland, Finland, Germany, and Italy.
Source: OECD (2019[4]), Analytical Activity of Multinational Enterprises (AMNE) Database, www.oecd.org/sti/ind/analytical-AMNE-database.htm

Figure 3.6. Use of output of foreign affiliates by type of demand, type of local buyers and country of foreign affiliates' location (in %), 2016



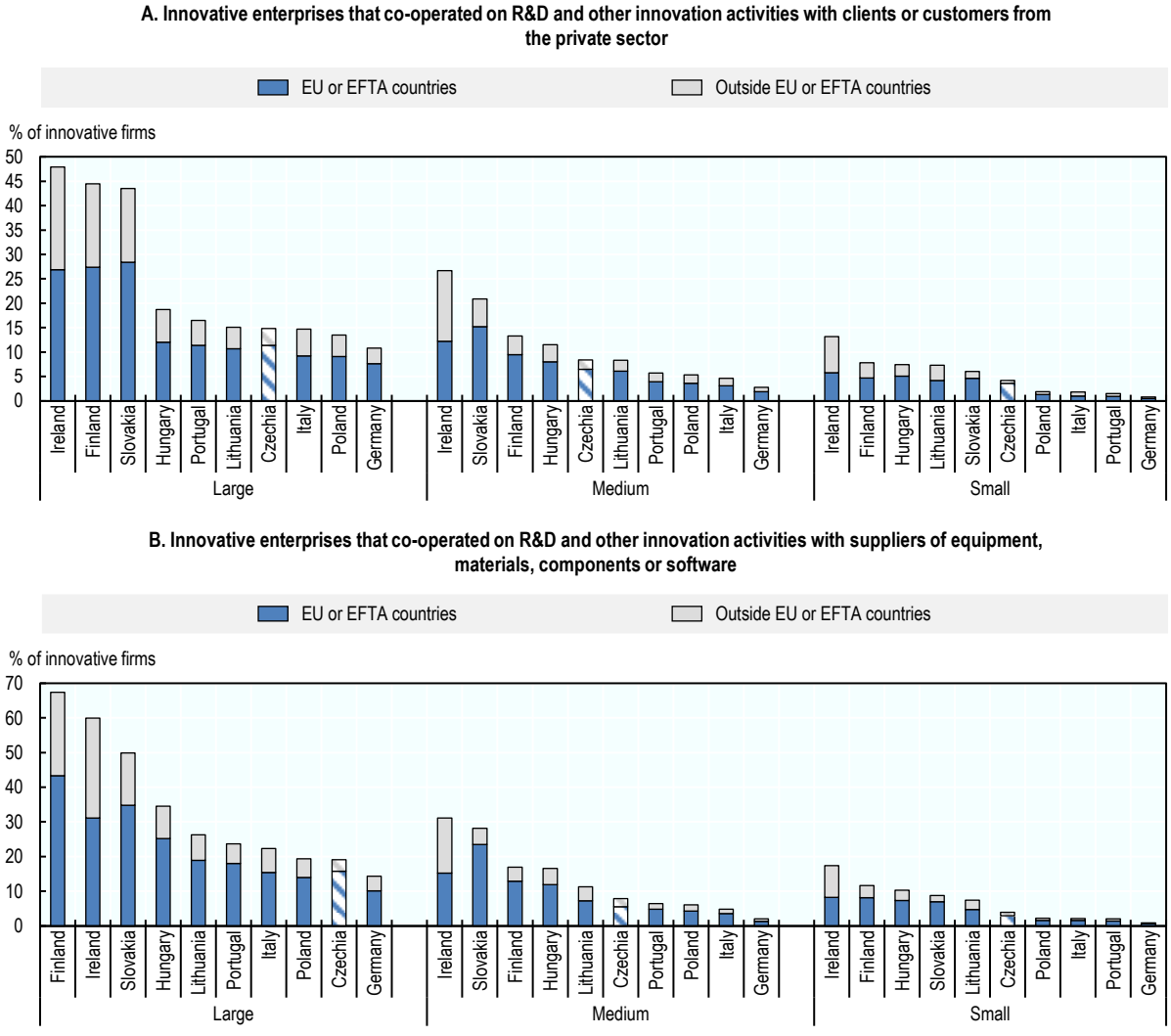
Note: Foreign MNEs = foreign affiliates of multinational enterprises; domestic MNEs = domestically owned firms with foreign affiliates abroad; domestic non-MNEs = domestically owned firms with no operations abroad. The OECD benchmark countries used in this report are: Slovak Republic, Portugal, Lithuania, Poland, Finland, Germany, and Italy.
Source: OECD (2019[4]), Analytical Activity of Multinational Enterprises (AMNE) Database, www.oecd.org/sti/ind/analytical-AMNE-database.htm

3.2.3. Cooperation on R&D and innovation between Czech firms and their foreign suppliers and clients is moderate

Cooperation on R&D and innovation between domestic firms and both foreign clients and suppliers is moderate in Czechia, indicating that spillovers through knowledge-intensive supply chain linkages may be difficult to materialise (Figure 3.7, Panel A and B). Cooperation with clients and suppliers from the EU/EFTA is most widespread amongst larger firms (11.4% with clients and 15.4% with suppliers) and least common amongst smaller firms (3.6% with clients and 2.9% with suppliers). This could be attributed to larger firms' stronger innovation performance and capacity to integrate knowledge-intensive supply chains (see Chapter 2). The origin of the foreign client or customer strongly matters. Only a small share of innovative firms in Czechia reports cooperating on R&D and innovation with foreign clients and suppliers from outside the EU or EFTA countries compared to peers, most likely due to the predominance of FDI from Europe in Czechia and the small amount of FDI from other regions of the world.

Figure 3.7. Cooperation with foreign clients on R&D and innovation

Innovative enterprises that co-operated on R&D and other innovation activities with clients or customers from the private sector



Note: An enterprise is considered as innovative if during the reference period it introduced successfully a product or process innovation, had ongoing innovation activities, abandoned innovation activities, completed but yet introduced the innovation or was engaged in in-house R&D or R&D contracted out. Non-innovative enterprises had no innovation activity mentioned above whatsoever during the reference period. Small firms = 10 to 49 employees. Medium-sized firms = 50 to 249 employees.
Source: Eurostat (2020[7]), Community Innovation Survey 2020, https://ec.europa.eu/eurostat

3.3. Strategic partnerships between foreign firms and SMEs in Czechia

Foreign MNEs and domestic SMEs can establish strategic partnerships around the development of joint R&D and innovation projects, which can create opportunities for technology transfer, especially in high-technology and knowledge-intensive industries (OECD, 2023[1]). These partnerships can take many forms, including joint ventures, licensing agreements, research collaborations, globalised business networks (i.e. membership-based business organisations, trade associations, stakeholder networks), and R&D and technology alliances. This section provides insights on strengths and opportunities related to strategic partnerships in Czechia.

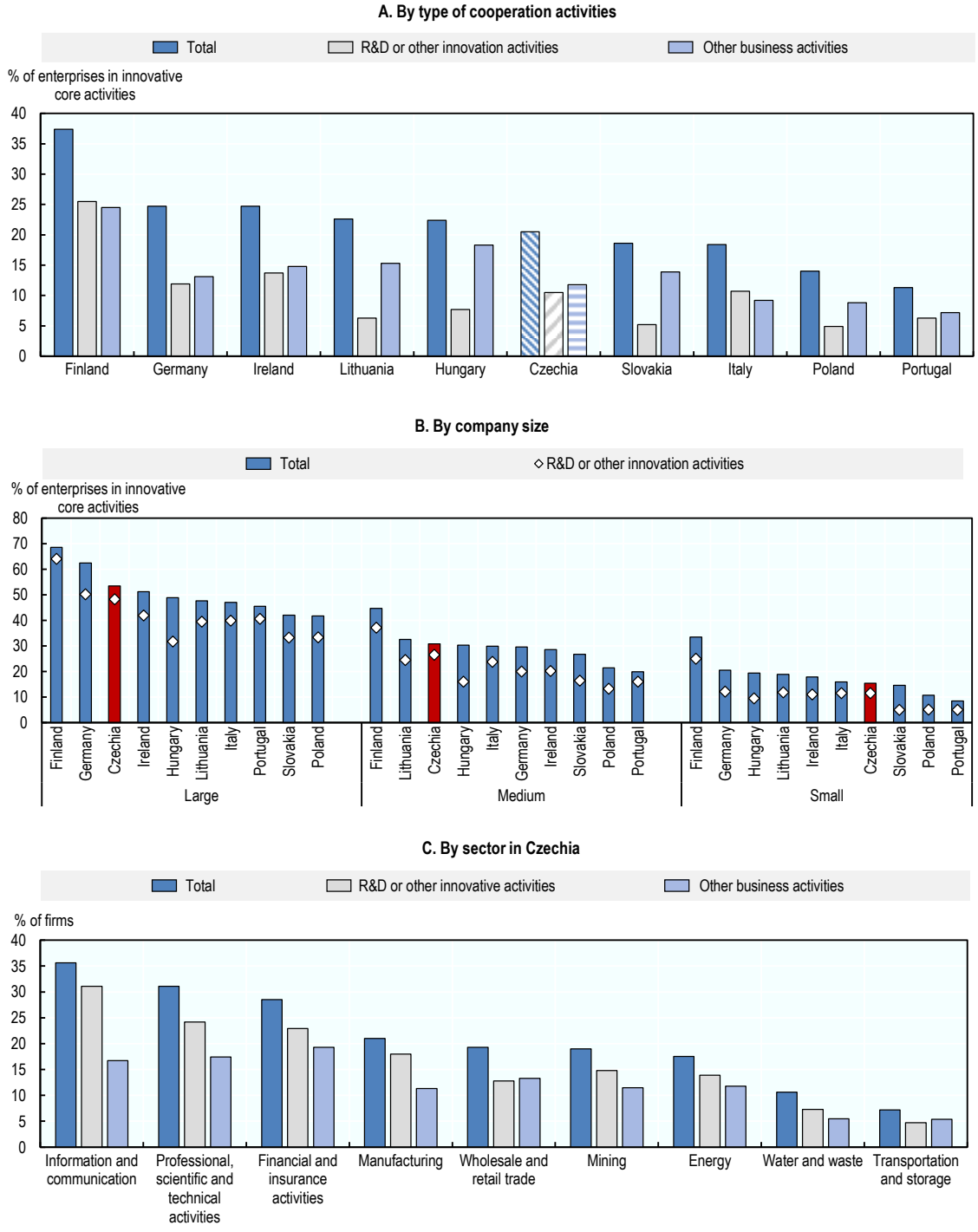
3.3.1. Cooperation through strategic partnerships on R&D and innovation is frequent, but less among small firms

In Czechia, the degree of inter-firm collaborations is moderate, especially among small firms. Approximately 20% of enterprises in Czechia report cooperating through strategic partnerships with other enterprises or organisations, which is similar to the Slovak Republic (19%), much more than in Poland (14%) and Portugal (11%) but significantly less than in top performers such as Finland (37%) or Germany (25%) (Figure 3.8, Panel A). While large and medium-sized firms perform well in comparison to peers in cooperating with other enterprises or organisations, small firms are much less likely to enter such cooperations (Figure 3.8, Panel B). This could be linked to the limited capacities of Czech small firms and their challenges to accessing the necessary knowledge, technology, skills, and finance that inter-firm collaborations often require.

Regarding partnerships involving R&D and innovation specifically, Czech enterprises perform better than their counterparts in peer CEE economies. Although the degree of inter-firm collaboration varies by firm size, the relatively high share of Czech enterprises cooperating on R&D and innovation activities suggests strong potential for technology and innovation spillovers through the facilitation of knowledge exchange. Cooperation with other enterprises is highest in technology- and skills-intensive sectors, including in information and communication (36% of firms) and professional, scientific and technical activities (31% of firms) (Figure 3.8, Panel C). The relatively large amount of cooperation activities in the finance and insurance sector (29% of firms) and somewhat less but still considerable degree of cooperation in manufacturing (21% of firms), which are two of the sectors receiving the largest shares of FDI in Czechia, suggests potentially significant spillovers through strategic partnerships in these sectors. In contrast, inter-firm collaboration is less frequent in the energy, waste and water and transport sectors, which tend to be more capital intensive.

Figure 3.8. Cooperation between businesses on innovation and other activities

Enterprises that co-operated on business activities with other enterprises or organisations



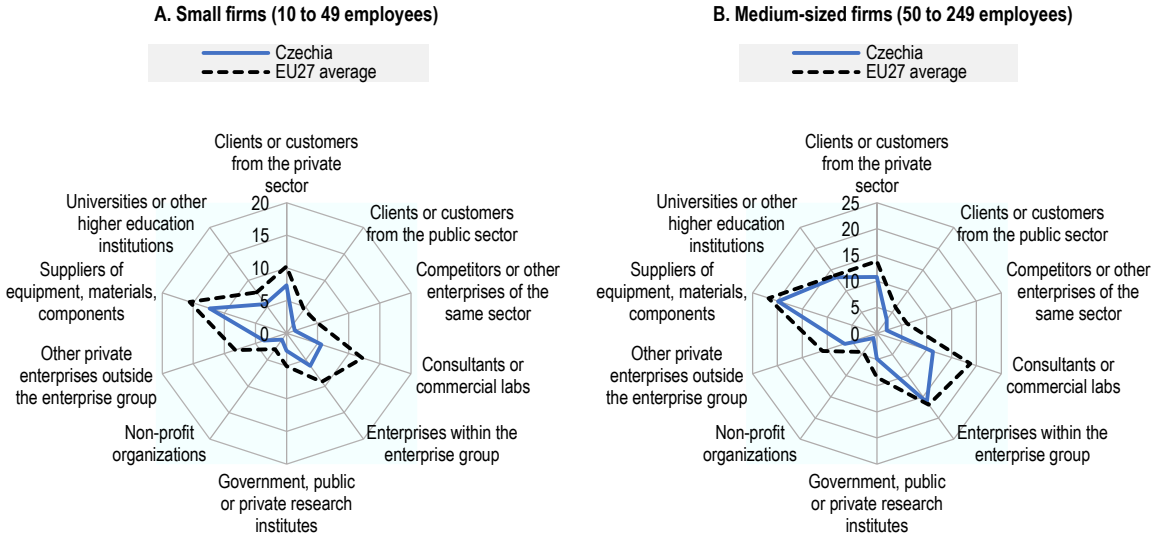
Note: An enterprise is considered as innovative if during the reference period it introduced successfully a product or process innovation, had ongoing innovation activities, abandoned innovation activities, completed but yet introduced the innovation or was engaged in in-house R&D or R&D contracted out. Firms report co-operation in R&D, innovation activities, and other business activities. Non-innovative enterprises had no innovation activity mentioned above whatsoever during the reference period. Small firms = 10 to 49 employees. Medium-sized firms = 50 to 249 employees.

Source: Eurostat (2020[7]), Community Innovation Survey 2020, https://ec.europa.eu/eurostat

The most common inter-firm collaborations in Czechia are with suppliers (20% of medium-sized and 12% of small innovative firms), with enterprises inside the enterprise group (16% of medium-sized firms and 6% of small innovative firms), with universities (11% of medium-sized and 6% of small innovative firms), and with clients from the private sector (11% of medium-sized and 7% of small innovative firms) (Figure 3.9). Significant disparities, however, continue to persist between Czechia and the EU in terms of cooperation. The most prominent gaps are observed in collaboration with consultants and commercial labs for both small (6% in Czechia and 12% in EU) and medium-sized firms (11% in Czechia and 19% in EU) , as well as cooperation with competitors or other enterprises of the same sector for both small (1% in Czechia and 5% in EU) and medium-sized firms (2% in Czechia and 6% in EU).

Figure 3.9. Enterprises that co-operated on R&D and innovation with other enterprises or organisations, 2020

% of innovative SMEs*, by kind of co-operation partner

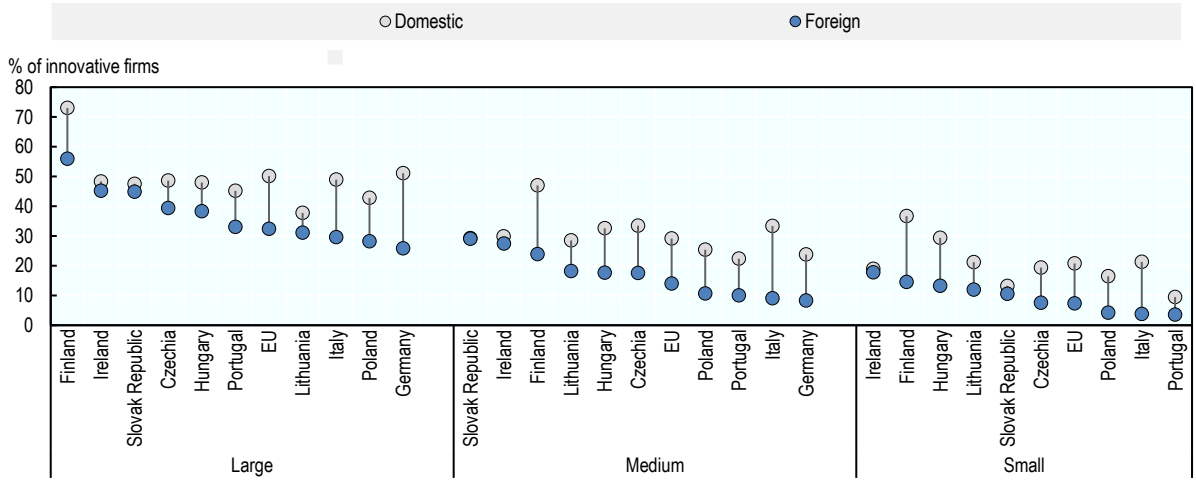


Note: *The enterprise is considered as innovative if during the reference period it introduced successfully a product or process innovation, had ongoing innovation activities, abandoned innovation activities, completed but yet introduced the innovation or was engaged in in-house R&D or R&D contracted out. Non-innovative enterprises had no innovation activity mentioned above whatsoever during the reference period. Small firms = 10 to 49 employees. Medium-sized firms = 50 to 249 employees.
Source: Eurostat (2020[7]), Community Innovation Survey 2020, https://ec.europa.eu/eurostat

Cooperation through strategic partnerships with foreign entities on innovation is less prevalent than with domestic firms, especially among smaller firms, yet more frequent than in the EU. Czech large firms lead in cooperation with foreign enterprises or organisations, with 39% of innovative firms engaging in such collaboration (Figure 3.10). However, this share is lower than the percentage of Czech innovative firms collaborating with domestic entities, which stands at 49%. Among medium-sized firms, 18% in Czechia cooperate with foreign entities on innovation, compared to 14% in the EU, while 34% partake in cooperation with domestic entities. In contrast, only 7.5% of innovative small firms in Czechia cooperate with foreign entities, similar to the EU average of 7.3%, but significantly lower than the share cooperating with domestic entities, which measures at approximately 19%.

Figure 3.10. Cooperation on innovation with foreign and domestic businesses and organisations

Innovative enterprises that cooperated on R&D and other innovation activities with domestic and foreign enterprises or organisations (% of innovative enterprises)



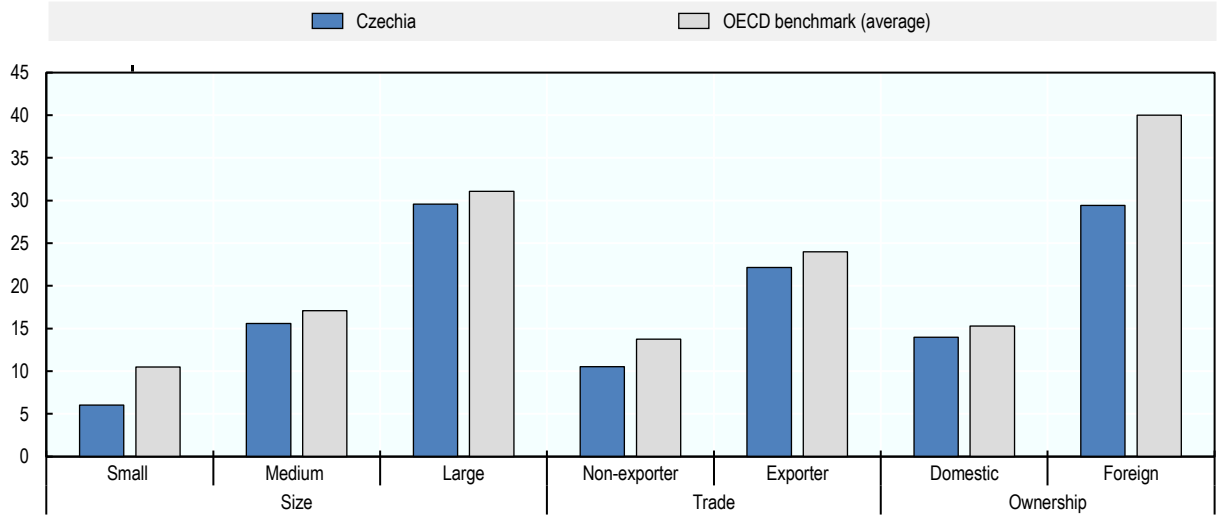
Note: An enterprise is considered as innovative if during the reference period it introduced successfully a product or process innovation, had ongoing innovation activities, abandoned innovation activities, completed but yet introduced the innovation or was engaged in in-house R&D or R&D contracted out. Non-innovative enterprises had no innovation activity mentioned above whatsoever during the reference period. Small firms = 10 to 49 employees. Medium-sized firms = 50 to 249 employees.
Source: Eurostat (2020[7]), Community Innovation Survey 2020, https://ec.europa.eu/eurostat

3.3.2. Czech firms perform well in terms of technology licensing agreements, an indicator for strategic partnerships

Czech firms in manufacturing enter technology licensing partnerships at a similar rate to firms in comparator economies. The gap is somewhat wider for small firms, however; 6% of them report to have used such agreements relative to 10% across the comparator countries (Figure 3.11). Meanwhile, foreign firms in Czechia appear to engage much less in such forms of partnerships compared to foreign firms in comparator economies (29% compared to 40%). These results could be indicative of potentially fewer opportunities for domestic firms to collaborate with locally established foreign affiliates through such arrangements (while not precluding more frequent use of such partnerships between Czech firms and foreign-owned firms established abroad).

Figure 3.11. Share of firms using foreign technology licensing in the Czech manufacturing sector and that of selected OECD economies, 2019

In % of firms

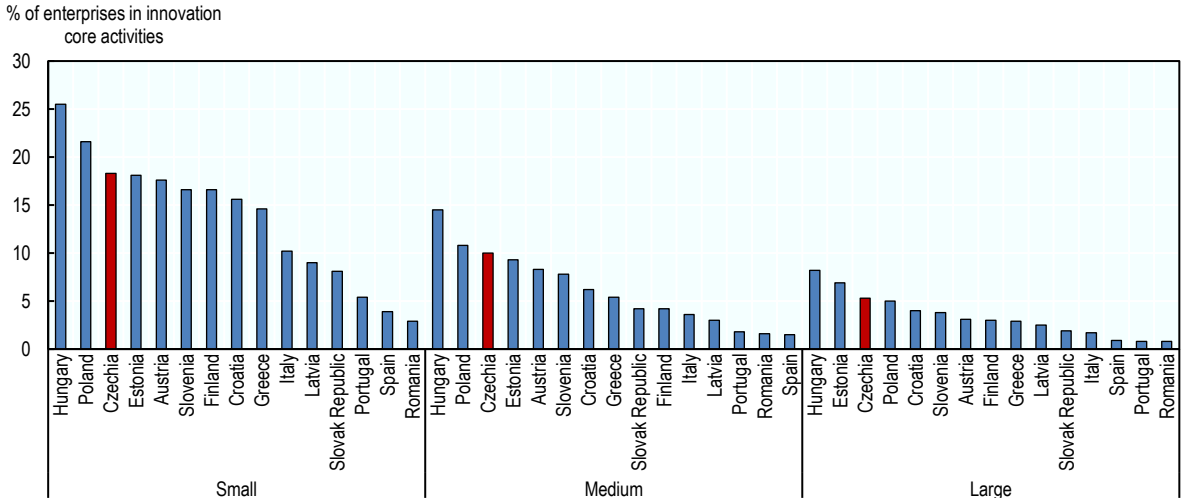


Note: The OECD benchmark countries used in this report are: Slovak Republic, Portugal, Lithuania, Poland, Finland, Germany, and Italy. Data for Finland is available for 2020 only and for Germany for 2021.
Source: Adapted from (OECD, 2022[8]) and based on World Bank Enterprise Surveys, www.enterprisesurveys.org/en/enterprisesurveys

A recent Eurostat survey focusing on the use of technology licensing in selected services sectors suggests that Czech firms employ technology licensing more than most comparators.[3] In 2020, 18.3% or large firms, 10% of medium-sized firms and 5.3% of small firms in Czechia, respectively, purchased or licensed intellectual property (IP) rights from other private firms (Figure 3.12). This share is much higher than in the Slovak Republic, for example, as well as Finland and Italy, and is at a level comparable to that of Poland. Engagement in such agreements at a similar, or a higher rate than the average, can be indicative of a potential for FDI-SME spillovers through this mechanism.[4]

Figure 3.12. Purchasing and licensing intellectual property rights from private businesses

Enterprises that purchased or licensed in intellectual property rights from private businesses (% of enterprises in innovation core activities, 995/2021)



Source: Eurostat (2020[7]), Community Innovation Survey 2020, https://ec.europa.eu/eurostat

3.4. Labour mobility between foreign and domestic firms

Labour mobility can be an important source of knowledge spillovers in the context of FDI, notably through the move of MNE workers to local SMEs (OECD, 2023[1]). This can occur through temporary arrangements such as detachments, long-term arrangements such as open-ended contracts, or through the creation of start-ups (i.e., corporate spin-offs) by (former) MNE workers. However, mobility can also occur in the opposite direction, also involving potential for spillovers. This section assesses the potential for spillovers through labour mobility in Czechia.

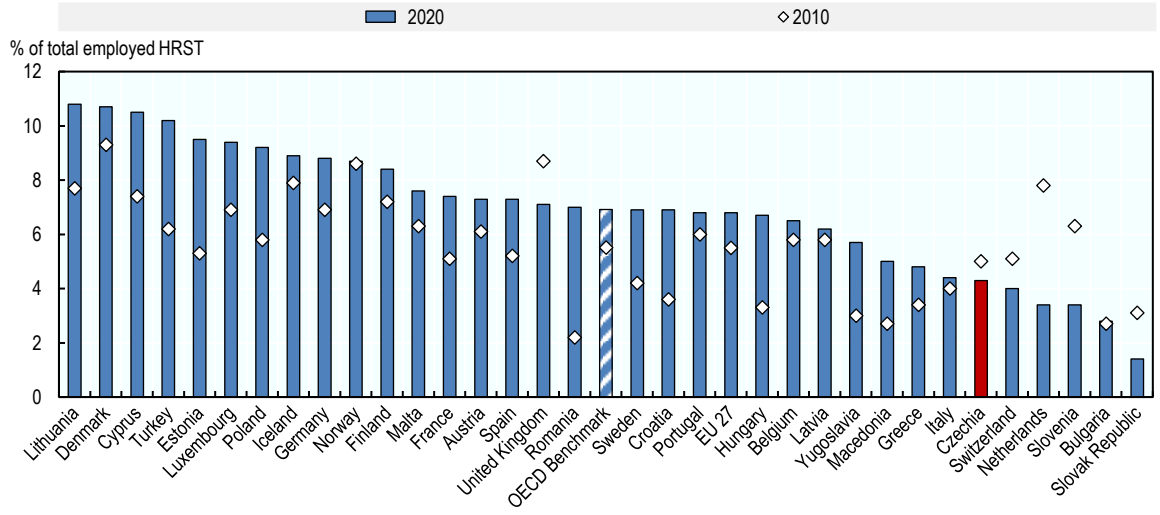
3.4.1. Job to job mobility has been low historically and is declining in occupations relevant to innovation

Labour mobility is lower in Czechia than in most peer economies, especially in science and technology related occupations. According to Eurostat data on job-to-job mobility focusing on science and technology workers – defined as the movement of individuals between one job and another from one year to the next (excluding flows from unemployment or inactivity) – only 4% of Czech workers transitioned between occupations during 2020 and their mobility has declined over time (Figure 3.13). Only few countries, including the Slovak Republic, have lower job-to-job mobility in those occupations, while some other CEE countries such as Poland and Lithuania have much higher shares (more than double and almost triple than Czechia respectively). Broadening the scope of the analysis to examine worker reallocation rates – defined as the sum of hirings from non-employment or from another job and separations to non-employment over a one-year period range – provides an illustration of the extent of labour market transitions in Czechia. In 2019, Czechia had the lowest worker reallocation rate (15%) among OECD-EU economies, twice the level observed in Finland, Denmark, and Sweden (Causa, Luu and Abendschein, 2021[9]). The contribution of inter-regional mobility to labour mobility is also limited. Approximately 1.4% of Czech workers changing labour market status have also changed region, when this share stands at almost 5% in Sweden, 4% in France and Denmark and 2% in Hungary.

Low levels of labour mobility among highly skilled workers appear to be a long-standing trend in Czechia, suggesting a limited scope for FDI-SME spillovers from that channel. Historical data indicate that changes of occupation were more often related to the young and less-educated workers, including workers in low-skill manual occupations (Vavřinová and Krčková, 2015[10]). The movement of workers between different jobs is predominantly involuntary and often caused by external pressure rather than workers' efforts to build a career, as illustrated by a particularly sharp, but limited in time, increase in mobility incidence during the recession that followed the 2008 global financial crisis. Anecdotal evidence suggests that patterns of labour mobility in Czechia appear to be shaped by the strictness of the labour market regime (see Chapter 5), regulatory barriers related to specific professions as well as cultural and social perceptions placing priority on job security and stability.

Figure 3.13. Job-to-job mobility of human resources in science and technology, 25-to-64-year-olds, 2010 and 2020

% of total employed human resources in science and technology



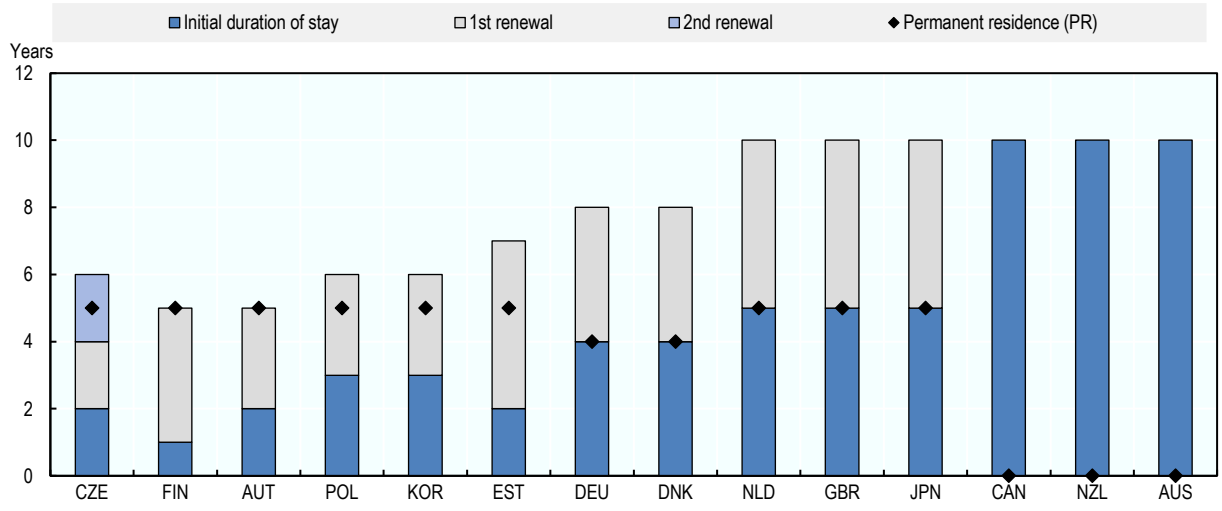
Note: Human resources in science and technology (HRST) describes individuals in science and technology occupations, such as professionals, technicians and associate professionals, as well as those in other occupations who successfully completed a tertiary-level education in science and technology. Job-to-job mobility excludes inflows into the labour market from a situation of unemployment or inactivity. The figure refers to HRST in total NACE (Statistical classification of economic activities in the European Community) Rev 2 activities.
Source: Eurostat (2022[11]), Job-to-job mobility of HRST by NACE Rev. 2 activity dataset, https://ec.europa.eu/eurostat

3.4.2. Barriers remain relatively high on inflows of highly skilled foreign workers

While the local labour market is tightly characterised by low job-to-job mobility in certain types of highly skilled personnel, the conditions for mobility of foreign high-skilled workers are also relatively restrictive. For example, conditions in terms of permit duration and labour market mobility in Czechia for highly skilled workers are less favourable than in neighbouring and competing countries (Figure 3.14). The time required to process work permits of non-EU nationals is also significantly longer than certain neighbouring countries like Poland. Highly skilled workers are likely to choose destinations with more favourable conditions and where they can easily relocate with their family. Many countries offer the highest skilled migrants a permanent residence, if not immediately, at least at the end of the first temporary work permit or during the validity of the first renewal. In Czechia, migrants can apply for permanent residency only towards the end of the second temporary work permit and the duration of the initial temporary work permits is shorter than in most comparator countries.

Figure 3.14. Conditions for highly skilled migrant workers in Czechia and selected OECD economies

Maximum permit duration, initial work permits and renewals, and first possible eligibility for permanent residence (years)



Source: OECD based on OECD (2022[12]), Recommendations for a multi-criteria points based migration system for the Czech Republic, https://web-archive.oecd.org/2023-09-23/639970-multicriterial-points-based-system-for-managing-labour-migration-to-the-czech-republic.htm

3.4.3. The high wage premia of foreign affiliates may discourage labour mobility towards domestic SMEs

Wages in foreign firms in Czechia are significantly higher than in domestic firms, thereby discouraging labour mobility, and associated productivity and skills spillovers, from foreign to domestic firms. On average, foreign firms' personnel costs per employee in Czechia – a proxy for wages – are almost twice as high as in domestic firms (Figure 3.15, Panel A), at similar levels as several CEE countries (e.g. Slovak Republic, Hungary, Lithuania) but much lower than most Western European economies (e.g. Germany, France, Austria, Ireland). Evidence from the World Bank Enterprise Survey confirms that wages of manufacturing workers employed by foreign firms in Czechia are higher than in domestic firms and that this difference is highly statistically significant (Figure 3.15, Panel B).

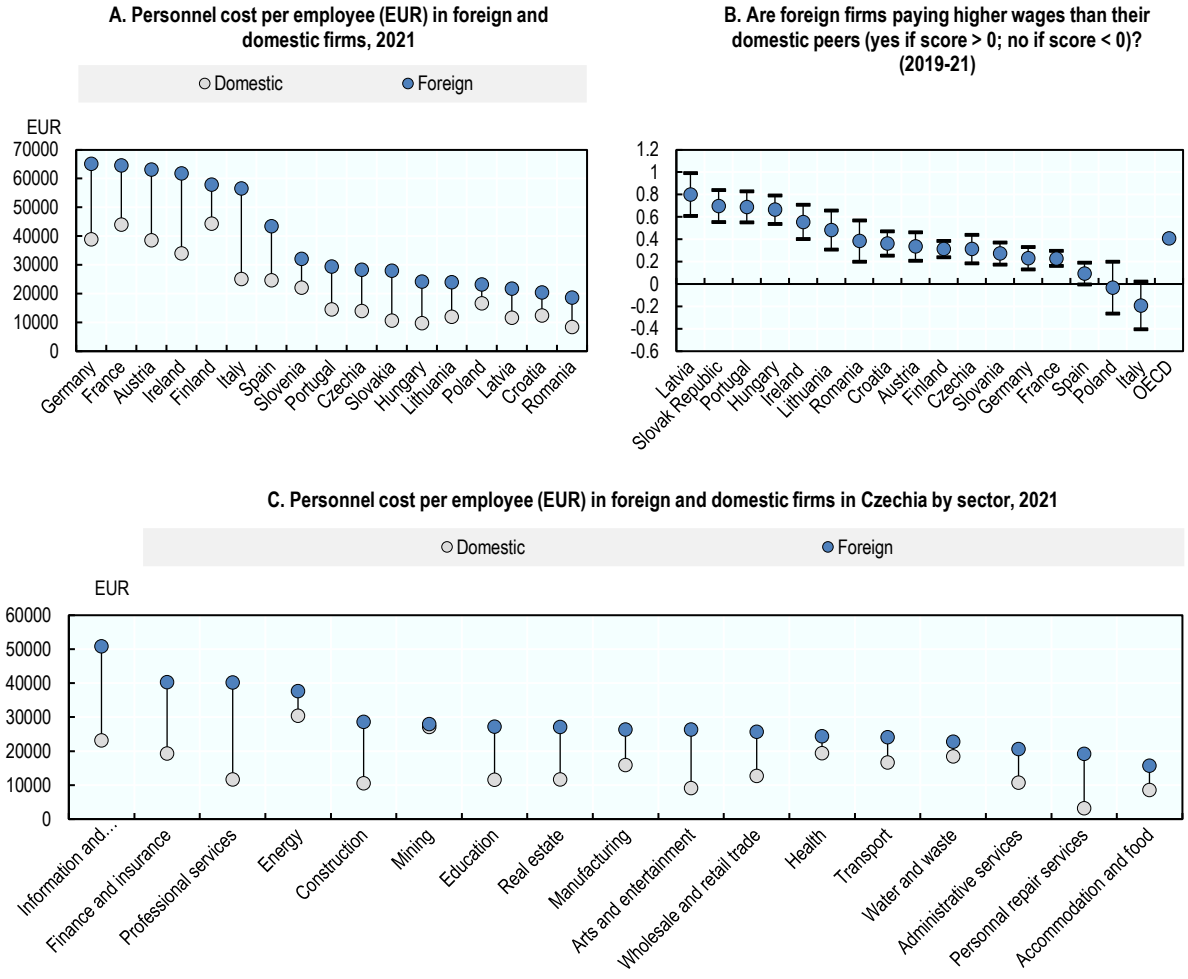
High wages in foreign firms can be attributed to their higher levels of productivity compared to their domestic peers, due to their larger size as well as capital, technological and managerial endowments, which allow them to attract the most talented workers. As discussed in Chapter 2, the productivity gap between small and large as well as foreign and domestic firms in Czechia is bigger than many other OECD economies, and the business population is polarised between a few large very productive firms, which are often foreign-owned, and numerous local SMEs with low productivity. High wage gaps in Czechia may result in increased competition for talent, making it more difficult for Czech SMEs to improve their productivity by recruiting skilled workers, particularly in more remote areas where the labour pool is smaller (Lembcke and Wildnerova, 2020[13]). This effect can be stronger and last longer, in industries facing skills shortages and in locations with limited labour mobility.

Although the potential for direct knowledge and technology transfers to local SMEs through labour mobility is limited in Czechia, reverse spillovers from domestic to foreign firms can contribute to innovation and productivity growth in FDI-intensive industries. This is because foreign firms' higher wages usually attract the highly skilled workers employed by domestic firms, further strengthening FDI's skills intensity and direct

impact on sectoral and aggregate labour productivity (OECD, 2022[14]). Similarly, in the case of Czechia, positive FDI spillovers on wages in FDI-intensive sectors are more likely to materialise. Studies point to increased wages in domestic firms as a result of the latter's efforts to retain their skilled workers following FDI's entry into the same sector or location.

At the sectoral level, wage disparities between foreign and domestic firms in Czechia are most prominent in services industries: namely information and communication, finance and insurance and professional, technical, and scientific services sectors, which are also sectors with the highest shares of cooperation in innovation and other activities amongst enterprises (Figure 3.15, Panel C). Formation of linkages in these sectors cannot be attributed to wage disparities or labour mobility from foreign to domestic firms. Although less significant, wage premia are substantial in the manufacturing sector and in wholesale and retail sectors, which also receive significant amounts of FDI (see Chapter 2).

Figure 3.15. Wages in foreign and domestic firms in Czechia



Note: Panel B. Indicator registers a positive value if foreign firms have higher outcomes than domestic firms, and a negative value if foreign firms have lower outcomes, on average. Confidence intervals are reported at the 95% confidence level. If the confidence interval crosses the zero line, the difference of average outcomes of foreign and domestic firms is not statistically significant. The OECD average is based on the latest year, for which data is available, for each country. See methodology in (OECD, 2019[15]).
Source: OECD based on Eurostat, (2022[16]), Foreign Affiliates Statistics (FATS), https://ec.europa.eu/eurostat, and World Bank, (2023[17]) World Bank Enterprise Surveys, https://www.enterprisesurveys.org/en/enterprisesurveys

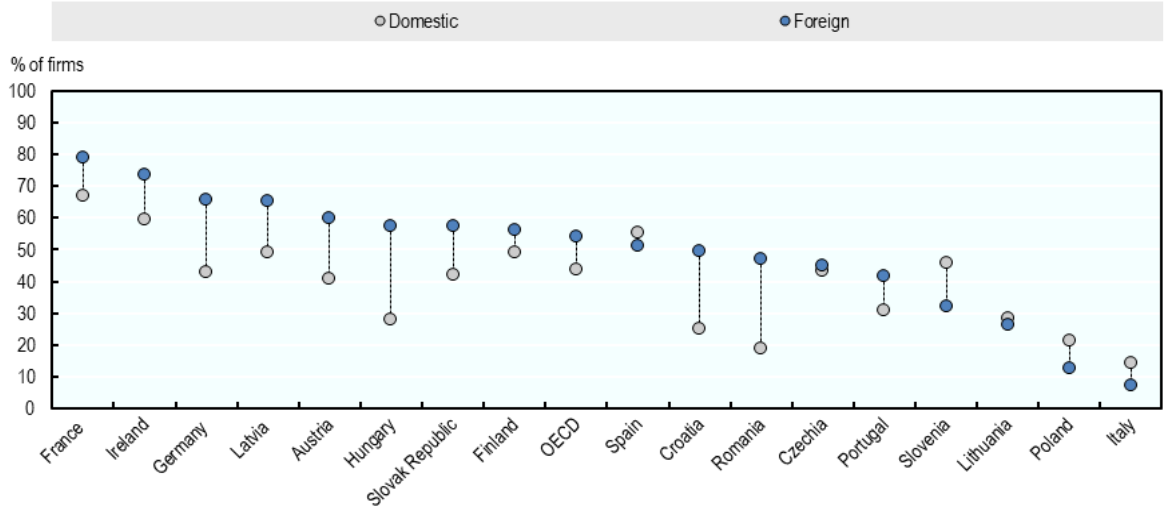
3.4.4. FDI's contribution to the diffusion of skills through training provision is limited

The potential for FDI-SME spillovers through labour mobility also depends on FDI's skills intensity, as well as training and learning opportunities that SMEs have in the domestic economy, amongst other factors. Foreign investors can increase the supply of skills by providing training to their employees, who could then transfer their knowledge and expertise when they move to domestic firms or set up their own business. Foreign investors can also induce local firms to invest in upskilling in response to rising competitive pressure from their presence in the market, and thus help local entrepreneurs reduce a brain drain towards foreign employers. In the longer term, such initiatives may also result in an increase of the domestic talent pool, with benefits to local entrepreneurship development and may attract further FDI in a virtuous circle.

Foreign firms' provision of on-the-job training to their employees is moderate in Czechia. 45% of foreign firms offer their employees training, approximately the same share as domestic firms (Figure 3.16). Czechia is among the few countries, where foreign firms do not outperform their domestic counterparts in terms of training opportunities and also perform worse than foreign firms in most comparators and in the OECD on average (54%). This could be linked to the concentration of FDI in sectors creating few jobs such as the capital-intensive real estate and finance sectors as well as in low-value added manufacturing linked to assembly and processing, which may not always require highly specialised skills.

Figure 3.16. Training offered by foreign and domestic firms in Czechia and selected EU economies

Proportion of firms offering formal training (%), 2019-2021



Notes: Data on France, Germany, Austria, Spain refer to 2021; on Ireland and Finland to 2020; on Latvia, Hungary, Slovak Republic, Croatia, Romania, Czechia, Portugal, Slovenia, Lithuania, Poland and Italy to 2019.
Source: OECD based on World Bank, (2023[17]) World Bank Enterprise Surveys, https://www.enterprisesurveys.org/en/enterprisesurveys

3.5. Competition and imitation effects of FDI

FDI-SME diffusion channels involve market mechanisms related to competition and imitation effects. Competition effects arise when highly efficient MNEs enter the market, impacting domestic companies operating in the same sector or value chain segment, even if not geographically situated in the same region (OECD, 2023[1]). Imitation effects take place at a more local level when domestic firms imitate the practices of foreign MNEs (OECD, 2023[1]; Stančík, 2008[18]). The introduction of new standards by foreign companies may place pressure on domestic companies and thereby generate productivity and innovation

spillovers (OECD, 2023[1]; OECD, 2022[8]). This section examines how and to what extent these effects might be at play in Czechia's FDI and SME sectors.

3.5.1. Cooperation on innovation with competitors is common practice for Czech SMEs, but there is little same sector cooperation, particularly with foreign firms

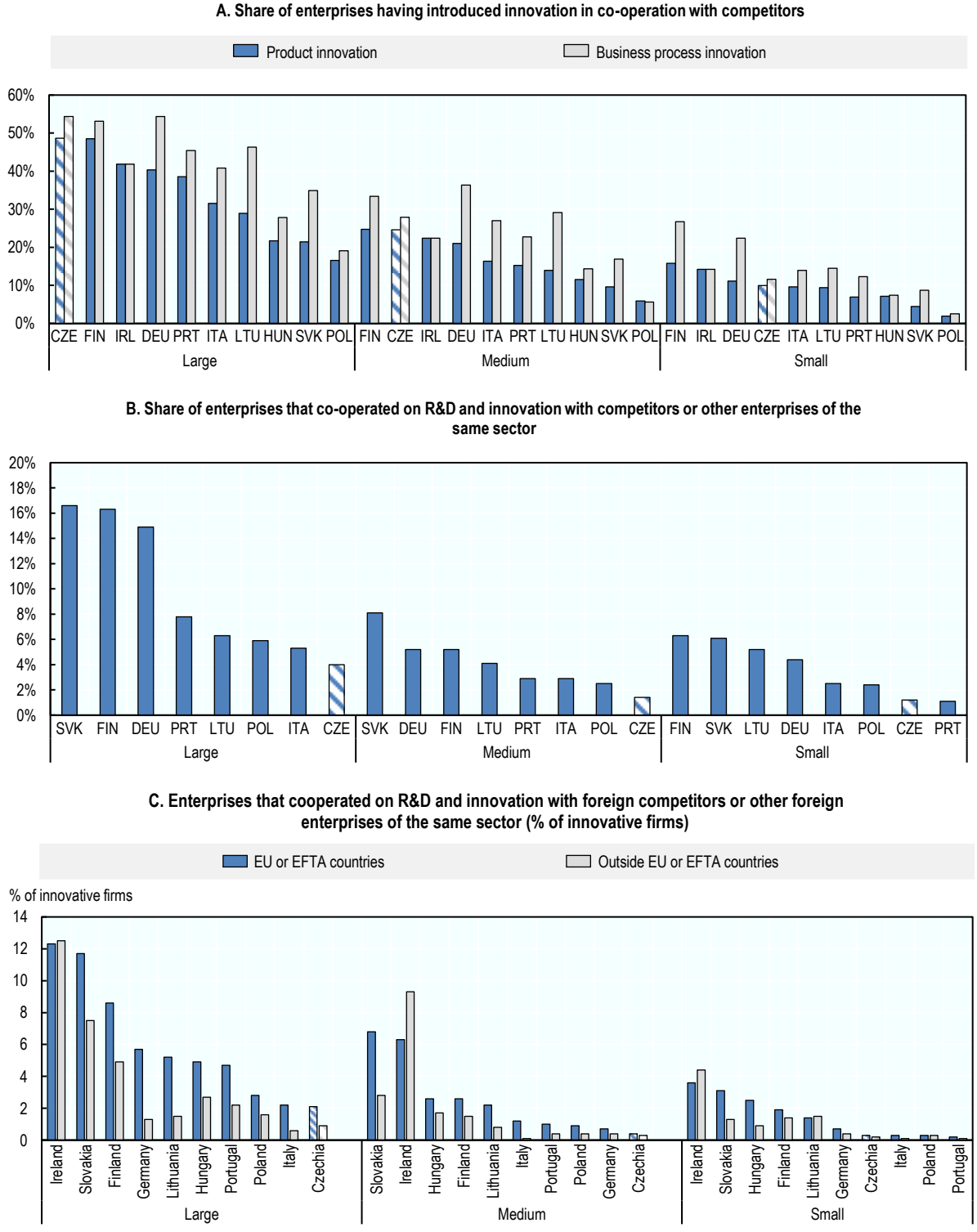
Frequent collaboration with foreign-owned competitor firms provides significant tacit learning and upgrading opportunities for local SMEs (OECD, 2023[1]; OECD, 2022[8]). New standards set by competitors can further stimulate technical change, the introduction of new products, and the adoption of new processes, all of which can lead to productivity growth (OECD, 2023[1]; OECD, 2022[19]).

In Czechia, cooperation with competitors on innovation is fairly common, suggesting some potential for economy-wide spillovers through imitation or tacit learning (Pavlínek and Žížalová, 2014[20]). Czech enterprises engage with competitors and other enterprises for both product and business process innovation (Figure 3.17, Panel A). Over 24% of medium-sized firms in Czechia collaborated with competitors in product innovation, on par with EU economies like Finland, Ireland, and Germany. Smaller firms perform similarly well, with over 9% of them cooperating in product innovation, surpassing peer countries such as Lithuania and the Slovak Republic. Czechia's SMEs excel in business process innovation, with over 27% of medium-sized and over 11% of small-sized firms engaging in inter-firm collaborations with their competitors.

Despite the strong potential for tacit learning and knowledge exchange across the wider economy, cooperation within the same sector is notably lower in Czechia than in peer countries, in particular, with foreign firms (Figure 3.17, Panel B). Only 1.2% of Czechia's small and 1.4% of medium-sized firms engaged in cooperation in R&D and innovation with sector competitors, significantly lower than peer countries such as Finland and the Slovak Republic. The pattern extends to larger firms, suggesting that same-sector inter-firm partnerships with competitors is limited irrespective of firm size. Likewise, when looking at cooperation on innovation with foreign firms only, Czech SMEs and large firms are amongst those with the lowest levels amongst peers (Figure 3.17, Panel C).

Limited same-sector cooperation with foreign firms indicates a relatively lower potential for knowledge spillovers from FDI through imitation or tacit learning. FDI in Czechia has been traditionally concentrated in a few highly specialised sectors (i.e. automotive industry, machinery and equipment) that are dominated by export-oriented foreign MNEs with limited engagement with domestic suppliers and partners. Czech SMEs may find it difficult to maintain their market relevance in these sectors and compete against large incumbent firms. While direct knowledge transfer may be limited, indirect learning through market competition of foreign firm practices could still play a significant role in innovation and growth for Czech SMEs (see next section). Policy interventions could focus on fostering more sector-specific collaborations between local SMEs and foreign firms, potentially diversifying collaboration channels and enhancing direct knowledge spillovers. Supporting SMEs to carve out niche markets or specialise in areas that serve the emerging sourcing and R&D needs of foreign firms could also help further strengthen spillovers through competition/imitation effects.

Figure 3.17. Enterprises partaking in co-operating on innovation (% of innovative enterprises), 2020



Note: The enterprise is considered as innovative if during the reference period it introduced successfully a product or process innovation, had ongoing innovation activities, abandoned innovation activities, completed but yet introduced the innovation or was engaged in in-house R&D or R&D contracted out. Small firms = from 10 to 49 employees. Medium-sized = from 50 to 249 employees. Large = 250 employees or more. Micro firms with less than 10 employees are not included.

Source: Eurostat (2020[7]), Community Innovation Survey 2020, https://ec.europa.eu/eurostat

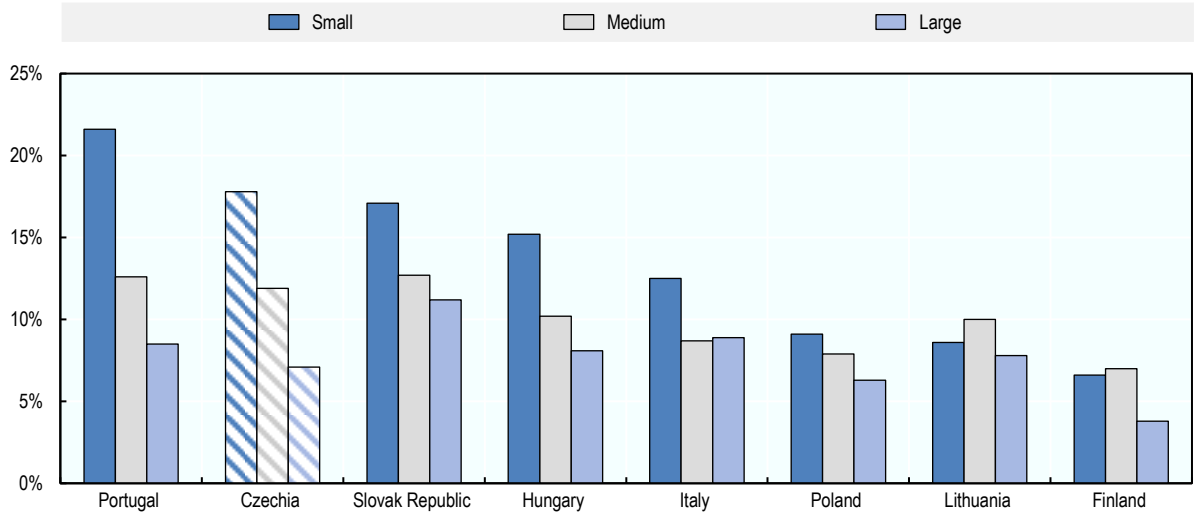
3.5.2. A considerable share of firms in Czechia see competition as a barrier to innovate

While high costs, lack of internal finance and lack of qualified employees are the main perceived barriers to innovation in Czech SMEs, high competition is reported to be a barrier of significant importance, particularly by smaller firms. Approximately 18% of small firms, 12% of medium-sized firms and 7% of large firms in Czechia perceive high competition as a barrier of high importance to their innovation performance (Figure 3.18) (against 14%, 12% and 11% respectively in the EU). Those are similar shares of firms as in Portugal and the Slovak Republic but higher than in most comparators such as Finland, Lithuania and Poland. The strong perception of market competition as a barrier to innovation could be linked to challenges faced by Czech SMEs with keeping up with the new and potentially higher quality standards that are imposed by competitors (i.e., management practices, product quality, speed of delivery, etc.) (OECD, 2022[21]) – indicating potentially fewer knowledge spillovers from foreign companies through competition and imitation effects.

The presence of market competition can also signal business dynamism and a well-functioning and competitive market, where new entrants are forced to challenge existing firms and force-out non-productive firms (OECD, 2022[8]). This process of resource reallocation towards more productive businesses is crucial for economic performance by putting pressure on firms to stimulate technical change, introduce new products or adopt new management practices, all of which are possible sources of productivity growth. However, in highly competitive environments, the exit of firms might also point to market distortions that hinder the growth and competitiveness of SMEs. For instance, this is the case when the firms exiting the market are not inefficient incumbents but are instead newer companies that struggled to scale up and engage in knowledge-intensive activities.

Business demography indicators such as rates of market entry and exit, churn rate and business survival, are key in evaluating competition and market conditions in the Czech economy. As described in Chapter 2, Czechia's economy exhibits limited business dynamism with moderate-low rates of firm births and deaths, and a churn rate below the OECD average, both across the entire business economy and in manufacturing. Czechia also has a high 2-year business survival rate that stood at 71% in 2020, above most peer economies and the EU average (63%). Although these findings may point towards a potentially conducive environment for smaller firms to scale up and maintain or expand their market share, fewer businesses entering and exiting the market may also reflect a risk-averse culture among entrepreneurs and investors, leading to fewer startups and business closures as well as slower innovation since fewer new business ideas are being tested in the market. At the sectoral level, regulatory barriers to entry for new businesses and barriers to exit for unproductive firms could also be at play as highlighted in Chapter 5. Low levels of market competition could therefore be a signal of the poor efficiency of competition/imitation effects for FDI-SME knowledge spillovers in the Czech economy.

Figure 3.18. Share of enterprises who view high competition as a 'highly important' barrier to innovation, 2020



Note: Small firms = from 10 to 49 employees. Medium-sized = from 50 to 249 employees. Data for Finland was taken from the year 2018.
Source: Eurostat (2020[7]), Community Innovation Survey 2020, https://ec.europa.eu/eurostat

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Notes

[1] Since the seminal study on this topic, there has been a stream of empirical research investigating the degree of backward spillovers (Javorcik, 2004[23]). The results of a meta-study of this literature studying the effects of backward linkages on local firms suggests that they are economically important (Havranek and Irsova, 2011[24]). The newest literature, using granular data on firm-to-firm transactions, also finds important and statistically significant positive results (e.g., (Alfaro-Urena, Manelici and Vasquez, 2022[2]).

[2] See e.g., Ántras and Yeaple (2014[25]) for a seminal paper in this regard.

[3] The Eurostat Community Innovation Survey (CIS) 2020 provides information on enterprises that purchased or licensed IP rights from other private business enterprises, by size class. It offers a separate breakdown for firms operating in innovation activities. These are defined to covers the NACE Rev.2 sections B, C, D, E, H, K and NACE Rev. 2 divisions 46, 58, 61, 62, 63 and 71.

[4] The data reported by Eurostat does include the distinction between such types of firms.

4 The institutional and governance framework for FDI and SME linkages

This chapter focuses on factors that underpin the governance framework for foreign direct investment (FDI) promotion and the development of small and medium-sized enterprises (SMEs) in Czechia. It provides an overview of the institutions that are currently in place to design and implement FDI, SME, innovation, and regional development policies, and explores the policy coordination mechanisms to ensure coherence across policy domains, institutions, and tiers of government. This chapter also analyses the monitoring and evaluation framework of the Czech policy delivery system, and efforts to enhance stakeholder engagement.

4.1. Summary of findings and recommendations

Enhancing the impact of FDI on Czech SMEs necessitates public intervention across various policy areas, including investment promotion, SME internationalisation, innovation, and regional development. A governance framework spanning across these different policy areas and actors is not a given, and experience across countries differs. Diverse governance models can be effective, provided there are appropriate coordination mechanisms in place to ensure policy coherence across ministries, implementing bodies, and advisory entities. This chapter aims to evaluate the quality of the institutional framework in Czechia and pinpoint potential governance challenges. It offers an overview of the key institutions operating at the intersection of FDI, SME, innovation, and regional development policy. The chapter delves into their organisational structures, mandates, and activities. Additionally, it explores their internal capabilities for policy coordination, assessment, and engaging stakeholders, which are crucial elements for creating a supportive institutional environment.

The governance framework for FDI-SME policy in Czechia is relatively integrated, yet it reveals the complexity inherent in a system where responsibilities are dispersed across numerous ministries. This structure ensures that multiple policy areas are taken into account, but may also lead to fragmentation. The Ministries involved are the Ministry of Industry and Trade (Investment Promotion through CzechInvest, SME and Entrepreneurship policy which is implemented on the administrative level through the Business Innovation Agency), the Ministry of Finance (SME and Entrepreneurship Policy and Regional Development Policy through the National Development Bank), the Ministry of Regional Development (Regional Development Policy including managing EU funds and establishing subnational business support as the main mandate). Also, the Technology Agency of the Czech Republic (TACR) under the Council for Research, Development, and Innovation (CRDI) aims to foster the innovation capacity of Czech enterprises by financing R&D activities and facilitating networking effects (Figure 1.4).

However, a prominent aspect of the Czech institutional setup is the central role played by the Ministry of Industry and Trade (MIT), which bears the primary responsibility for investment, SME, and entrepreneurship policy, alongside its remit in energy, industrial, and trade policy. This ministry, through its multiple departments highlighted in red in Figure 1.4, is responsible for policies related to SMEs and FDI-SME linkages. However, responsibilities are distributed across several departments, reflecting a broader policy perspective that integrates SME aspects into wider economic objectives. While various departments within the MIT often collaborate, particularly in policies related to FDI-SME linkages, this cooperation typically relies on informal channels, highlighting a potential area for more structured and formalised mechanisms.

The observed differences between the implementation of national policies at the local level suggest an opportunity for enhancing cooperation among ministries, national implementing agencies, their regional branches, and regional innovation centres (which are typically established by regional governments and have no direct link to national ministries). This enhancement could facilitate better alignment between national objectives and local actions, ensuring a more harmonious policy execution process and ensure the connection between national, regional, and local delivery of FDI, SME and innovation services. Increasing coordination between regional innovation centers and implementing agencies (CzechTrade, CzechInvest, API) one-stop-shops, and business consultation centres can be a step in the right direction. To enhance the effectiveness of this collaboration, greater tailoring of national policies at the subnational level should be combined with due coordination among national agencies operating locally and regional innovation agencies through regular meetings and consultations on an ad hoc basis.

In Czechia, several strategic documents have been adopted in recent years to articulate priorities related to strengthening FDI and SME linkages. National strategies and action plans can be important instruments for policy coordination as they are crosscutting in nature, but they often require a whole-of-government approach to ensure their effective implementation and the number of different strategic documents in

Czechia heightens the risk of making policy coordination more complex. The Czech strategies collectively address a wide range of areas including skills development, digital transformation, research and development, international market access, and low-carbon economy initiatives. The strategies are implemented through a collaboration of government bodies, with a significant role played by the Council for Research, Development, and Innovation (CRDI) and the Ministry of Industry and Trade. The investment promotion area represents a notable exception to the trend, as Czechia does not have a national investment strategy. Investment policy considerations are incorporated in broader strategic documents.

In terms of policy development and evaluation, in Czechia there is a notable opportunity to implement comprehensive evaluation frameworks to gauge policy impacts effectively. In Czechia more than half of FDI-SME diffusion policy initiatives have integrated M&E and Czechia outperforms the OECD average in terms of Regulatory Impact Assessment (RIA) implementation. There is still however room for enhancing the M&E framework of policies in Czechia.

The current governance structure also shows gaps in involving a broader spectrum of stakeholders, including SMEs and local communities, in the policymaking process. This suggests an avenue for fostering richer and more varied inputs into policy formulation and evaluation, as well as the necessity to establish robust feedback mechanisms for building more responsive governance structures. These mechanisms can serve as valuable tools for ongoing policy refinement, ensuring that policies remain relevant and effective in achieving their intended outcomes.

One of the notable attributes of the Czech institutional framework is its ability to balance comprehensive policy development with a nuanced understanding of the specific needs of SMEs and FDI-SME linkages. The framework’s emphasis on coordination across various policy areas and government levels ensures that policies are not developed in isolation, but rather in a manner that reflects the interconnected nature of economic growth, innovation, and regional development. This approach, coupled with the MIT’s extensive involvement in a wide range of policy areas, demonstrates the Czech government's commitment on strenghthening SMEs and their innovative capacity and, to lesser extent, enhancing the impact of FDI on the domestic economy. The utilisation of various departments within the MIT to address different facets of the SME and FDI ecosystem showcases the government’s understanding of the intricate linkages between different economic sectors and their role in fostering a robust SME sector and attracting productivity-enhancing FDI. However, it is imperative to continually evolve and adapt the institutional framework. Strengthening formal coordination channels, without compromising the existing flexibility and adaptability which are critical in a dynamic economic landscape, could serve as a valuable enhancement to the Czech government’s policy execution, ensuring that the strategic objectives are harmoniously integrated across all departments. Enhancing formal collaboration, alongside the strategic focus on coherent policy development and implementation, could stand out as a key strength of the Czech institutional framework in fostering a conducive environment for SMEs and maximizing the benefits of FDI.

Box 4.1. Policy recommendations on the Czech governance framework

- **Strengthen inter-ministerial and inter-agency coordination through formal bodies and consolidation of responsibilities to improve efficiency.** In partnership with regional, publicly-funded organizations specializing in innovation services for SMEs, the establishment of such committees could actively work towards integrating the roles and responsibilities of the different ministries and agencies. This collaboration aims to leverage local expertise and resources to bolster support for SMEs. The objective would be to streamline processes and reduce duplicative efforts and roles by consolidating overlapping functions. These bodies should focus on the cohesive formulation and implementation of policies, ensuring that initiatives across different sectors and levels of government are well-aligned and mutually supportive. Such a structured approach to policy coordination will aid in achieving a unified vision in economic development and SME support.
- **Define clear, specialised functions for each agency to avoid overlap and focus on specific FDI-SME policy areas.** To avoid overlap and enhance focus on specific policy areas, there is a need to define clear, specialised functions for each agency involved in FDI-SME policies. Each agency should have distinct mandates, with a focus on areas like startup support, SME financing, or technology adoption. This approach will prevent functional redundancy and ensure that each agency contributes uniquely and effectively to the broader policy objectives.
- **Create frameworks for better alignment of national policies with regional and local priorities.** Greater tailoring of national policies at the subnational level should be combined with coordination among national agencies operating at local level and regional innovation agencies, to avoid an inconsistent quality of support or the provision of overlapping services in regions and places.
- **Implement a framework for regular impact evaluations to assess the effectiveness of FDI-SME policies, using both quantitative and qualitative metrics.** This framework would provide a holistic view of policy impacts. Regular evaluations will help in identifying areas of success and areas needing improvement, allowing for timely adjustments to strategies and initiatives.
- **Facilitate regular, structured dialogues with a diverse range of stakeholders.** Facilitating regular, structured dialogues with a wide range of stakeholders, including SMEs, local communities, industry experts, and academia, is critical. These dialogues should aim to incorporate diverse insights into policy development and evaluation processes. Engaging a broad spectrum of perspectives will enrich policy formulation, ensure that various interests and needs are considered, and enhance the overall effectiveness and acceptance of the policies.

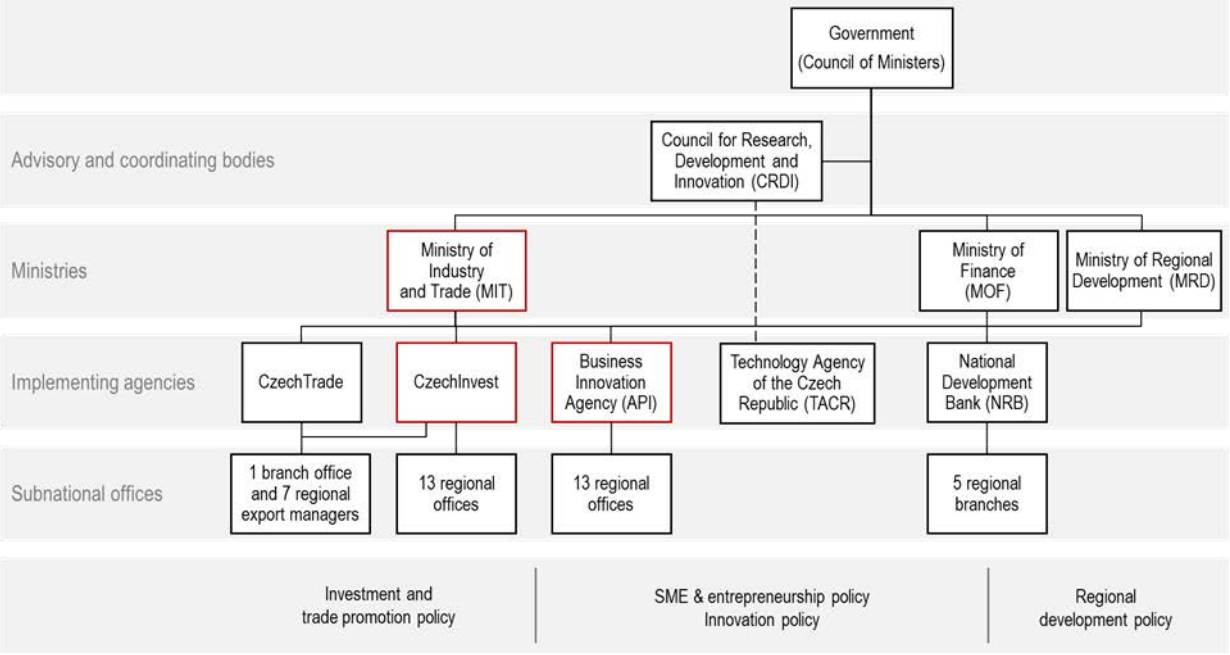
Overview of the governance framework supporting the Czech FDI-SME ecosystem

4.1.1. There is room to increase the integration of the governance framework supporting the FDI-SME ecosystem in Czechia

Strengthening FDI and SME linkages can be supported by public policy action in different domains. Key policy areas are investment, SME and entrepreneurship, innovation, and regional development. The institutional framework underpinning these policy areas varies from country to country, exhibiting different degrees of integration *versus* fragmentation, based on the number of institutions involved in policy design and implementation (OECD, 2023[1]).

The Czech governance system can be described as partially integrated. In Czechia, like in most EU countries, responsibility for the design and implementation of FDI-SME policies is shared among several implementing agencies, reporting to different ministries as seen in Figure 1.4. The Ministries and agencies involved are the Ministry of Industry and Trade (Investment Promotion through CzechInvest, SME and Entrepreneurship policy implemented on the administrative level through the Business Innovation Agency), the Ministry of Finance (SME and Entrepreneurship Policy and Regional Development Policy through the National Development Bank), and the Ministry of Regional Development (Regional Development Policy including managing EU funds and establishing subnational business support as the main mandate). The Council for Research, Development, and Innovation (CRDI) holds innovation policy mandate as it oversees Czech R&D&I system and validates the allocation of R&D funds through the Technology Agency of the Czech Republic (TACR).

Figure 4.1. The institutional environment for FDI and SME linkages in Czechia



Note: The main institutions acting upon FDI and SME linkages are designated in red. All the other institutions provide a complementary contribution to FDI and SME linkages.
Source: OECD elaboration based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023).

Czech governance framework for FDI-SME policies is not completely integrated, but less fragmented than in its peer countries such as Portugal or the Slovak Republic. In countries like Estonia, Finland, Latvia, Lithuania, and Slovenia, there are single government agencies overseeing the entire FDI-SME ecosystem. Czechia's institutional framework comprises multiple ministries in charge of different parts of FDI-SME policies, indicating a need for enhanced coordination mechanisms to bridge potential policy gaps and ensure effective collaboration across diverse domains (Box 4.2). For example, like other EU member states, there is a trend for Investment Promotion Agencies (IPA) and SME agencies to report to the same ministry, fostering potential inter-institutional collaboration for investment and SME policies.

In Czechia, the promotion of innovation and regional development is managed by a range of agencies, reflecting a common pattern seen in OECD countries In Czechia's case, responsibilities for innovation promotion are shared primarily between the Ministry of Industry and Trade and the recently established Ministry for Research and Innovation as they both have mandates in innovation policy, while the Council for Research, Development and Innovation works an advisory body to the Government (Table 4.1). Unlike

the more centralized models in some OECD countries, such as Poland or Portugal, where regional development policy is typically overseen by dedicated ministries, Czechia's approach involves the Ministry of Regional Development, which outlines the regional development strategy (Box 4.2, Table 4.1).

However, there is a collaborative aspect in Czechia's framework. The Ministry of Regional Development, in conjunction with the Ministry of Industry and Trade and the Ministry of Finance, supports synergies through the National Development Bank. This bank plays a multifaceted role, not only assisting SMEs with bank guarantees and preferential loans but also financing housing development and municipal infrastructure projects (Figure 1.4).

Table 4.1. Key implementing institutions acting upon the FDI-SME diffusion policy areas

	SME & entrepreneurship policy / Innovation policy		FDI promotion and internationalisation policy	Regional development policy
Implementing agency	Business and Innovation Agency	Technology Agency of the Czech Republic	CzechInvest	Ministry of Regional Development
Date of creation	2016	2009	1992	1996
Ministry in charge	Ministry of Industry and Trade	Reports directly to the Council of Ministers	Ministry of Industry and Trade	n/a
Legal form	Autonomous government agency	Autonomous government agency	Autonomous government agency	Ministry
Mandate	Delivering EU-funded financial support programmes for businesses	Centralizing public support to R&D&I	Promoting, facilitating, and attracting FDI, supporting startups and SMEs	Designing and implementing regional development policies
Target population	Established SMEs (+1 year)	Research institutions, firms, business-research consortia	Foreign investors, Czech startups	Regional and municipal authorities
Priority sectors	All sectors except agriculture, forestry, fishing, aquaculture, and steel industry	Production technology, energy, environment, materials, digital and cyber technology, knowledge-based economy	Manufacturing, technology centres, strategic services	None

Source: Author's elaboration based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023).

Box 4.2. Institutional arrangements supporting FDI and SME linkages in EU Member States

Governance frameworks supporting FDI and SME linkages within the EU vary, ranging from highly integrated settings where FDI-SME policies are the responsibility of a single ministry or implementing agency, to fragmented institutional set ups, where the responsibility is shared among a larger number of institutions. More complex governance systems may induce higher risks of information asymmetries, transaction costs and trade-offs, and require stronger inter-institutional co-ordination mechanisms to overcome potential policy silos (OECD, 2023[1]).

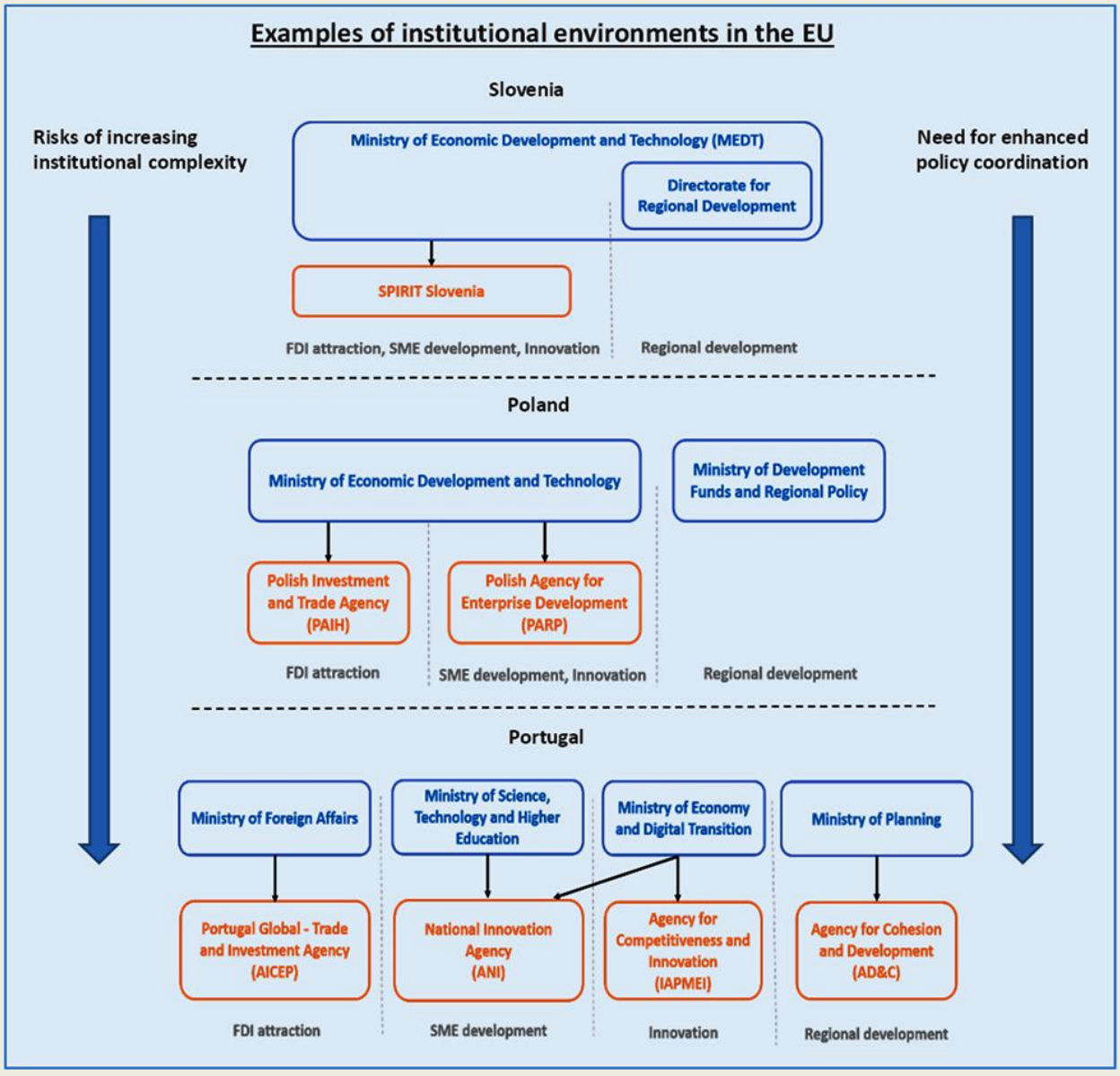
In Portugal, for example, several highly specialised implementing agencies operate across the four policy areas of investment, SME and entrepreneurship, regional development and innovation, reporting to different line ministries (Figure 4.2) (OECD, 2022[2]). The primary responsibility for SME and business innovation policy lies with the Ministry of Economy and Digital Transition and its implementing agencies (the SME Competitiveness Agency (IAPMEI) and the National Innovation Agency (ANI)). The Ministry of Foreign Affairs also implements national investment promotion and trade policies and supervises the work of the national IPA (AICEP Portugal Global). Important prerogatives are also in the hands of the Ministry of Planning and the Ministry of Territorial Cohesion, which are responsible respectively for the management

of the EU Structural and Investment Funds and the design and implementation of economic growth policies in regions (OECD, 2023[1]).

In contrast, other EU member States with an integrated institutional framework (e.g., Estonia, Finland, Latvia, Lithuania, Slovenia) target the entire FDI-SME ecosystem through a single government agency reporting to one Ministry (OECD, 2023[1]). For instance, Slovenia's Ministry of Economic Development and Technology is responsible for all policy areas related to FDI and SME linkages. A single agency, SPIRIT Slovenia, is in charge of FDI, SMEs, innovation, and tourism promotion, while regional development policy is co-ordinated through the Ministry's Regional Development Directorate (OECD, 2022[3]). By design, the need for inter-institutional collaboration in such integrated governance frameworks is limited, facilitating coordination across policy domains.

Overall, the majority of EU member States – including Czechia – stands in between and has partially integrated governance framework (OECD, 2023[1]). In this group of countries, a common trend is for the IPA and the SME and entrepreneurship agency to report to the same ministry, which could facilitate inter-institutional planning and decision-making across the investment and SME policy agendas. Responsibilities for innovation promotion, on the other hand, are often split between the ministries responsible for economic policy, science, and education. Although investment promotion, SME and innovation policies can be more or less integrated into the same ministry, regional development policy usually stands apart, and is entrusted to a dedicated ministry. However, there are exceptions. For example, in Slovenia, as highlighted above, responsibility for regional policy sits within the Ministry of Economy (OECD, 2023[1]).

Figure 4.2. Governance frameworks in the EU based on institutional complexity



Source: OECD (2023[1]) https://doi.org/10.1787/688bde9a-en

4.1.2. Czechia's varied institutional landscape highlights the necessity for coordination, streamlined communication, and cohesive strategies to improve FDI-SME linkages.

The primary responsibility for investment, SME and entrepreneurship policy lies with the Ministry of Industry and Trade (MIT). The Ministry's portfolio also includes the related fields of energy, industrial and trade policy.

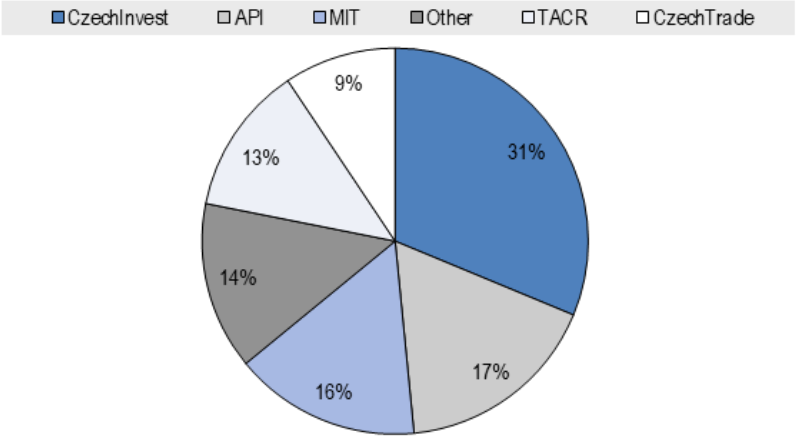
The approach to SME policy in Czechia, particularly regarding FDI-SME linkages, is managed by multiple departments rather than by a single autonomous body. This is especially apparent within the MIT, where the remit for SMEs and entrepreneurship is spread across several departments. Such an organisational

structure reflects a wider policy viewpoint, considering SME aspects not in isolation, but as a fundamental, cross-sectional element of broader policy aims, inclusive of FDI-SME linkages. Whilst the various departments within the MIT engaged in SME policy often collaborate, this cooperation typically relies on informal channels, underscoring a potential area for more structured and formalised mechanisms. The Ministry is directly responsible for the implementation of 17% of the Czech policy initiatives mapped under the 2023 edition of the EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (Figure 4.3). A further 50% of the policy initiatives mapped is delivered by two of the Ministry's implementing agencies, which play a particularly prominent role in supporting the Czech FDI-SME ecosystem:

- CzechInvest, i.e., the national Investment Promotion Agency (IPA), responsible for attracting FDI and supporting investors and entrepreneurs. In addition to the core investment promotion and attraction activities, CzechInvest's portfolio also includes a growing number of initiatives supporting Czech startups and young firms.
- The Business and Innovation Agency (API), which administers EU structural funds and supports the growth and upgrading of Czech SMEs. In particular, the agency administers business support under the EU Operational Programme Enterprise and Innovation for Competitiveness (OP EIC 2014-2020) and the Operational Program Technologies and Application for Competitiveness (OP TAC 2021-2027).

Figure 4.3. Distribution of mapped FDI-SME policies across Czech institutions

% of mapped FDI-SME policy by implementing institutions, 2023



Note: % are calculated over a total of 64 policies mapped. "Other" includes National Development Bank (NRB); Ministry of Regional Development (MRD); Research, Development and Innovation Council (CRDI); and Ministry of Finance (MoF).
Source: Author's elaboration based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023).

The Czech Trade Promotion Agency (CzechTrade) – also established under the MIT – plays a complementary role in supporting the national FDI-SME ecosystem by promoting the export and internationalisation performance of Czech companies via a broad range of business support and matchmaking services.

The Ministry of Industry and Trade has the responsibility to design the policies, while the specialised agencies are mainly responsible for policy implementation. For example, in initiatives such as the *Innovation Programme* or *Potential Programme*, the Ministry of Industry and Trade, as the programme's managing authority, delegates a significant portion of the implementation tasks to the

Business and Innovation Agency (API). The API serves as an intermediary organisation for grant-based assistance, overseeing communication with aid applicants and recipients, including the evaluation of applications, while the Ministry of Industry and Trade retains responsibility for resource allocation and disbursement.

In addition to the MIT and its implementing agencies, other institutions also provide a prominent contribution to supporting the FDI-SME ecosystem. These include:

- The Technology Agency of the Czech Republic (TACR) which has important prerogatives in the area of R&D and innovation promotion. It was established in 2009 as the cornerstone of a reform project aimed at reducing the fragmentation of the Czech R&D support system. The Agency runs in-house programmes and administers R&D financial support schemes on behalf of different ministries. TACR's programmes aim to foster the innovation capacity of Czech enterprises; support collaboration between industry and R&D organisations; and make the governance of the public support system for applied R&D more efficient by removing overlaps (OECD, 2016[4]). The TACR operates under the direct supervision of the Czech Government, through the Council for Research, Development, and Innovation (CRDI).
- The National Development Bank (NRB), a state-owned banking institution, also plays a crucial role in the fields of SMEs and entrepreneurship support and infrastructure development, as a major provider of financial support instruments such as preferential loans or credit guarantees. It is a joint stock company owned by the Ministry of Industry and Trade, the Ministry of Regional Development, and the Ministry of Finance. Established in 1992 as the Czech-Moravian Guarantee and Development Bank (ČMZRB), the NRB has been supporting sustainable economic development in Czechia for almost three decades (NRB, 2023[5]).
- The Ministry of Regional Development (MRD) coordinates the design and implementation of regional development policy. The Ministry provides information and methodological guidance to higher territorial self-governing units, towns, municipalities, and associations thereof. It also ensures the engagement of territorial self-governing units in European regional structures. The precise extent of the responsibilities and programmes of the Ministry are described in more detail in Chapter 6. The Ministry's Regional Development Strategy of the Czech Republic 2021+ (RDS21+) sets the main objectives of regional development for the period 2021-2027. It identifies thematic areas that require a territory-specific approach and defines different interventions to be implemented in different territorial contexts to promote competitiveness, reduce regional disparities, and find solutions promoting sustainable development of the territory. The strategy also serves as a guide for regional governments in developing regional development strategies. Besides, The Ministry of Regional Development - National Coordination Authority (MoRD-NCA) commenced the preparation of the Partnership Agreement in the 2021-2027 programming period between the European Commission and Czechia which lays out the country's cohesion policy investment strategy worth EUR 21.4 billion for the period 2021-2027.

This partially integrated governance framework supporting the Czech FDI-SME ecosystem might require the implementation of whole-of-government coordination strategies, communication channels and information exchange mechanisms to address the possible emergence of policy silos (which we don't currently observe) and reduce the risks of information asymmetries leading to higher transaction costs.

4.1.3. Strengthening agencies responsible for implementation of national policies at regional and local level

Government action at local levels is important for tailoring policies to local needs, especially in less developed regions where closer proximity to foreign investors enhances the effectiveness of investment promotion agencies. The presence and active engagement of government institutions at the regional and local levels can be a factor in ensuring that policy is tailored to local socio-economic characteristics and

needs. For example, research on EU countries shows that closer proximity to foreign investors' operations makes investment promotion agencies (IPAs) more effective in pursuing their function and better addressing investors' needs, in particular in less developed regions where information asymmetries and institutional failures are more widespread (Crescenzi, Di Cataldo and Giua, 2019[6]).

The main national implementing agencies supporting the FDI-SME ecosystem in Czechia are present at regional level. Both CzechInvest and the Business and Innovation Agency (API) operate own subnational offices in all the 13 Territorial Level 3 (TL3) Czech regions outside the capital. In addition, CzechInvest and CzechTrade jointly operate 13 contact points for entrepreneurs in regions (regional export consultants), providing training and consulting services to local companies. In 2019, these regional export consultants organised over 1 900 meetings with Czech companies in regions (CzechTrade, 2020[7]). The National Development Bank (NRB) has branches in the regional capital cities of South Moravia, Hradec Králové, Moravia-Silesia, Pilsen, and an office in the capital of South Bohemia (České Budějovice) (NRB, 2023[5]).

Evidence from interviews conducted with institutional representatives highlight considerable collaboration among subnational offices of national institutions operating in the same regions or municipalities. The South Moravia region provides a good example of such good practices in inter-institutional collaboration and subnational level (see Chapter 6). Collaboration mostly takes places through informal channels, facilitated by personal linkages and connection and the sharing of office spaces.

However, in the pursuit of fostering robust local innovation ecosystems, it is crucial to strengthen collaboration among regional innovation centres (which are typically established by regional governments and have no direct link to national ministries), national implementing agencies, and ministries. Existing regional innovation centers, one-stop-shops, and business consultation centres could be empowered. These centers possess firsthand knowledge of local dynamics, understand the unique challenges faced by businesses, and have the capacity to drive innovation. Increased coordination between implementing agencies operating at the local level (CzechTrade, CzechInvest, API) and other regional stakeholders could facilitate dialoguealignment of strategies, identification of synergies, and addressing specific regional needs become possible. For example, it would help to reduce regional disparities and address the challenges that weaker regions face regarding mobilising public and private actors in support of local business ecosystems. It may also help ensure interconnection between national, regional, and local delivery of FDI, SME and innovation services and strike the right balance between national and local priorities.

To enhance the effectiveness of such collaboration, bridging the gap between national policy-making and regional policy implementation is imperative. Subnational branches of government implementing agencies require resources to increase coordination at the local level, develop local initiatives, tailor their services to the needs of their local areas, build their own contacts and brands, and lead partnerships with regional and local authorities that may lack the capacity to support the local entrepreneurial ecosystem. Greater tailoring of national policies at the subnational level should be combined with due coordination among national agencies operating locally through regular meetings and consultations on an ad hoc basis. Furthermore, it is essential for national policymakers to engage actively with regional innovation centres to overcome communication barriers and facilitate information exchange. National ministries could benefit from this engagement by gathering feedback from regional innovation centres about the business needs "on the ground", while also providing centres with necessary capacity building. Better coordination and rationalisation of the FDI-SME governance and institutional setting at the national level could help prevent inconsistent support quality and avoid fragmentation or overlapping in services delivery at the regional and local levels (see next section) (OECD, 2022[3]).

4.1.4. Czechia has a complex multilevel governance system

The Czech subnational system structure is the foundation for local governance and policymaking. Czechia has a two-tier subnational system, with 6 254 municipalities (*obce*) and 14 regions (*kraje* – 13 regions and

the City of Prague). The capital city of Prague has a unique dual status as both a municipality and a region. The municipal level includes municipalities, towns (mesto) and 25 statutory cities (statutarni mesto) – i.e., having a special status that enables them to establish districts at the sub-municipal level with their own mayor, council, and assembly (OECD-UCLG, 2016[8]).

Municipalities and regions exercise both autonomous competences as well as competences delegated by the central level (delegated powers). Municipalities can be categorised based on the scope of their delegated powers. Indeed, while autonomous competences are the same for all municipalities, delegated powers vary depending on the municipalities' size and capacity. At the upper level are municipalities with "extended powers", that fulfil the largest set of delegated administrative functions. At the intermediate level are municipalities with "authorised municipal authority", performing delegated functions on a smaller scale. At the lower level, municipalities have only "basic delegated powers" (OECD, 2023[9]; OECD-UCLG, 2016[8]).

Regions are responsible for overarching policies and municipalities for service delivery which are key for SMEs operating across the country and for FDI attraction. Municipal competences include education (pre-elementary, primary, and lower secondary education), agriculture, housing, primary health care, social care services, local roads and public transport, water and waste management ("extended powers" only) (OECD-UCLG, 2016[8]). The range of purely local competences assigned to municipalities by the law is relatively small, meaning that most of their responsibilities are shared with the central or regional governments (OECD, 2023[9]).Regions also have autonomous and delegated competences. They are responsible for regional economic development and planning, environmental protection, both very relevant for SMEs based in the region and for attraction of foreign investment. This extends to another important factor in the development of FDI-SME ecosystems, which is the infrastructure management, in particular regional roads and transport. In some instances, regions and municipalities bear responsibilities for the same policy areas; however, their competencies are divided between the funding of programmes and overarching policy in the case of regions, and the delivery of services in the case of municipalities (OECD, 2023[9]).

While the complex governance system allows for adaptability, it often results in coordination challenges which might hamper business development. The system often results in overlaps in the allocation of responsibilities and calls for strong coordination among levels of government. Given the high number of local self-governments, this co-ordination represents a significant challenge for Czechia. For example, when it comes to implementing delegated responsibilities, the national government tends to coordinate only with municipalities with "extended powers" – i.e., with a broader range of delegated competences (OECD, 2023[9]). A 2020 study of Czech local government strategies during the COVID-19 crisis reveals the absence of effective co-ordination mechanisms between the central government and municipal actors, which complicates the transmission and implementation of policies to support SME activities and to attract FDI. The study identified that the complicated and bureaucratic administrative setting does not allow key decision-makers at the national and local levels to quickly share information and take informed decisions to devise the optimal response in a short period of time. This inconsistency can affect the overall quality or outcomes of FDI-SME policies because it can lead to discrepancies in implementation across regions and municipalities (Plaček, Špaček and Ochrana, 2020[10]).

4.1.5. … and a highly fragmented territorial administration that has implications for the implementation of effective FDI-SME policies.

Czechia has one of the most fragmented territorial organisations in the OECD. There is large number of very small municipalities in terms of area and population. In 2020, the average municipal size was the smallest among OECD countries (1 710 inhabitants per municipality on average), well below the OECD average of 10 250 and the EU average of 5 960. While the median size of Czech municipalities is 442 inhabitants, 96% of municipalities had fewer than 5 000 inhabitants and almost 90% had fewer than 2 000

inhabitants in 2021. The average municipal area is also the lowest in the OECD: on average, Czech municipalities have an area of 13 km^2 compared to 234 km^2 on average across the OECD (OECD, 2023[9]; OECD, 2021[11]).

Czech regions are also small by international standards. The average size of Czech regions is 2.5 smaller than the average size of the EU28 NUTS 2 regions in terms of inhabitants and 4 times smaller in terms of area (Ministry of Interior of the Czech Republic, 2018[12]). Only 3 of the 14 regions are large enough to be qualified as NUTS 2 regions for EU regional funding purposes (Prague, Central Bohemian and Moravian-Silesian region). The remaining 11 regions are NUTS 3 regions which, for statistical purposes, are joined to form 5 additional NUTS 2 regions (OECD, 2023[9]).

The administrative fragmentation, and particularly the very high number of small municipalities, undermines policy co-ordination between the national and subnational levels and affect the cost efficiency of public service delivery for SMEs and foreign investors. Most Czech municipalities are too small to ensure a cost-effective provision of public services. Many of them are remote and sparsely populated, increasing even more the cost of public service provision (OECD, 2023[9]), which in turn might make such municipalities less attractive for entrepreneurs and foreign investors.

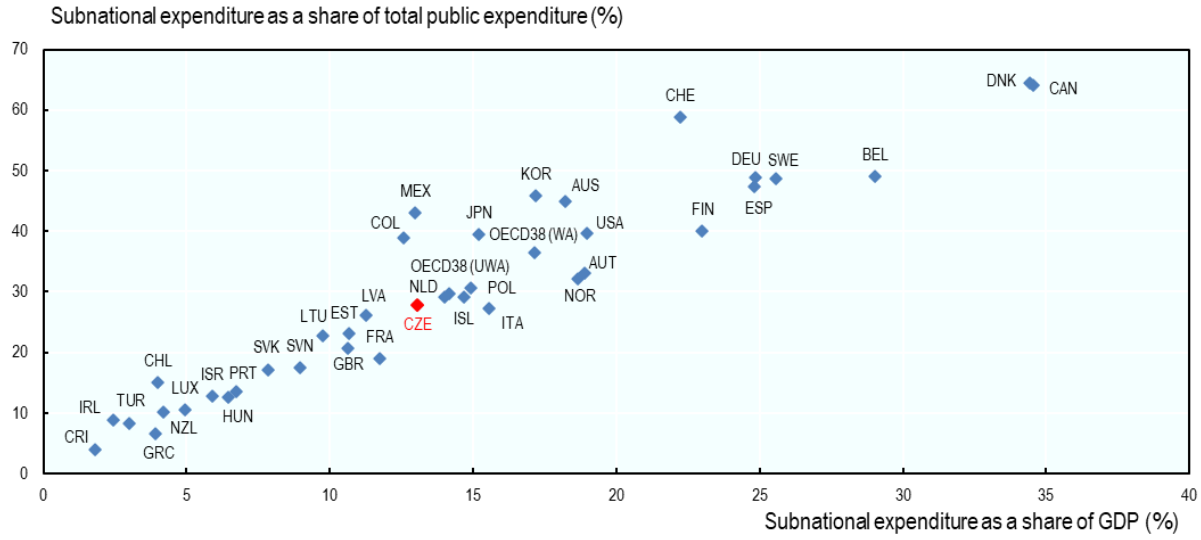
This can lead to inefficiencies in the implementation of FDI-SME policies. Even though the majority of business regulations are established at the national level, the fragmentation of territorial administration in Czechia can create a complex regulatory environment with different rules and regulations in different regions, making it difficult for foreign investors and SMEs to navigate the business environment and comply with all relevant regulations. Different administrative units may interpret and implement policies differently, leading to inconsistencies and creating uncertainty for businesses, which may deter foreign investment. Businesses, particularly SMEs, may face an increased administrative burden due to the need to comply with different regulations in different regions, which can divert resources away from core business activities and hinder growth. The complexities and inconsistencies associated with a fragmented territorial administration can act as a barrier to market entry for foreign investors and SMEs, limiting the number of new businesses entering the market and hindering competition. The uncertainties and complexities associated with a fragmented territorial administration can impact investment decisions, with foreign investors potentially choosing to invest in regions with less administrative fragmentation due to the perceived lower risk and ease of doing business. Strategies aimed at addressing municipal fragmentation in Czechia, supplemented with examples of governance efforts from other countries for inter-municipal cooperation, are elaborated in Chapter 6.

4.1.6. Regional and municipal governments' resources are limited

Insufficient financial resources relative to the extensive responsibilities of regional and municipal governments in supporting FDI-SME ecosystems may create a financing gap. The relatively broad competencies of regional and municipal governments in supporting FDI-SME ecosystems does not appear to be always matched with sufficient financial resources. This may result in a financing gap in the implementation and delivery of policies. Czechia remains a relatively centralised country in terms of public expenditure. In 2019, about 30% of total public expenditure was carried out by subnational governments compared to an OECD average of 40% (Figure 4.4).

Figure 4.4. The Czech subnational government expenditure is below OECD average

Subnational government expenditure as a % of GDP and total public expenditure, 2020



Source: OECD regional statistics database (accessed on 19 October 2023), https://doi.org/10.1787/region-data-en

4.1.7. Better co-ordination among levels of governance could foster efficiency in the delivery of public services

Czechia has already taken initiative to reform its multi-level governance system. The current public governance reform agenda, known as the Public Administration Reform (PAR) Strategy: Client-oriented Public Administration 2030, contemplates the definition of a new system of municipal delegated powers, aiming to concentrate those in the hands of the municipalities with sufficient personnel and expertise to effectively exercise them. The objective of this reform is to improve the quality of services delivery and reduce the administrative burden on the smallest municipalities (OECD, 2023[9]).

Vertical coordination across different tiers of government remains challenging, particularly due to territorial fragmentation. Territorial fragmentation, and particularly the very high number and small size of municipalities, challenges vertical co-ordination across national, regional, and local governments. This fragmentation also affects regional-municipal coordination, with the degree of challenge varying across the country due to differing numbers of municipalities per region (OECD, 2023[9]). Considering these challenges, the National Development Bank (NRB) emerges as an effective model for delivering public services. On subnational level it works closely with regional branches of CzechInvest and collaborates with all commercial banks in the Czech market, providing guarantees to SMEs when needed. The Bank support the Ministry of Industry and Trade in the design of programmes and on identifying the priorities to be pursued, leveraging its direct experience dealing with SMEs. This coordination supports both SMEs and the public sector and can significantly contribute to the development of effective FDI-SME linkage policies in Czechia.

Enhancing inter-municipal co-operation could set common territorial development objectives to plan and implement projects with a long-term horizon and at the relevant scale. According to a recent OECD review of Czech public administration, co-operation between municipalities in Czechia primarily revolves around specific investment projects or service delivery where they perceive mutual benefits, with a noticeable absence of a holistic territorial development strategy for cooperation and planning (OECD, 2023[9]). Transitioning from project-based cooperation to a comprehensive, long-term territorial development

approach among Czech municipalities could significantly enhance FDI-SME policies. This shift would allow for strategic planning and implementation of larger-scale projects with a long-term horizon, making the country more attractive for foreign investors and providing a supportive environment for SMEs. It could also lead to more efficient resource utilisation and policy consistency across municipalities. By pooling resources, municipalities could provide better support services for SMEs and foreign investors, such as setting up business support centres or providing joint training programs. Joint efforts can lead to the development of shared infrastructure, such as industrial parks or innovation hubs, which can attract FDI and provide opportunities for SMEs.

To ensure the success of multi-level governance reforms in Czechia, it is crucial to build consensus and buy-in from different stakeholders. Czechia has a history of strong centralisation – before the Velvet Revolution of 1989, power was concentrated at the central level. After 1989, Czechia transitioned from a centralised system towards a decentralised system of self-governing subnational governments. Since the change in the political regime, Czechia has undergone several transformations to its territorial administrative structure. The decentralisation efforts of the last years are thus viewed as a step forward in ensuring proximity with citizens and for policy implementation that responds better to local needs. As is the case in several OECD countries, recentralising some responsibilities is generally met with pushback from municipal associations and representatives. It is therefore crucial to accompany multi-level governance reforms with the appropriate consultations, negotiations and communication efforts to gain support from local actors and society (OECD, 2023[9]; OECD, 2017[13]; OECD, 2017[14]).

~~4.1.8.~~ *There is a need to continue building subnational government capacities for the successful development and implementation of FDI-SME policies*

Acute skill gaps and lack of administrative capacity in smaller subnational units add to the challenges in delivering quality services at local level. Subnational governments in Czechia face an acute gap in adequate skills and administrative capacity. This is particularly true at the local level where, in addition to the skill gaps, they confront difficulties attracting talent (OECD, 2023[9]). Foreign investors look for regions with strong administrative capacity and a skilled workforce. SMEs often rely on local government support in various forms, including regulatory assistance, access to financing, and business development services. Improved capacities can lead to more effective policy implementation, make the region more attractive to foreign investors, enhance support for SMEs, and facilitate the creation of successful FDI-SME linkages.

4.2. Policy coordination across institutions and fields of government

Effective public intervention in support of FDI-SME ecosystems requires the alignment of objectives and priorities across different policy areas. This often calls for coordination among a number of government institutions dealing with FDI promotion, SME development, innovation, and regional development. Institutional coordination can be achieved through different instruments and present multiple challenges, which are presented in more details in Box 4.3.

Czechia's performance in inter-institutional coordination is below the standard of the leading OECD economies. The country ranks 35th out of 41 economies in the inter-ministerial coordination sub-indicator in the Sustainable Governance Indicators (SGI) 2022. The SGI report on inter-ministerial coordination provides further insight indicating that while the Office of the Government of Czechia serves as the central body of state administration, its primary role revolves around administrative functions rather than offering direct oversight for proposals put forth by line ministries (BertelsmannStiftung, 2022[15]).

The recent Public Governance Review done by the OECD in cooperation with the Czech government (OECD, 2023[9]) reports that the lack of strategic steering capacities and alignment from the centre have led to the multiplication of strategies and an absence of consistency and implementation across policies.

Strategic decisions, regulations and policies are also insufficiently based on evidence. This calls for strengthening the strategic coordination of the Government Office and boosting analytical capacities across public administration (OECD, 2023[16]).

Box 4.3. Policy coordination: principles, instruments, and benchmarking

Instruments of co-ordination can be based on regulation, incentives, norms, and information sharing. They can be top-down and rely upon the authority of a lead actor or bottom-up and emergent (Peters, 2018[17]). They include (OECD, 2012[18]):

- **National strategies and action plans** typically involve wide consultation and deliberation, provide diagnostic overviews of what the strengths, weaknesses, opportunities, and threats of an SME, innovation, and local ecosystem could be, and set a shared vision of the goals pursued.
- Closely related, **policy evaluations and reviews** are a source of strategic intelligence, and a means for promoting greater co-ordination.
- **Dedicated agencies or ministries** assume the leadership of the national policy agenda in some policy domains (e.g., FDI/SME/innovation/regional) and often have responsibility of coordination. At the same time, **inter-agency joint programming** can facilitate co-ordination and other aspects of governance as agencies share agenda and action.
- The **centre of government (CoG)**, e.g., the President's or Prime Minister's Office, can bridge interests and bureaucratic boundaries. **High-level policy councils** can also deal with aspects of policy coordination although they often have variable roles and composition across countries.
- Finally, **informal channels of communication** between officials or job circulation (of civil servants, but also experts and stakeholders) can play a role and suggest a relatively well-developed culture of inter-agency trust and communication.

Although coordination is a fundamental and longstanding problem for public administration and policy, there is still no standardised method for approaching related issues, and much of the success or failure of attempts to coordinate appears to depend upon context (Peters, 2018[17]). Coordination approaches and instruments need to be matched to circumstances, so does the need to coordinate across countries and policy areas. Some policy domains may work well with minimal attempts to coordinate with others, but others may require substantial policy integration and coordination. Likewise, some political systems may emphasise coordination and governance more strongly than others (Hayward and Wright, 2002[19]).

4.2.1. High-level strategic coordination remains challenging

Czechia should ensure horizontal policy coordination on FDI-SME policy

A strong network of high-level government bodies can help ensure horizontal policy coordination across ministries and other public institutions operating in the field of FDI-SME support. In the Slovak Republic, for instance, several advisory councils are in place bringing together the Prime Minister's office, line ministries, implementing agencies, and regional and local governments to identify priority areas where cross-ministerial policy planning and decision-making is necessary (OECD, 2022[3]).

The recent Strategy to support SMEs in Czechia for the period 2021-2027 provides substantial evidence of efforts aimed at enhancing inter-ministerial coordination, including by establishing an inter-Ministerial Management and Coordination Committee. Its design was based on an inter-ministerial consultation process aimed at identifying existing policy measures and budgetary resources to be reallocated and coordinated under the strategy's umbrella. The strategy provides indeed an overarching framework for the

implementation of over 100 policies specifically targeted towards SMEs. This involves multiple competent ministries and agencies, given the interdisciplinary nature of the strategy. To facilitate effective coordination, the strategy outlines the establishment of a Management and Coordination Committee. This committee serves as the principal body responsible for managing, coordinating, and monitoring the implementation of the strategy. It convenes at least annually to discuss the current progress and status of the various measures, propose changes to implementation plans within each key area as necessary, and suggest amendments to the strategy itself. In the framework of the strategy's implementation, steering and technical inter-ministerial meetings are organised monthly. Informal coordination practices also play a key role ensuring the coordination of the different institutional actors involved.

As for FDI policy, Czechia has implemented a mechanism of foreign investment screening which involves high-level coordination between Ministry of Industry and Trade, national security institutions, and other involved regulators. The screening includes both a preliminary mandatory application for permission of investment and ex officio screening proceedings initiated by the Ministry of Industry and Trade. This is in line with the Act No. 34/2021 Coll., on the Screening of Foreign Investments (the "FDI Act") which applies to foreign investments. The FDI Act aims to protect the security of Czechia and its public and internal order. To make a risk assessment of investments, the authority assesses the nature of the business sectors in which the investments are made, as well as the target companies and foreign investors themselves. In addition to the Ministry, which is the competent administrative body and the contact point for cooperation between EU Member States, formal screening is consulted on with the intelligence services, the Police of the Czech Republic and other security services. Depending on the type of transaction, regulators such as the Czech National Bank, the Czech Telecommunications Office and the Energy Regulatory Office also submit their opinions. This coordination mechanism allows for effective information gathering and exchange, and direct competencies and capacity to react to the actual situation without delay.

In the area of research, development, and innovation (R&D&I), the Council for Research, Development and Innovation (CRDI) is the main advisory body to the Government of the Czech Republic. It is a horizontal policy coordination and a strategic intelligence body which oversees the preparation of important R&D&I policy documents, such as national strategies, annual analysis, and assessments of the Czech R&D&I system. It also formulates proposals regarding state budgetary allocations in R&D&I. Among other, the Council is in charge of overseeing and validating the allocation of R&D funds through the Technology Agency of the Czech Republic (TA CR). It holds meetings with similar EU Member States' councils, administrates the R&D&I information system, and nominates the Czech Science Foundation and the Czech Technology Agency Management Board Members (EC-OECD, 2023[20]). In fulfilling its tasks, the CRDI cooperates with central administration bodies and institutions dealing with R&D&I. The Council draws up long-term fundamental trends and schemes for the R&D&I in Czechia through its advisory bodies, which have been established as professional commissions involved in respective trends of R&D&I (EC-OECD, 2023[20]).

The proliferation of strategic documents makes their implementation and coherence more challenging

In Czechia, several strategic documents have been adopted in recent years to articulate priorities related to strengthening FDI and SME linkages. National strategies and action plans can be important instruments for policy coordination as they are crosscutting in nature, but they often require a whole-of-government approach to ensure their effective implementation.

These frameworks outlined in Table 4.2 guided by a mix of overarching goals and specific objectives, emphasise the importance of digital transformation, research and development, and the integration of emerging technologies such as artificial intelligence. The strategies are implemented through a collaboration of government bodies, with a significant role played by the Council for Research, Development, and Innovation (CRDI) and the Ministry of Industry and Trade. Notably, the Industry 4.0

Strategy focuses on enhancing competitiveness through global supply chain participation and efficient manufacturing. The strategies collectively address a wide range of areas including skills development, international market access, and low-carbon economy initiatives.

Table 4.2. National strategic frameworks supporting the FDI-SME ecosystem in Czechia

	Strategic framework	Timeframe	Description	Responsible institutions
Innovation	Innovation Strategy: The country for the Future	2019-2030	It sets the goal for science, research, and innovation to become an absolute priority in the country, focusing on knowledge-based production, technology solutions and services. The strategy, together with other pillars, addresses the digital competences and skills development in education, for the labour force and information and communication technology (ICT) experts.	Prime Minister's office through the Council for Research, Development and Innovation (CRDI)
	National Policy of Research, Development and Innovation 2021+	2021-…	An overarching strategic document for advancing all components of research, development, and innovation. The document also helps fulfil certain criteria of the basic conditions to be able to draw funding from European Union funds in the 2021–2027 programming period. Its aim is to establish a strategically managed and effectively financed RDI system in Czechia, to achieve higher development of R&D&I activities in businesses and in the public sector, and to achieve higher openness and attractivity of Czechia for international R&D.	Council for Research, Development and Innovation (CRDI)
	National Research and Innovation Strategy for Smart Specialisation	2021-2027	It is a strategic document ensuring effective directing of European, national, regional, and private resources for the support of oriented and applied R&D and innovation. It aims to enhance innovation performance of companies, to enhance quality of public research, to improve availability of qualified people for research, development, and innovation and to increase utilisation of new technologies and digitalisation. The essential role of RIS3 is to systematically mobilize researchers, innovators, entrepreneurs, representatives of universities and the public sphere to discover new opportunities and to cooperate with each other.	Ministry of Industry and Trade
	Industry 4.0 Strategy	2017-…	A national initiative aiming to maintain and enhance the competitiveness of Czechia with three main objectives: to enhance the ability of Czech companies to participate in global supply chains; to implement Industry 4.0 principles to achieve more efficient manufacturing (i.e. faster, cheaper and resource effective production); and to enhance cooperation among R&D and industry associations, universities and the Academy of Sciences of the Czech Republic for the development of software solutions, patents, production lines and export know-how.	Ministry of Industry and Trade
	National Artificial Intelligence (AI) Strategy	2019-2035	Under the conception Digital Economy and Society, this strategy aims to promote digital transformation facilitated by the AI-based solutions. It introduces measures to foster top academic and enterprise AI research and development and promotes deployment of AI technologies with the emphasis on SMEs and start-ups. Measures include building digital innovation hubs, supporting start-ups and attracting smart investments as well as introducing tools to promote investment in innovative projects and automation, especially in relation to SMEs.	Ministry of Industry and Trade
	Digital Economy and Society	2018-…	It is a key and cross-cutting strategy for the digitization of the whole society. It promotes positive aspects of societal and economic changes associated with the digital revolution and minimizes negative impacts (e.g., on the labour market). The main ambition is to ensure the long-term competitiveness and overall prosperity of Czechia by developing this area.	Ministry of Industry and Trade
SME & entrepreneurs	Strategy to support SMEs in the Czech Republic	2021-2027	The strategy identifies 107 measures pursuing the common goal of improving the productivity and competitiveness of Czech SMEs. Key areas addressed in the document include the business environment; access to finance; access to international markets; workforce, skills, and education; research, development, and innovation; the digitalization; low-carbon economy and resource efficiency.	Ministry of Industry and Trade

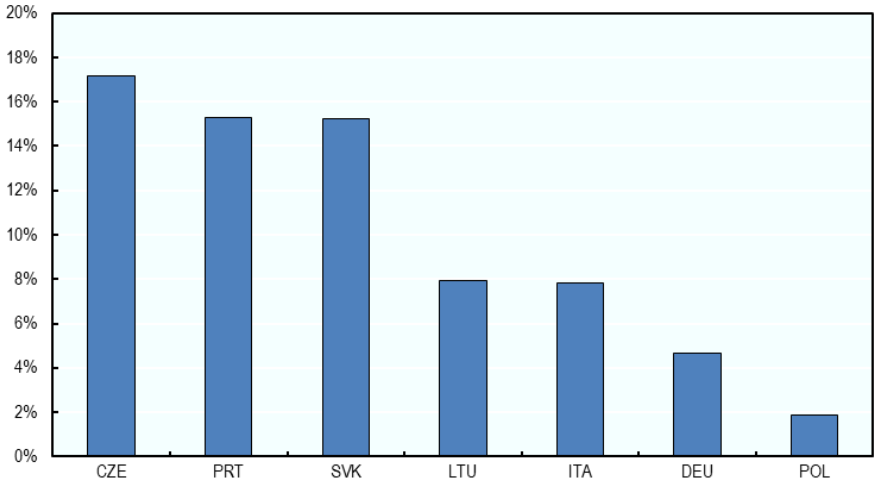
Regional development	Regional Development Strategy of the Czech Republic 2021+	2021-2027	The strategy aims to ensure tailor-made support for regions, reflect the territorial dimension in sectoral policies, develop strategic planning and management based on functional regions, strengthen cooperation among actors in the territory, improve coordination of strategic and spatial planning, develop smart solutions and improving work with regional development data.	Ministry of Regional Development
Investment promotion	National Brownfield Regeneration Strategy	2019-2024	The objective of this strategy is to create a suitable environment for rapid and effective implementation of brownfield investment projects. The strategy aims at the revitalization of sites, expansion of the offer for businesses, improvement of the environment in all aspects and achievement of effective use of previously neglected sites. The goal is to turn those sites into high-quality, built-up areas and landscapes while respecting the cultural, historical, economic, ecological, and social standpoints.	CzechInvest

Source: Author's elaboration based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023) and national strategic documents.

However, the number of different strategic documents might make policy coordination more complex. Compared with other countries analysed, Czechia has the highest share of policies related to FDI-SMEs (17%) (Figure 4.5). However, these are high-level national strategies, rather than concrete implementation programmes. And Czechia has more such documents than peer countries, heightening the risk of making it more difficult to ensure overall policy coherence among the strategic objectives identified, and to monitor their actual implementation (OECD, 2023[9]).

Figure 4.5. Czechia has numerous national strategies and plans in FDI-SME support compared to peer countries

% of governance frameworks in total policies mapped per country, 2023



Source: Experimental indicator based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Diverse strategic documents have been recently adopted in the area or innovation policy. Among the most relevant, the National Research and Innovation Strategy for Smart Specialisation, implemented by the Ministry of Industry and Trade, sets up sectorial and thematic priorities over the EU programming period 2021-27.

Among the strategic frameworks, the Industry 4.0 Strategy stands out as a national initiative strategically designed to bolster Czechia's global competitiveness, with a strong focus on SMEs. With objectives

ranging from efficient manufacturing to fostering collaboration among research and industry entities, this initiative underscores the nation's commitment to staying at the forefront of technological progress. The National Artificial Intelligence (AI) Strategy outlines measures to promote digital transformation facilitated by AI-based solutions, with a keen focus on supporting SMEs and start-ups. The interconnectedness of these frameworks, addressing areas such as skills development, international market access, and low-carbon initiatives, reflects Czechia's comprehensive and forward-looking strategy to create an innovative and thriving business environment.

The investment promotion area represents a notable exception to the trend, as Czechia does not have a national investment strategy. Investment policy considerations are incorporated in broader strategic documents. A national brownfield strategy to attract FDI in former industrial areas is implemented by CzechInvest, in collaboration with the Ministry of Industry and Trade, the Ministry for Regional Development, Ministry of the Environment and Ministry of Agriculture.

Investment promotion strategic goals are currently interwoven to a certain extent within the Smart Specialisation Strategy and in the Innovation Strategy. A well-articulated national strategy and action plan can help guiding specific measures, ensuring they align with a country’s policy priorities and implementation capacity. While in Czechia there isn’t such a document, various strategies like the Smart Specialisation Strategy and Innovation Strategy encompass elements of a strategic framework for investment promotion. It's important to note that these strategies do mention the FDI element, but they do not explicitly establish it as a strategic objective for FDI promotion activities. This integration of FDI could benefit from a more explicit strategic focus.

Investment promotion plans can help productivity growth, innovation, regional development, job creation, and transitions towards a digital and low-carbon economy. A strategic document could help tailor efforts to attract investors aligned with sustainable development goals, showcasing the country's openness to FDI. A complementary short-term Action Plan, linked to the national strategy, could provide a more focused and operational tool. This plan could outline specific actions and policy initiatives to be undertaken over a defined timeframe with dedicated financial resource allocations, promoting policy coordination and effective collaboration with relevant government bodies and stakeholders.

Monitoring and evaluation (M&E) are integral components of successful investment promotion. Implementing a comprehensive M&E system, including a Customer Relationship Management (CRM) system, enables effective tracking and analysis of IPA activities. Key Performance Indicators (KPIs) could for example identify types of firms and investments benefiting from public support and the sustainability-related impacts of supported investments. The use of qualitative evaluation methodologies, feedback processes, and surveys can further enhance understanding and adjustment of services, providing valuable insights for policy advocacy and decision-making.

The Netherlands' approach exemplifies the importance of collaboration and coordination in investment promotion Box 4.4. The Invest in Holland Network's joint efforts align with the concept of a National Plan on Investment Promotion, demonstrating how different entities can work together to attract and support foreign investors. The Netherlands' success highlights the significance of a well-organised, inter-agency framework, efficient resource allocation, and prioritisation to enhance the overall impact of investment promotion strategies. The Netherlands Foreign Investment Agency (NFIA) effectively employs a collaborative and coordinated approach, as seen through the Invest in Holland Network, comprising 14 organisations, to attract foreign direct investments (FDI).

Box 4.4. Coordination on investment promotion and facilitation: The Invest in Holland Network

The Netherlands Foreign Investment Agency (NFIA) operates as a department in the Ministry of Economic Affairs and Climate Policy while its activities take place under the umbrella of the Netherlands Enterprise Agency (RVO). In 2021, there were 28 NFIA offices abroad, including own premises in countries of strategic importance for FDI attraction, as well as agency representatives located across the Dutch embassies and consular offices. Although the agency has no subnational offices, it manages the Invest in Holland Network, which comprises 14 organisations, including regional development agencies, city administrations, and other non-profit entities. The network aims to provide a continuum of support services to foreign investors and connect them with the right public and private sector partners depending on the type and location of their investments. The Invest in Holland Strategy 2020-2025 describes the policy areas for which the network operates jointly while indicating that each partner is free to undertake complementary investment promotion activities in line with their own priorities. In the period 2015-2019, approximately 1800 investment projects were successfully completed with the help of the Invest in Holland Network, with a total investment value of EUR 12 billion and having created or maintained approximately 57.000 jobs.

The network is coordinated through the National Acquisition Platform (NAP), which is chaired by the NFIA Commissioner, and includes representatives of each organisation. Members meet once per quarter to discuss on the basis of joint short-term activity plans, take stock of progress in achieving FDI targets and evaluate the implementation of the Invest in Holland Strategy. Throughout the year members benefit from networking and knowledge sharing events as well as brainstorming meetings on how “working together” can be further simplified. To ensure consistency in the quality of services provided to foreign investors, the Invest in Holland Academy has been established to provide courses and seminars for new employees that join one of the 14 organisations as well as for more senior members and investment promotion staff located in the Dutch diplomatic missions abroad.

Investment prioritisation takes place through inter-agency Focus Teams that work on promoting investments in high-priority activities (ICT, Agri food, Life sciences and health, sustainable energy). Focus Teams hold regular meetings with companies and research institutions operating in various industries with the aim to identify new investment opportunities. They are also responsible for monitoring the business climate and bringing opportunities and threats to the attention of policymakers. For instance, in 2019, the Focus Team ICT, with NFIA and 5 regional partners, developed various value propositions, drew up target lists and visited conferences and events to generate new investment leads. Thanks to these efforts, a total of eight high-quality ICT investment projects were attracted in 2019.

The increased attention that investment generation activities receive in the Netherlands is reflected in the annual resources dedicated for that purpose. Roughly 70% of the NFIA resources are spent to find and guide potential initial investments, 20% of them are spent to find and guide potential follow-up investments (i.e., maintaining and expanding activities), 5% is spent for the role of the NFIA in the Invest in Holland network (i.e., cooperation between regional partners) and 5% to collect feedback from foreign companies on opportunities for improvement of the business climate.

Source: OECD based on Evaluatie van de NFIA 2010-2018 (NFIA, 2020[21]) https://open.overheid.nl/repository/ronl-2342ca2e-27ee-4da1-a407-ea24af4d63ad/1/pdf/bijlage-evaluatie-van-de-nfia.pdf and Invest in Holland Strategie 2020-2025 (NFIA, 2020[22]) https://open.overheid.nl/repository/ronl-1b3f0055-62a6-4757-80e7-7f32236d8f43/1/pdf/bijlage-invest-in-holland-strategie.pdf

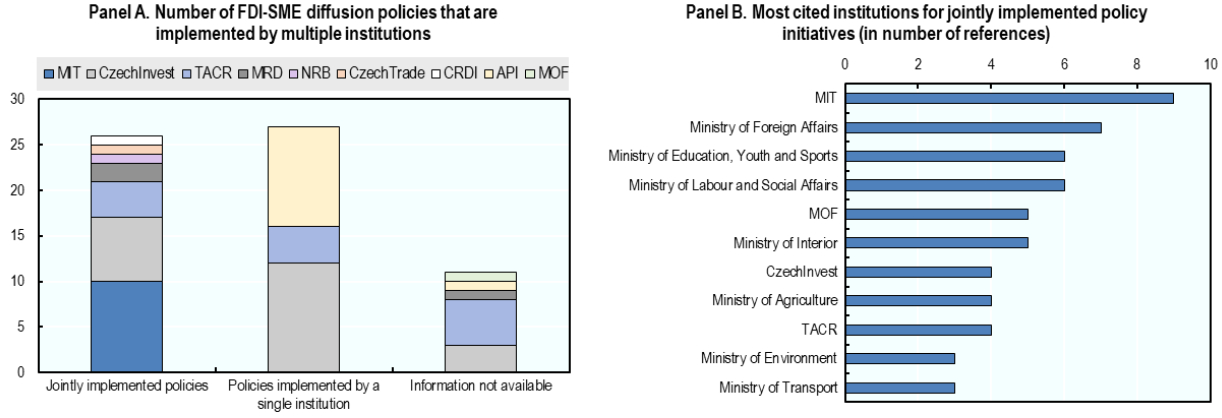
4.2.2. Inter-institutional collaboration is not frequent and takes place either informally or in a centralised manner through line ministries

While the Ministry of Industry and Trade actively coordinates and collaborates with various stakeholders in the area of SME and FDI policies….

The Ministry of Industry and Trade holds a core mandate in both the SME and FDI policy domains, which presents an opportunity for enhanced coordination in these areas. For SME policy, the Ministry has actively pursued the objective of enhancing coordination among the key actors involved in SME policy governance (ministries, agencies, research organisations, institutions, and banks). The objective being to offer a comprehensive system of assistance to support SMEs across all stages of the business cycle, spanning from innovation and development assistance. The special focus is on firms that produce and export higher value-added goods and services and participate in global value chains, meaning SMEs which could be part of FDI-SME ecosystems (Anwar, Lopez and Chua, 2019[23]).

Furthermore, the FDI-SME policy mapping reveals coordination arrangements between the Ministry of Industry and Trade and various state agencies and financial institutions, including CzechInvest, CzechTrade, the National Development Bank, and the Czech Export Bank. A relatively low number of FDI-SME diffusion policies (40%) show a degree of coordination among different institutions (Figure 4.6, Panel A). This includes initiatives and programmes that are designed and implemented jointly by agencies and ministries, or strategies and action plans that require a whole-of-government approach to be executed. Among the institutions that are most cited in the implementation of joint programmes, the Ministry of Industry and Trade, the Ministry of Finance, and the main implementing agencies (CzechInvest, TACR) stand out given the crucial role they play in supporting FDI and SME policies (Figure 4.6, Panel B). The Ministry of Industry and Trade itself is responsible for the design and implementation of 10 initiatives which are all implemented in partnership with other institutions. Nevertheless, the implementation of business support tools is fragmented across numerous ministries and national agencies with oversight in various areas.

Figure 4.6. Collaborative policy design and implementation in Czechia



Note: MIT: Ministry of Industry and Trade; TACR: The Technology Agency of the Czech Republic; MRD: Ministry for Regional Development; NRB: The Czech-Moravian Guarantee and Development Bank; CRDI: Council for Research, Development and Innovation; API: Business and Innovation Agency; MOF: Ministry of Finance.
Source: Author's elaboration based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023).

… there is a need for formalised intergovernmental coordination between national and subnational governments

However, insights from the EC/OECD Survey on Policies enabling FDI spillovers to domestic SMEs point to potential improvements in policy coordination between national and subnational governments in the design of policies. Multilevel coordination in the design of overarching national strategies appears to be lacking, while national strategies present interesting opportunities for inter-agency dialogue and collaboration involving regional and sub-national actors (OECD, 2021[24]).

4.3. Evaluation of policy impact and stakeholders engagement

4.3.1. In Czechia more than half of FDI-SME diffusion policy initiatives have integrated M&E and Regulatory Impact Assessment (RIA) systematically

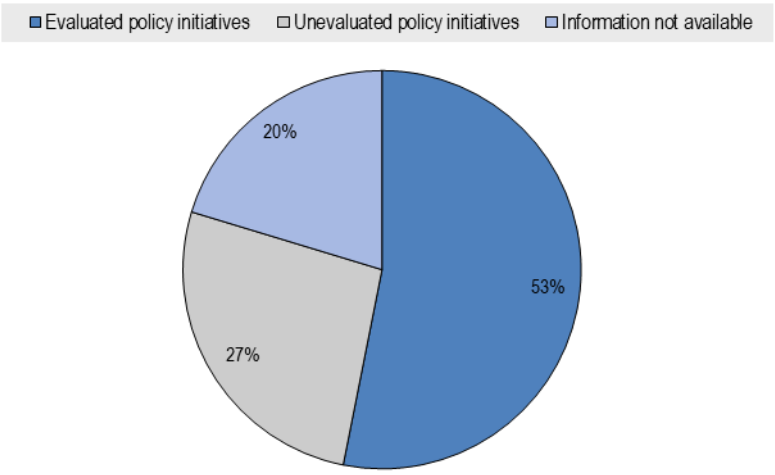
Evaluating the impact of public policy interventions on the economy can help governments identify gaps and take corrective action to enhance their effectiveness. The adoption of monitoring and evaluation (M&E) frameworks by government institutions is particularly important for policy initiatives targeting FDI-SME diffusion, which often requires public action from across different policy areas and therefore enhanced scrutiny to ensure that policy action achieves the expected results.

The monitoring and evaluation (M&E) framework of policies in Czechia needs enhancement. As highlighted in the recent OECD Public Governance Review conducted in cooperation with the Czech government, in Czechia, strategic decisions, regulations, and policies are insufficiently based on evidence. This calls for boosting analytical capacities across public administration.

Still, in the FDI-SME policy area, Czechia performs better than peers, with more than half of the policies integrating a M&E mechanism. In Czechia, 35 out of 53 FDI-SME diffusion policy initiatives analysed (53%), had some form of M&E process (Figure 4.7). Notably, this percentage is higher than benchmark countries like the Slovak Republic and Portugal, which have evaluated 18% and 49% of their implemented FDI-SME initiatives, respectively (OECD, 2023[9]; OECD, 2023[16]). Evidence from the EC/OECD Survey on Policies enabling FDI spillovers to domestic SMEs (OECD, 2021[24]) suggests that the utilisation of M&E tools by Czech institutions involved in FDI-SME policy is not systematic, but it is in place for relevant policy efforts like the national SME strategy.

Czechia excels in regulatory impact assessment. According to the OECD Indicators for Regulatory Policy and Governance, Czechia demonstrates a robust implementation of regulatory impact assessment (RIA) compared to the OECD average. Sound RIA practices serve as an evidence-based approach to policymaking, offering a thorough assessment of the necessity and effectiveness of regulation, along with the exploration of alternative interventions in markets (OECD, 2021[25]). In this sense, the survey indicates that the country has developed a well-established RIA process for primary laws and subordinated regulations (Figure 4.8). This process includes conducting a comprehensive RIA for regulations with significant impacts, as well as providing a basic overview of impacts for all draft primary and secondary legislation originating from the executive. As a result, Czechia outperforms the OECD average in terms of RIA implementation.

Figure 4.7. FDI-SME diffusion policies that have been evaluated in Czechia



Source: Author's elaboration based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023).

Box 4.5. Policy evaluation and stakeholder involvement in the national SME strategy

The Czech SME Strategy 2021-2027 features provisions on evaluation

The Strategy to support SMEs in the Czech Republic (2021-2027) features provisions about mid-term evaluation and stipulates the preparation of annual implementation reports, also featuring insights about the main SME trends in the country, to be presented to the Parliament. The Ministry of Industry and Trade holds responsibility for monitoring the implementation of measures across the different institutions involved. The 2021 annual report evaluated the strategy to be of medium success. There will be a mid-term evaluation in 2024, after which the Strategy may be revised accordingly.

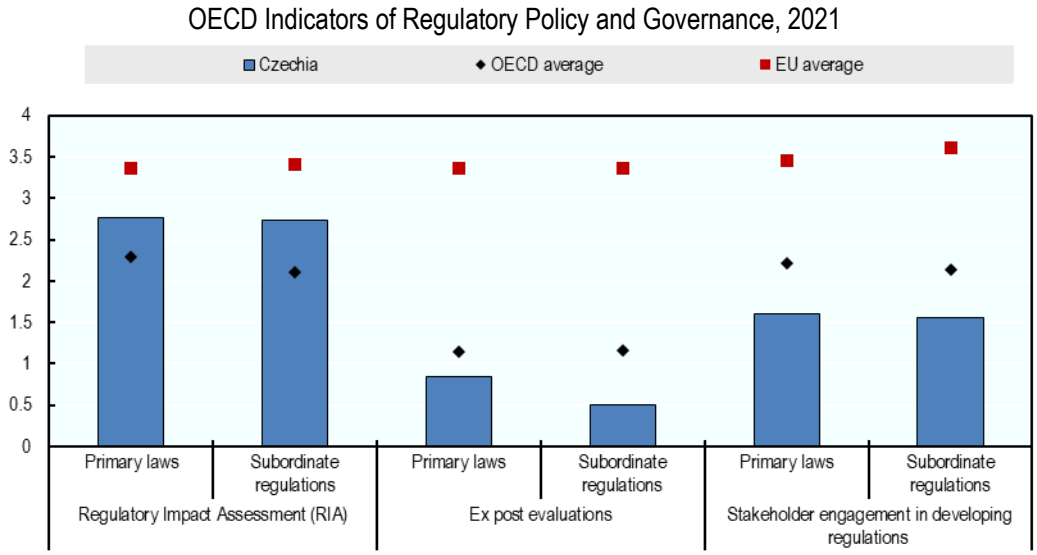
Act No. 47/2002 establishes an obligation for the national government to submit an annual report to the Chamber of Deputies on the development of SMEs, which includes an evaluation of the effectiveness of support and the efficiency of resource utilisation from the central government budget, and a plan for further enhancements to support effectiveness.

Stakeholder involvement

Representatives of the business sector, including the major business associations operating at national level (i.e., the Czech SME Association), were involved in the design of the strategy. The strategy set up an Implementation Board involving private sector stakeholders, which meets at least once a year to discuss potential adjustments and any issue related to the implementation of the strategy.

Source: Author's elaboration based on interviews conducted with national representatives.

Figure 4.8. Policy evaluations and stakeholder engagement in Czechia



Note: The more regulatory practices as advocated in the OECD Recommendation on Regulatory Policy and Governance a country has implemented, the higher its iREG score. The indicators on stakeholder engagement and RIA for primary laws only cover those initiated by the executive (98% of all primary laws in Czechia)
Source: OECD Indicators of Regulatory Policy and Governance (iREG) 2021, https://www.oecd.org/gov/regulatory-policy/indicators-regulatory-policy-and-governance.htm

By contrast, Czechia falls behind its EU and OECD peers in terms of stakeholder engagement and ex post evaluation. Citizens can provide valuable insights into the feasibility and practical implications of regulations. Meaningful engagement with stakeholders can lead to higher compliance rates, especially when stakeholders feel that their perspectives have been taken into consideration (OECD, 2021[25]). This is particularly relevant for FDI-SME linkages, where inputs from SMEs, clusters, associations, and multinational enterprises can greatly enrich the regulatory process.

Moreover, regulations should be subject to periodic reviews, acknowledging the possibility that the original circumstances that justified the regulations may have changed (OECD, 2021[25]). Such reviews also provide an opportunity to assess the effectiveness of regulations in practice. Establishing an active ex post evaluation mechanism would help identify initiatives that are not cost-effective and allow for the enhancement of those that demonstrate positive performance.

By strengthening stakeholder engagement and implementing robust ex post evaluation processes, Czechia can ensure that regulations align with the needs and realities of the stakeholders they affect. It would also enable the identification of areas where regulations can be streamlined, burdens reduced, and where regulatory interventions can be optimised for improved outcomes. Positive examples already exist in the country, as the Technology Agency of the Czech Republic (TA CR, Box 4.7), as well as in peer countries, as the Slovak Republic (Box 4.6).

Box 4.7. Policy evaluation at the Technology Agency of the Czech Republic

The Technology Agency of the Czech Republic (TA CR) provides a virtuous example of evaluation culture in context of the Czech FDI-SME institutional setting. TA CR's R&D&I funding programmes are evaluated ex ante, interim and ex post. Interim evaluation – e.g., evaluation performed in the middle-life of a programme, to assess if it is working towards its aims – is voluntary, while ex ante and ex post evaluations are mandatory. Outcome evaluations to be performed 5 years after the closure of programmes are also scheduled to be implemented soon. All the evaluation reports are publicly available online. The evaluation methodology is based on a combination of desk research, data analysis and consultation of the programmers' beneficiaries via voluntary questionnaires and surveys. Visits to unsuccessful applicants are also regularly performed. Evaluations are performed both in-house by a dedicated evaluation department and externally by contracted specialists.

Source: Author's elaboration based on interviews conducted with national representatives

Box 4.8. Findings from an empirical evaluation of the Slovak Republic's Regional Investment Aid Scheme

In 2022, the Slovak Ministry of Labour, Social Affairs and Family Policy concluded an empirical evaluation of the Regional Investment Aid scheme, which explored the impact of investment incentives on the unemployment rates in districts to which these incentives were targeted as well as potential spatial spillover effects into other districts. The study relies on the assumption that, while the incentives target only a single firm, the extra spending on wages or contractors will be absorbed into the district economy and, through its multiplier effect, will contribute to district-wide economic performance, in particular in economically lagging regions. The assumption invites a hypothesis that if there are fewer possibilities to affect growth and employment in economically lagging regions directly, the next best option might be to invest in districts with which these have the strongest ties and stimulate the local economies and employment rates by leveraging spatial spillover effects and inter-regional interdependencies.

By comparing districts, in which a firm has successfully applied for investment incentives to those which had no successful applicants, the study found that the effect of these incentives on regional unemployment varies by the level of development of the recipient district. While no significant effects were found in most Slovak districts, investment incentives directed into one of the twelve "least developed districts" (LLDs) shows significant improvements in unemployment within the treated LDDs compared to the treated non-LDDs. Investing in non-LDDs has not been shown to be effective in reducing unemployment in those districts and there do not seem to be spillover effects into other linked (non-treated) districts. These findings are consistent with the economic intuition of diminishing marginal returns, which would indicate that investing into districts that had enjoyed more investment and development in the past will not be as impactful as investing into districts with less investment in the past.

Source: OECD (2022[3]) https://doi.org/10.1787/972046f5-en ; ISP (2022[26]) http://www.employment.gov.sk/files/slovensky/ministerstvo/analyticke-centrum/analyticke-komentare/komentare_2022/ekonom_pomoc_regionom.pdf

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5 The policy mix for FDI and SME linkages

This chapter reviews the mix of policies in place for fostering FDI spillovers on the productivity and innovation of Czech SMEs. It discusses Czechia's policy framework for FDI attraction, SME development and knowledge-intensive linkages between the two, noting areas for policy reform. It also assesses the regulatory framework affecting the diffusion of knowledge from foreign to domestic firms, focusing on investment and trade openness, competition policy and labour market regulations.

5.1. Summary of findings and recommendations

Public policy plays a pivotal role in enhancing the performance and quality of FDI-SME ecosystems. An integrated approach, combining policy measures in investment, SME development, innovation, and regional development with a supportive regulatory framework, can increase policy effectiveness. Such integration might strengthen the attraction of FDI that enhances productivity and facilitates spillovers to local SMEs. The challenge lies in ensuring that the policy mix is well-aligned with the country's economic structure, policy priorities, and geographical specifics.

Czechia's policy mix for strengthening the synergy between FDI and SMEs focuses more on enhancing domestic SMEs' capacity to absorb the benefits of FDI than on creating new pathways for FDI impact**.** Czechia has many policies focused on supporting domestic SMEs, compared to a smaller number of policies aimed to assist foreign companies in entering and operating in the Czech business environment. This could imply that while Czechia's government is working to strengthen its domestic SMEs, there might be room to intensify efforts in attracting and facilitating foreign companies, which could further enhance FDI-SME linkages. However, it's important to note that organizations like CzechInvest may face challenges in adopting such initiatives because if these objectives are not recognized and supported at the strategic level, it can be difficult to secure the necessary support, funding, or staff for such activities.

When it comes to strengthening the spillover channels through which FDI affects SMEs (i.e., FDI-SME diffusion channels), Czech policies aim to primarily promote strategic partnerships between SMEs and foreign affiliates (FAs) and to foster value chain. There is a relatively lower emphasis on addressing issues related to labour mobility and competition within the policy mix. However, this analysis does not imply less policy relevance in the areas where less measures are taken, and methodological limitations should be kept in mind in interpretation.

Czechia primarily relies on financial support, technical assistance, and facilitation services to strengthen FDI linkages with domestic SMEs. Financial instruments include grants, loans, tax credits and other forms of direct or indirect funding. Technical assistance, information provision and facilitation services include a wide range of business support measures and services (e.g., consulting, business diagnostic assessments, information, matchmaking and networking, training and skills upgrading, business incubation, etc.). An important factor reflected in the chosen mix of policy instruments lies in Czechia's emphasis on matchmaking services, platforms, and events, which highlights the importance of networking and collaboration.

Despite the many SME support programmes, SME access to these programmes can be challenging. The delivery of these schemes is fragmented across multiple government agencies, raising barriers to SMEs access to available support. Policy initiatives are predominantly aimed at specific types of firms (e.g., startups), sectors of the economy, or sub-national areas. Initiatives tailored for SMEs also target universities and research centres with the aim to foster business-science linkages and ease the transfer of knowledge to local SMEs. Meanwhile, policies towards private investors, business angels and venture capital funds contribute to improving SMEs' access to funding. Policy initiatives focusing on specific sectors are also an important part of the policy mix in Czechia. Czechia's smart specialisation strategy aims to create a long-term competitive advantage by attracting more knowledge-intensive FDI and enhancing the innovation capacity of SMEs in selected priority sectors**.** The National Research and Innovation Strategy for Smart Specialisation (RIS3) 2021–2027 aims to foster a competitive edge in key sectors like advanced materials, digital and green technologies, and smart cities by focusing on smart specialisation areas with significant potential for knowledge-based innovation and long-term growth.

The place-based approach of Czech policies indicates a strategic focus on regional development of economically and socially vulnerable areas. For example, CzechInvest focuses its investment incentives on economically and socially endangered areas according to the *Regional Development Strategy of Czechia 2021+* and structurally disadvantaged areas like the Moravia-Silesia, Ústí and Karlovy Vary

regions. By doing so, they seek to attract FDI to these areas and foster the growth and development of local SMEs, thereby facilitating the creation of FDI-SME linkages that can contribute to regional economic resilience and prosperity.

There is a strategic emphasis on enhancing the competitiveness and integration of SMEs within different value chains in Czechia. These initiatives aim to attract FDI into sectors where Czech SMEs are active or have growth potential. This can facilitate technology transfer, enhance local capacity, and foster innovation, thereby strengthening the linkages between foreign investors and local SMEs.

Recent legislative efforts in Czechia have aimed at enhancing the business climate, emphasising the simplification of regulations and reduction of regulatory complexity. Czechia maintains a relatively open economy compared with other OECD countries and this market openness may facilitate the attraction of productivity-enhancing FDI, fostering an environment that is generally welcoming and non-discriminatory toward foreign investors. However, labour market regulations remain an area for improvement, and there are concerns about administrative burdens on start-ups, barriers to competition and regulations surrounding the interaction between policymakers and interest groups. For example, transparency in legislative processes could be enhanced, and concerns persist regarding bureaucratic hurdles, lengthy administrative procedures, and frequent changes to laws and programme rules.

Czechia offers a diverse range of investment incentives, from tax allowances to direct grants, designed to entice both domestic and foreign investors across various sectors, including technology, manufacturing the production of strategic products, and business support services. The set of instruments used is more diversified than in some peer countries. Czechia's policy framework includes the differentiation of incentives based on the scale of investment, targeted sectors, and regional needs, addressing the varied demands of investment projects and regional economic conditions. For example, CzechInvest's investment incentive for manufacturing or for technology centres include corporate income tax (CIT) tax relief for up to 10 years, job creation grants as well as training and retraining grants, conditioned to a minimum investment size, certain level of added value, and an exclusive availability in districts with an unemployment rate of at least 7.5%. However, in current economic situation with extremely low unemployment rate these cash grants are almost unobtainable and their conditions should be revised. The investment incentive to produce strategic products is similar with a cash grant of up to 20% of eligible costs conditional to a minimum investment size.

There is room to strengthen public support to business R&D which is currently below the OECD and EU average. The Czech government supports business R&D through comprehensive legislative strategies such as the Innovation Strategy of Czechia 2019–2030, which was endorsed by the government in February 2019. The largest share of public support to business R&D within Czechia is direct, mainly taking the form of grants or loans for R&D and innovation or internationalisation activities; business consulting and training services; or technology acquisition and digitalisation. Czechia has made progress in diversifying its traditional investments in engineering into new fields of research and development (R&D) and innovative technologies. According to the Czech Statistical Office, in 2022, R&D spending rose by 9.3% year-on-year to a record CZK 133.3 billion mainly due to R&D investment by businesses. However, despite the significant potential of some domestic research organisations and infrastructures, the overall quality and performance of public R&D still has room for improvement.

Several Czech policies and programmes adopt a place-based approach, especially in the support provided to business enterprises in the fields of R&D and innovation. This is the case for investment incentives available to domestic and foreign investors, and certain SME R&D and innovation programmes supported by the EU Structural and Investment Funds (ESIF). However, most FDI-SME policies are applied equally across all Czech regions, with few targeting specific regions for preferential treatment. Direct innovation support, such as grants, in Czechia is generally provided from the national level and it is mostly funded from the ESIF and a few national programmes, while indirect support in the form of advisory services (mentroing and coaching, match-making services) is provided regionally through regional innovation

centres. There could be more emphasis on innovation and technology diffusion around regional development policies, with a deeper involvement of subnational offices of the main implementing agencies, conditional on the allocation of the additional resources of these subnational offices, and regional innovation agencies. Strengthening the linkages between regional development action plans and the needs of local FDI-SME ecosystems is crucial and could be done, for example, by enchancing mechanism through which regional development agencies interact with business associations and industry representatives at the local level.

In Czechia, the establishment and development of cluster organisations has been actively supported by several institutions. It is a collaborative effort led by several key institutions: the Ministry of Industry and Trade (MIT), CzechInvest, and the National Cluster Association (NCA). MIT plays a significant role in supporting the expansion of Czech companies abroad and the development of clusters through the Association of Small and Medium-Sized Enterprises and Crafts of Czechia (AMSP CR). CzechInvest supports FDI, develops local Czech companies (SMEs), implements business-development programmes, improves the current business environment, and in cooperation with MIT develops clusters and industrial parks. The NCA brings together entities and individuals with the goal of coordinated and sustainable development of cluster initiatives and cluster policy development in Czechia.

The impact of FDI-SME spillovers resulting from labour mobility hinges on the effectiveness of labour market regulations. The labour market policy in Czechia has focused on removing domestic barriers to labour market participation and addressing labour and skill shortages. According to the 2023 EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages, regulatory measures are the only type of policy instrument deployed in Czechia to facilitate the mobility of skilled workers from foreign affiliates of MNEs to local SMEs. These measures intend to simplify visa application procedures for hiring skilled foreign workers in sectors of strategic importance. Even though regulatory measures are important to set rules and standards, a multi-faceted approach that includes technical assistance, information and facilitation services, financial support schemes, and a strong governance framework can provide a more comprehensive and effective solution to improve labour mobility.

Labour mobility also relies on the presence of policies and programmes that promote the transition of employees from foreign MNEs to local companies. Enhancing collaboration between domestic SMEs and affiliates of foreign MNEs operating locally is a priority objective for Czechia, which mainly does so by supporting value chain linkages and strategic partnerships. In Czechia there are also multiple policies aimed at bridging the skills gap to strengthen FDI-SME linkages such as educational initiatives, incubation programmes, international exposure, and investment incentives. Despite existing policies targeting upskilling the SME population, further support for the diffusion of emerging technologies could be beneficial. More industry-specific training programmes, particularly for sectors crucial to the Czech economy, could be also developed.

Policy recommendations

- **Increase the focus on attracting FDI in high-technology and knowledge-intensive sectors,** particularly by shifting investment incentives towards grants and tax relief measures that support productivity growth and involve science-to-business collaboration.
- **Simplify administrative processes for technology-intensive investments,** especially those in collaboration with Czech R&D institutions, to make Czechia more attractive for these investments.
- **Enhance the capabilities of SMEs to absorb new technologies** and innovations by expanding access to technical assistance, capacity-building, and innovation funding schemes.
- **Reduce administrative burden for SMEs.** Transparency in legislative processes could be enhanced and efforts could be made to minimise bureaucratic hurdles, lengthy administrative procedures, and frequent changes to laws and programme rules.
- **Encourage partnerships between academia, research institutions, and industry** to foster innovation and technology transfer, by advocating for a more flexible interpretation of the EU State Aid Framework for R&D & Innovation on the use of R&D infrastructures by business enterprises.
- **Strengthen the integration and coordination between various policy measures,** reducing administrative fragmentation and ensuring harmonisation across different sectors and regions.
- **Address labour market rigidity and enhance skills development** to provide SMEs with access to a skilled workforce, essential for maximising the benefits of FDI. Provide technical assistance and information & facilitation services to businesses and foreign specialists. These services can provide necessary training and skills development, helping workers adapt to new job markets and technologies.
- **Support the development of industrial clusters through multi-year sectoral action plans** involving both public and private sector interventions, aimed at addressing growth bottlenecks.
- **Pursue a smart specialisation strategy** by focusing on sectors where Czechia has or can develop a competitive edge, aligning FDI attraction with national and regional strengths.
- **Cluster and expand initiatives like Sectoral Database of Suppliers, Czech Business Partner Search, and the Exporter's Directory into one functional program with proper funding** and **insure the sufficient cooperation and coordination among the institutions involved** to promote supplier linkages and partnerships between foreign MNEs and Czech SMEs, particularly in knowledge-intensive value chains.
- **Improve SMEs' access to finance and technical support,** especially for start-ups and smaller firms, by simplifying access to existing financial support schemes and enhancing the technical assistance offered to SMEs.
- **Implement a more balanced regional development approach by initiating and sustaining a multi-level dialogue between national authorities and regional stakeholders.** This can identify and target the types of FDI that align with regional development goals to reduce disparities by promoting FDI in less developed regions, fostering equitable growth across all regions. Ensure policies for attracting knowledge-intensive investment and upgrading SMEs are integrated into regional and local development strategies, promoting a place-based approach to investment and innovation.

5.2. Overall orientation and design of the FDI-SME policy mix in Czechia

5.2.1. Czechia has a strong policy focus on improving SME absorptive capacity…

The policy mix in Czechia prioritises preparing domestic SMEs to absorb the benefits of FDI (enabling conditions) rather than focusing on creating new pathways for FDI impact (diffusion channels). The overall orientation of the FDI-SME policy mix refers to the broad directions that policy action takes and reflects on the strategic objectives pursued in the policy areas under study (i.e. investment, SME and entrepreneurship, innovation and regional development).

Enabling conditions for FDI-SME linkages include SME performance, productivity enhancing FDI, and economic geography factors. Policies for improving SME performance include measures to strengthen their access to and use of strategic resources, namely finance, skills and innovation assets. Policies for enhancing the impact of international investment on local productivity and innovation aim to attract or retain FDI with potential to create linkages with and spillovers to the host economy, such as greenfield and technology or innovation intensive investment. Other enabling conditions are related to economic geography (OECD, 2023[1]).

The FDI-SME policy mix in Czechia predominantly focuses on improving the absorptive capacity of domestic SMEs. In the policy mapping conducted by the OECD in 2023, approximately 70% of the policy measures are directed towards enhancing SME performance, 27% focus on productivity enhancing FDIs, and 20% on economic geography factors (total above 100% as some policies might have multiple targets (Figure 5.1, Panel A). This strategic focus indicates a commitment to strengthening the competitiveness and capabilities of local businesses.

Regional inequalities may affect FDI-SME linkages and the performance of FDI-SME ecosystems. Less developed regions are less attractive to foreign investors, and the capacity of the local businesses to capture innovation spillovers is more constrained. Policies addressing economic geography factors aim to promote agglomeration and industrial clustering (OECD, 2023[1]).

5.2.2. ... and less on strengthening the ways foreign investment reaches the SMEs themselves.

When it comes to developing FDI-SME diffusion channels, Czech policies aim to promote strategic partnerships between SMEs and foreign affiliates (FAs) and the strengthening of value chain linkages. In Czechia, 30% of the measures intend to develop strategic partnerships between SMEs and foreign affiliates (FAs) and 23% aim to strengthen value chain linkages (Figure 5.1, Panel B). This points to the importance of these strategic objectives in the policy mix.

There is a relatively lower emphasis on addressing issues related to labour mobility and competition within the policy mix. Only a small number of measures address the issues of labour mobility and competition (accounting for 5% of mapped policies each) (Figure 5.1, Panel B). However, this analysis does not imply less policy relevance in the areas where less measures are taken, and methodological limitations should be kept in mind in interpretation (Box 5.1). Considering the number of policy initiatives that target these policy objectives is only a partial measure of policy focus in a given area. One policy could rely on more resources (e.g. higher budget) for its implementation, and therefore have greater impact, while several policies in another case could be underfunded and not sufficiently effective to achieve the pursued outcomes. For this reason, the policy mix analysis conducted in the following sections takes into account other aspects relating to policy design and implementation, including the sectoral and value chain targeting of implemented measures, the uptake of public support schemes, the number of beneficiaries, the quality of the regulatory environment, and the type of policy instruments used to achieve specific policy objectives, amongst others. The density of the policy mix could also reflect the multidimensional dynamics at play in

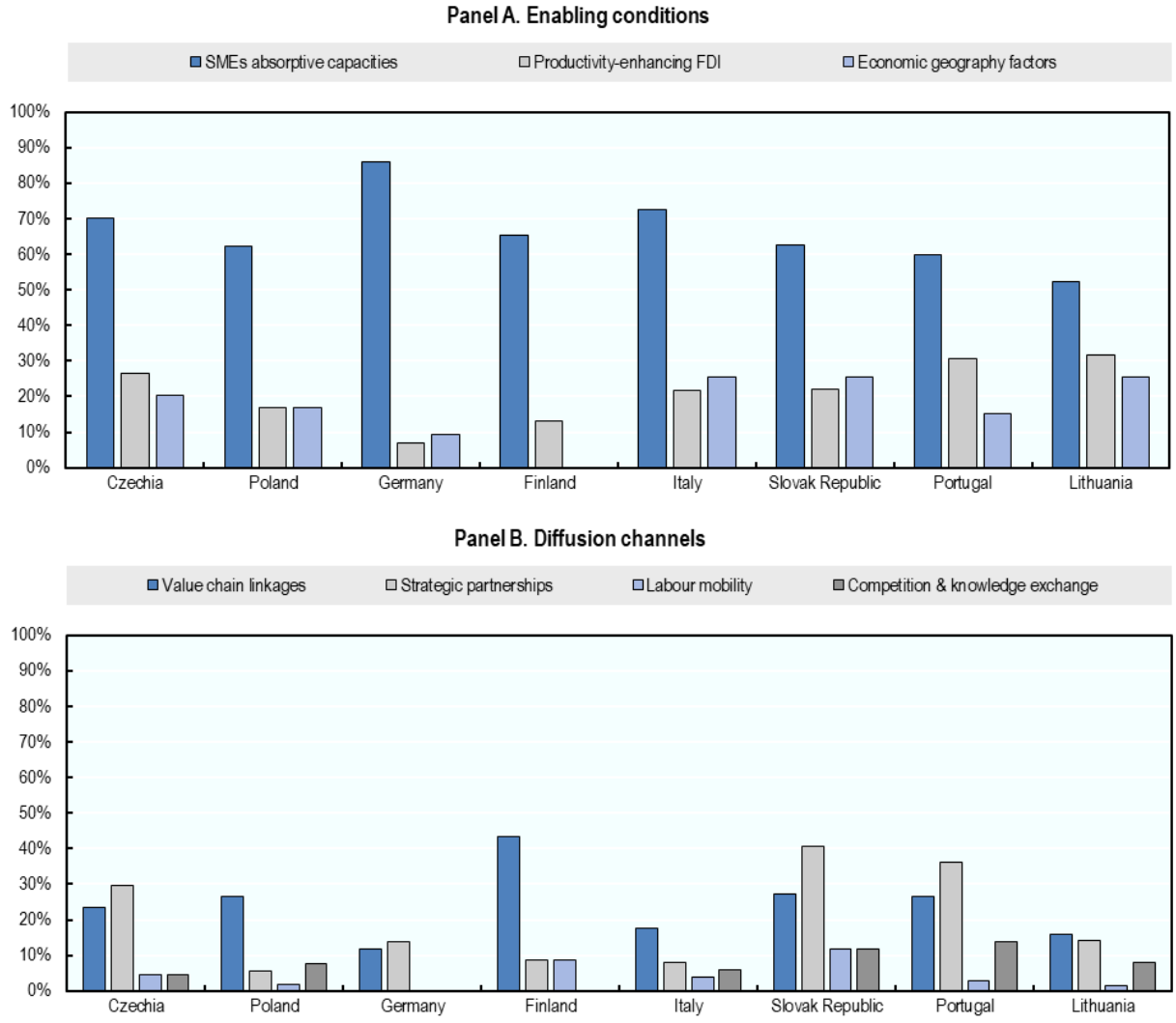
creating the framework conditions for FDI-SME spillovers, and the need to address this complexity through a broader range of measures. The mobility of workers and the quality of competition in domestic markets largely depend on the broader regulatory environment, i.e. laws and regulations affecting the labour and product markets respectively, and less so on targeted FDI-SME policies and programmes.

When compared to peer EU countries, the Czech policy mix exhibits a greater emphasis on attracting productivity-enhancing FDI and strategic partnerships. Enhancing the performance of SMEs is a top priority across all benchmarking countries, particularly in Germany and Italy. But, in Czechia attracting productivity-enhancing FDI receives more attention (27%) than, for example, in Finland (13%) or in Germany (7%). The same applies to strategic partnerships, supported by a higher share of policies in Czechia (30%) than in most benchmarking countries, except for the Slovak Republic (41%) and Portugal (36%) (Figure 5.1). This may reflect the strategic choice of the Czech government to boost the country's transition to a knowledge-based economy by attracting more knowledge-intensive investment from abroad and promoting R&D and technology collaboration between businesses, universities, and research institutions.

The variations in policy priorities can be explained by a combination of factors. In addition to the policy strategy for promoting efficient FDI-SME ecosystems, a number of factors can explain these variations, including country-specific characteristics, national industrial structure and specialisation, the degree of regional inequality, and the geographical distribution of business and investment activities across the territory (OECD, 2023[1]). For example, the comparatively stronger focus on enhancing the economic geography factors of investment attraction and SME performance that is observed in peer countries like Slovakia, Italy and Lithuania (25%) compared to Czechia (20%) (Figure 5.1), might reflect the broader regional development divide observed in those countries and the higher importance of bridging it in their overall FDI-SME policy agenda.

Figure 5.1. Orientation of the FDI-SME policy mix in Czechia and benchmarking countries

% of mapped policy measures



Note: Shares are calculated as a % of the total of national initiatives in place. Total may be higher than 100% when policy initiatives respond to several policy objectives at the same time.

Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Box 5.1. Mapping the FDI-SME policy mix: methodological considerations and challenges

The policy mix concept refers to the set of policy rationales, arrangements and instruments implemented to deliver one or several policy goals, as well as the interactions that can possibly take place between these elements. In the context of knowledge and technology diffusion from FDI to domestic SMEs, these policies often span multiple institutions and policy domains such as innovation, investment, entrepreneurship, science and technology, and regional development. These policies operate within intricate "policy systems," supporting various channels through which FDI spillovers occur, such as value chain relationships, labor mobility, competition, and imitation. Moreover, they also influence enabling factors such as FDI characteristics, SME absorptive capacity, and economic geography. (Meissner and Kergroach, 2019[2]).

This chapter largely builds on a mapping of the policy mix supporting FDI-SME ecosystems in EU countries, conducted as part of a multi-year project jointly undertaken by the OECD and the European Commission (EC) in 2019. In this research, a comprehensive mapping of institutional environments, governance frameworks, and policy initiatives related to FDI, and SMEs was conducted. The process involved utilizing keywords, concept searches, and text analysis to identify national and subnational institutions, categorize EU Member States based on institutional complexity, and understand the roles of different institutions (OECD, 2021[3]).

Official sources such as national strategies, action plans, and relevant ministry websites, along with OECD and EU reports, provided policy information on FDI-SME initiatives. Data collection occurred at both national and institutional levels through desk research and an online survey. This research builds upon previous OECD efforts, drawing on methodologies from projects like the “OECD Surveys of Investment Promotion Agencies” and the EC/OECD project on “Unleashing SME potential to scale up”.

Typically, a first challenge in policy mapping consists in defining the scope and identifying the relevant initiatives and policy mix components under analysis. How the exercise is designed can determine its outputs about the strategic orientations of the mix, its instrumentalisation, its governance, and shifts over time. Potential distortions are higher when the number of measures identified are small. In addition, the number of initiatives in place can be highly variable across countries, depending on the size of the country and the capacity of its public administration, the intensity of the policy interest given, or the maturity of the policy field and the likelihood of initiatives having piled up over time.

A second challenge for policy mapping and impact assessment arises from the question of quantifying policy initiatives. A simple counting presents the advantage to be easy to understand – albeit not necessarily easy to implement or to interpret – and the counting could be discriminated by policy area, instrument, target population, sectors, etc. Policy initiatives could also be accounted in terms of input (e.g. public budget allocated), output (e.g. new strategic partnerships between foreign affiliates and local SMEs) and outcome (e.g. net job creation). The lack of data at disaggregated level, i.e., at the level of the policy initiative, is a clear limitation in this statistical approach. The number of FDI-SME policy initiatives in place is therefore a partial measure of the intensity of a country’s effort in each area, and other parameters matter.

Source: Authors’ elaboration based on (Meissner and Kergroach, 2019[2]; OECD, 2023[1]; OECD, 2022[4])

5.2.3. Czechia mostly supports its FDI-SME ecosystem through the provision of financial incentives and technical assistance.

Public action to foster FDI spillovers on domestic SMEs is delivered through a broad set of policy instruments. These are defined as identifiable techniques for public action and the means for achieving the goals they are designed for (Lemarchand, 2016[5]), and spread from technical (non-financial) to financial support, from networking assistance to infrastructure and platform facilities, from regulatory easing to new governance frameworks such as national strategies or plans (OECD, 2023[1]). Box 5.2 provides an overview of the policy instruments typology adopted throughout this chapter.

Box 5.2. The FDI-SME policy mix: a typology of policy instruments

Governments have a diverse set of policy instruments at their disposal to support FDI-SME ecosystems. A policy initiative can make simultaneous use or various policy instruments, using them in complementary and mutually reinforcing ways to achieve the desired strategic objective.

Based on the type of instrument used, policies can be classified into:

- *Network and collaboration platforms and infrastructure*, which refers to platforms, facilities and infrastructures that enable spatial and network-related knowledge diffusion.
- *Technical assistance, information, and facilitation services*, which aim to encourage the uptake of knowledge and facilitate interactions between foreign and domestic firms (e.g., matchmaking services and networking events).
- *Financial support schemes*, in direct (e.g., grants, loans) or indirect forms (e.g. tax relief) to encourage (or discourage) certain types of business activities (e.g. investment tax incentives, R&D vouchers, wage subsidies for skilled workers).
- *Regulatory measures*, which define the framework within which foreign and domestic firms operate and often use legal rules to encourage or discourage different types of business activities (e.g., lighter administrative and licensing regimes for certain types of investments, local content requirements for foreign firms and labour mobility incentives).
- *Governance frameworks*, such as national strategies and action plans that lay out policy priorities and define the framework within which policy action on FDI, SMEs and innovation is organised. Some guiding instruments have co-ordination functions and ensure overarching policy governance (e.g., national strategies or action plans)

Table 5.1 provides an overview of the main FDI-SME policy instruments, illustrated by selected examples. Based on this typology, the present Chapter presents key findings on the instrumentalisation of the FDI-SME policy mix in Czechia and the selected benchmarking countries.

Table 5.1. Policy instruments to strengthen the performance of FDI-SME ecosystems

Instruments typology	Examples
Network and collaboration platforms and infrastructure	Special Economic Zones, technology centres and science parks, industrial parks, cluster policies
Technical assistance, information and facilitation services	Local supplier databases, business diagnostic tools, FDI site selection services, work placement or employee exchange programmes, supplier development programmes, business support centres, knowledge exchange and demonstration events, matchmaking services, platforms and events, business consulting and skills upgrading programmes
Financial support schemes	Financial incentives for intellectual property protection, financial incentives for B2B and S2B partnerships, wage subsidies for skilled workers, tax incentives for productivity-enhancing investment, tax incentives for R&D and innovation activities, equity financing, grants/loans for business consulting and training services, grants/loans

	for technology acquisition and digital transformation, grants/loans for internationalisation activities, grants/loans for R&D and innovation activities, innovation and internationalisation vouchers, other financial support schemes
Regulatory measures	Residence-by-investment schemes, labour mobility regulation and incentives, regulatory and administrative easing for FDI Special investment status, other regulatory standards, and incentives
Governance frameworks	Strategies/action plans on SMEs/entrepreneurship, strategies/action plans on innovation, strategies/action plans on regional development, strategies/action plans on FDI/internationalisation, other strategies with FDI & SME provisions

Note: This typology of policy instruments reflects the framework developed in the OECD FDI Qualities Policy Toolkit (OECD, 2022[6]) and the OECD SME and Entrepreneurship Outlook (OECD, 2021[7]; OECD, 2023[8]; OECD, 2019[9]). It was used in the country assessments of FDI-SMEs linkages in Portugal (OECD, 2022[10]) and the Slovak Republic (OECD, 2022[4]). It will also be used in the SME&E data lake knowledge infrastructure. This typology is aligned with converging classifications of policy instruments formerly used in environmental and innovation policy literature ((Meissner and Kergroach, 2019[2])) ((Rogge and K., 2016[11]); (Edler, 2013[12]); (Borras and Edquist, 2013[13]); (Flanagan, 2011[14]); (OECD, 2007[15]); (OECD, 2010[16]); (Eliadis, 2005[17])]; (Smits, 2004[18]); (Bemelmans-Videc and Rist, 1998[19])).
Source: (OECD, 2023[1]), OECD elaboration based on analytical framework and literature review.

Source: Authors' elaboration based on (Meissner and Kergroach, 2019[2]; OECD, 2023[1]; OECD, 2022[4])

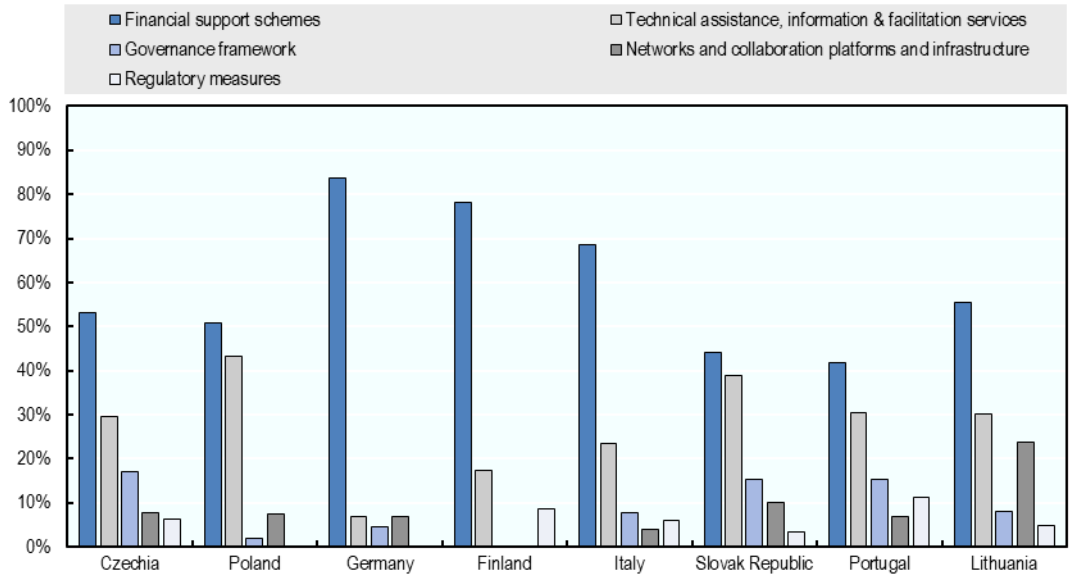
The mix of policy instruments used and the way they are combined reflect the different strategic objectives that a country may seek to achieve, as well as the many pathways to achieving policy outcomes. Instruments are often very specific to the objectives they serve. The selection of instruments also reflects national policy styles and some policy legacy (Borras and Edquist, 2013[13]). For instance, some instruments, particularly the financial ones, can dominate others for no other reason than being important in the past, having attracted around them vested interests that protect their position.

Czechia primarily relies on financial support and technical assistance and facilitation services to strengthen FDI linkages with domestic SMEs. Like the selected EU benchmarking countries, Czechia mainly uses financial support (53%) and technical assistance and facilitation services (30%) to strengthen FDI linkages with domestic SMEs (Figure 5.2). Financial instruments include grants, loans, tax credits and other forms of direct or indirect funding. Technical assistance, information provision and facilitation services include a wide range of business support measures and services (e.g., consulting, diagnostic, information, matchmaking and networking, training and skills upgrading, incubation, etc.).

In Czechia, although a comprehensive set of funding programmes is available to support the absorptive capacities of domestic SMEs, there are challenges for SMEs to access them. As discussed in Chapter 4, the delivery of these schemes is relatively fragmented across multiple government agencies raising barriers to SMEs access to available support. The effectiveness of available financial scheme's may be influenced by their volume and by the number of institutions involved in implementation, and the degree of policy fragmentation. In the Slovak Republic, for example, although the number of financial support schemes for businesses is large, their volume is relatively low, due to the limited resources allocated through the state budget and challenges in the absorption of EU funds (OECD, 2022[4]). In Czechia, among 30 mapped policies to support the absorptive capacities of domestic SMEs through financial support schemes, 22 of them have data on budget and level of success. Figure 5.3 illustrates that most initiatives (73%) are not the product of cooperation between institutions and their budgets varies from EUR 280 thousand to EUR 400 million per initiative. The high administrative burden for SMEs, alongside the limited scope of their support and the small number of beneficiaries, has led to a moderate success rate, with 69% achieving a medium level of success and 31% reaching a high level of success in these policies. Financial schemes, which are managed in partnership with multiple institutions, typically have a smaller funding range (between EUR 19 to 150 million) and are less prevalent, constituting only 27% of such policies.

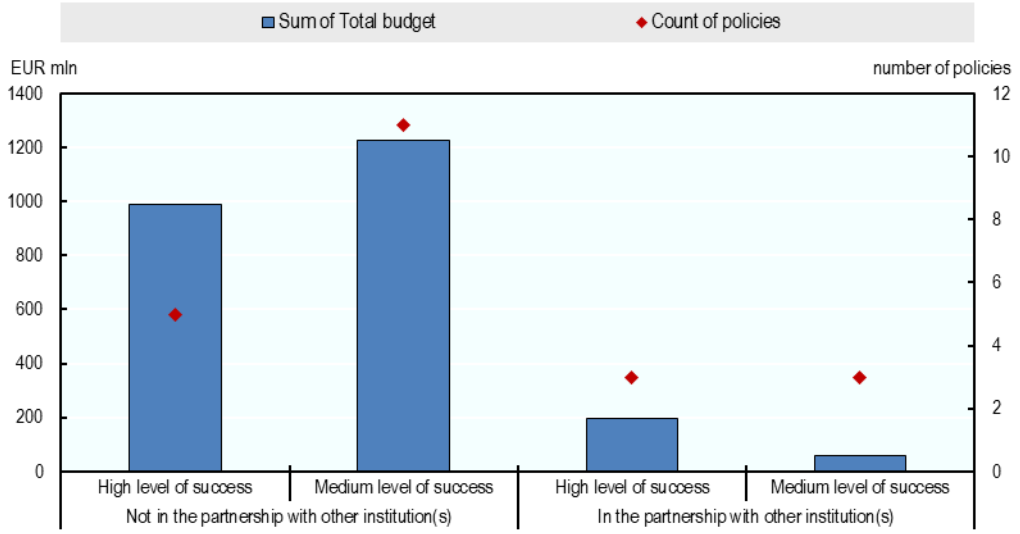
Figure 5.2. Policy instruments used in Czechia and benchmarking countries

In % on mapped policy measures



Note: Shares are calculated as a % of the total of national initiatives in place. Shares may be higher than 100% when policy initiatives respond to several policy objectives at the same time.
Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Figure 5.3. Success of the financial support initiatives for strengthening the absorptive capacities of Czech SMEs implemented in/without partnership with other institutions



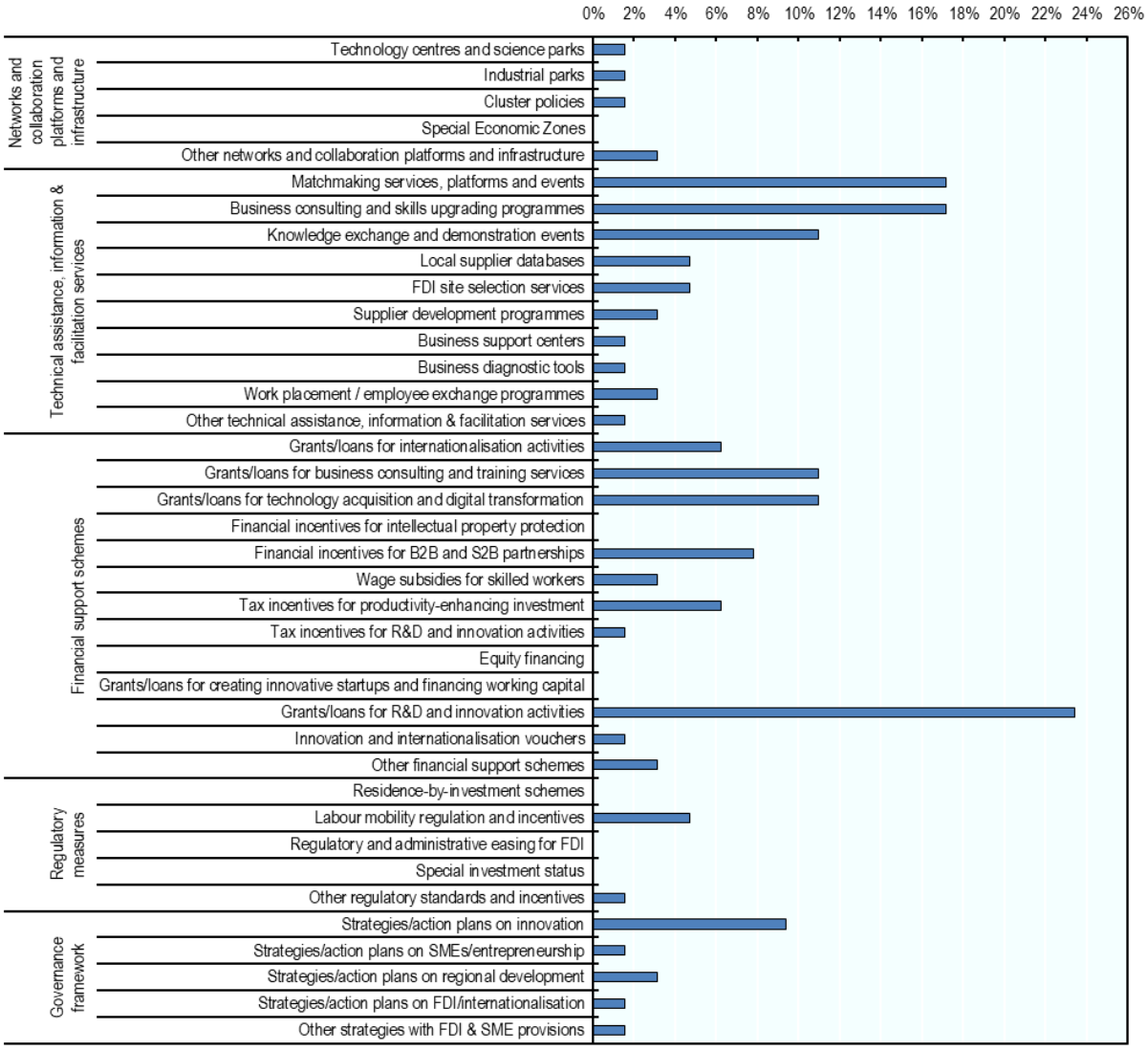
Source: EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

An important factor reflected in the chosen mix of policy instruments lies in Czechia's emphasis on technical assistance and facilitation services (Figure 5.4). This category includes crucial instruments like "matchmaking services, platforms and events", "business consulting and skills upgrading programmes", and "knowledge exchange and demonstration events." This underscores the importance of creating a supportive environment and providing resources for SMEs to enhance their capabilities and collaborations.

The emphasis on "matchmaking services, platforms and events" under technical assistance highlights the importance of networking and collaboration. Additionally, the inclusion of "business consulting and skills upgrading programmes" signifies a commitment to enhancing the skills and capabilities of SMEs, aligning with broader economic development goals.

Figure 5.4. Main typologies of policy instruments used in Czechia

% of mapped policy measures



Note: Shares are calculated as a % of the total of national initiatives in place. Shares may be higher than 100% when policy initiatives respond to several policy objectives at the same time.
Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Policy instruments focus significantly on R&D and innovation. Within the "financial support services" typology, there is a notable focus on promoting Research and Development (R&D) and innovation activities. Specifically, "Grants/loans for R&D and innovation activities" constitute a substantial 24% of the total national initiatives (Figure 5.4). This reflects a strategic policy orientation towards fostering innovation and technological advancement within the SME sector, indicating a commitment to enhancing competitiveness through knowledge-intensive activities.

5.2.4. Most Czech FDI-SME policies focus on certain groups or areas, potentially benefiting SMEs but risking economic imbalances

Policies aiming to address barriers in capturing spillovers from FDI to SMEs in Czechia predominantly consist of initiatives aimed a specific populations, sectors of the economy, or sub-national areas. Typically, these policies combine generic measures with targeted initiatives that aim at specific populations, sectors of the economy, or sub-national areas to address barriers in capturing spillovers. In Czechia, targeted policies represent 86% of the 64 mapped policies (Figure 5.5, Panel A), and many of them simultaneously target several dimensions.

Czech policies are primarily designed to support specific populations, particularly SMEs and non-corporate entities, to enhance knowledge transfer and improve access to funding. Policies aimed at a specific population represent 80% of all targeted policies (Figure 5.5, Panel B). SMEs and non-corporate entities are the main beneficiaries of the support (Figure 5.5, Panel C). Initiatives tailored for SMEs specifically or providing preferential conditions to them are supported by policies targeting such non-corporate entities as universities and research centres, which aim to ease the transfer of knowledge to local SMEs. Meanwhile, policies towards private investors, business angels and venture capital funds contribute to improving SMEs' access to funding.

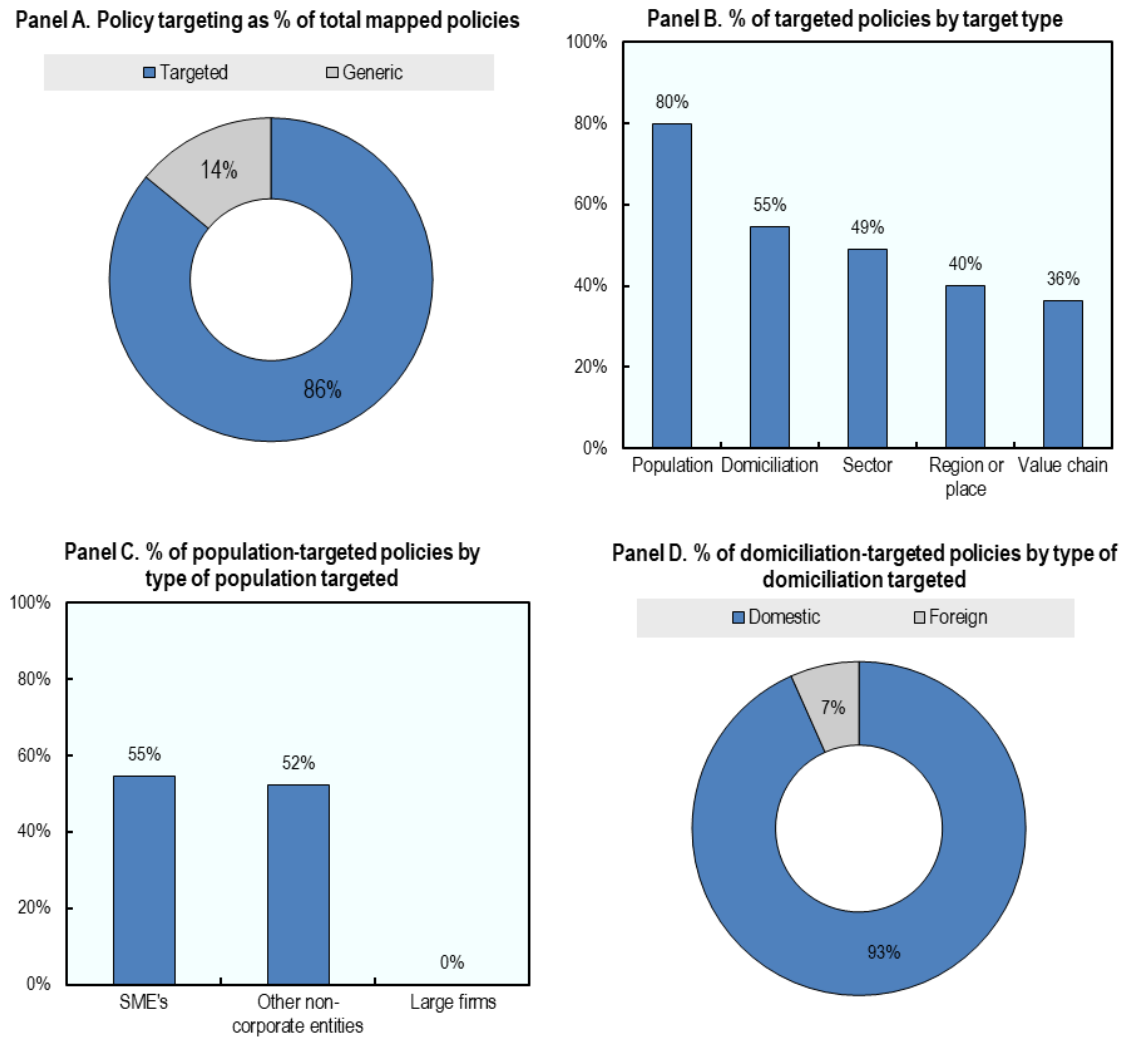
Czechia has a significant focus on supporting domestic firms. More than half (55%) of policies are targeting specific domiciliation of firms and 93% of these initiatives are designed to aid domestic SMEs and entities (Figure 5.5, Panel D). This indicates a strong emphasis on bolstering local businesses. Meanwhile, only 3% of these policies aim to assist foreign companies in entering and operating in the Czech business environment. This could imply that while Czechia is fostering its domestic SMEs, there might be room to increase efforts in attracting and facilitating foreign companies, which could further enhance FDI-SME linkages.

In assessing the targeted nature of Czech FDI-SME policies, it's crucial to weigh both the benefits and potential risks. On the positive side, these targeted policies, focusing on SMEs and non-corporate entities such as universities and research centres, ensure that resources are concentrated where they can be most effective. This approach enhances knowledge transfer and improves access to funding, which is vital for these entities that might otherwise struggle to compete with larger corporations. However, there are inherent risks in such a targeted strategy. It may lead to a disproportionate allocation of resources, potentially overlooking other sectors of the economy that could also benefit from similar support. This could result in a lack of balanced economic development and might inadvertently create dependencies or reduce incentives for broader-based innovation and competitiveness. The focus on specific regions or sectors might lead to inefficiencies or inequities if not managed with a comprehensive understanding of the broader economic ecosystem. While targeted policies have their merits, a careful and dynamic approach is needed to ensure they do not inadvertently skew the market or hinder wider economic growth.

5.2.5. Czechia supports its SME ecosystem through a local focus and chain integration.

Czechia's smart specialisation strategy aims to create long-term competitive advantage by attracting more knowledge-intensive FDI and enhancing the innovation capacity of SMEs in selected priority sectors. Policies with a sectoral focus represent 49% of targeted policies (Figure 5.5, Panel B). These measures either target selected sectors or exclude them from their scope of application. By encouraging the technological upgrading of specific industries, governments intend to attract more knowledge-intensive FDI while helping SMEs operating in those industries scale up their innovation capacity. The Czech Ministry of Industry and Trade's National Research and Innovation Strategy for Smart Specialisation (RIS3) 2021–2027 aims to foster a competitive edge in key sectors like advanced materials, digital and green technologies, and smart cities by focusing on smart specialisation areas with significant potential for knowledge-based innovation and long-term growth.

Figure 5.5. Most FDI-SME policies in Czechia target specific populations, domiciliation, sectors, regions, or value chains



Note: Panel A: Shares of generic and targeted policies as a percentage of the total 64 policies mapped. Panel B: Shares of policies by target type, as percentage of total targeted initiatives (55). As policies can be directed at more than one type of target, the sum is above 100%. Panel C: Shares of policies by type of population targeted, as percentage of total population-targeted policies (44). SMEs-targeted policies include initiatives applying to SMEs only or providing preferential conditions to them. Other non-corporate entities include investors (business angels, venture capitalists or VC funds, banks, financing institutions, etc.); universities; research organisations; entrepreneurs; individuals with specific roles or skillsets (e.g., managers, highly-skilled, researchers); government institutions and sub-national governments (e.g. municipalities); and others. Panel D: Shares of policies by type of domiciliation targeted, as percentage of total domiciliation-targeted policies (30). It demonstrates distribution of policies specifically targeting domestic or foreign firms.
Source: EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

A place-based approach of Czech policies indicates a strategic focus on regional development of economically and socially vulnerable areas, with 40% of targeted policies taking a place-based approach (Figure 5.5, Panel B). This includes policies targeting specific geographic areas only or giving them preferential treatment. For example, initiatives implemented by Business and Innovation Agency give preferential treatment to economically troubled regions and territories with a high unemployment rate. CzechInvest focuses its investment incentives on economically and socially endangered areas according to the *Regional Development Strategy of the Czech Republic 2021+* and structurally disadvantaged areas

like the Moravia-Silesia, Ústí and Karlovy Vary regions. By doing so, they seek to attract FDI to these areas and foster the growth and development of local SMEs, thereby facilitating the creation of FDI-SME linkages that can contribute to regional economic resilience and prosperity.

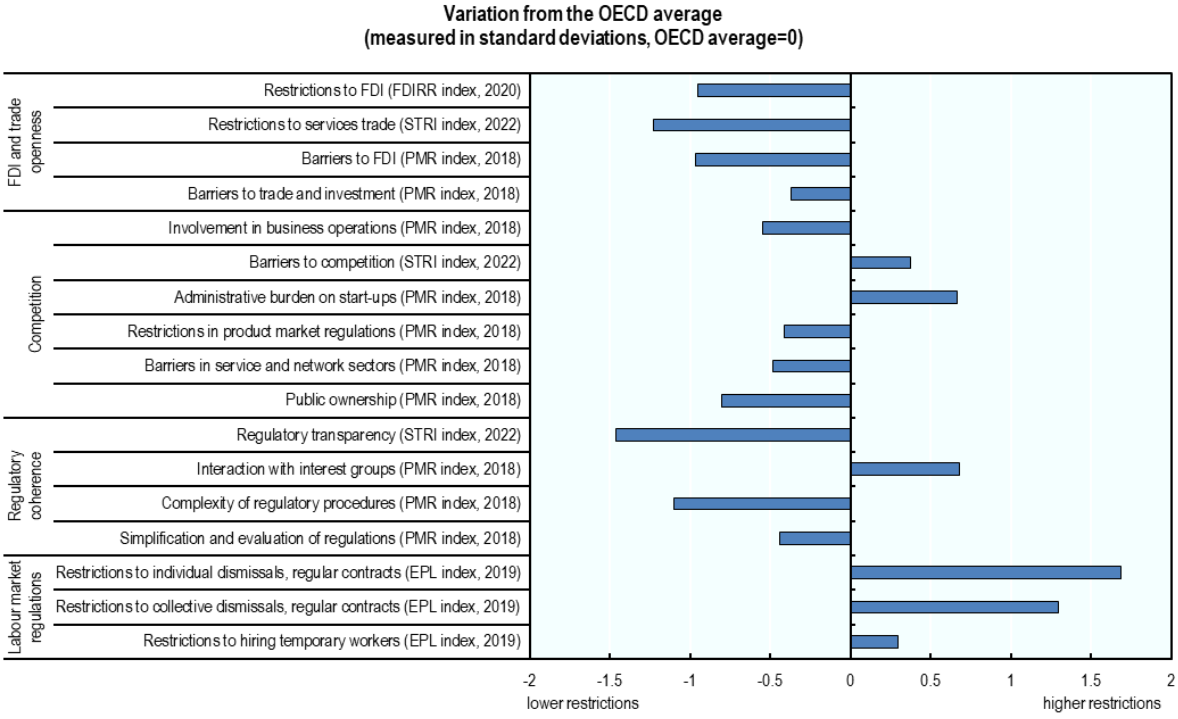
There is a strategic emphasis on enhancing the competitiveness and integration of SMEs within different value chains in Czechia. Thirty-six percent of targeted policies focus on specific value chains (Figure 5.5, Panel B). These initiatives aim to attract FDI into sectors where Czech SMEs are active or have growth potential. This can facilitate technology transfer, enhance local capacity, and foster innovation, thereby strengthening the linkages between foreign investors and local SMEs.

5.2.6. Market openness may facilitate FDI spillovers on Czech SMEs, but the regulatory burden on business, barriers to competition, and labour market restrictions could be reduced

In addition to targeted measures, the quality of the broader regulatory environment also shapes the performance of national FDI-SME ecosystems and the potential for FDI knowledge and technology spillovers to domestic SMEs. Factors such as openness to foreign investment, fair competition rules, the protection of intellectual property rights, and a labour market policy regime that facilitates the mobility of skilled workers need to be in place for economies to reap the benefits of FDI spillovers.

Czechia maintains a relatively open economy within the OECD (Figure 5.6). The government's approach to FDI is positive, fostering an environment that is generally welcoming and non-discriminatory toward foreign investors. Recent legislative efforts in Czechia have aimed at enhancing the business climate, emphasizing the simplification of regulations and reduction of regulatory complexity. While these measures indicate a commitment to improving the overall regulatory environment, certain OECD indicators suggest challenges in the long-term predictability of regulations affecting the business landscape. Labour market regulation remains an area for improvement, and there are concerns about administrative burdens on start-ups, barriers to competition and regulation surrounding interaction with interest groups (Figure 5.6). These aspects may present obstacles for both domestic and foreign enterprises seeking to operate in Czechia.

Figure 5.6. Czechia's performance in key regulatory framework areas



Note: Data bars pointing left show lower regulatory restrictions than the OECD average, and data bars pointing right show higher restrictions.
Source: OECD elaboration based on the FDIRR, STRI, PMR and EPL indices.

5.3. Policies acting upon the enabling environment

5.3.1. Attracting and facilitating knowledge-intensive and productivity-enhancing FDI

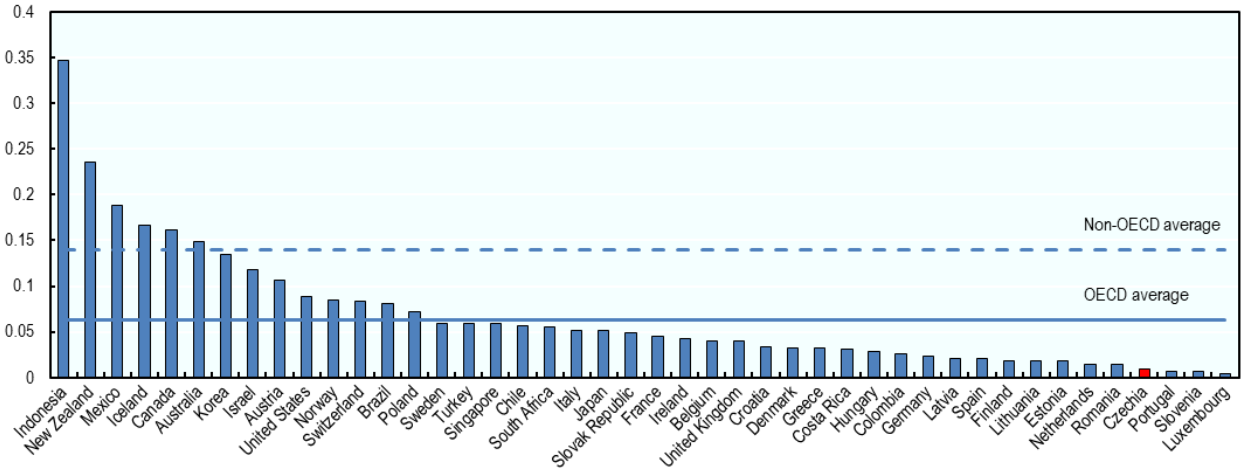
Investment promotion and facilitation policies can play an important role in enhancing knowledge and technology spillovers from FDI to domestic SMEs. Investment promotion and facilitation can focus on the attraction of FDI in more productive and innovative activities and in sectors with high absorptive capacities.

Czechia has a relatively open economy for foreign investment

The Czech economy maintains openness in its economy, fostering a conducive environment for FDI. This is characterised by minimal investment restrictions and barriers to trade. The government's approach towards FDI is notably encouraging, ensuring a non-discriminatory and supportive landscape for foreign investors (Figure 5.6). This sentiment is echoed in the OECD's Foreign Direct Investment Regulatory Restrictiveness Index (FDIRR Index), which assesses factors such as foreign equity limitations, screening and approval processes, restrictions on key personnel, and various operational restrictions. The Index reveals that Czechia ranks exceptionally well, showcasing a higher degree of openness compared to many of its peers, both within the OECD and beyond. (Figure 5.7).

Figure 5.7. FDI restrictions in Czechia are comparatively low

OECD FDI Regulatory Restrictiveness Index, 2020 (open=0; closed=1)

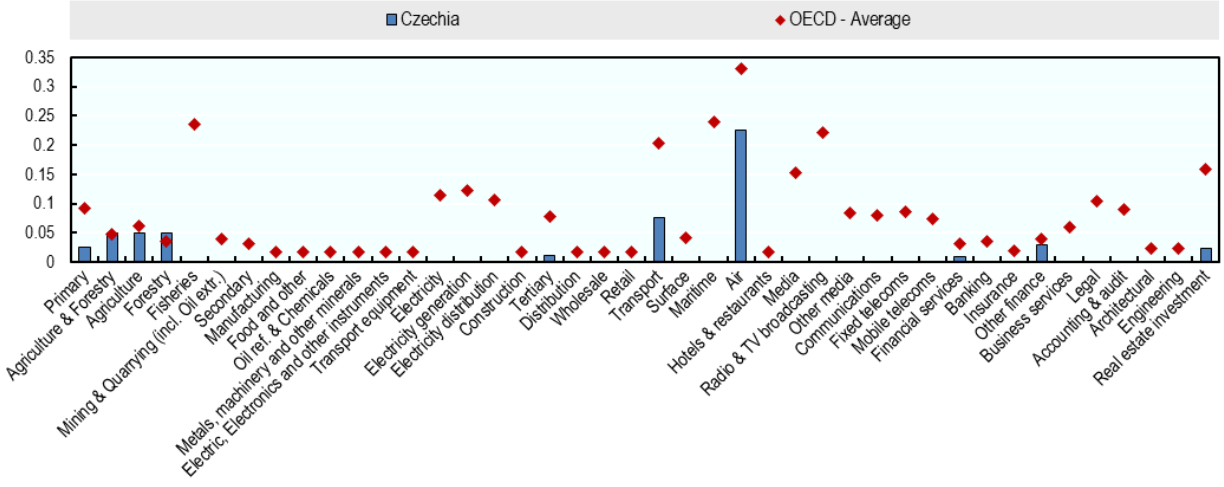


Note: The OECD FDI Regulatory Restrictiveness Index only covers statutory measures discriminating against foreign investors.
Source: OECD FDIRR database.

Foreign firms, in principle, have the right to establish business enterprises and engage in economic activities under conditions similar to domestic firms. However, certain sectors, e.g. agriculture and forestry, transport, real estate and financial services, had specific restrictions in 2020 (Figure 5.8). For example, for the air transportation sector, under Regulation (EC) No 1008/2008 on common rules for the operation of air services in the Community, Article 4(f) states that airlines established in Czechia must be majority owned and effectively controlled by EU states and/or nationals of EU states, unless otherwise provided for through an international agreement to which the EU is a signatory.

Figure 5.8. FDI restrictions in Czechia across 22 economic sectors

OECD FDI Regulatory Restrictiveness Index, 2020 (open=0; closed=1)



Note: The OECD FDI Regulatory Restrictiveness Index only covers statutory measures discriminating against foreign investors.
Source: OECD FDIRR database.

While the overall regulatory environment is conducive to FDI, as mentioned above, specific challenges may exist. In terms of the regulatory framework, efforts have been made to simplify regulations and reduce complexity, aligning with broader initiatives to enhance the business climate. However, as shown by OECD indicators, long-term predictability of regulations affecting the business environment may be an area for improvement (Figure 5.6). Transparency in legislative processes could be enhanced, and concerns persist regarding administrative burdens, including bureaucratic hurdles, lengthy administrative procedures, and frequent changes to laws and programme rules.

In 2021, the Czech government adopted the Foreign Investments Screening Act, which introduced a screening mechanism for non-EU FDI deemed to threaten the country's security or internal and public order (Box 5.3). This mechanism is the first instrument of its kind in Czechia's recent history (OECD, 2022[20]). The legislation was adopted amidst a global trend towards the adoption or revision of FDI screening mechanisms which emerged since around 2016 and accelerated further in the context of the COVID-19 pandemic and Russia's war of aggression against Ukraine, both of which heightened concerns about potential foreign takeovers in sensitive sectors (OECD, 2023[8]). Recent OECD work on FDI screening mechanisms in the EU documents that similar screening frameworks have been adopted since 2021 by several other EU countries, with political impetus that resulted from the entry into force of the EU FDI Screening Regulation which establishes a legal framework for EU Member States' cooperation on FDI screening as a complementary driver (OECD, 2022[20]).

While evidence on the impact of the new FDI rules on international investment inflows in Czechia is not yet available, it emphasises the need for a careful and balanced approach to FDI-SME policymaking. This will be even more relevant in Czechia as the country moves ahead in the implementation of the new screening provisions, so as to enhance its ability to address essential security concerns without weakening investment promotion efforts. Screening authorities from across EU Member States have expressed concerns about the potential disadvantage that screening could generate in the context of efforts to attract foreign investment, especially when competing with similarly positioned countries outside the EU that do not screen inward investment (OECD, 2022[20]). Tailored policy practices will need to be identified to enhance the predictability, transparency, and administrative efficiency of the Czech screening regime, by clarifying the procedural rules applicable to investors, and providing decision-making guidance for the implementing authorities.

Box 5.3. The Foreign Investments Screening Act 2021

The Foreign Investments Screening Act was adopted by the Czech Parliament on 3 February 2021 and took full effect on 1 May 2021. It was introduced in response to EU Regulation 2019/452, which establishes a framework for the screening of FDI into the European Union. The screening rules adopted by individual EU Member States vary considerably in scope and operation (OECD, 2022[20]). The Czech FDI Act establishes a screening process for certain investments from countries outside the European Union, including Switzerland, European Economic Area members like Liechtenstein and Norway, and the post-Brexit United Kingdom. These rules are designed to address investments that threaten to security or public order.

The law designates the Czech Ministry of Industry and Trade as a statutory government body responsible for conducting the screening. The rules envisage two categories of FDI screening. Mandatory prior approval from the Ministry is required for investment targeting specified industries, namely:

- manufacturing, R&D&I, or life cycle administration of military material
- operation of critical infrastructure (e.g., energy, gas, heat, water, food, healthcare, transportation, emergency services, financial markets and public administration)

- administration or operation of critical information and communication systems and cybersecurity
- manufacturing of dual-use goods (including software and technology)

Additionally, a mandatory consultation procedure (but not a prior authorisation requirement) exists for certain types of media investments (e.g., national TV or radio licence).

Even if an FDI does not require mandatory prior approval under the Act, the Czech government has discretionary power to undertake an *ex post* review of any FDI if it determines that such investment has the potential to affect the security or internal and public order of Czechia. FDI can be screened by the Ministry retrospectively for up to five years from the date of the investment.

To avoid a retrospective screening, foreign investors may voluntarily request prior consultation of the Ministry as to whether the prospective investment is to be subject to review. If the result of this consultation is negative, this removes the possibility of later ex officio screening of the same investment by the Ministry (Act No. 34/2021 Coll., 2021[21]). A detailed description of the functioning of the Czech legislation is available in (OECD, 2022[20]).

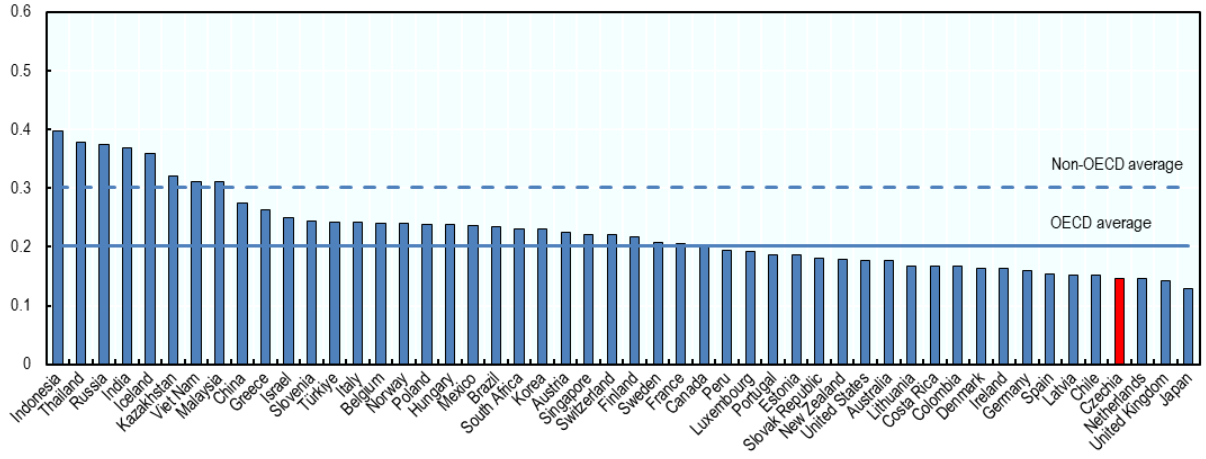
The screening rules may impact non-EU investment inflows in Czechia. The First Annual Report on Foreign Investments Screening in Czechia was published in 2022 and accounted for the period between 1 May 2021 and 30 April 2022 (Ministry of Industry and Trade of the Czech Republic, 2022[22]). The report does not share detailed information about specific cases, but states that among 12 investment projects investigated over the period under review, no transaction has been prohibited by the Czech authorities. Nevertheless, in two cases investors withdrew their filing (Janda, 2023[23])..

Source: (Janda, 2023[23]; Dubecká and Bereš, 2022[24]; Ministry of Industry and Trade of the Czech Republic, 2023[25]; OECD, 2022[20])

In Czechia, potential “beyond-the-border” restrictions in the services sector could undermine recent policy efforts to diversify the economy beyond low value-added manufacturing and towards knowledge-intensive services. Beyond FDI restrictions, other “beyond-the-border” regulations – including e.g. restrictions in trade, barriers to competitions and other discriminatory measures affecting market access conditions in different sectors and industries – can influence the degree of FDI local embeddedness and the potential for value chain linkages with domestic SMEs. According to the OECD Services Trade Restrictiveness Index (STRI), Czechia’s 2022 score is one of the lowest across OECD countries, reflecting the country’s relatively open and stable regulatory environment for trade in services (Figure 5.9). Accounting services, commercial banking and insurance, computer, logistics, broadcasting, motion pictures, sound recording, road freight transport and courier services are the most open sectors while air transport and legal services are the most restricted. Overall, conditions on the entry of natural persons seeking to provide services in the country on a temporary basis as contractual services suppliers remain more cumbersome than international best practice, while rights of access to public procurement are limited to regional trade agreement partners and members of the WTO’s Government Procurement Agreement. Other business requirements also apply in certain sectors, such as depositing a minimum amount of capital in a bank or with a notary to register a business. Despite these sectoral restrictions, Czechia’s overall regulatory framework for market access remains rather lenient compared to other OECD and EU countries.

Figure 5.9. Restrictions to services trade are below OECD average

OECD Services Trade Restrictiveness Index, 2022 (open=0; close=1)



Note: The OECD STRI indices take values between zero and one, one being the most restrictive. The STRI database records measures on a Most Favoured Nations basis. Preferential trade agreements are not taken into account. Air transport and road freight cover only commercial establishment (with accompanying movement of people). The indices are based on laws and regulations in force on 31 October 2019.
Source: OECD STRI database, 2022.

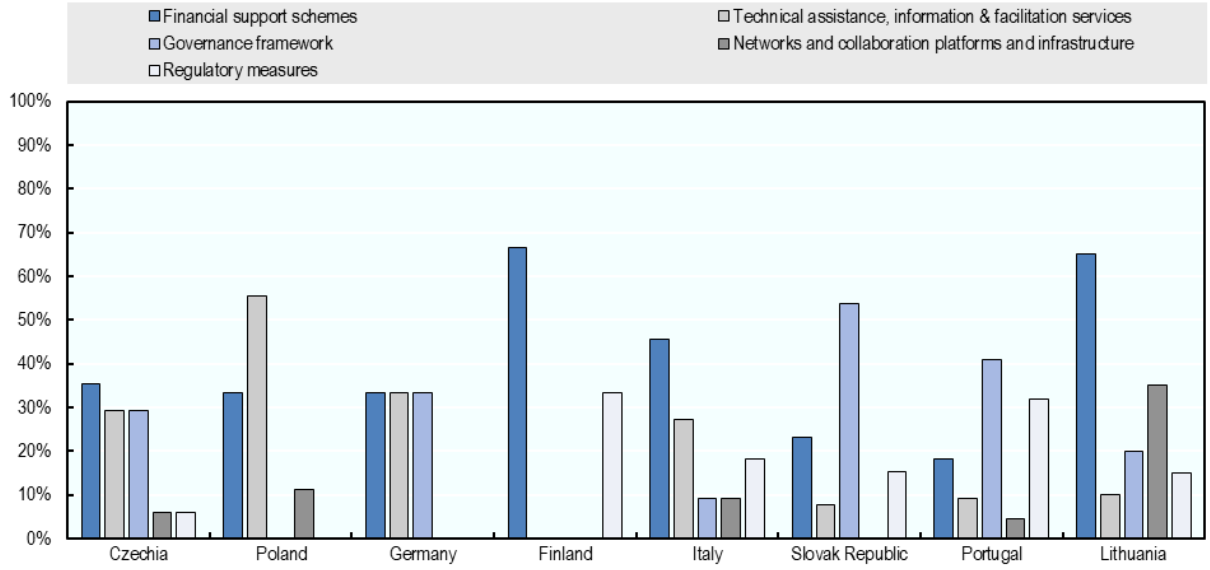
Financial support and technical assistance are the most common instruments to attract and facilitate productivity-enhancing FDI

Czechia boasts a diverse range of incentive programmes, from tax allowances to direct grants, designed to entice both domestic and foreign investors across various sectors, including technology, manufacturing, and business support services. Czech policies for attracting FDI make a balanced use of financial support schemes (35%) and technical assistance (29%). While Czechia does not have a dedicated national FDI strategy as outlined in Chapter 4, it effectively integrates FDI policy considerations within its broader national strategies and plans. These integrations represent 29% of all policy instruments utilised, underlining the nation's commitment to enhancing productivity through the facilitation and attraction of FDI (Figure 5.10).

The set of instruments used is more diversified than in some peer countries. Czechia has in place all types of policy instruments for supporting productivity-enhancing FDI, including regulatory measures as well as networks and collaboration platforms and infrastructures in addition to financial schemes and technical assistance services, while peer countries such as Germany and Poland focus on fewer types of instruments (Figure 5.10).

Figure 5.10. Policy instruments for attracting productivity-enhancing FDI in Czechia and selected peer economies

% of all mapped policies supporting productivity-enhancing FDI



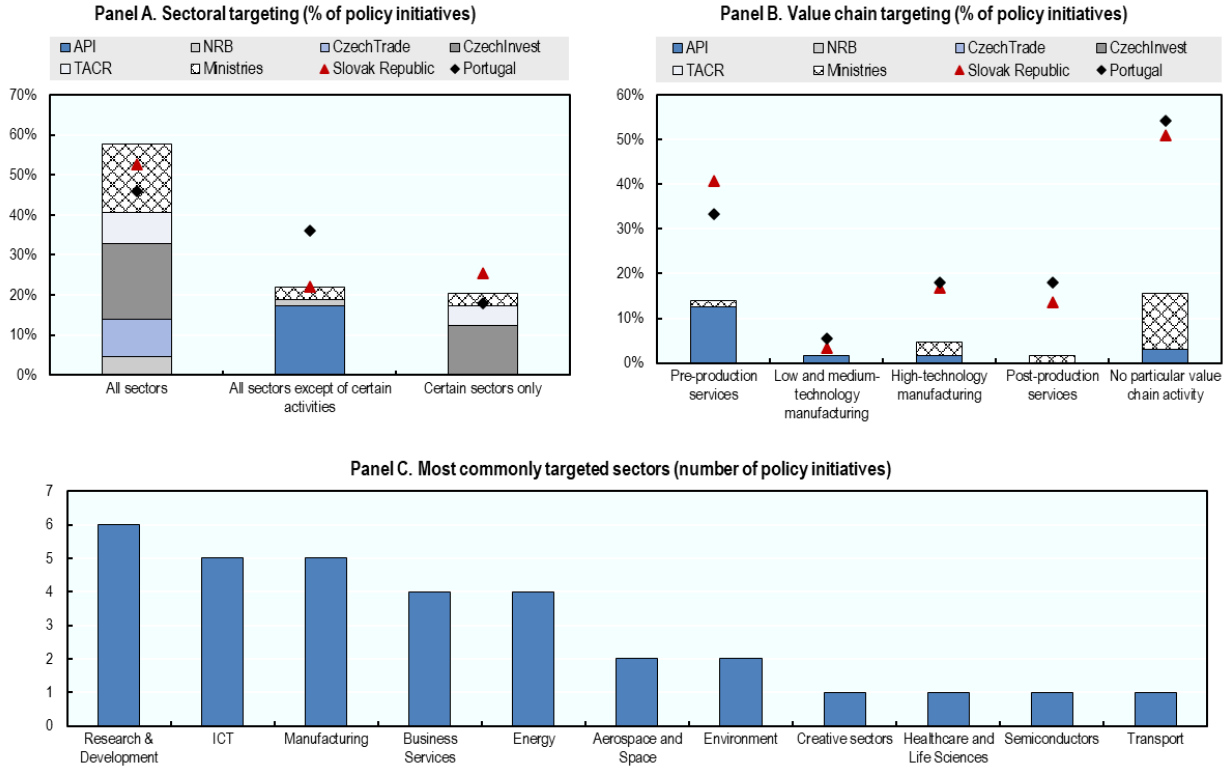
Note: Shares are calculated as a % of the total of national initiatives aimed at attracting and facilitating productivity-enhancing FDI. Shares may be higher than 100% when policy initiatives respond to several policy objectives at the same time.
Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Czechia proposes a comprehensive package of investment incentives providing financial support to reduce investment costs. Pursuant to Act No. 72/2000 Coll. on Investment Incentives, as amended, financial incentives are available to support investment by both domestic and foreign companies for the launch of new operations or the expansion of activities in the areas of manufacturing, technology centres or business support centres (including shared-services, software development, high-tech repair or data centres). Incentives mainly take the form of corporate income tax relief and direct grants for the creation of new jobs and the training or re-training of staff. The intensity of investment aid may vary depending on the size of the investing company, the volume of the investment, as well as the region and sector where the investment takes place. For example, an additional cash grant of capital investment up to 10-20% of eligible costs (depending of the region) is available for strategic manufacturing investment of at least CZK 2 billion and generating a minimum of 250 new jobs; as well as for higher value added investment in high-tech manufacturing sectors (pharmaceutical products and preparations; computers, electronic and optical devices; aircraft and their engines; spacecraft and related equipment) (CzechInvest, 2021[26]; Czech Business Guide, 2022[27]; Czech Government, 2021[28]).

Czechia's policy framework differentiates incentives based on the scale of investment, targeted sectors, and regional needs, to address the demands of investment projects and regional economic conditions. In the overall policy mix, 20% of policies enabling FDI diffusion on domestic SMEs target specific industries (Figure 5.11, Panel A). R&D-intensive activities in high-value sectors such as pharmaceuticals, electronics, and aerospace are strongly prioritized, aligning investments with the Czechia's strategic economic goals and fostering innovation in key industries (Figure 5.11, Panel B and Panel C). For example, in manufacturing, technology centres, business support service centres, and strategic product production, Czechia's investment incentives include corporate income tax relief for up to a decade, job creation grants, training support, and additional cash grants (CzechInvest, 2021[26]; CzechInvest, 2021[29]). These

measures, tailored based on firm size, sector, and strategic significance, underscore the country's commitment to supporting diverse industries and encouraging long-term investments.

Figure 5.11. Sectoral and value chain targeting of Czechia's overall policy mix



Note: The following value chain activities are considered: i) Pre-production services: R&D, concept development, design, patents; ii) Low and medium-technology manufacturing: production of simple, relatively unsophisticated goods such as basic metals, plastic products, food, textiles, etc.; iii) High-technology manufacturing: production of highly specialised, technologically sophisticated goods such as computer and electronic products, pharmaceuticals, chemicals, medical products, etc.; iv) Post-production services: marketing, sales, logistics, brand management, distribution and customer services.
Source: EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Innovative programmes focusing on brownfield sites reflect Czechia's commitment to sustainable development. These programmes leverage financial aid and technical support to revitalize existing industrial infrastructure. Notable initiatives such as the *NPO Brownfields programme* of the Ministry of Regional Development and the *Operational Programme Environment* of the Ministry of Environment, both of which facilitate investments in brownfield regeneration. These initiatives are supported by funding from the state budget and EU structural funds. The *Smart Parks for the Future* programme, overseen by the Ministry of Industry and Trade, provides subsidies to municipalities, cities, and regions for brownfield site regeneration and the enhancement of existing industrial infrastructure. CzechInvest, through its national database, orchestrates a comprehensive set of programmes aimed at brownfield valorisation and regeneration, further enriching the investment landscape.

Higher aid intensity for SMEs encourages their participation, promoting inclusive economic growth and job creation within local communities. Several policies for productivity-enhancing FDI-SME linkages found in Table 5.2 are relevant for SMEs specifically. For example, through R&D Tax Allowance's SMEs engaged in research and development activities can benefit from deductions on specific R&D expenses, such as personnel costs and materials, reducing their taxable income. SMEs seeking investments or collaborations

can utilize Czechlink (for Investors) to connect with potential investors and partners, fostering growth opportunities. SMEs expanding their business in Czechia can access expert advice on legislation, business environment, and funding options, facilitating their entry into the market through AfterCare. To support further productivity growth, Czechia could use examples of tax incentives adopted by different EU countries targeting employment, innovation, and skills development (Box 5.4).

Table 5.2. Main policies for productivity-enhancing FDI-SME linkages

Main policies	Description	Implementing Institution
R&D tax allowance	Specific R&D expenses can be fully deducted from the tax base in a given year, covering direct costs like personnel and materials, tax depreciation of assets, and other operational expenses related to R&D activities.	Ministry of Finance
Czechlink (for investors)	Platform to connect companies that are looking for an investor and investors who intend to acquire assets of a local company.	CzechInvest
AfterCare – support for companies doing business in Czechia	The programme offers to foreign companies expert advice on the Czech business environment, including legislation, investment incentives, and financing options. It facilitates connections with qualified employees, partners, universities, research organizations, and government authorities to support business expansion.	CzechInvest
Real estate database	The database connects municipalities and private owners with investors, allowing them to offer real estate properties directly. It assists investors in specifying suitable sites for their projects.	CzechInvest
National Brownfields Database	The database catalogues eligible brownfield sites, offering them to investors. It provides insights on brownfield numbers and characteristics for public use and compiles data for regeneration efforts.	CzechInvest
Investment incentives for manufacturing	The manufacturing industry incentives offer CIT tax relief for a decade, job creation grants, and training aid, with higher support for SMEs. Strategic investments over CZK 2 billion creating 250+ jobs get additional cash grants if using key technologies like pharmaceuticals or electronics.	CzechInvest
Investment incentives for technology centres	These incentives offer CIT relief for a decade, job creation and training grants based on investment size and jobs created. SMEs receive higher support, and strategic investments over 200 million CZK with 70+ jobs get an extra 20% cash grant.	CzechInvest
Investment incentives for business support service centres	These incentives offer CIT relief for a decade if a minimum number of new jobs are created across three countries. SMEs receive higher support, and strategic investments over 200 million CZK with 100+ new jobs get an extra 20% cash grant.	CzechInvest
Investment incentives for the production of strategic products	These incentives provide CIT relief for a decade, job creation grants, training support, and up to 20% cash grants for strategic health-related investments. Support varies based on firm size, region, and investment volume. SMEs receive increased aid.	CzechInvest
Czech Foreign Investments Screening Act	The national screening mechanism assesses potential foreign investments for negative effects on security or public and internal order. The Act authorises the Ministry to impose conditions on certain non-EU investments or to prohibit such investments.	Ministry of Industry and Trade

Source: EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Box 5.4. Targeting employment, innovation and skills development through tax incentives

Many governments use tax incentives to target employment and skills development, for example through CIT allowances or credits, or through reductions or exemptions to other taxes such as social security contributions. CIT incentives can address employment outcomes by linking benefits to qualifying expenditure (e.g., wages or payroll expenses) or outcome conditions (e.g., creating a minimum number of new jobs). By using dedicated eligibility conditions and design features, incentives can support existing jobs, or encourage beneficiaries to create new jobs or invest in training opportunities of staff. Sometimes these goals overlap with other priorities; many countries that support employment costs via incentives also encourage skills development or promote R&D.

Reducing employment costs through tax credits

France has offered different tax credits to target employment costs. The Competitiveness and Employment Tax Credit (CICE) amounted to 6% of annual payroll charges paid and could be claimed for salaries that are up to 2.5 times the amount of the French minimum wage. It thereby significantly decreased the costs of medium and low wages. In 2019, a reform permanently decreased employers' social contributions and phased-out the credit.

France introduced a hiring credit to counter the effects of the 2008 recession. The credit relieved firms from paying social contributions for new employees hired between December 2008 until the end of 2009. It targeted small firms with less than ten employees and low-wage jobs. An econometric assessment of the credit found that it had a statistically positive effect on job creation (Cahuc, Carcillo and Le Barbanchon, 2019[30]). The success of the measure was due to certain design features: the credit was temporary, targeted at jobs with rigid wages and not anticipated by the labour market.

Targeting employment and innovation

In the Netherlands, investors can benefit from an employment incentive if their business is engaged in R&D activities. The country offers a payroll withholding tax credit (also known as the WBSO R&D credit scheme) that reduces wage costs of R&D employees. Such an incentive has the potential to boost employment and could generate knowledge spillovers, if researchers acquire skills on the job that they can transfer to other jobs. The incentive may also attract innovative companies. The benefit amounts to 32% for the first EUR 350.000 of R&D costs and 16% if expenses (wages or other expenses) exceed the threshold.

Tax allowances can support skills development

Italy offers a tax allowance for companies investing in training of staff for Industry 4.0. The goal is to support the up-skilling of staff related to the technological and digital transformation of businesses. Large companies can deduct 30% and medium-sized companies additional 50% of training costs from their taxable base, caped at max. EUR 250,000. For small companies, these thresholds increase to 70% of respective costs, caped at EUR 300,000.

Incentives for investments in digital upgrades

Under Australia's Technology Innovation Boost programme, small businesses with annual turnover of less than USD $50 million can claim a 20% enhanced deduction (120% tax deduction) for cost of expenditures and depreciating assets up to a threshold. Eligible expenditure includes digital solutions such as portable payment devices, cyber security systems and subscriptions to cloud-based services.

Source: (Cahuc, Carcillo and Le Barbanchon, 2019[30]; Grant Thornton, 2021[31]; Insee, 2019[32])

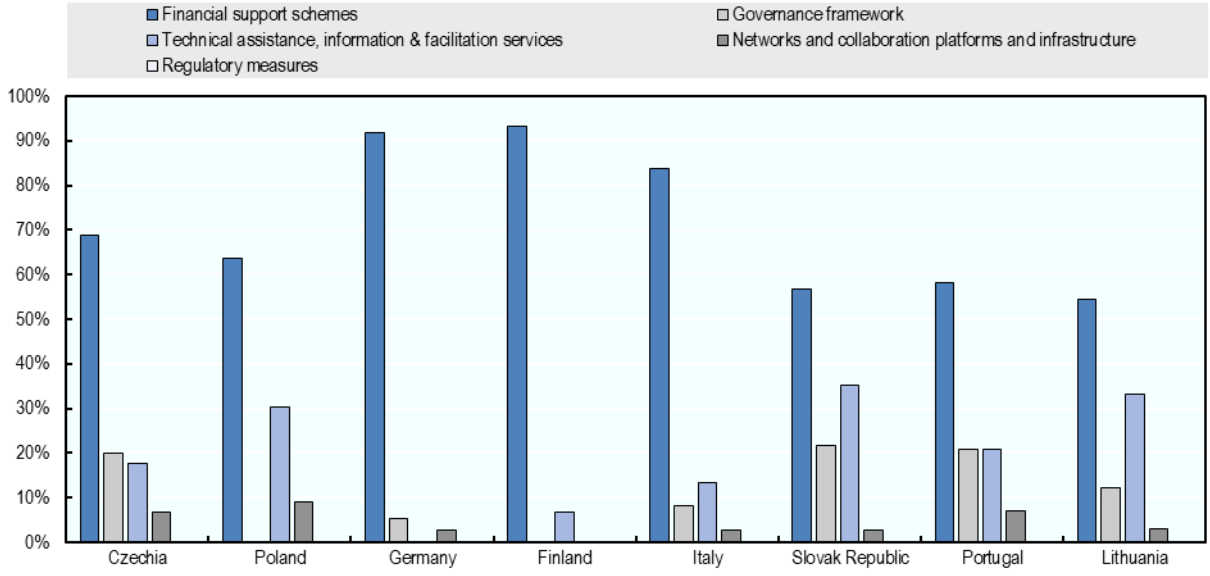
5.3.2. Strengthening the absorptive capacities of Czech SMEs

Measures aimed at enhancing the ability of local SMEs to absorb external support can manifest in diverse ways, such as subsidies, grants, loans, tax relief, infrastructure development, and training programmes. These initiatives are designed to address different facets of SME performance, including access to innovation assets, skills, and finance. In Czechia, most policies aiming to scale up the absorptive capacity of SMEs make use of financial instruments (69%) and to a lesser extent from non-financial support, broader governance arrangements, such as national strategies and plans (20%), or in the form of technical assistance (18%). A smaller share of measures (7%) supports SMEs innovation and performance through infrastructure and platforms facilitating networking and collaboration (Figure 5.12).

This policy mix does not substantially diverge from that of peer countries. There are, however, some differences. Czechia has a lower proportion of technical support services for SMEs in the overall policy mix than most peer economies. By contrast, the use of governance frameworks such as national strategies or plans is more widespread than in any benchmark countries, except Portugal and the Slovak Republic (Chapter 4).

Figure 5.12. Policy instruments for SMEs absorptive capacities in Czechia and selected peer economies

% of all mapped policies supporting SME absorptive capacity

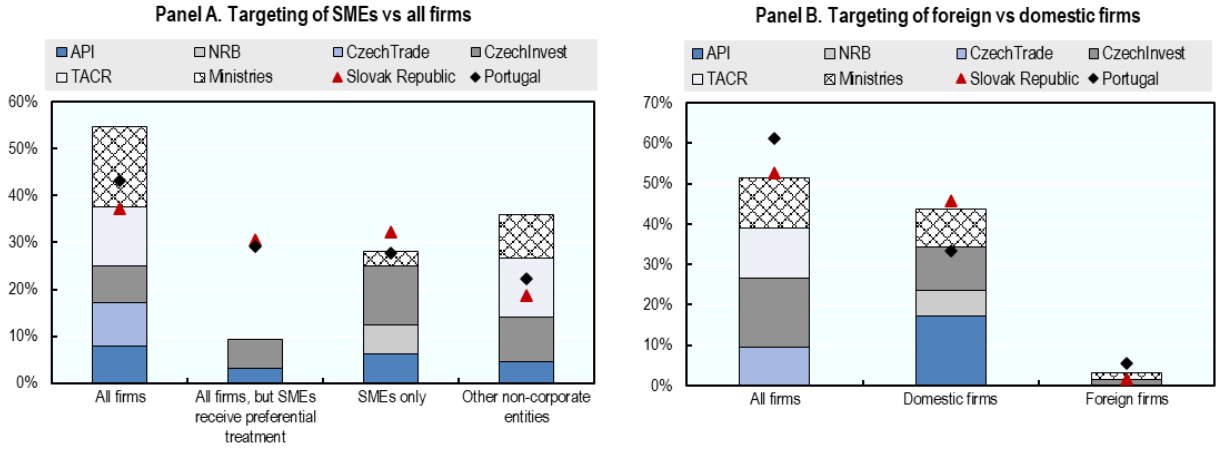


Note: Shares are calculated as a % of the total of national initiatives aimed at supporting SME absorptive capacities. Shares may be higher than 100% when policy initiatives respond to several policy objectives at the same time.
Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Considerable targeting of SMEs is also observed in the overall policy mix. More than 37% of the policy initiatives assessed for the purpose of this study target SMEs only or provide preferential treatment to them in the form of lax requirements and conditionalities or prioritisation in their selection as recipients of public support (Figure 5.13, Panel A). This trend reflected by Czechia's implementation of a comprehensive strategy to support SMEs for the period 2021-2027, which has been developed by the Ministry of Industry and Trade (MIT). Non-corporate entities such as universities, research institutes and technology transfer offices are also significantly involved (36% of the policy initiatives assessed) in policies implemented by innovation-focused government agencies such as the TA CR, CzechInvest, and API. Even though the

research shows that more than 50% of Czech initiatives are open for all firms in terms of their domiciliation, the level of policy targeting of the only domestic firms is notable (44% of the policy initiatives assessed). Targeting of the only foreign firms receive less attention (Figure 5.13, Panel B).

Figure 5.13. Policies targeted to SMEs versus generic policies (% of policy initiatives)



Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Czechia's policy framework is designed to boost SME innovation, enhance their absorptive capacities, and support internationalisation, aiming to maintain their global competitiveness.

Czechia has implemented a comprehensive set of policies through various initiatives to enhance the absorptive capacities of its SMEs, fostering innovation, internationalisation, and collaboration (Table 5.3). In a concerted effort to propel SMEs onto the global stage, Czechia has instituted a suite of initiatives that facilitate international exposure, networking, and mentorship. Programmes like Czech Demo, Czech Match, and CzechAccelerator play pivotal roles in extending the reach of Czech SMEs and fostering a globally competitive environment.

The connectivity platforms, Czechlink and Czechlink Start-up, exemplify the commitment to cultivating investor relations and nurturing start-ups. These platforms serve as catalysts for dynamic ecosystems, enabling companies to connect with investors seamlessly. Furthermore, the mentorship programme, CzechStarter, acts as a cornerstone for entrepreneurial development, embodying a supportive framework for nascent businesses.

Czechia's innovation landscape receives a significant boost through the *ESA BIC Czechia* collaboration with the European Space Agency. By providing mentoring, business support, and discounted office spaces, this initiative propels SMEs operating in space technologies towards cutting-edge innovation. Additionally, the Sectoral Database of Suppliers contributes to transparency, fostering partnerships and joint ventures between foreign investors and domestic suppliers.

Export promotion services offered by CzechTrade, including Business Partner Search, Consulting and Assistance Services, and Export Client Center, underscore a comprehensive approach to supporting SMEs in global markets. These services encompass business consultations, negotiation support, and export education, collectively reinforcing SME capabilities in international arenas.

The Design Center CzechTrade and Technological Incubation programmes showcase a strategic focus on design, creativity, and technological advancement. These initiatives underscore the commitment to fostering innovation among SMEs. Furthermore, collaborative research and innovation are at the forefront

of TACR's programmes, such as DELTA 2, KAPPA, National Centres of Competence, and SIGMA. These programmes promote international cooperation, interdisciplinarity, and technology transfer, crucial for bolstering the research capabilities of Czech SMEs.

EU-funded programmes and European Funds have a prominent role in offering financial support to SMEs. Most available funding schemes are implemented by the Czech Business and Innovation Agency (API), which is responsible for administering EU-funded programmes. This reflects the prominent role of European Funds in driving financing support for SME innovation in Czechia. CzechInvest is the second most important SME funding agency in Czechia as per the number of funding programmes implemented – most of which are specifically targeted at start-ups. Other institutions offering direct financial support are the Technology Agency of Czechia (TA CR) – whose programme often target collaborative B2B and S2B innovation activities – and the National Development Bank (NRB).

Fragmentation in the governance framework for the delivery of financial support scheme may hamper SMEs capacity to identify and access available support. Overlaps in the respective mandates of government financing agencies risks exacerbating barriers to potential beneficiary SMEs. The implementation of a one-stop-shop or web-based portal providing an overview and a streamlined access to information on available direct funding programmes may help overcome these obstacles and improve effectiveness of existing programmes.

Table 5.3. Main policies for SME absorptive capacities

Main policies	Description	Implementing institution
Czech Demo	The programme supports SMEs by facilitating their participation in international events, exhibitions, and fostering networking with local startups and companies, offering mentorship, and consulting services.	Czech Invest
Czech Match	CzechMatch offers advisory services, up to CZK 173,001 in financial support, and a one-week acceleration programme in global hubs like London and Silicon Valley to help businesses attract foreign partners and expand their market reach.	Czech Invest
CzechAccelerator	An acceleration programme for businesses offering office space in a foreign business incubator, mentoring, consulting services as well as workshops to help them expand their operations on the local market.	Czech Invest
CzechStarter	Mentorship programme for entrepreneurs to set up and/or expand businesses.	Czech Invest
ESA BIC Czechia	CzechInvest, through the ESA BIC, backs young firms in space technologies with mentoring, networking, technology transfer assistance, and marketing. The Prague and Brno incubators provide discounted office space, fostering innovation and growth in the space tech sector.	Czech Invest
Sectoral Database of Suppliers	Database with company profiles to connect foreign investors with suppliers and joint venture partners in Czechia.	Czech Invest
Technological Incubation	Technological incubation supports selected tech startups with direct funding, workshops, and consultations. The programme aids in establishing contacts, finding customers, and navigating patent use through events and expert assistance.	Czech Invest
Czech Business Partner Search	An online platform for foreign companies looking for Czech partners for cooperation, selling or buying purposes.	CzechTrade

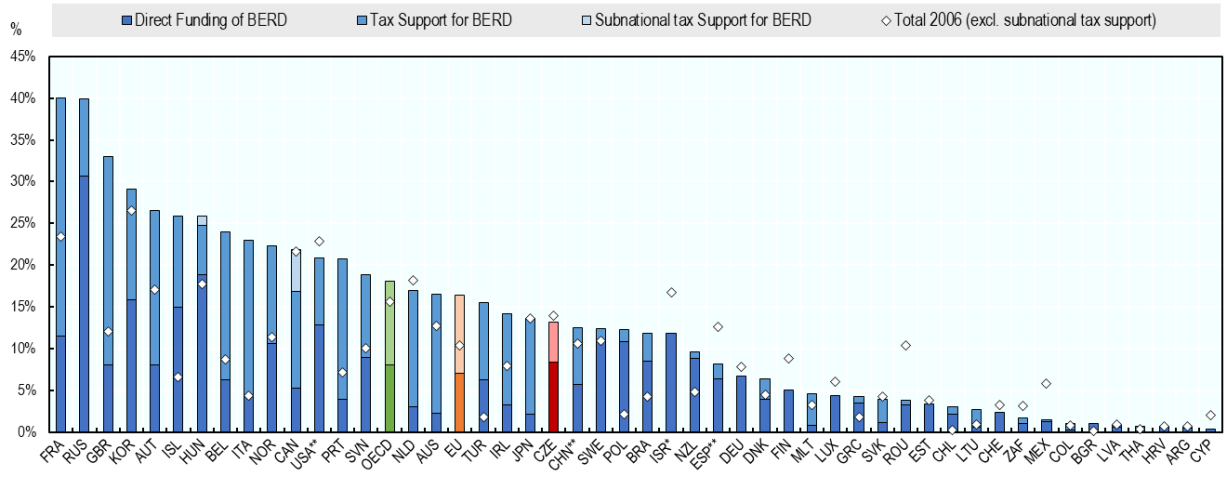
Source: EC/OECD Survey on Policies enabling FDI spillovers to domestic SMEs (2021).

There is room to strengthen public support to business R&D

Czech support to business R&D ranks far from top OECD performers and is below the OECD and EU average. According to OECD data, in 2018, standing at 0.14% of GDP, Czech support to business R&D ranks far from top OECD performers such as France, Canada or the US, and also slightly declined over the period 2006-2018, while it increased in the OECD as a whole (Figure 5.14).

Figure 5.14. Government funding for business R&D

As % of GDP



Note: * Data on tax support not available, ** Data on subnational tax support not available
Source: OECD R&D Tax Incentive Database, December 2020

Czechia is strengthening the support for business R&D through comprehensive legislative strategies. The country's science, research, development, and innovation system are guided by the Innovation Strategy of Czechia 2019–2030, which was endorsed by the government in February 2019. One of the pillars is dedicated to the financing of R&D, with a proposed goal of strengthening public funding of R&D (up to 1% of GDP). This Strategy is further detailed in the Czech National Research, Development, and Innovation Policy 2021+, which was adopted in July 2020. This policy aims to foster progress in five key areas: (1) management and financing of the research, development, and innovation system; (2) development of human resources; (3) quality and excellence in research and development; (4) collaboration between research and applications; (5) maximising the innovative potential. In terms of funding and technological innovation, the primary long-term strategy is the National Research and Innovation Strategy for Smart Specialisation of Czechia (RIS3). The goal of RIS3 is efficiently allocate resources (be they European, national, regional, or private) to activities that enhance the country's research and innovation capabilities.

The largest share of public support to business R&D is direct. This is in line with the results of the EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023), according to which Czech financial support measures for SME absorptive capacities mainly take the form of direct grants or loans for R&D and innovation or internationalisation activities; business consulting and training services; or technology acquisition and digitalisation. Among the most important providers of financial sources of direct public support for R&D in recent years belong the Business and Innovation Agency, National Development Bank, CzechInvest, and Technology Agency of Czechia.

Czechia should pay due attention to ensure that direct government funding is well targeted towards helping local SMEs conduct R&D or acquire new technologies that improve their productivity (Box 5.5). Direct funding often represents a more discretionary and selective form of public support as it allows governments to target specific areas of research that are considered to offer high social returns – as opposed to tax incentives which are in principle available to all firms carrying out R&D (OECD, 2022[4]). According to the Survey, 52% of mapped policies offer direct financial support to stimulate research and development activities of Czech business. This support targets mostly domestic SMEs and non-corporate entities in specific regions and sectors (Figure 5.15). For example, the National Development Bank implements initiatives like VADIUM, Inostart, Expansion loans, and Expansion Guarantee that enable SMEs to obtain

financing for the implementation of their innovative projects. Another case is TACR, which aims to financially enable international cooperation in applied research, experimental development and innovation of Czech companies, research organizations and their foreign partners. This happens through their DELTA 2, SIGMA, and KAPPA Programmes which focus specifically on such market players. CzechInvest supports technology startups and SMEs financially and in the form of seminars, mentoring, consultations, networking support, assistance with technology transfer and patents, etc.

Box 5.5. Insights on SMEs scale up finance in Czechia

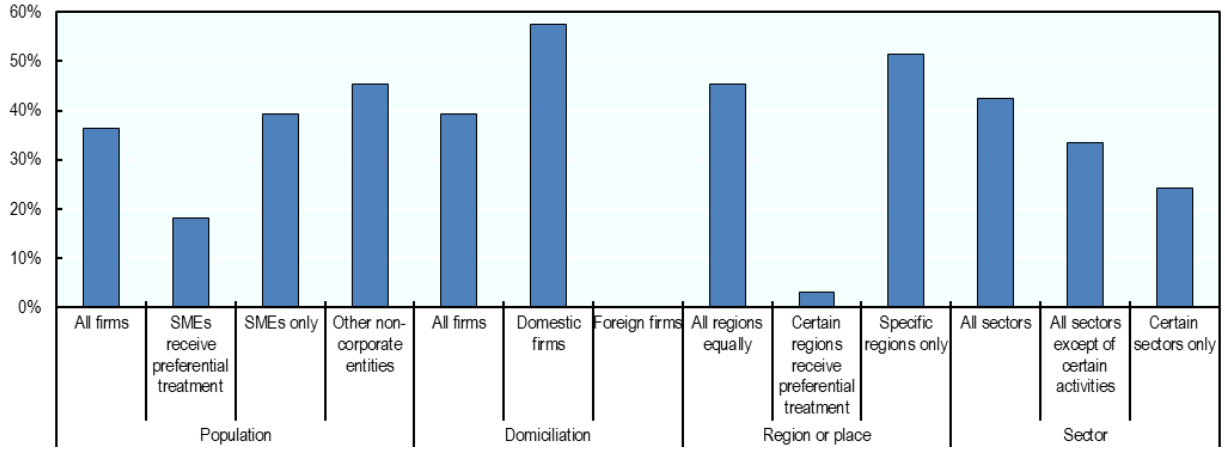
Scale-up finance encompasses a variety of financial instruments aimed at facilitating a firm's sustainable growth and enhanced performance. While there isn't a universally accepted definition, it broadly includes mechanisms supporting capacity and performance improvement. These mechanisms encompass areas such as innovation, technology adoption, market, and network expansion (including international collaborations and joint R&D efforts), standardization, and leveraging intellectual property rights, among others. For example, when SMEs engage in network expansion, they gain access to valuable knowledge, technology, data, and skills. This access enables them to benefit from innovation spillovers, potentially transforming their processes and business models, ultimately enhancing their performance, and facilitating growth.

Evidence from the OECD project on "Financing Growth and Turning Data into Business: Helping SMEs Scale Up" shows Czechia has a diverse approach within the national ecosystem of strategies, including the "Strategy to Support SMEs (2021-27)", the "Innovation Strategy (2019-30)", and the "National Strategy for the Development of the Capital Market," that are all relevant for scale up finance. Although the majority of scale-up finance policies across the OECD are highly targeted, in the case of Czechia, a substantial proportion of measures, specifically 71.4%, is generic and applicable to all types of SMEs.

Source: OECD (2022[33]) https://doi.org/10.1787/81c738f0-en

Figure 5.15. Most of the policies providing direct financial support to business R&D in Czechia target specific populations, domiciliation, and regions

% of all mapped policies using financial support schemes



Note: As policies can be directed at more than one type of target, the sum is above 100%.
Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Indirect funding in the form of tax incentives represents only a limited share of the total government expenditure for business R&D. Indirect funding could also be increased and become better targeted to help SMEs conduct R&D or acquire new technologies that improve their productivity. In Czechia, there is however existing indirect funding for R&D such as the R&D tax allowance from the Ministry of Finance that could be further promoted. This tax allowance allows specific R&D expenses to be fully deducted from the tax base each year, covering direct costs like personnel and materials, tax depreciation of assets, and other operational expenses related to R&D activities.

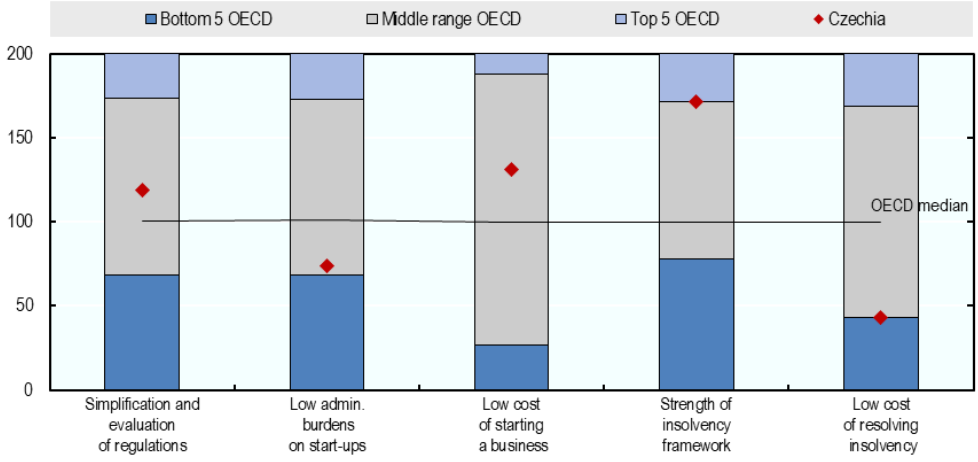
Despite regulatory challenges impacting business in Czechia, strengths like simplified cross-border trade administration exist in the regulatory environment

Czechia has initiated efforts to cut bureaucracy and reduce administrative burdens, particularly for SMEs and start-ups. In addition to targeted policy measures for enhancing the innovation capacity of SMEs, the quality of the broader regulatory environment for business activity can also shape the potential for FDI spillovers. Lowering it could unleash the entrepreneurial potential and boost investment. Czechia was among the first to launch a programme on reducing administrative burdens. However, unlike many other countries, its focus has not yet broadened to encompass other regulatory costs (OECD, 2021[34]).

Czechia's regulatory framework supports entrepreneurship but requires improvements, particularly in reducing the administrative burden on start-ups and the costs of insolvency. The framework is competitively positioned within the mid-range of OECD countries, and the insolvency framework is robust (Figure 5.16). However, there is scope to alleviate administrative burdens on start-ups and to lower the cost of resolving insolvencies, which are key to minimising barriers to corporate restructuring and spurring productivity-enhancing capital reallocation (OECD, 2020[35]).

Figure 5.16. The administrative burden on start-ups and costs of insolvency can be reduced

Entrepreneurship regulatory framework, index of performance



Note: Framework conditions for entrepreneurship are proxied by a number of indicators that measure i) the simplification and evaluation of regulations (composite index from 1 -the most complex- to 6 -the simplest-), ii) administrative burdens on start-ups (composite index from 1-the less burdensome- to 6 -the most burdensome), the cost of starting a business (% of income per capita), the strength of insolvency framework (composite index from 1 – the weakest- to 16 - the strongest-) and the cost of resolving insolvency (% of estate). The two first indicators are drawn from the OECD Product Market Regulation database (OECD, 2021[36]); the last four are drawn from the World Bank Doing Business 2020 report (World Bank, 2020[37]; World Bank, 2020[38]). The years of reference are respectively 2018 and 2019. All indicators are presented in the form of benchmarking indices and reported on a common scale from 0 to 200 (0 being the lowest OECD value, 100 the median value, and 200 the highest) to make them comparable. The benchmark charts highlight the position and dispersion of the top five (High) and bottom five (Low) OECD values. The Czechia's relative position is marked with a dot.
Source: OECD (2021[7]) https://doi.org/10.1787/97a5bbfe-en

The Czech government is actively working to simplify regulations and reduce the complexity of regulatory procedures to improve the business environment.

To reduce regulatory complexities, the Czech government is overhauling legislation around construction permits and has approved the SMEs Support Strategy for 2021-2027. As a response to these challenges, the government is preparing a comprehensive overhaul of the legislation and regulation around construction permits, with the aim to speed up and streamline the process. Also, the Czech government has approved the SMEs Support Strategy for the period 2021-2027 which aims to (1) simplify and harmonise the tax system and reduce the tax burden on SMEs, (2) improve the quality and efficiency of the public administration and reducing the administrative burden on SMEs, (3) strengthen the rule of law and the protection of property rights and enhancing the fight against corruption and unfair competition. The work of the Department of Business Environment and Entrepreneurship at MIT specifically focuses on making the administrative burden for SMEs lighter. There are business councils or expert groups which also include members of business association who bring input on how to reduce the administrative burden by producing a report to the Government. The ministry coordinates the agenda in this respect.

The knowledge transfer infrastructure could be further strengthened with financial and technical resources to promote science-to-business collaboration

The ability to establish connections between FDI and SMEs can be shaped by the effectiveness of the knowledge transfer infrastructure. This infrastructure encompasses entities like technology transfer offices, applied research centres, collaborative laboratories, and universities, which contribute to the generation and dissemination of knowledge through collaborative efforts. These facilities offer a tangible space for international companies to partner with local organisations. Simultaneously, they provide local SMEs with access to university resources, including technology facilities, equipment, skilled workforce, and activities, which would be financially challenging for them to access independently.

In Czechia, Higher Education Institutions (HEIs) play a pivotal role in the knowledge transfer infrastructure, evolving from traditional academic roles to become key drivers of innovation and economic development. Aligning with global trends in OECD countries, Czech HEIs actively engage in science-to-business collaboration, integrating into local innovation ecosystems to foster entrepreneurship and technology diffusion (Box 5.6). They contribute through educational programmes, research facilities, and collaborative projects with industry, mirroring successful international models like Slovenia's strategic alignment, the UK's performance-based funding, and Sweden's multilevel governance approach. This approach enhances the commercialization of research, cultivates an entrepreneurial mindset among students, and drives regional and national prosperity, positioning Czech HEIs as crucial agents in sustaining economic growth and innovation.

Czechia has made significant investments in developing its R&D infrastructure, including science parks and research centres. Czechia has made progress in diversifying its traditional investments in engineering into new fields of research and development (R&D) and innovative technologies. According to the Czech Statistical Office, in 2022 R&D spending in Czechia rose by 9.3% year-on-year to a record CZK 133.3 billion mainly due to R&D investment by businesses. Public domestic sources accounted for 30% of development funding. The rate of their investment growth slowed down considerably compared to the significant increase in state funding for this activity in previous years. Since 2004 Czechia takes advantage of the European Structural and Investment Funds as well as EU Framework Programmes for Research and Innovation. For example, EU structural funding has enabled the country to open several world-class scientific and high-tech centres. During the Operational Programme Research and Development for Innovation (OPRDI) in 2007-2013 more than EUR 2.1 billion was invested in technical support for universities, commercialisation of R&D, technical assistance for efficient management of the programme, and construction of new R&D infrastructure. As a result, there were constructed eight large infrastructure facilities in the category of European Centres of Excellence and forty regional R&D centres.

Box 5.6. The role of Higher Education Institutions (HEIs) in fostering innovation diffusion through science-to-business collaboration

In recent decades, higher education institutions (HEIs) have undergone a transformative shift, expanding their roles beyond traditional academic pursuits to become integral drivers of innovation and entrepreneurship. This evolution is marked by a proactive connection with ecosystems and networks, fostering collaborative endeavours with industry, research organizations, and various stakeholders. Recognising the catalytic potential of HEIs, national and subnational governments have strategically leveraged them to fortify regional innovation ecosystems, aligning academic initiatives with local market demands to stimulate economic development. HEIs, across OECD countries, are positioned as critical agents in the dissemination of knowledge and technology. They achieve this through multifaceted contributions, including educational programmes, research facilities, and incentives for collaborative innovation involving both domestic and foreign firms, public and private research organizations, cluster associations, technology and science parks, and business incubators. The HEInnovate initiative, a collaborative effort between the European Commission and the OECD, plays a pivotal role in assisting HEIs globally in promoting entrepreneurship and innovation. The primary aim is to create societal impacts and sustain economic growth at both local and national levels.

Country examples: Slovenia, United Kingdom & Sweden

The following diverse approaches across 3 OECD countries underscore the pivotal role of HEIs in driving innovation, entrepreneurship, and economic development. From Slovenia's strategic alignment with local needs to the UK's performance-based funding model and Sweden's multilevel governance approach, these examples highlight the dynamic and evolving landscape of HEI contributions to regional and national prosperity. *Slovenia* stands out for its strategic incorporation of innovation and entrepreneurship commitments within HEIs' strategic plans. The emphasis here extends beyond academic pursuits to encompass activities supporting small businesses, fostering an entrepreneurial mindset in students, and facilitating the commercialization of research results through technology transfer and spin-offs. Moreover, collaboration with non-academic stakeholders in governing bodies reflects a commitment to real-world engagement. In *the United Kingdom*, a pioneering approach involves performance-based funding through the Higher Education Innovation Fund (HEIF). This framework, manifested in the Knowledge Exchange Framework (KEF), evaluates universities' contributions to knowledge exploitation, encouraging effective interactions between HEIs and businesses, public organizations, and the wider public. KEF utilises a comprehensive set of metrics, including research partnerships, income from business contracts and consultancy, engagement with the public and third sector, enterprise and entrepreneurship initiatives, intellectual property and commercialization efforts, public and community engagement, and local growth and regeneration activities. *Sweden*, through its multilevel governance structure, exemplifies the strong connection between HEIs and local and regional authorities. The collaborative efforts of HEIs with businesses are strategically embedded in regional development strategies, aligning with the specific needs and profiles of each region. For instance, Luleå University of Technology operates as a knowledge engine, facilitating interactions with a mix of capital-intensive large companies and SMEs. The university's industrial PhD programmes, designed to promote innovation in SMEs, exemplify the region's commitment to driving economic growth through academia-industry collaboration.

Source: (OECD/European Union, 2021[39]; OECD/European Union, 2021[40]; OECD/European Union, 2021[41])

Despite the significant potential of some domestic research organisations and infrastructures, the overall quality and performance of public R&D still has room for improvement. Cooperation between the research and application sectors is insufficient compared to many developed countries. HEIs are also less involved in international alliances. So, the intensity of links between academia and business sector should be increased to improve knowledge and technology transfer. Excessive targeted financing makes it impossible to focus more on disruptive topics, and forces researchers to focus on implementing research projects “on the safe side”. The inadequate quality of the management of research organisations themselves is also often perceived as a weakness of the public R&D area. The randomness in obtaining grants and projects makes conceptual leadership and direction of both teams and entire institutions virtually impossible. Comparing to more developed countries, there is an uneven research performance between regions resulting in underdeveloped regional innovation systems which are supported by insufficiently robust “soft infrastructure” activities. Another problem is outdated legislation and a high amount of administrative burden across the entire R&D system.

To enhance the local embeddedness of FDI in the Czech economy, strategic investment incentives could be tied to tangible partnerships with universities. For instance, a dedicated budget jointly committed by MNEs and the national government could fund specialized training programs for graduates in high-technology and knowledge-intensive sectors. These programs might include industrial PhD initiatives, active involvement of MNE staff in curriculum design and teaching, and collaborative supervision of undergraduate theses. Additionally, fostering collaborative research projects between academia and the business sector, with active participation from local SMEs, can further stimulate knowledge spillovers.

5.3.3. Mainstreaming economic geography considerations into FDI-SME policies

Clusters possess traits like specialised industries and close geographical proximity, enhancing the likelihood of knowledge exchange. From a policy standpoint, aligning FDI attraction strategies, SME policies, and cluster development initiatives can synergise, boosting FDI's potential for SME productivity. Additionally, raising investor awareness about regional investment prospects and enhancing the local business environment through policies tailored to local economic and market features could prove impactful.

Czechia employs a place-based approach in several of its policies and programmes to support business enterprises, especially in the fields of SME R&D and innovation

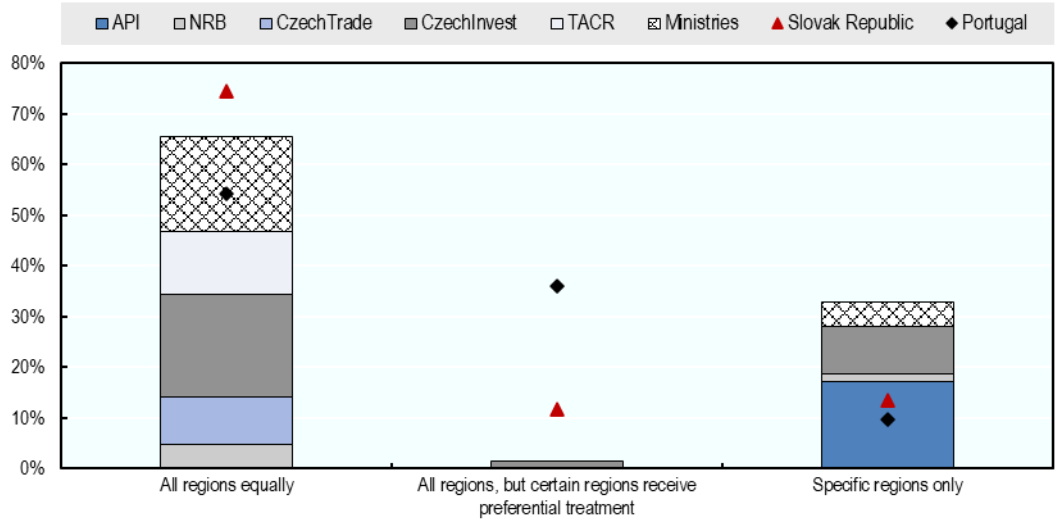
Several Czech policies and programmes (35%) adopt a place-based approach, determining eligibility conditions or the level of support for business enterprises based on location (Figure 5.17). This focus on place-based policies is greater than in peer countries, such as the Slovak Republic and Portugal. This is particularly the case for investment incentives available to domestic and foreign investors, and certain SME R&D and innovation programmes supported by the EU Structural and Investment Funds (ESIF). Specific focus is provided in the National Research and Innovation Strategy for Smart Specialisation of Czechia (RIS3) describing specialisation domains for Czechia. Regional annexes of this strategy (Regional RIS3s) elaborate national domains in more detail or provide additional domains specific for a region. However, currently, no operational schemes specifically support a certain sector or domain. Funding schemes are being prepared at the national level in the relevant Operational Programmes, though they will be aimed on all RIS3 domains with no specific focus on any particular domain. However, most FDI-SME diffusion policies are applied equally across all Czech regions, with few targeting specific regions for preferential treatment. Direct support for innovation, such as grants, in Czechia is generally provided from the national level and it is mostly funded from the ESIF and a few national programmes, while indirect support in the form of advisory services (mentroing and coaching, match-making services) is provided regionally through regional innovation centres.

The Business and Innovation Agency (API) is the sole innovation-focused agency implementing a place-based approach, offering R&D grants to enterprises headquartered outside the NUTS 2 Prague region and prioritising economically troubled regions with high unemployment rates. It plays a crucial role in facilitating regional access to innovation and R&D support programmes, while being involved in various projects aimed at improving the technical infrastructure of firms for R&D. API also encourages cooperation between enterprises, higher education institutions, and research organizations. API's offices are in each of the regional capitals. CzechInvest supports young companies operating in the field of space technologies via the European Spaces Agency Business Incubation Centre (ESA BIC) which facilitates access to local firms in Prague, while its branch in Brno is operated by South Moravian Innovation Centre (JIC).

Investment promotion and internationalisation policies exhibit less spatial differentiation compared to SME innovation programmes. The key institutions working at the regional level are the National Development Bank (NRB) and CzechInvest. The NRB has subnational offices and branches which cover the biggest cities, with locations chosen to ensure comprehensive territorial coverage and for historical reasons. For instance, the NRB's Expansion Loans Programme, which offers loans for technology acquisition and digital transformation of SMEs, targets all of Czechia except the capital city of Prague. In areas without branches, the NRB informally cooperates with subnational agencies, enabling clients to receive information and be referred to the NRB as needed. Regarding partners, CzechInvest provides investment incentives for manufacturing, technology centres, business support service centres, and strategic product production outside Prague. The intensity of support varies by region (20%-40%), with less developed regions receiving higher investment aid.

Figure 5.17. Place-based policy implementation in Czechia

In % of policy initiatives



Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Czechia's strategic focus on regional development involves tailoring support to specific areas and integrating innovation and technology diffusion into local economic strategies

Czechia is dedicated to supporting lagging regions and promoting economic development, as evidenced by the development of the Regional Development Strategy of Czechia 2021+ (RDS21+) by the Ministry of Regional Development .The strategy aims to ensure tailor-made support for regions, reflect the territorial dimension in sectoral policies, develop strategic planning and management based on functional regions,

strengthen cooperation among actors in the territory, improve coordination of strategic and spatial planning, develop smart solutions and improving work with regional development data. Furthermore, there is an increasing focus on enhancing capacities at the subnational level and utilising information technologies for the monitoring and evaluation of regional policy, particularly in employment generation (OECD, 2019[42]). This approach specifically targets metropolitan areas (Prague, Brno, Ostrava and their hinterlands), agglomerations, regional centres, structurally affected regions (the Ústí nad Labem, Moravian-Silesian and Karlovy Vary Regions, which are also supported by the Strategic Framework for Economic Restructuring (RE:START)), and economically and socially vulnerable areas.

There could be more emphasis on innovation and technology diffusion around regional development policies, with a deeper involvement of subnational offices of the main implementing agencies, conditional on the allocation of the additional resources of these subnational offices, and regional innovation agencies. Strengthening the linkages between regional development action plans and the needs of local FDI-SME ecosystems is crucial. This approach would ensure that measures relating to the attraction of knowledge-intensive investment, SME innovation, and internationalisation are part of broader local economic development strategies. It is essential to foster a strategic dialogue between national and regional authorities, especially during the determination of the most beneficial types of FDIs. Enhancing the involvement of satellite offices of the main implementing agencies and regional innovation agencies in the deliberations of Regional Councils could be increased to tailor national policies and programmes to the economic and market conditions of each region. The role of Regional Councils as platforms of coordination and engagement of various stakeholders could also be further strengthened to foster greater commitment and synergies across the public and private sectors. It could be reached by enchancing mechanism through which regional development agencies interact with business associations and industry representatives at the local level.

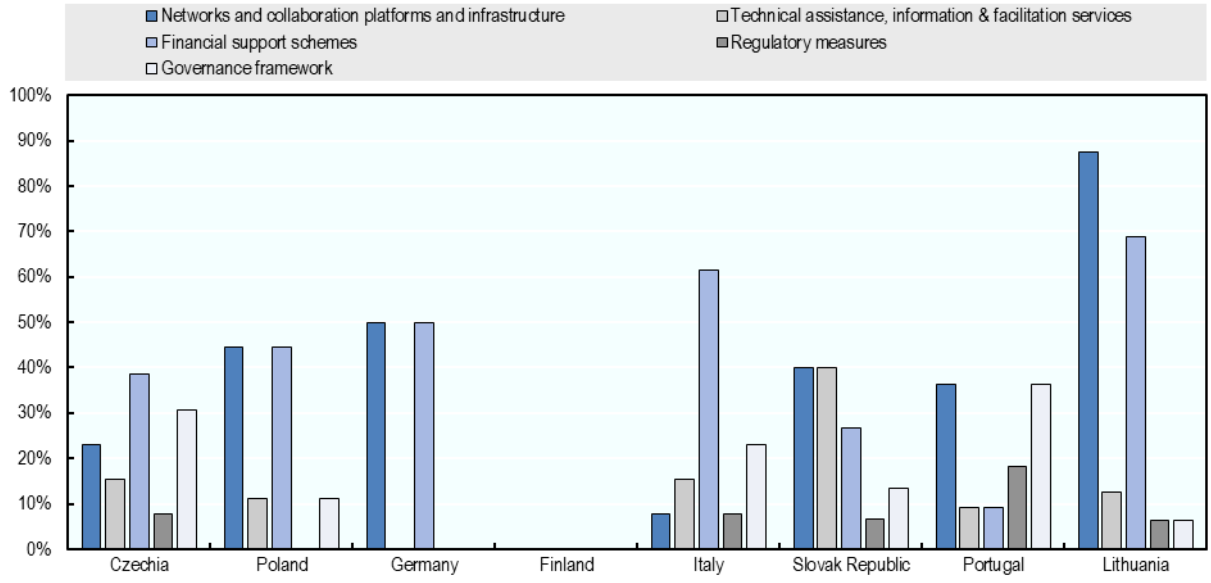
Enhancing agglomeration economies and clusters

In Czechia, the establishment and development of cluster organisations has been actively supported by several institutions. It is a collaborative effort led by several key institutions: the Ministry of Industry and Trade (MIT), CzechInvest, and the National Cluster Association (NCA). MIT plays a significant role in supporting the expansion of Czech companies abroad and the development of clusters through the Association of Small and Medium-Sized Enterprises and Crafts of Czechia (AMSP CR). CzechInvest supports FDI, develops local Czech companies (SMEs), implements business-development programmes, improves the current business environment, and in cooperation with MIT develops clusters and industrial parks. The NCA brings together entities and individuals with the goal of coordinated and sustainable development of cluster initiatives and cluster policy development in Czechia. Their initiatives have facilitated the growth of various clusters in sectors such as machinery, biotechnology, wood and furniture, and new materials, among others. These clusters are regionally located sets of mutually connected companies, associated institutions, and organizations that compete but also cooperate, thereby increasing their competitiveness. The National Cluster Association registers 103 clusters and technological platforms in Czechia, representing 14 EU Industrial Ecosystems. Strengths are found in the ecosystems around Industry 4.0 topics, including Digital, Mobility, Automotive (Box 5.7), and Electronics, but also around the link between Renewable Energy and Energy Intensive Industries.

Network and collaboration platforms and infrastructure are more frequently deployed (23%) to create agglomeration economies and support clustering (Figure 5.18). These objectives are also commonly supported through financial instruments (38%), government arrangements (31%) and technical assistance (15%). Most clusters in Czechia have been significant recipients of public support. Subsidies from public budgets were the motivation for the establishment of some cluster initiatives which ended their existence at the end of the project's sustainability period (Žižka and Pelloneová, 2019[43]).

Figure 5.18. Policy instruments for economic geography factors in Czechia and selected peer economies

% of all mapped policies supporting economic geography factors



Note: Shares are calculated as a % of the total of national initiatives aimed at supporting economic geography factors. Shares may be higher than 100% when policy initiatives respond to several policy objectives at the same time.
Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023).

Box 5.7. Strengthening the competitiveness and internationalisation of industrial clusters: the case of the automotive industry

Global impact of the automotive industry

The automotive industry holds a central position in the economies of various countries, contributing significantly to domestic value added and exports. In regions like the EU and Asia, it constitutes a substantial portion of manufacturing output and R&D investments. Beyond car manufacturing, the industry's extensive value chain encompasses suppliers, assemblers, distributors, and repair services, creating a myriad of job opportunities and economic linkages.

Recent shifts in the industry have been driven by the increasing demand for clean, connected, and autonomous vehicles (CCAVs), alongside climate concerns and changing consumer preferences. Challenges such as supply chain disruptions from events like the COVID-19 pandemic and geopolitical tensions highlight the need for industry adaptability and resilience.

Role of SMEs in the value chain

In the automotive value chain, SMEs primarily engage in lower-tier supplier roles, while larger firms contribute more significantly to value added. SMEs are key to innovation within the industry, aiding in attracting FDI, facilitating knowledge transfer, and driving technological advancements. FDI's impact varies, influencing job creation and innovation dynamics. Manufacturing-focused FDI generates

employment, particularly in regions with competitive labour costs, whereas investments in services and R&D spur innovation, enhancing productivity and creating high-value jobs.

Relevance for Czechia's automotive industry

In Czechia, the automotive industry is vital, accounting for around 10% of the country's total value added and playing a significant role in employment. This is comparable to trends in other EU countries like Hungary and the Slovak Republic. The sector is a leader in EU industrial R&D investments, making up 32% of the total in 2020.

Policymakers in Czechia should aim to attract FDI that encourages innovation and creates high-value jobs, in line with global automotive industry trends. The EU's role in facilitating FDI inflows into Czechia is noteworthy, with a significant portion directed towards EU Member States. Central and Eastern European (CEE) countries, including Czechia, have attracted major investments from car manufacturers, particularly from France and Germany. Czechia ranks among the top 10 OECD economies in terms of automotive FDI's job creation potential. Traditionally, FDI in CEE has focused on manufacturing activities like production and assembly. However, there is a noticeable shift towards outsourcing more knowledge-intensive tasks such as R&D, design, and testing to these countries. This trend recognizes the region's growing capability in handling advanced aspects of the automotive industry.

Source: EC/OECD Automotive Foresight Workshop (September 2023)

5.4. Policies related to the FDI-SME diffusion channels

5.4.1. Promoting value chain linkages and strategic partnerships

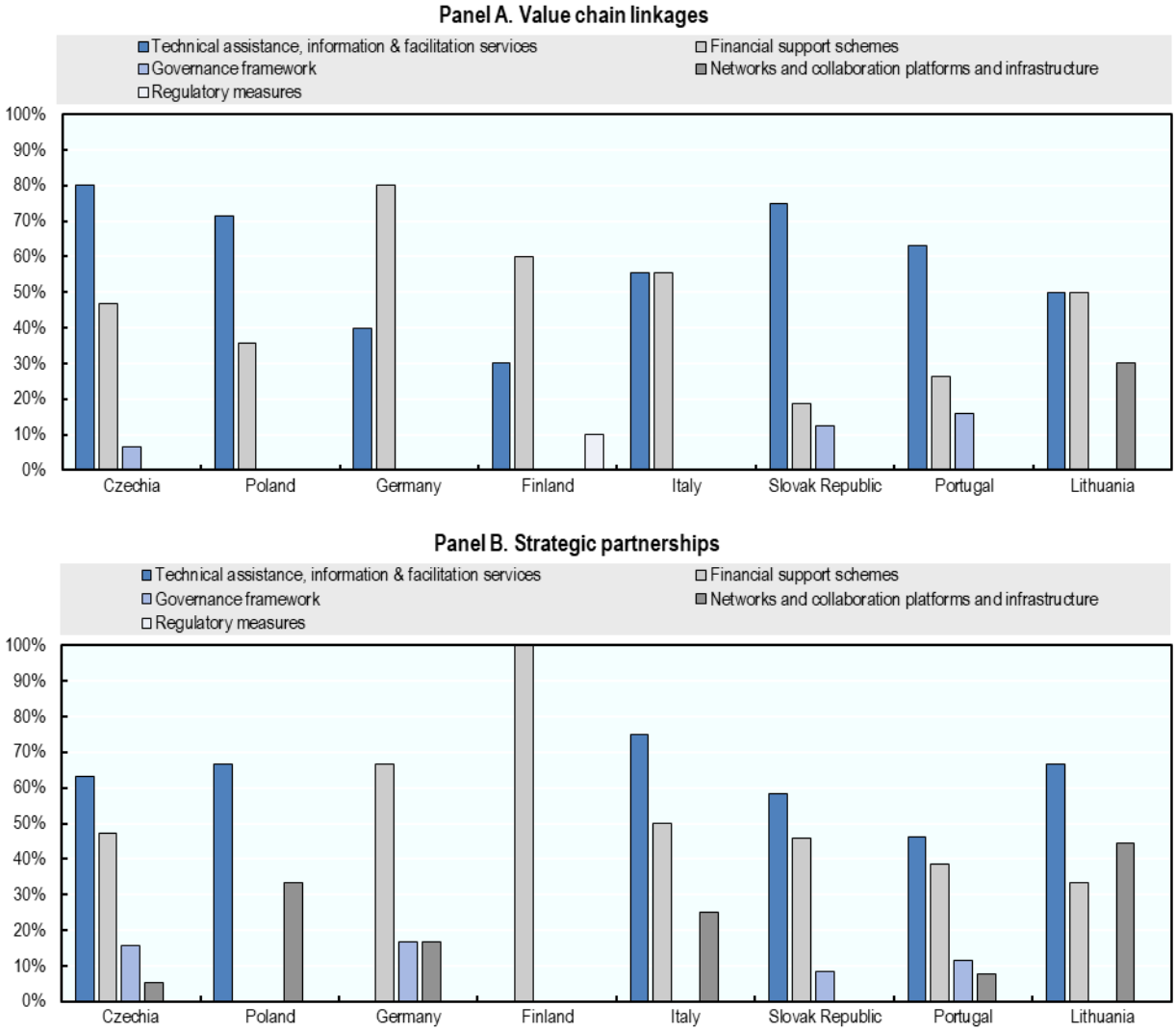
Enhancing collaboration between domestic SMEs and affiliates of foreign MNEs operating locally is a priority objective for Czechia, which mainly does so by supporting value chain linkages and strategic partnerships. For both diffusion channels, the composition of the policy mix is relatively similar and relies mainly on information and facilitation services one the one hand, and financial support on the other hand. Particularly, 80% of the policies identified to foster value chain linkages use technical assistance instruments and 63% of the policies use them to stimulate strategic partnerships (Figure 5.19). In the meantime, 47% of the policies offer financial support to encourage such linkages and partnerships. However, to build partnerships between local and foreign SMEs or withing the country, peer countries like Lithuania, Poland, and Italy actively use network and collaboration platforms and infrastructure while Czechia's share of using such instrument is only 5% of the mapped policies. Germany, Slovak Republic, and Portugal also ensure establishing value chain linkages and partnerships on a national level in strategic documents. Czechia uses this governance framework instrument in 7% of the mapped initiatives for building value chain linkages and in 16% - for creating strategic partnerships.

Czechia strategically promotes international exposure and networking for SMEs. The Czech Demo programme facilitates SME participation in global events and exhibitions, fostering connections with local startups and providing essential mentoring and consulting services. Additionally, the Czech Match initiative takes networking to a global level by offering advisory services and a one-week acceleration programme in major cities like London, New York, Silicon Valley, and Singapore, enhancing the global connectivity of Czech businesses. The CzechAccelerator initiative supports businesses aiming for global market expansion by providing office space in foreign business incubators, along with mentoring and consulting services. The "Technological Incubation" programme also emphasizes collaboration by providing startups with direct support, workshops, consultations, and networking opportunities, enhancing their potential for

partnerships. These programmes act as a catalyst for SMEs seeking to extend their operations abroad, emphasizing the importance of strategic global partnerships in fostering business growth.

Figure 5.19. Policy instruments for value chain linkages and strategic partnerships in Czechia and selected peer economies

% of all mapped policies supporting the objective



Note: Shares are calculated as a % of the total of national initiatives aimed at supporting SME absorptive capacities. Shares may be higher than 100% when policy initiatives respond to several policy objectives at the same time.
Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023)

Regarding supply chain development, policy efforts are fragmented across different institutions (Table 5.4) and lack in cooperation. Czechia's commitment to facilitating partnerships is evident in initiatives like the "Sectoral Database of Suppliers" implemented by CzechInvest. This database connects foreign investors with local suppliers and joint venture partners, fostering collaborations that contribute to the growth of SMEs. Also, CzechTrade contributes to international business collaboration through platforms like the "Czech Business Partner Search" and the Exporter's Directory. These initiatives provide online resources for foreign companies seeking Czech partners, promoting cross-border collaboration, and strengthening

business relationships. However, it is important to note that these initiatives, while beneficial, have significant overlaps in their objectives and target audiences and could greatly benefit from closer cooperation and integration. By streamlining their efforts and sharing resources, CzechInvest and CzechTrade could potentially provide a more comprehensive and efficient service, ultimately leading to a more robust and interconnected business environment in Czechia.

Embracing a digital matchmaking strategy akin to Slovakia's could bolster Czechia's resilience and foster international expansion of Czech SMEs amidst global uncertainties. The current global situation has highlighted the importance of digital solutions in maintaining and expanding business operations. In this context, the "Online B2B matchmaking" initiative developed by the Slovak Investment and Trade Development Agency stands out as a particularly effective tool. This initiative allows Slovak firms to find customers in foreign markets, even during periods of travel restrictions. It would be beneficial for Czechia to consider implementing a similar initiative as it would not only allow Czech businesses to continue expanding their customer base internationally during challenging times, but also enhance the country's digital infrastructure and readiness for future disruptions.

However, a more comprehensive approach to supply chain development will be necessary for Czech SMEs to reap the benefits of FDI spillovers. Mentioned initiatives could be clustered and expanded into one functional program with proper funding providing a package of support for clusters and networks of foreign and domestic firms operating in specific value chains. Czechia could use the experience of Portuguese initiative "The Supplier Clubs" which was developed by AICEP Portugal Global - Trade and Investment Agency in 2017-2020 and had a high level of success. It aimed to promote the integration and participation of Portuguese companies, especially SMEs, in international value chains through cooperation with lead MNEs and foreign investors, and ensure better conditions of access to markets, technologies and skills. The programme combined matchmaking services to help foreign and domestic firms identify collaboration opportunities and agree on jointly implemented projects; business consulting services and training programmes provided by foreign affiliates to their suppliers based on an assessment of the latter's performance; and financial support through EU-funded incentive schemes to help SMEs upgrade their technological capabilities for the implementation of the agreed joint projects. Such systematic approach to value chain building in Czechia will require the use of a more diverse range of policy instruments and greater coordination among the agencies involved in investment promotion and SME growth policies.

In addition, Czechia could stimulate the integration of its enterprises into clusters how it did Lithuania, fostering a more collaborative and innovative business environment. For example, Agency for Science, Innovation and Technology in Lithuania implemented the project "Promotion and Development of Innovation Networking (InoLink)" to stimulate the integration of Lithuanian SMEs into clusters and promote their internationalisation in global cluster initiatives. The project activities included cluster maturity sessions, consultations of experts, information events for SMEs, events for foreign partner search according to Lithuania's Smart Specialisation Strategy, partner search services, and consultations on Lithuanian SMEs' integration into foreign clusters.

Czechia should support technology and innovation transfers among its SMEs. The National Centres of Competence initiative, led by TACR, focuses on applied research and technology transfer. By concentrating research capacities, fostering interdisciplinary collaboration, and promoting practical applicability, this programme aligns with the Czech National RIS3 strategy. It plays a crucial role in enhancing innovation leadership and the competitiveness of enterprises in key growth areas. In Portugal, the Technological Interface Centres were created to promote the transfer of technology and innovation in companies, especially SMEs, namely through certification processes, quality improvement, production efficiency, support for innovation activities, access to developing technologies and training of human resources. Also, Czechia could encourage co-development projects and international cooperation to promote value chain linkages and strategic partnerships. Same was done in Portugal ("Research and Technological Development" Incentive System) and in the Slovak Republic (Cooperation Programmes and

the International R&D Cooperation Scheme). These initiatives share a common goal: to foster collaboration, enhance competitiveness, and promote innovation through joint research and development activities by providing financial support, facilitating partnerships, and encouraging the creation and improvement of products, processes, and systems. So, they could provide valuable insights for Czechia in supporting technology and innovation transfers between its SMEs and international partners.

Table 5.4. Policies for value chain linkages and strategic partnerships

Main policies	Description	Implementing institution
Czech Demo	The programme offers assistance SMEs by enabling their participation in international events and exhibitions. It facilitates networking with local startups and companies while also offering mentoring and consulting services.	CzechInvest
Czech Match	Advisory services and a one-week acceleration programme abroad (in cities like London, New York, Silicon Valley, and Singapore) to help businesses attract foreign partners, validate products, gain feedback from experts, and expand their network.	CzechInvest
CzechAccelerator	A business acceleration initiative provides office space in a foreign business incubator, along with mentoring, consulting services, and workshops, aiding businesses in expanding their operations within the local market.	CzechInvest
CzechStarter	Mentorship programme for entrepreneurs to set up and/or expand businesses	CzechInvest
Czechlink Start-up	The aim of the initiative is to connect domestic and foreign investors with Czech startups and guarantees an appropriate connection with maximum tailored care for both the investors and start-ups.	CzechInvest
ESA BIC Czechia	Aids startups in space technology by offering technical and business mentoring, networking support, technology transfer assistance, and marketing. The programme provides discounted office space in Prague and Brno, fostering young space technology companies.	CzechInvest
Sectoral Database of Suppliers	Database with company profiles to connect foreign investors with suppliers and joint venture partners in Czechia	CzechInvest
Technological Incubation	The programme offers selected startups direct support ranging from CZK 1,100,000 to 4,500,000, along with indirect support such as workshops, consultations, and networking opportunities. Additionally, it assists startups in patent utilization and establishing contacts for potential customers and partners at national and international events.	CzechInvest
Czech Business Partner Search	An online platform for foreign companies looking for Czech partners for cooperation, selling or buying purposes.	CzechTrade
Exporter's Directory	An exclusive official database of Czech exporters operated by the National Trade Promotion Agency CzechTrade. It provides complex information on Czech suppliers in 13 languages and an easy orientation for foreign companies interested in cooperation with Czech enterprises.	Czech Trade
National Centres of Competence	Aims to enhance applied research and technology transfer in key growth areas, promoting enterprise competitiveness and research organization excellence. By concentrating research capacities, fostering interdisciplinary collaboration, and emphasizing practical applicability, the programme supports innovation, links research centres, and boosts the number of innovation leaders in alignment with the Czech National RIS3 strategy.	TACR

Source: EC/OECD Survey on Policies enabling FDI spillovers to domestic SMEs (2021).

Facilitating FDI-SME spillovers through workers mobility

The impact of productivity spillovers resulting from labour mobility hinges on the effectiveness of labour market regulations. It also relies on the presence of policies and programmes that promote the transition of employees from foreign MNEs to local companies. Achieving an optimal equilibrium between ensuring job security and fostering flexible labour markets, all while encouraging skilled workers' mobility in sectors with significant FDI presence through specific measures, can lead to enhanced spillover effects in local economies.

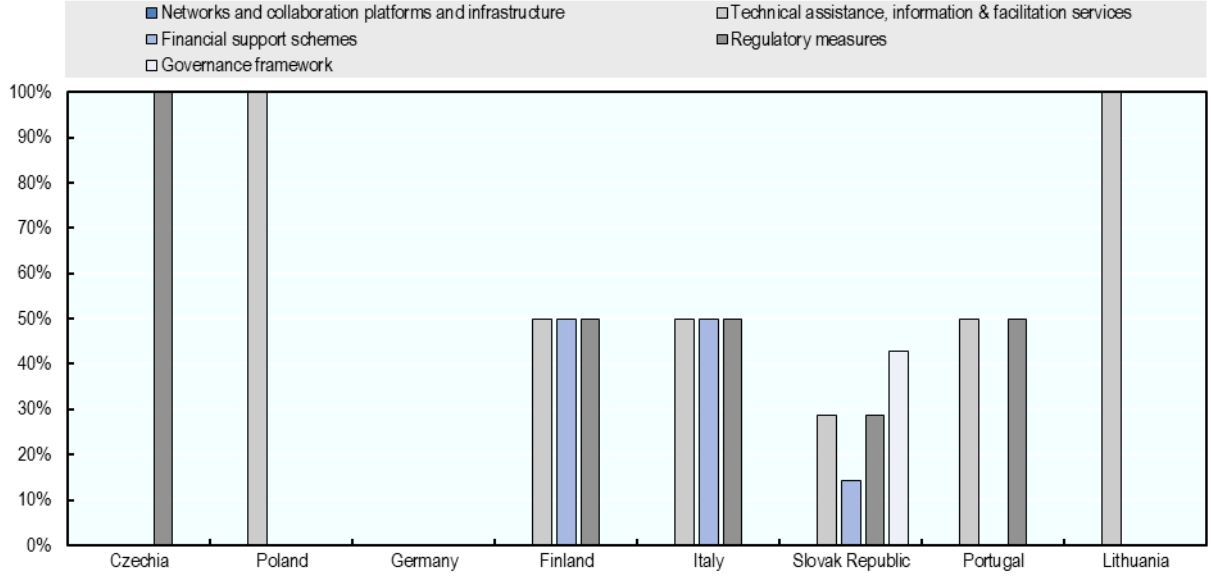
Czechia has a comprehensive legal framework for employment protection

The labour market policy in Czechia has focused on removing domestic barriers to labour market participation and addressing labour and skill shortages. According to the 2023 EC/OECD Survey of

Institutions and Policies enabling FDI-SME Linkages, regulatory measures are the only type of policy instrument deployed in Czechia to facilitate the mobility of skilled workers from foreign affiliates of MNEs to local SMEs (Figure 5.20). These measures intend to simplify visa application procedures for hiring skilled foreign workers in sectors of strategic importance. Even thought the legal framework is under mandate of the Ministry of Foreign Affairs, the Ministry of Industry and Trade in cooperation with other ministries is responsible for the creation of more flexible regulations that would enable employers to hire foreign workers more efficiently. In 2019, it has adopted the Key and Research Staff Programme to help investors who have been operating in Czechia for one year as well as research organisations, technological companies, startups, and newly incorporated companies to benefit from priority access to visa application procedures for the hiring of foreign nationals. The Ministry also gives employers from civil and public sector a benefit of priority access to visa application procedures for the hiring of highly qualified foreign nationals such as programmers, analysts, civil engineers, technicians, medical doctors, nurses (Highly Qualified Worker Programme) and for the hiring of medium and low-skilled foreign nationals such as plumbers, electricians, bricklayers, cooks, machine operators, from specific countries like Ukraine, Serbia, Philippines, etc (Qualified Worker Programme).

Figure 5.20. Policy instruments for labour mobility in Czechia and selected peer economies

% of all mapped policies supporting labour mobility



Note: Shares are calculated as a % of the total of national initiatives aimed at supporting labour mobility. Shares may be higher than 100% when policy initiatives respond to several policy objectives at the same time.
Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023).

Even though regulatory measures are important to set rules and standards, however, a multi-faceted approach that includes technical assistance, information and facilitation services, financial support schemes, and a strong governance framework can provide a more comprehensive and effective solution to improve labour mobility. Czechia could borrow more tools from peer economies to improve labour mobility spillovers. The most widespread instrument is providing technical assistance and information & facilitation services to businesses and foreign specialists. These services can provide necessary training and skills development, helping workers adapt to new job markets and technologies. Or they can also facilitate connections between job seekers and employers. In Finland, "Talent Boost" is a national cross-administrative programme designed to boost the immigration of senior specialists, employees, students,

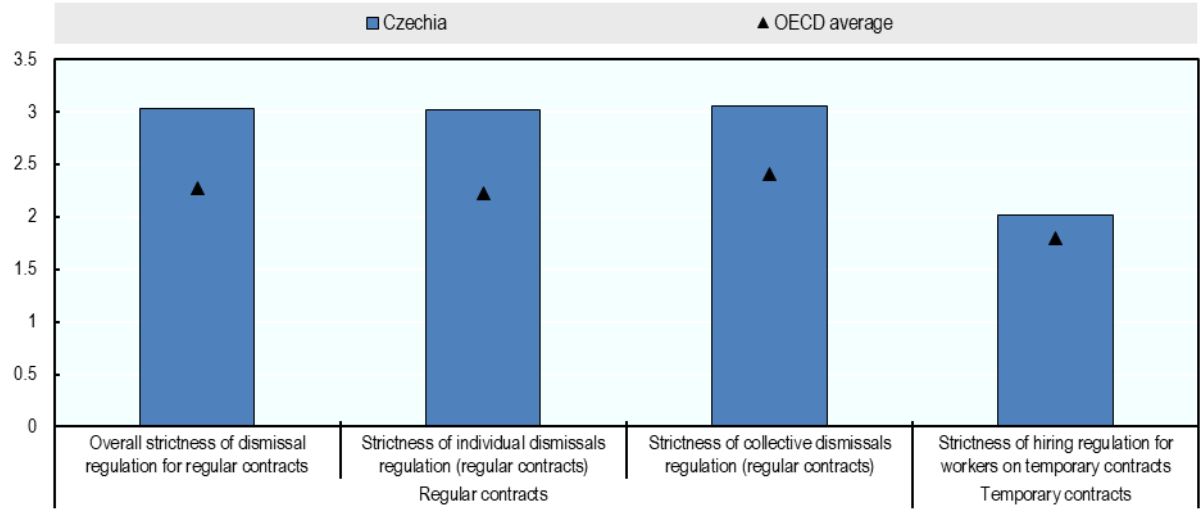
and researchers. It has created a national ecosystem and strategic long-term framework for talent attraction and retention work. Another case is "Work in Lithuania", an initiative of Invest Lithuania that is aimed at encouraging professionals living abroad to build their careers in Lithuania. A website portal was developed where international companies regularly publish job vacancies for highly skilled employees. As part of this mission, it also works to strengthen the value offer of the country and initiate changes that will allow Lithuania to successfully compete for global talents.

Financial support schemes can also provide necessary funding for workers seeking to relocate for work, or for businesses looking to train and integrate new employees. They can also incentivize businesses to hire from a wider pool of candidates. That is the case of Finland where SMEs and midcap companies can use the opportunity given by Business Finland and participate in "Talent funding" initiative which funds businesses that want to improve their capacity for international growth by creating working, organizational, and management practices that support internationalization. This programme aims to increase the number of international experts working in Finland. And, finally, a robust governance framework can ensure that all the above measures are implemented effectively and fairly. For example, Strategy of Labour Mobility of Foreigners in the Slovak Republic serves as a strategy for treating the issue of the urgent and long-term recruitment and employment of a foreign labour force that mainly cover needs of strategic investors.

The Czech regulatory framework attaches high importance to job security. According to the OECD indicators of Employment Protection Legislation (EPL), in Czechia, restrictions to individual and collective dismissals of regular workers are moderate compared to other OECD countries (Figure 5.21). In contrast, country has relatively low regulation of temporary contracts given its high regulation of regular contracts but still above the OECD average. This can lead to strong, unintended labour market segmentation between highly protected regular workers and weakly protected temporary workers (OECD, 2020[44]).

Figure 5.21. Strictness of employment protection legislation in Czechia

OECD Employment Protection Legislation Indicators, 2019 (most strict = 6, least strict = 0)



Note: The OECD indicators of employment protection are synthetic indicators of the strictness of regulation on dismissals and the use of temporary contracts. For each year, indicators refer to regulation in force on the 1st of January. Range of indicator scores: from 0 (low regulatory protection) to 6 (high regulatory protection).
Source: OECD Employment Protection Legislation Database, 2019

Bridging the skills gap to strengthen FDI-SME linkages

In Czechia, policies are aimed at systematically bridging the skills gap to support sustained economic development and enhance global competitiveness

The policies that address the skills gap in Czechia include educational initiatives, incubation programmes, international exposure, and investment incentives. They reflect a strategic alignment with the nation's broader labour and economic policies, focusing on enhancing innovation, international competitiveness, and workforce development in key sectors.

Czechia has a focus on enhancing skills and expertise through incubation and start-up support. To address the skills gap in the entrepreneurial and technology sectors, Czechia has implemented programmes like the Technological Incubation programme and the ESA BIC Czechia initiative. These provide direct support and mentoring to startups, particularly in technology and space technology sectors, equipping them with the necessary skills and knowledge for innovation and growth. Such initiatives are crucial in developing the technical and business acumen needed in these high-growth industries.

Building international trade competencies and global business skills is a government priority. Programmes like CzechTrade's Export Education and initiatives like CzechStarter, Czech Demo, Czech Match, and CzechAccelerator are designed to enhance the international trade skills of Czech businesses. They focus on educating companies in global trade practices, expanding networks, and understanding international markets. This is instrumental in bridging the skills gap in international business and trade, a key area for economic expansion.

Skills development is stimulated through strategic investment incentives. Investment incentives in manufacturing, technology centres, and strategic product production include components like job creation grants and training grants. These incentives are structured not just to attract investment but also to encourage companies to invest in skill development and training of their workforce. This approach helps in addressing the skills gap in key economic sectors by incentivising companies to enhance their human capital. However, investors find these grants almost unobtainable due to very strict conditions. One such condition is the regional component, which allows the cash grants only in areas with an unemployment rate higher than 7.5%. The map of eligible regions is updated every six months, further complicating the process. Moreover, the current economic situation is characterized by an extremely low unemployment rate (2.4% in 2022), making these grants even more inaccessible. It might be worth considering other criterias for grant eligibility like the potential for job creation, the strategic importance of the industry, or the company's commitment to skills development.

Initiatives are in place to enhance collaboration between industry and academia, focusing on knowledge transfer. The Knowledge Transfer Partnership Programme and the DELTA 2 Programme are pivotal in fostering collaborations between SMEs and research organizations. These partnerships facilitate the transfer of cutting-edge technologies and specialized knowledge to SMEs, effectively narrowing the skills gap between academic research capabilities and industry application. Such collaborations ensure that the latest research and technological advancements are integrated into business practices, enhancing the overall skill level within the industry.

Table 5.5 Policies that address the skills gap in Czechia

Main policies	Description	Implementing institution
Knowledge transfer Partnership Programme	Establishment of partnership between a small and medium-sized enterprise and a research and knowledge-dissemination organisation with a view to transfer knowledge, related technologies and skills to which the enterprise does not have access.	API
Export education	CzechTrade educates companies in the field of international trade. The institution provides professional and territorial seminars, online seminars, export conferences and forums, custom corporate training and further practical education.	CzechTrade
Technological Incubation	Technological incubation is a programme of systematic support for start-up companies. Selected technology startups receive direct support in the amount of CZK 1,100,000 – 4,500,000 and indirect support in the amount of CZK 500,000 in the form of workshops, seminars, assistance from incubation managers, consultations with business and technology experts. The programme also helps startups establish new contacts in order to find potential customers and partners through Czech and international events, conferences and fairs. It also provides help with the use of patents.	CzechInvest
Business shaker	A series of workshops for experienced entrepreneurs and innovative startups or individuals, in order to help them prepare for network expansion, financial planning, creating business plans and 181igitizing their businesses.	CzechInvest
ESA BIC Czechia	Via the European Spaces Agency Business Incubation Centre (ESA BIC), CzechInvest supports young companies operating in the field of space technologies. The incubators based in Prague and Brno provide technical mentoring services, business mentoring, networking support, assistance with technology transfer and patents, and national and international marketing for company's products.	CzechInvest
CzechStarter	Mentorship programme for entrepreneurs to set up and/or expand businesses.	CzechInvest
Czech Demo	The programme provides support to SMEs for participation in events and exhibitions abroad, networking with local startups and companies, and provides mentoring and consulting services.	CzechInvest
Czech Match	Advisory services for businesses to help businesses attract foreign partners. Businesses can receive support in the maximum value of up to CZK 173,001. CzechMatch is a one-week acceleration programme abroad through which business can validate its product and expand its portfolio of contacts.	CzechInvest
CzechAccelerator	An acceleration programme for businesses offering office space in a foreign business incubator, mentoring, consulting services as well as workshops to help them expand their operations on the local market.	CzechInvest
Investment incentives for manufacturing	Investment incentives for the manufacturing industry include corporate income tax (CIT) tax relief for up to 10 years, job creation grants as well as training and retraining grants, conditioned to a minimum investment size and certain level of added value.	CzechInvest
Investment incentives for technology centres	Investment incentives for technology centres include CIT tax relief for up to 10 years, job creation grants as well as training and retraining grants, conditioned to a minimum investment size and number of jobs created.	CzechInvest
Investment incentives for the production of strategic products	Investment incentives to produce strategic products for the protection of life or health of citizens include CIT tax relief for up to 10 years, job creation grants, training and retraining grants as well as cash grants of up to 20% of eligible costs conditioned to a minimum investment size.	CzechInvest
DELTA 2 Programme	Financial support on bilateral international cooperation in applied research, experimental development and innovation of Czech companies and research organizations and their foreign partners.	TACR
SIGMA Programme	Financial support to applied research and innovation project aiming to produce new results applicable in practice and address societal and economic issues. The programme features five "Partial Objectives". Under Partial Objective 4 – International cooperation, it aims to increase the number of applied research results resulting from international cooperation projects and to expand the number of cooperation between domestic and foreign enterprises and research organizations.	TACR
National Centres of Competence	The goal of the programme is to increase the efficiency and quality of the results of applied research and technology transfer in key fields with a growth perspective, to increase the competitiveness of enterprises and to strengthen the excellence and application relevance of research organizations. The tool for achieving this goal is to build a sufficiently stable and long-term base of applied research (in the form of national centers of competence), through the concentration of research capacities and setting their strong orientation to the application of their research results in practice.	TACR

The Czech government could further strengthen its policy framework to close the skills gap for SMEs, fostering a more competitive business environment for FDI-SME diffusion

Despite existing policies targeting upskilling the SME population, further support to the understanding and diffusion of emerging technologies could be beneficial for SME as well as for MNEs. While current programmes support technology and innovation, there could be a greater focus on emerging technologies such as AI, blockchain, and clean tech. Tailored training programmes in these areas would ensure that SMEs are not only keeping pace with technological advancements but are also at the forefront of innovation. While existing incentives and programmes are beneficial, expanding access to these resources can help more SMEs, especially in underrepresented regions or sectors. Simplifying application processes and increasing awareness about these programmes would make them more accessible to a broader range of SMEs. For example, Invest Lithuania implemented a project Development of IT talent pool which provided upskilling trainings for ICT specialist in such topics as AI, Cloud Computing, Cyber Security, RPA, and Data Science.

More industry-specific training programmes, particularly for sectors crucial to the Czech economy, could be developed. These programmes would address specific skill needs of industries like manufacturing, automotive, or biotechnology, ensuring that the workforce is well-equipped with the relevant skills. Moreover, as the global economy increasingly moves online, enhancing digital literacy and e-commerce skills is crucial. SMEs could benefit from more comprehensive programmes that specifically focus on digital marketing, online sales platforms, cybersecurity, and data analytics. As an example, in Italy, Directorate General for industrial policy, competitiveness and SMEs at the Ministry of Economic Development run a Global startup programme aimed at Italian companies in ICT, automotive and robotics, medtech, and circular economy sectors to provide them with preparatory courses to implement and consolidate technical-managerial skills, and internships from 3 to 6 months at selected incubators in the focus countries (United Kingdom, United States of America, China, Japan, South Korea and Slovenia) to encourage new business opportunities and international investment attraction.

Establishing a culture of continuous learning and upskilling can help address the skills gap over the long term. This could involve partnerships with educational institutions for ongoing training programmes, online learning platforms, and incentivizing lifelong learning. While some collaboration exists, deeper partnerships between academia and industry could be fostered to ensure that the skills being taught are directly relevant to current market needs. This could include internships, apprenticeships, and joint research projects. Technical skills are crucial, but soft skills like leadership, communication, problem-solving, and adaptability are equally important. Programmes focusing on these aspects can help SME owners and employees navigate the complexities of modern business environments more effectively. In Portugal, Technological Interface Centres under the INTERFACE Programme, approved by the Council of Ministers, are examples of such institutes that serve as a link between higher education institutions and companies, especially SMEs, in R&D and innovation activities. They enhance SMEs connection with innovation system entities and facilitate their access to highly qualified human resources, promote scientific and qualified employment, and increase access to knowledge.

5.4.2. Creating market conditions for fair competition and knowledge exchange between foreign and domestic firms

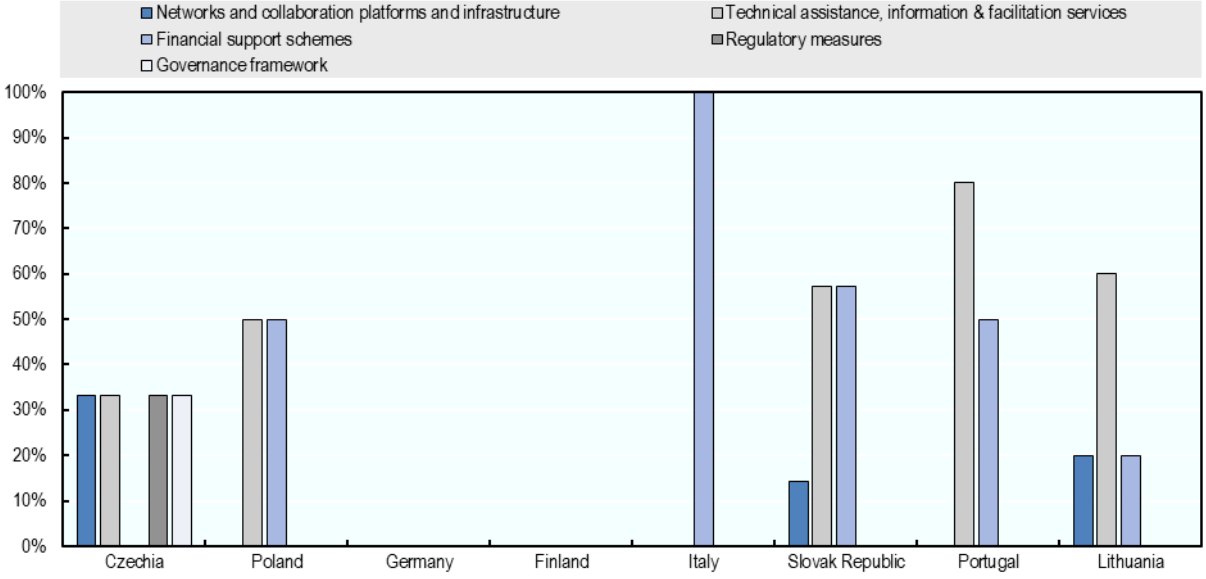
Establishing equitable market conditions and encouraging knowledge exchange between foreign multinational enterprises (MNEs) and Czech SMEs fosters innovation. It facilitates the transfer of novel technologies, business practices, and innovative ideas from MNEs to SMEs, which stimulates technological advancement within the local economy. It also enhances competitiveness by ensuring that all businesses, irrespective of their size or origin, have equal opportunities to thrive. This, in turn, motivates businesses to enhance their products, services, and processes boosting the overall competitiveness of the

economy. Furthermore, it supports economic growth as SMEs can leverage the larger markets and resources accessible to MNEs, thereby contributing to economic development.

Within the policy mix, 5% of mapped policies address the quality of competition in the Czech market (Figure 5.1). Instruments to support spillovers through market mechanisms related to competition and knowledge exchange are as diverse as those deployed for other diffusion channels, including governance strategies, regulatory standards and incentives, networks and collaboration platforms and infrastructure, and some technical assistance, information & facilitation services (Figure 5.22). While peer countries mostly rely on financial support schemes or technical assistance. Targeted policies and programmes can play a role in promoting market competition, but the broader regulatory environment, including laws and regulations, is often more impactful because it applies uniformly, provides stability, covers a wide range of issues, and comes with enforcement mechanisms.

Figure 5.22. Policy instruments for competition and knowledge exchange in Czechia and selected peer economies

% of all mapped policies supporting competition and knowledge exchange



Note: Shares are calculated as a % of the total of national initiatives aimed at supporting competition and knowledge exchange. Shares may be higher than 100% when policy initiatives respond to several policy objectives at the same time.
Source: Experimental indicators based on EC/OECD Survey of Institutions and Policies enabling FDI-SME Linkages (2023).

Regulatory barriers to competition in Czechia are limited, but there is room for improving product market regulation in some sectors and areas

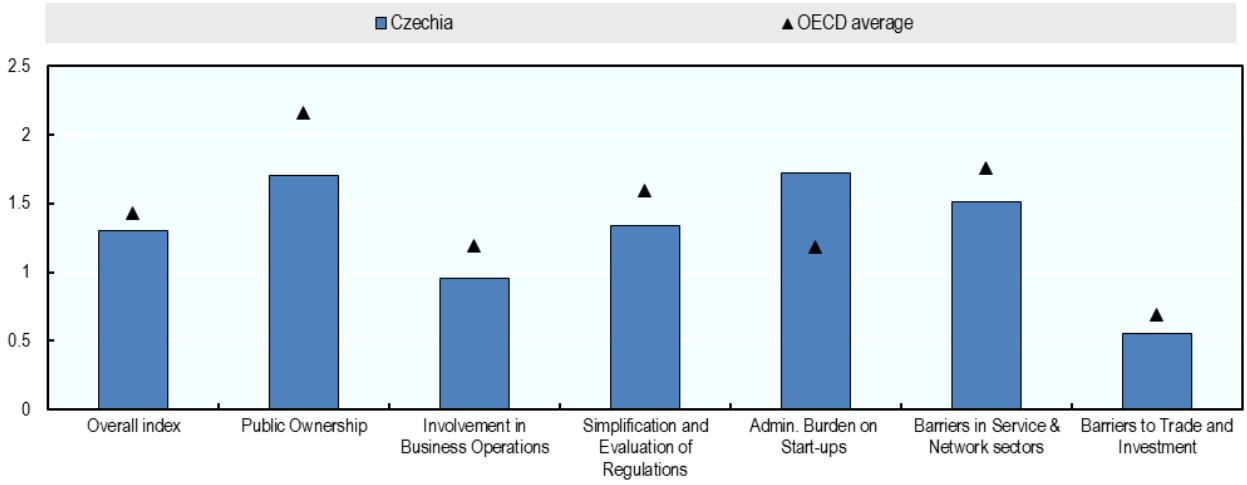
Czechia is a relatively open economy, with regulatory barriers to competition below the OECD average (Figure 5.23). According to the OECD Product Market Regulation (PMR) indicators, which assess the extent to which laws and policies encourage or restrict competition, Czechia has lower barriers than the OECD average. The country has limited public ownership of major operators in network sectors, along with minimal barriers to foreign trade and investment. Czechia's public procurement rules, use of command-and-control regulation, regulatory procedures, and the assessment of new regulations' impact on competition are all in line with international best practices. Additionally, the policy-making process in Czechia is marked by its transparency, with an obligation to draft laws and regulations in plain language.

An online database provides access to all legislation, and an agenda listing all upcoming, modified, or repealed regulations is published in advance of each regulatory period.

Despite these strengths, there are areas for improvement, particularly in the licensing regime. Unlike some other countries, Czechia does not employ a "silence is consent" rule to expedite administrative processes. Furthermore, national and subnational governments do not maintain a comprehensive tally of the permits and licenses necessary for market entry. Another concern is the lack of regulation to ensure transparency and accountability in interactions between interest groups and policymakers, which could lead to lobbying biases in favour of incumbents. Additionally, the absence of a mandatory cooling-off period for public officials leaving their positions raises concerns about potential conflicts of interest.

Figure 5.23. More pro-competitive regulation is needed in certain areas

OECD Product Market Regulation, 2018 (most competitive=0; least competitive=6)

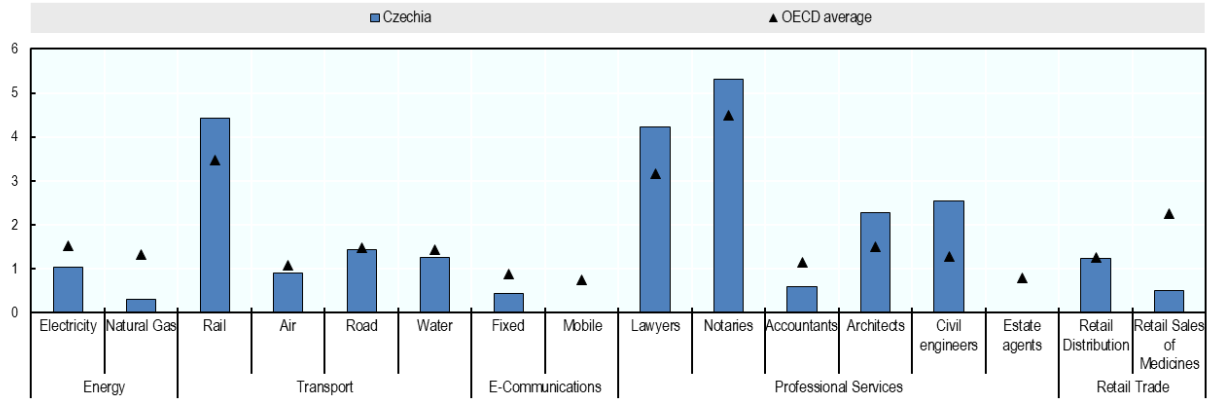


Note: The indicators refer to economy-wide regulation and are composed of the simple average of the sub-indicators on State involvement and Barriers to entry. The indicators range between 0 (most competitive) and 6 (least competitive environment).
Source: OECD PMR database, 2018.

At the sectoral level, the regulatory framework in network sectors is more competition-friendly than in many other OECD countries, especially in the energy and e-communications sectors (Figure 5.24). That is due to the limited extent of state ownership, and regulation that is close to international best practice (OECD, 2018[45]). In contrast, the regulatory framework in the service sectors is less conducive to competition. Entry requirements and conduct restrictions for many professional services, especially notaries and lawyers, are strictly regulated. And in the retail distribution sector there is room for reducing regulatory barriers to competition. In contrast, regulations in the retail sale of medicines are very competition-friendly. Non-prescription medicines can be sold in a variety of retail outlets, including online, and there are no restrictions on the number, location, opening hours, and ownership of pharmacies.

Figure 5.24. Professional services are strictly regulated

OECD Product Market Regulation, by sector, 2018



Note: Index scale 0 to 6 from most to least competition-friendly regulation.
Source: OECD PMR database, 2018

The intellectual property protection framework is well-developed; however, there is place for further improvement for SMEs

The Czech legal framework for intellectual property (IP) rights protection generally complies with European and international standards. Czechia ranks 34th out of 141 countries in terms of IP protection in the World Economic Forum's 2019 Competitiveness Report, and 31th out of 132 economies in the Global Innovation Index 2023 prepared by the World Intellectual Property Organisation (WIPO) (World Economic Forum, 2019[46]; World Intellectual Property Organization (WIPO), 2023[47]).

Czechia is a member of key international organizations and adheres to various international agreements related to IP rights, though its IP laws differ from those in other countries and are governed by specific Czech and EU legislation. Czechia is a member of the World Trade Organization (WTO) and the World Intellectual Property Organization. The Czech Industrial Property Office administers IP protection within the country. It provides services such as databases for patents, utility models, industrial designs, trademarks valid in Czechia, and designations of origin and geographical indications. Czechia is a signatory to various international agreements and treaties related to intellectual property rights. These include the Berne Convention for the Protection of Literary and Artistic Works, the Paris Convention for the Protection of Industrial Property, and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). However, Czech and European Union (EU) intellectual property protection laws differ from those in other countries. Trademarks, designs, and patents need protection specific to Czechia and/or the European Union. Hence, the legal framework for intellectual property rights in the country is governed by the Copyright Act, the Industrial Property Act, and the Act on the Protection of Trade Secrets. To resolve intellectual property disputes, Czechia has specialized courts, such as the Industrial Property Office and the Municipal Court in Prague, which have jurisdiction over patent and trademark-related cases.

While Czechia has a well-developed IP protection framework, there are areas that could be improved to better support SMEs. Many SMEs may not be fully aware of the importance of IP rights or how to protect them and increasing awareness and providing education on IP rights could help SMEs better protect their innovations. The process of obtaining IP rights can be complex and costly, which may be a barrier for SMEs. Providing more resources and financial support, such as the EU SME Fund, could make it easier for SMEs to protect their IP. While the legal framework for IP rights is robust, enforcement can be challenging. Strengthening enforcement mechanisms could ensure that IP rights are effectively protected. Also, as SMEs increasingly operate in global markets, international cooperation is crucial for protecting IP

rights. Czechia could work with other countries to improve the international IP protection framework. These improvements could help create a more supportive environment for SMEs in Czechia, fostering innovation and economic growth.

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6 Applying a regional lens: Ústí nad Labem and South Moravia

This chapter focuses on regional characteristics relevant to attract FDI investment decisions in the regions of Ústí nad Labem and South Moravian in Czechia. It examines regional factors that can enhance FDI-SME spillovers and impact development opportunities. Subsequently, it evaluates regional factors and policies aimed at increasing these spillovers and the absorptive capacity of SMEs. Insights are provided on the integration of regional development initiatives with efforts to attract FDI and policies designed to support SMEs.

6.1. Summary of findings and recommendations

A regional approach can help strengthening FDI and SME linkages in Czechia to capitalise and take into account the country's diverse economic and social landscapes. On the one hand, tailoring FDI attraction strategies to regional specificities can enhance the innovation and growth potential of local SMEs, primarily by creating environments that promote knowledge spillovers and technology transfer. On the other hand, strengthening the right regional conditions can also help leverage SME growth through FDI investments and support higher value-added activities, strengthening the regional eco-business and leading to internationalisation and new development opportunities.

Ústí nad Labem and South Moravian regions have distinct geographic, economic, demographic, features that are relevant to attract and leverage FDI-SMEs linkages. Ústí nad Labem is in the midst of an economic transition, aiming to diversify and modernise its traditionally industrial sectors, notably mining and manufacturing. In contrast South Moravia stands out for its vibrant innovation ecosystem, IT, and service sector performance and the presence of research advanced institutions and universities in Brno.

Both regions can benefit from better digital and transport infrastructure to help capitalise their geographical location to attract and diffuse FDI.

- Improved internet fibre rollout is warranted given that the penetration rate of fiber optic in Czechia (7.6%) is almost half of the OECD average (13.2%) (OECD, 2023[1]). Expanding this infrastructure is vital to firms in accessing digital business tools needed to remain competitive in today's economy. Beyond improving infrastructure, improved digital literacy can support SMEs to transition to more innovative industries, and the public administration to simplify administrative procedures for international investments.
- Greater investments in cross-border programs can better connect internal markets with large bordering European markets (Austria, Germany, Poland, Slovak Republic), offering trade opportunities and new connections for the local economy.

There is scope to improve cooperation across municipalities within regions to enhance public service delivery and coordinate development strategies to increase attractiveness for FDI and international workers. Czechia records the highest degree of municipal fragmentation across OECD (average area of a Czech municipality is 13 km², significantly smaller than the OECD average of 234 km). This municipal fragmentation has led to siloed investments in public services resulting in a lack of economies of scale and scope, for example in technical and administrative capacities. Furthermore, in Ústí nad Labem, the polycentric settlement patterns require additional efforts to promote cooperation across development plans and strategies of the different cities to attract and link FDI with local business.

There is also an untapped opportunity to better link local businesses with foreign companies, thereby promoting knowledge and technology spillovers. The productivity gap between foreign companies and local firms in these two regions is relatively higher than the rest of the country, yet it remains lower than in several OECD countries, such as Latvia, Lithuania, and the Slovak Republic (Figure 6.8). The ‘North’ region, which includes Ústí nad Labem, has a foreign firm productivity premium of about 0.6 —indicating a larger gap between the productivity of foreign versus domestic firms. In the ‘South’ region, containing South Moravia, the premium stands at 0.4. These figures imply that foreign firms are making a positive contribution to productivity in these areas and could represent an opportunity for local businesses to learn and adopt new technologies and practices. However, realising this potential requires a supportive policy environment that encourages collaboration and technology transfer between firms. Strategies such as establishing 'one-stop shops' could streamline administrative processes, providing easier access to regional, national, and European support programs, and extending comprehensive support to SMEs that goes beyond financing. Such measures would enhance their capacity to innovate, scale-up, and ultimately increase their productivity.

In Ustí nad Labem there is scope to better map and brand regional economic characteristics to align local strengths with the international companies' needs. While the region is diversifying from its industrial legacy towards a higher value-added industry, it struggles to be perceived as an attractive destination for high skill workers due to its historic mining and migration legacy. Thus, a branding strategy around the opportunities can held leverage the competitive advantages of the region, including a lower cost of living, access to a large set of brownfields (around 4,000 only in Usti), potential to enter into the German market and presence of natural amenities amongst others. Furthermore, in Ústí nad Labem, the polycentric settlement patterns require additional efforts to promote cooperation across development plans and strategies of the different cities to attract and link FDI with local business. Therefore, a platform for city cooperation would benefit the region to improve attractiveness through better public service delivery and reach a common vision for development, including FDI attraction strategy and local SME ecosystem development (see Box 6.1).

In the case of South Moravia, the region could further mobilise its innovation-led business ecosystem to promote inclusive development beyond Brno. While South Moravia's focus on attracting FDI in high value-added activities is well-supported by its infrastructure and educational framework, greater collaboration is needed between academia, public and private to further diffuse foreign know-how and technology into the local economy. The collaboration on R&D projects, particularly in burgeoning fields such as advanced manufacturing or biotechnology, is vital for fostering innovation. In South Moravia, for instance, electron microscopy (Thermo Fisher Scientific, Tescan) or in security (GEN, AT&T), or aerospace (Honeywell) are examples of great performers in R&D collaborators. Engaging companies in educational initiatives, such as structured internships, joint research programmes, and innovation workshops, allows for the direct application of academic research to industry challenges. In Ústí nad Labem, the Unipetrol Centre for Research and Education (UniCRE) collaborates deeply with academic institutions, including the University of Jan Evangelista Purkyně in Ústí nad Labem. Their focus areas include research activities supporting the chemical industry, with goals like integrating into European research structures and promoting science and development (Unicre, 2022[2]).

Box 6.1. Policy recommendations to improve FDI-SMEs linkages in the regions of Ústí nad Labem and South Moravia

- Establishing a collaborative platform for regional development in Ústí nad Labem, fostering a joint vision to attract FDI and integrate it effectively with the local economy. This initiative could be spearheaded by the regional office and encourage synergistic policy and resource alignment, enhancing coordination among the region's three Functional Urban Areas to foster a larger, integrated economic and social ecosystem.
- Improving regional branding to better promote the competitive advantage of the regions for international firms and workers. It involves investing in regional branding initiatives that accurately reflect the unique regional advantages (e.g., lower living cost compared to the capital city, environmental amenities among others) and promote available job and career opportunities to attract talent.
- Enabling regional governments and municipalities to lead redevelopment initiatives for brownfields, transforming them into hubs of innovation and entrepreneurship. This is of special relevance for Ústi nad Labem due to its high stock of brownfields (over 4 thousand). For this, the national government and the regions should build on the National Brownfield Regeneration Strategy and assist coordination between municipalities and investors to facilitate new business developments.
- Leveraging its strategic position of border regions in Czechia. It could be done by developing cross border programs with neighbouring countries (Germany, Austria and Slovak Republic)

to i) benefit SMEs by facilitating easier access to cross-border supply chains, expanding customer bases, and fostering collaborative opportunities with foreign partners and to ii) develop programs for academic partnerships across educational institutions.

- Facilitating business services beyond financing to provide comprehensive support for local SMEs and investors. It can be done through a regional 'one-stop shop' for business support to provide administrative guidance and information about innovation opportunities, connect firms and university projects or EU funds and regional programmes.
- Better linking universities and research centers with business to strengthening the regional innovation ecosystem. This should involve setting up contact points or joint forums to align business needs with the research agendas of local academic institutions, such as the University of Jan Evangelista in Ústí nad Labem and the Brno Technological Park.
- Promoting inter-municipal cooperation on public service delivery to enhance regional attractiveness for FDI. Such collaboration could lead to better healthcare, education, and infrastructure development, as well as streamlined administrative processes, creating a more welcoming environment for both local and international enterprises and talent.

6.2. Regional characteristics to attract FDI

The Czechia's advantageous position in Central Europe, bordered by Germany, Poland, Slovakia, and Austria, offers a unique vantage point for understanding the dynamics of Foreign Direct Investment (FDI) and the development of Small and Medium Enterprises (SMEs) within its borders. This analysis specifically turns its focus towards the Ústí and South Moravian regions, which, despite their distinctive characteristics, share more similarities with each other than with the Prague capital region. The Ústí region, with its extensive network of municipalities and strategic location on major European roadways, serves as a crucial conduit for trade between Germany and Eastern Europe. South Moravian, home to the economic and educational hub of Brno, acts as a bridge between Eastern and Western Europe, facilitating traffic from Austria and Hungary towards Central Europe. Both regions are endowed with diverse landscapes that support a range of economic activities from agriculture to recreational services, contributing to their internal market vitality.

6.2.1. Regional economic characteristics shape FDI growth across regions in Czechia, with Prague leading

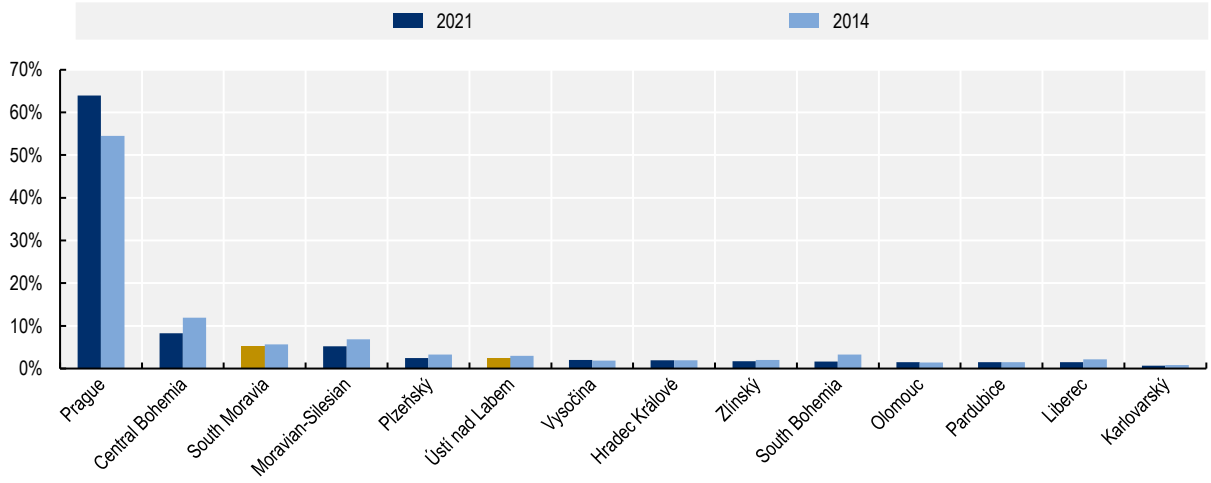
The regions of South Moravia and Ústí nad Labem exhibit modest growth in foreign direct investment (FDI), highlighting the challenges they face in attracting investment in comparison to Prague (Figure 6.1). Within the Czech investment landscape, Prague emerges as the dominant force, securing 64% of the nation's total FDI, which amounted to 114,529 million euros in 2021. This significant concentration of investment in the capital can be attributed to its diversified economic base and robust infrastructure, positioning Prague as a highly competitive location for investment. It is essential to acknowledge, however, that the distribution of FDI statistics may be influenced by methodological factors, such as the tendency for company headquarters to aggregate in the capital, a trend not unique to Czechia but also noted in Slovakia.

Despite attracting a smaller proportion of the national FDI, South Moravia and Ústí nad Labem have shown commendable performance, accounting for 5.3% and 2.4% of the national FDI in 2021, respectively. This places them as the 2nd and 6th highest FDI-receiving regions in the country. From 2014 to 2021, FDI in Ústí nad Labem and South Moravia increased by 26.5% and 48%, respectively, although this growth was below the national average and significantly less than the 86.3% increase observed in Prague. This period also saw a slight relative decline in their share of national FDI attraction, with South Moravia's and Ústí

nad Labem's contributions decreasing by 0.4 and 0.6 percentage points, respectively, in contrast to Prague's share, which surged by almost 6 percentage points from 54.5% in 2014 to 64% in 2021.

The pronounced centralization of FDI in Prague, capturing 86.3% of all FDI in the country, stands in stark contrast to trends observed in other EU nations. For instance, in the Slovak Republic, the Bratislava region accounts for about 70% of the total FDI stock, nearly five times the combined share of the next two highest-performing regions. Similarly, in Portugal, FDI inflows have been predominantly concentrated in the Lisbon Metropolitan Area and Norte, with Lisbon receiving almost 50% of all greenfield FDI projects. Key findings from the analysis highlight Prague as the powerhouse of Czech FDI, with a significant increase in investment and share since 2014. South Moravia maintains a steady position amidst rising competition, experiencing a slight decrease in its share while seeing growth in FDI value. Ústí nad Labem, with its industrial focus, ranks 6th in Czech FDI stock, indicating potential for growth despite a small dip in its share of the national FDI.

Figure 6.1. FDI stocks by region as % of total FDI stocks in Czechia, 2014-2021

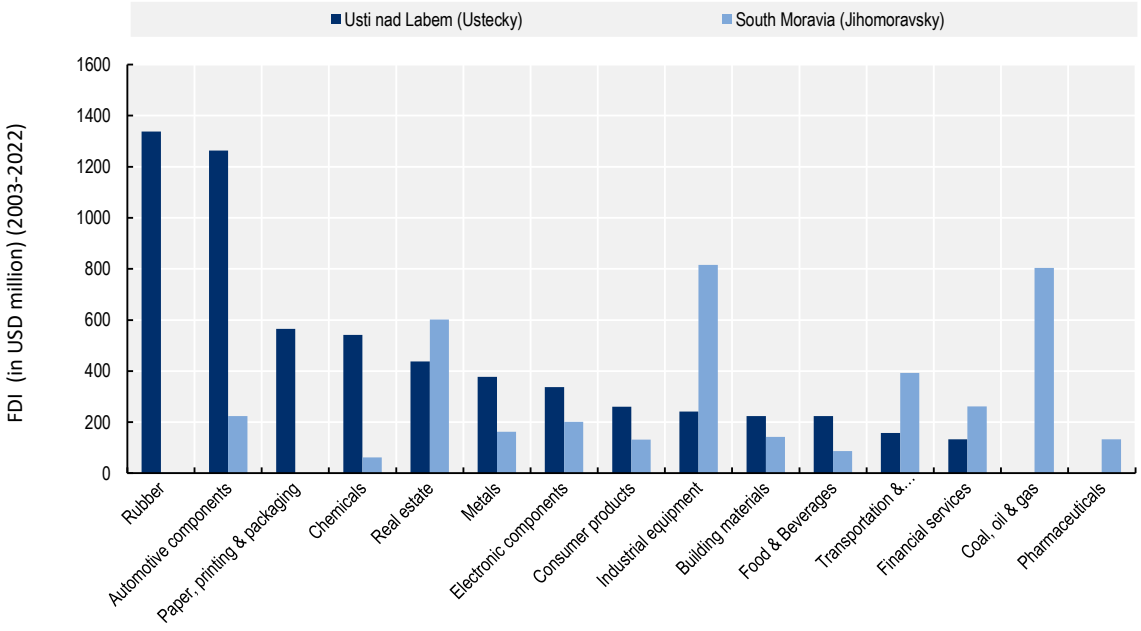


Source: CZSO (2020[3]) https://www.czso.cz/csu/czso/home

The sectorial distribution of Foreign Direct Investment (FDI) within the Czech regions reflects the unique industrial fabric of each area, showcasing both traditional strengths and emerging sectors conducive to economic diversification and development (Figure 6.2). In Ústí nad Labem, substantial FDI flows into the rubber and automotive components sectors signal the region's reliance on its longstanding industrial heritage. This investment trend points to Ústí's solid manufacturing base, yet it also underscores the region's challenge to evolve beyond these established industries and potentially hindering a broader diversification of its economy.

As for South Moravia, the data displays a varied pattern of FDI across real estate and industrial equipment sectors, hinting at a strategic push towards cultivating an innovative ecosystem. The investment in these areas suggests an effective leveraging of South Moravia's educational and labour market strengths, aiming to entice investments that align with the region's vision of a knowledge-based economy. Employment and capital expenditure data provide further insight into the economic repercussions of these investment flows. South Moravia's FDI has been linked to the creation of 32,922 jobs and capital expenditures (Capex) amounting to USD 5,682 million, reflecting the region's dynamic industrial composition and its success in attracting innovation-driven sectors.

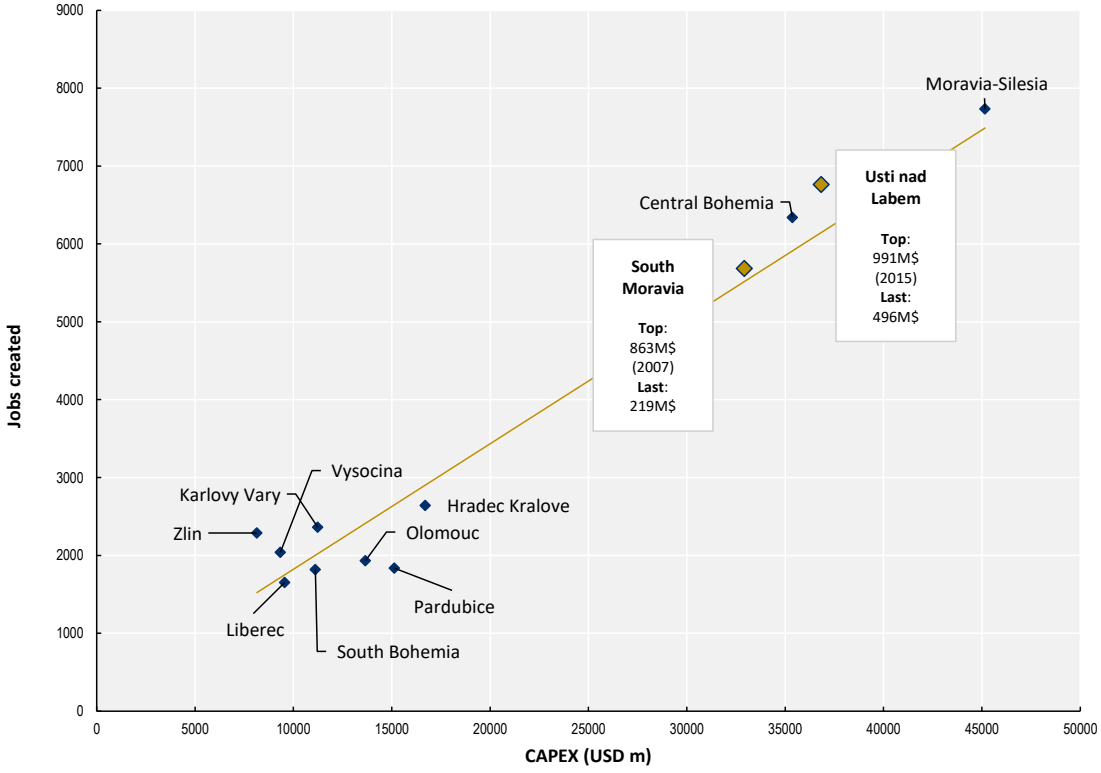
Figure 6.2. FDI per sector in Usti nad Labem and South Moravia, aggregated 2003-2022



Source: Source: CZSO (2020[3]) https://www.czso.cz/csu/czso/home

Building on the regional FDI insights, the employment and capital expenditure data further illuminate the economic impact of these investments (Figure 6.3). In South Moravia, the creation of 32,922 jobs and a Capex of USD 5,682 million are associated with the region's receipt of investment - 4th across Czech regions. The region also exhibits a diverse industrial base and innovation-driven sectors, which could be linked to its economic development. Similarly, Ústí nad Labem's creation of 36,838 jobs and a Capex of USD 6,762 million are also associated with the FDI it has received – ranking 2nd across Czech regions. Despite facing challenges in some sectors, the significant job creation in the region might be related to its investment strategies. Additionally, the data could suggest Ústí nad Labem's efforts to diversify its economy.

Figure 6.3. CAPEX and jobs created, aggregated 2003-2022



Note: Last corresponds to data to 2022.
Source: CZSO (2020[3]) https://www.czso.cz/csu/czso/home

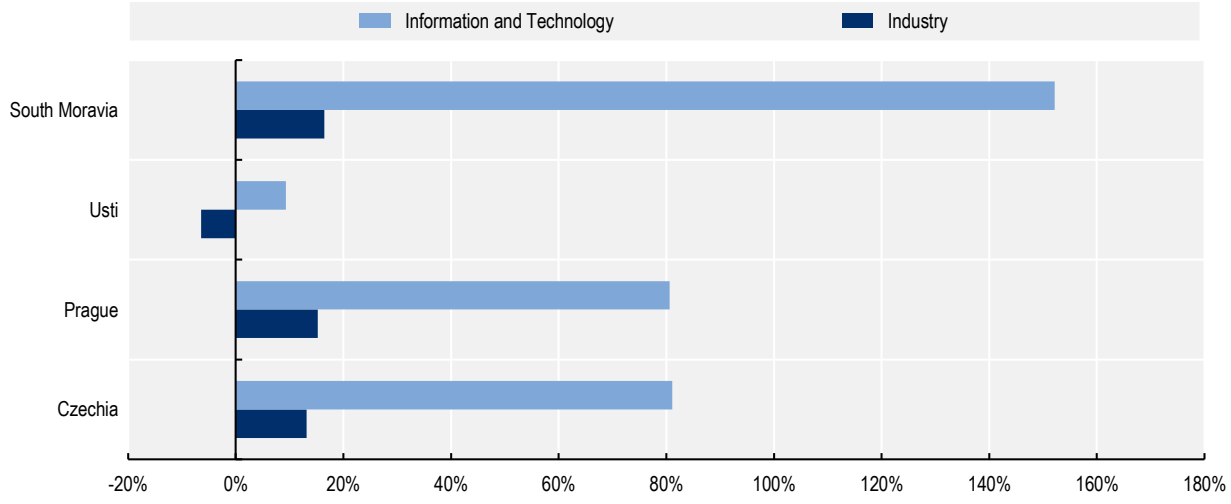
FDI trends and SME ecosystem opportunities in a context of economic transition for South Moravia and Ústí nad Labem

The economic and labour markets of South Moravia and Ústí nad Labem are undergoing distinct transformations, reflecting broader shifts in Czechia's economic landscape. South Moravia, led by Brno's dynamic growth, is embracing the digital transition, whereas Ústí nad Labem is navigating a transition from its industrial roots.

South Moravian's growth in IT sector (152.1% between 2010 and 2020), outpaces the national average of 81.1% and the capital city of Prague (80.6%) (Figure 6.4). This rise shows the region's shift from traditional industries to a digital and knowledge-based economy, with Brno as the central catalyst in this transition. South Moravian's economic strategy is one of diversification and innovation-led growth. The region's significant leap in IT GVA reflects the results of its investment in research and development, higher education, and its proactive innovation policies. Brno's evolution from a historical focus on textile and machinery to a centre for ICT, aerospace, cybersecurity, and medical research underscores its emerging role as a regional powerhouse within Central Europe's tech landscape. This transformation is supported by entities such as Masaryk University, the Brno University of Technology, and the University of Veterinary and Pharmaceutical Sciences. CEITEC stands out as an inter-institutional research entity central to this ecosystem. Additionally, JIC, a player in the innovation ecosystem, has been relevant in organising open innovation sessions that connect local multinational corporations with startups. Similarly, Intemac, a JIC subsidiary, plays a role in developing initiatives that strengthen the relationship between multinational companies and local SMEs, thereby enhancing the integration of foreign direct investment into the local ecosystem (MOORE Czech Republic, 2021[4]).

In contrast, Ústí nad Labem's development trajectory has been largely over specialised in its industrial and mining legacy. The region has a robust infrastructure that once supported its primary industries, and its workforce is experienced in these sectors. However, the transition to a post-industrial economy necessitates a shift in focus. While Ústí nad Labem's historical strengths have defined its past, the region now faces the challenge of leveraging its assets in a changing global economic landscape. Ústí nad Labem's industrial sector has experienced a decline, with a -6.4% change in GVA, underscoring the region's struggle with deindustrialisation. However, there is a silver lining as the IT sector has seen a positive change, albeit a modest 9.3%, indicating the beginnings of a technological transformation albeit at a slower pace compared to South Moravian and the national average.

Figure 6.4. Change in Industry and Information and Technology sectors in Czechia, Prague, Ústí nad Labem and South Moravian, 2010-2020



Note: Calculated as the change between GVA 2010 in Millions USD, constant prices, constant PPP, base year 2015 and GVA 2020 in Millions USD, constant prices, constant PPP, base year 2015
Source: OECD (2023[5]) https://stats.oecd.org/Index.aspx

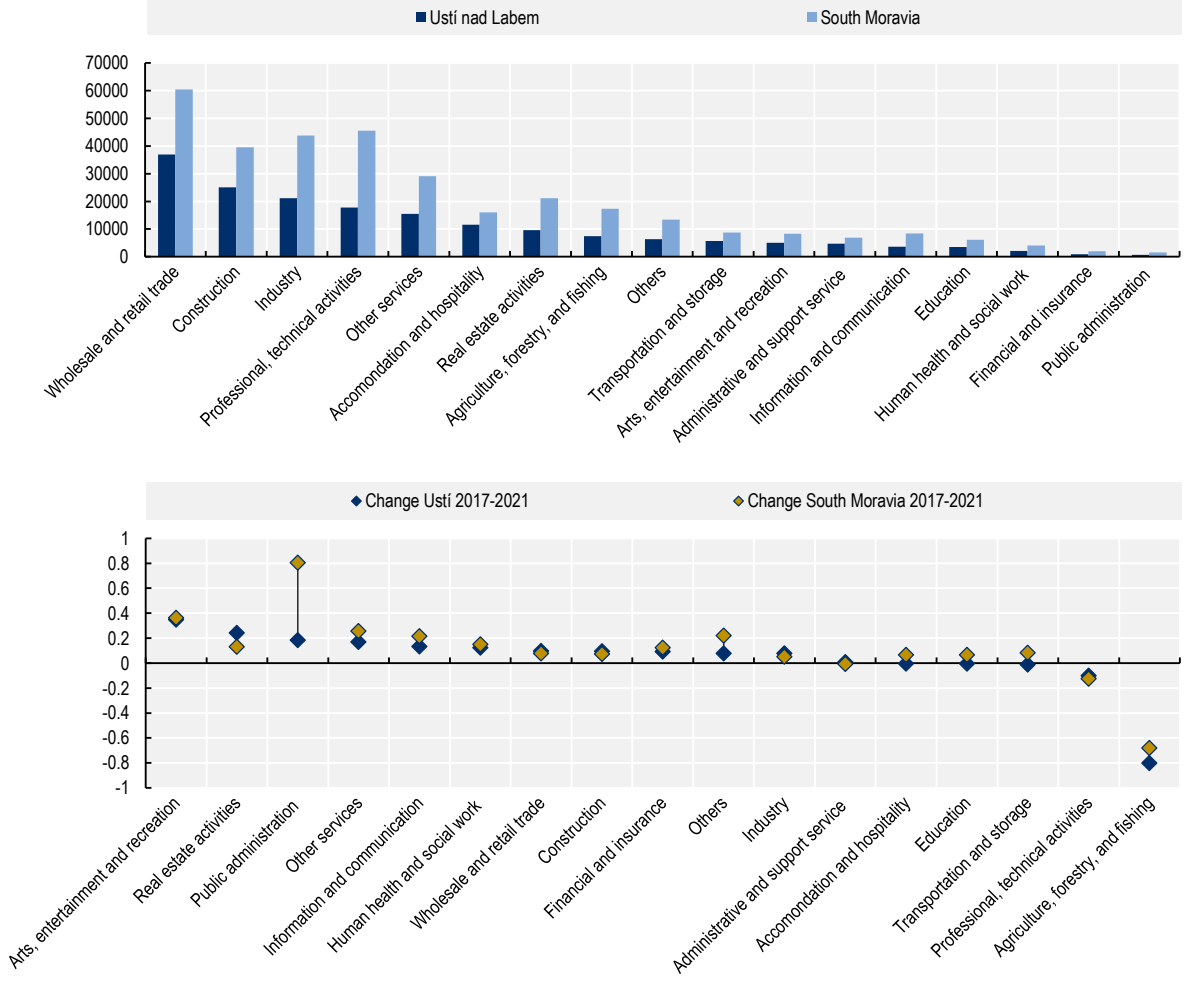
Entrepreneurship and SME creation is greater thanks to its fabric of businesses (Figure 6.5). South Moravia's sectoral composition showcases a notable tilt towards contemporary, high-skill industries with a robust presence of enterprises in professional and technical activities and a burgeoning information and communication sector. This modern industrial profile not only demonstrates the region's capability to foster growth in advanced sectors but also signals its potential to attract Foreign Direct Investment (FDI) that prioritises innovative and skilled labour markets. Concurrently, the dynamic SME landscape in South Moravia is likely to benefit from an environment rich in knowledge exchange and technological advancements, providing fertile ground for startups and established SMEs to expand and innovate yet has room for improvement as the recommendation later in this chapter will further explain ‘’Strengthening university-industry collaboration for enhancing regional innovation capacities’’.

In contrast, Ústí nad Labem presents an industrial sector steeped in tradition yet showing an incremental shift towards the services sector, particularly in arts, entertainment, and recreation. This transition suggests a region in the midst of redefining its economic identity, looking to attract FDI that can harness the strengths of its established industrial base while exploring new opportunities in the emerging service sectors. The growth in public administration and service-oriented businesses points towards a diversifying economy where SMEs could explore new niches and capitalise on a broader spectrum of local and international market demands.

Between 2017 and 2021, the business sectorial trends in both regions underline an evolving firm's landscape (Figure 6.5). South Moravia has witnessed considerable development in real estate and other services, reflecting an environment conducive to attracting FDI that values diversified, resilient economic structures. This growth aligns with a regional strategy that leans heavily on innovation and high-value sectors, shaping a sophisticated ecosystem that is attractive to SMEs and foreign investors alike. Ústí nad Labem, despite a strong inclination towards industry, has experienced a rise in arts, entertainment, and public administration sectors, signalling a nascent diversification. This could represent a dual-edged sword; while it allows for an expansion of the economic base, it also presents the challenge of ensuring this diversification leads to sustainable growth and does not dilute the region's industrial strengths.

These sectoral shifts and growth patterns across both regions highlight underlying trends that influence the type of FDI received and the health of the SME ecosystem. For South Moravia, the current trajectory enhances its prospects for attracting FDI that complements its innovative and high-skill industries, while Ústí nad Labem's diversification into services may broaden its appeal to a different spectrum of investors, nurturing an SME environment ripe for transformation and cross-sector collaboration.

Figure 6.5. Number of enterprises and change by sector in South Moravian and Ústí nad Labem, 2017 - 2021

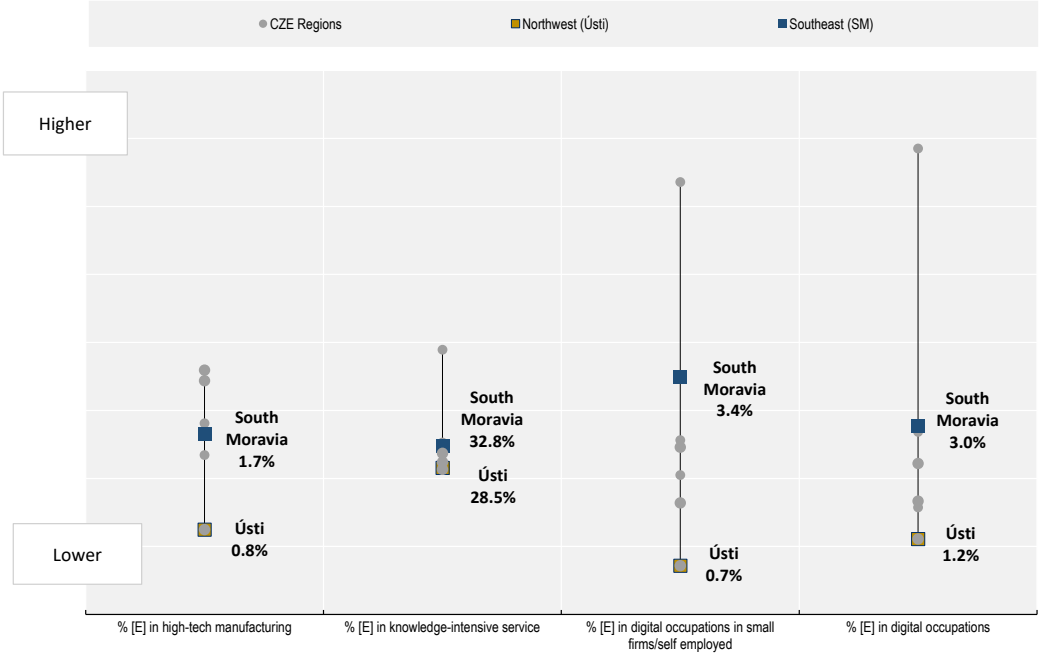


Source: CZSO (2020[3]) https://www.czso.cz/csu/czso/home

The employment distribution depicts a similar picture of a more diversified and knowledge service-oriented economy in The South Moravian region. A higher share of the national employment in knowledge-intensive services is concentrated in this region (32.8% of the national employment in this sector), second only to Prague (Figure 6.6). This aligns with the innovation-led growth strategy of the region, where the capital Brno plays a pivotal role, fostering a conducive environment for startups and tech companies. For instance, innovation policy plays an important role in improvement of innovation capability of the region, and it is well-known for its pioneering implementation of various innovation tools (Klímová and Žítek, 2017[6]). Even in high value-added occupations in manufacturing, Ústí nad Labem represent a slower share of in high-tech manufacturing (0.8%) than the country average and South Moravian's is double (1.7%).

In terms of digital occupations, the percentage of employment in digital occupations in small firms or self-employed professionals in South Moravian is notably higher at 3.4%, suggesting a vibrant ecosystem for digital entrepreneurship, likely supported by regional innovation policies and the presence of tertiary educational institutions in Brno. Moreover, the share of employment in digital occupations in South Moravian is at 3%, reflecting the region's successful integration of digital skills into the broader workforce. This is crucial for the region's adaptability and competitiveness in an increasingly digital global economy. While Ústí nad Labem's figures are more modest in these areas, they point towards the beginnings of digital integration, which is essential for the region's economic evolution. The comparison across different Czech regions reveals the varied stages of economic development and sectoral emphasis, highlighting potential areas for policy intervention to enhance regional innovation capabilities and economic diversification.

Figure 6.6. (%) Employment in digital, high-tech, and knowledge-intensive in Ústi and South Moravia, 2017-2020



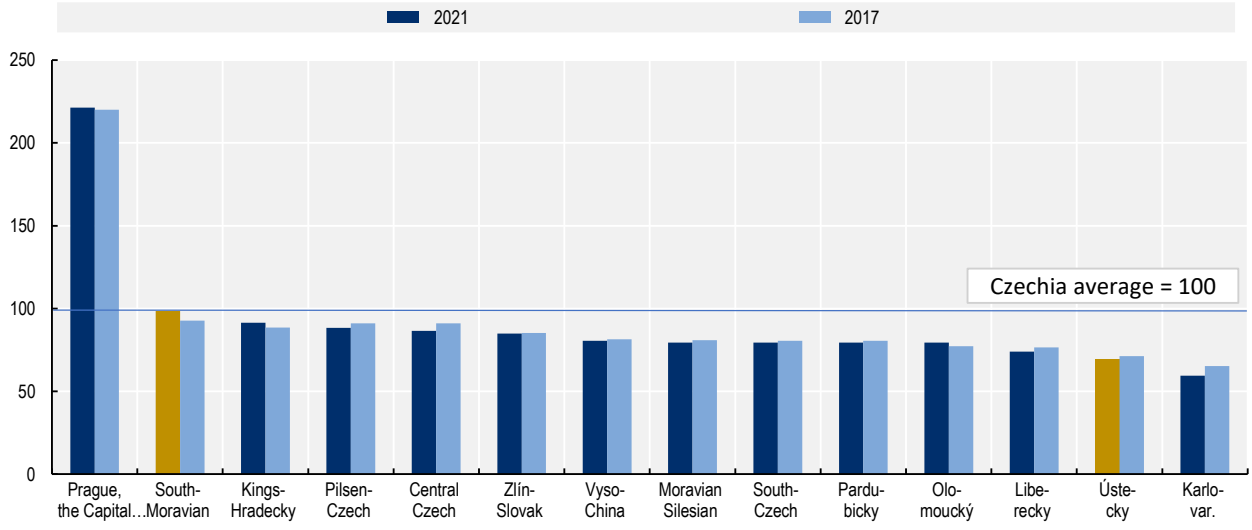
Note: [E] = Employment. Digital occupations are classified as in (Calvino et al., 2018[3]). The sample selection for the Labour Force Survey is the same as detailed for Table 6.3. The sample selection for Burning Glass Technologies data corresponds to all vacancies with non-missing information on occupation, sector of economic activity and region. Market services include NACE sectors: B, D, E, F, G, H, I, J, K, M, N.
Source: % employment in digital occupations Data for 2018 Labour Force Survey % employment in digital occupations between 20 and 29 years old Data for 2018 Labour Force Survey % employment in digital occupations between 55 and 64 years old Data for 2018 Labour Force Survey % employment in digital occupations in SMEE Data for 2018 Labour Force Survey % vacancies in digital occupations (all economy) Data for 2019 Burning Glass Technologies % vacancies in digital occupations (manufacturing) Data for 2019 Burning Glass Technologies % vacancies in digital occupations (market services) Data for 2019 Burning Glass Technologies

High value-added activities specialisation in South Moravian drives GDP per capita perform better than Ústí nad Labem yet there's still a gap to bridge with Prague

The two decades from 2000 to 2020 have seen both South Moravia and Ústí nad Labem grow economically, yet their progress has been outpaced by national and OECD averages (Figure 6.7). South Moravia's economic performance, while closely aligned with the national average, exhibits a growth trend that is slightly below the OECD benchmark. The region's GDP per capita has risen from $21,035 in 2000 to $35,275 in 2020, reflecting an upward trajectory that, however, has not fully capitalized on the growth rates experienced by OECD countries during the same period. South Moravia's competitive regional economy is underpinned by a low unemployment rate and a moderate level of innovation activity, signaling a stable economic environment with the potential for further growth.

Conversely, Ústí nad Labem's economic growth has been more modest, with GDP per capita increasing from $19,438 in 2000 to $25,443 in 2020. This growth is significantly lower than the national average, underscoring the region's economic challenges. The unemployment rate in Ústí nad Labem, higher than that of South Moravia and the national average, coupled with a higher interregional migration ratio, indicates potential labor market fluidity that could be harnessed to stimulate economic advancement.

Figure 6.7. GDP per capita of the regions of Czechia with respect to national average, 2017-2021



Note: Czechia average = 100
Source: Macroeconomic indicators for regions, CZSO (2020[3]) https://www.czso.cz/csu/czso/home

Table 6.1 shows an overview of key indicators for South Moravian, Ústí nad Labem, Czechia, and its neighbours, covering demographics, economy, migration, and competitiveness. This data supports our analysis on SMEs and FDI's role in regional development, showing how these regions compare nationally and internationally. It helps showcasing strengths and challenges in attracting FDI and suggests areas for policy focus to enhance regional growth and integration into global markets.

Table 6.1. Summary table of quantitative values, latest year available

	South Moravian	Ústí nad Labem	Czechia	Eastern Neighbouring countries	Western Neighbouring countries	OECD average
Demography						
Population (million persons) - 2021	1.19	0.82	10.51	83.2 (GER) 8.96 (AUS)	37.75 (POL) 5.45 (SVK)	-
Population growth 2001-2023 (annual average)	2.2%	0.1%	2.0%	-0.5%	-0.2%	3.0%
Youth dependency ratio 2021	25.4%	25.1%	25.2%	23.5%	21.5%	22.7%
Elderly dependency ratio 2021	31.8%	31.2%	31.6%	28.3%	31.5%	27.0%
Economy						
GDP per capita (USD $) - 2020	35,275	25,443	36,216	31,555	48,251	40,641
Unemployment rate 2021	2.6%	3.8%	2.9%	3.4%	3.8%	4.8% (Dec 2023)
Interregional migration ratio	11.18	13.86	-	-	-	-
Competitiveness						
RCI European Competitiveness index	98.8	86.6	-	-	-	-
Patents per million inhabitants	20.7	7.1	23.5	-	-	-
FDI (millions CZK)						
Registered capital	94,628.4	76,477.9	-	-	-	-
Reinvestment of earning	134,319.7	17,398.3	-	-	-	-
Other capital	3,398.7	10,702.4	-	-	-	-
Sum	232,346.7	104,578.6	-	-	-	-
Share over national (%)	5%	2%	-	-	-	-

Note: Eastern Neighbouring countries refer to Germany and Austria. Western Neighbouring countries refer to Slovak Republic and Poland.
Source: Own elaboration with data from the OECD (2023[5]) https://stats.oecd.org/Index.aspx , European Commission (2023[7]) https://ec.europa.eu/regional_policy/assets/regional-competitiveness/index.html#/

Productivity premia of foreign firms are low across all Czech regions compared to other OECD countries

The productivity premium of foreign firms in Czech regions, while positive, is modest when compared with the productivity differentials in certain EU comparator countries (Figure 6.8). Specifically, the 'North' region, including Ústí, shows a productivity premium of approximately 0.6, while 'South,' encompassing South Moravia, has a premium of around 0.4. This data implies that foreign firms in these regions contribute positively to the overall productivity.

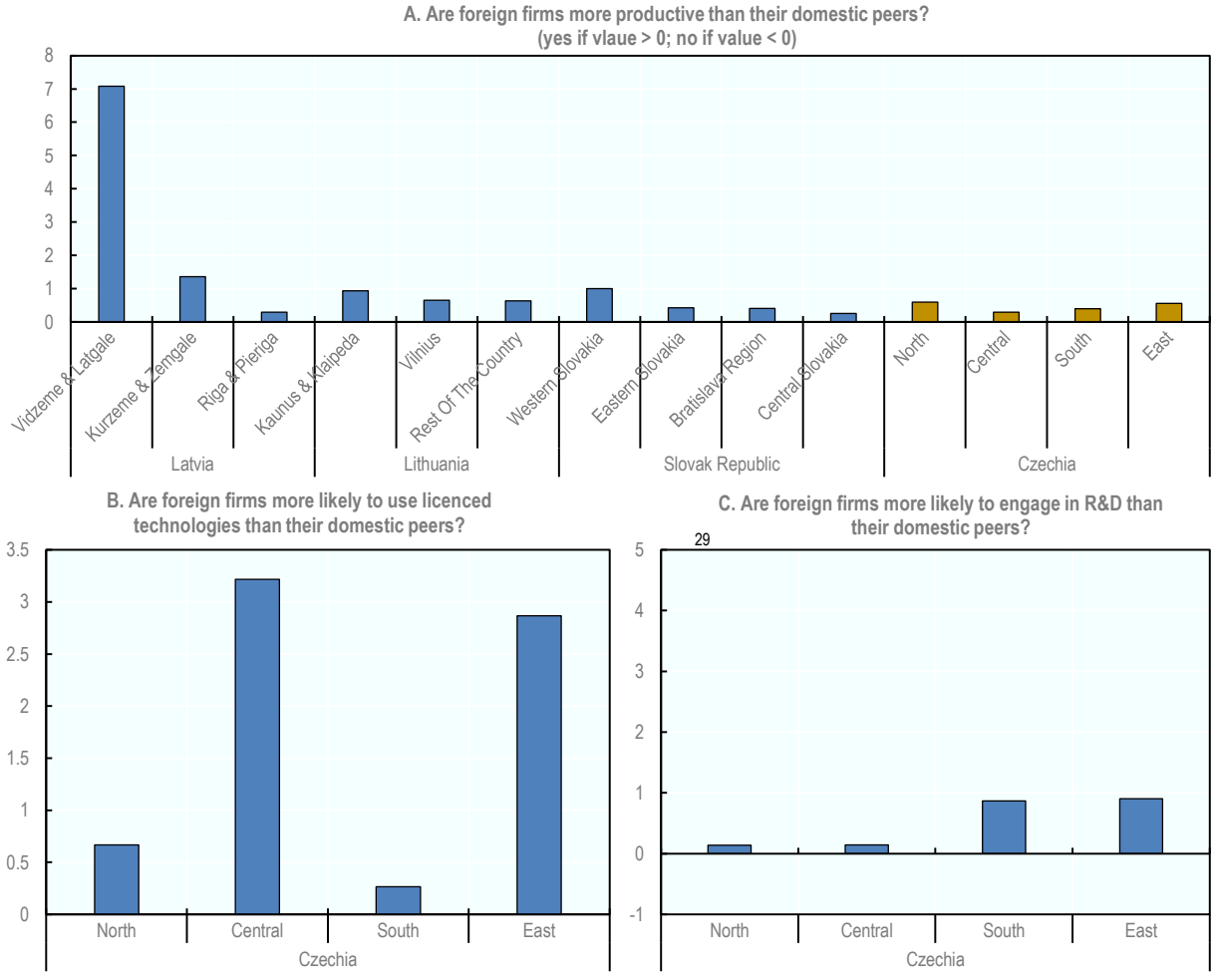
Foreign firms in Czechia's 'North' and 'South' regions, including Ústí nad Labem and South Moravia respectively, are more productive than domestic firms, yet the premium is not as pronounced as in regions of Slovakia or countries like Portugal, Latvia, or Greece. By focusing on improving factors that contribute to firm productivity, such as innovation, workforce skills, and technological advancement, regions like Ústí and South Moravia can further capitalise on the presence of foreign firms. This could involve targeted policies to support foreign firm operations, such as streamlining administrative processes, providing incentives for research and development, and fostering collaborations between foreign and local businesses to facilitate knowledge transfer and innovation.

The existence of a productivity advantage for foreign firms in Czech regions indicates potential for productivity spillovers, a phenomenon where domestic firms may benefit from the presence and practices of more productive foreign firms. As suggested by OECD findings, such spillovers are more likely when foreign firms outperform their domestic counterparts. However, this also poses a challenge; if the

productivity gap is too wide, it may be difficult for domestic SMEs to bridge the difference and fully benefit from the potential spillovers. Conversely, smaller productivity gaps, as seen in Czech regions, may indicate better absorptive capacities of domestic firms, suggesting that Czech SMEs could have a more favourable environment for learning and knowledge exchange with their foreign counterparts.

In metropolitan areas, such as Bratislava in Slovakia, productivity gaps tend to be smaller, which could imply that regions with a higher concentration of economic activity and a denser business environment may provide better conditions for knowledge spillovers.

Figure 6.8. Firm productivity and competitiveness in Latvia, Lithuania, Slovak Republic, and Czechia, 2022



Note: Our study utilises 'North' as a proxy for Usti nad Labem and 'South' for South Moravia due to data limitations, aligning with the territorial divisions in the World Bank's Enterprise Surveys. This approach mirrors the aggregations used in peer countries like Latvia, Lithuania, and Slovakia, allowing for a meaningful comparative analysis beyond absolute figures to assess relative performance
Source: World Bank (2022[8]) https://www.enterprisesurveys.org/en/enterprisesurveys

Prague and South Moravia lead in competitiveness in the country, while Ústí nad Labem shows growing potential to attract investment beyond the traditional industries

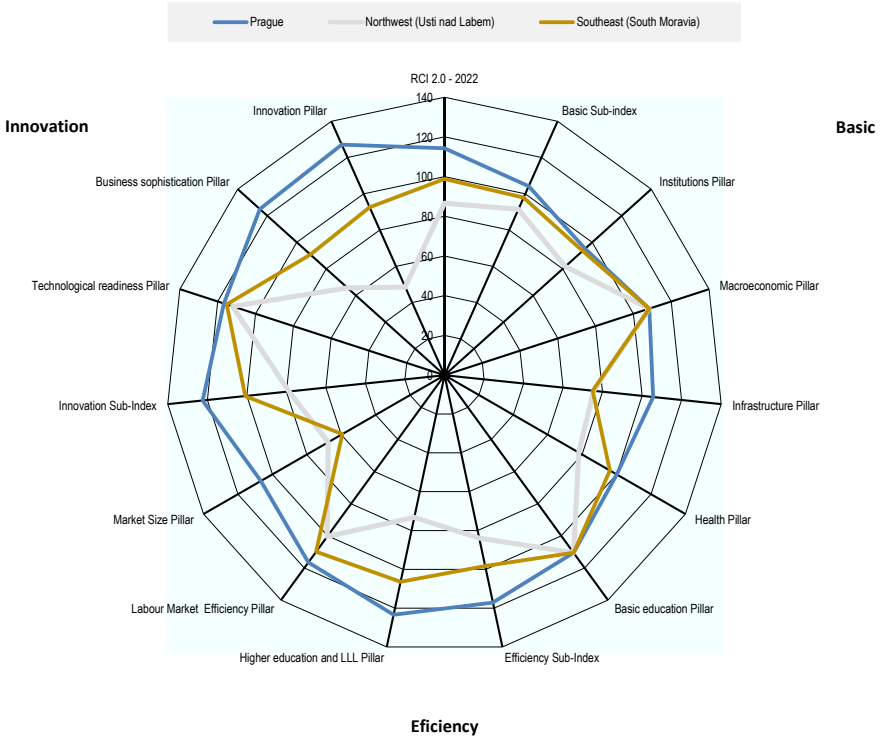
The regional socio-economic competitiveness is still lower for Czech regions. According to several multi-country comparative competitiveness analysis; i) World Economic Forum places Czechia with 70.8 points

out of 100 on the 2019 Global Competitiveness Report ranking 32 in 2019 (World Economic Forum, 2019[9]), ii) a more recent report shows that the country has achieved its best result, as it ranks as 26th place out of 63 economies in 2023, ahead of countries such as Hungary (39th place), Slovakia (49th) and Poland (50th) (IMD, 2023[10]), and iii) at the European Level, the European Commission produces the EU Regional Competitiveness Index 2.0 (RCI) in which the granularity of the analysis descends to the regional level for which the analysis of this chapter is more relevant (European Commission, 2023[7]) (see Figure 6.9). All in all, a region's appeal is multifaceted, involving economic stability, infrastructure, healthcare, education, and innovation capacity. A conducive business environment, paired with a robust education system and efficient healthcare, can significantly enhance a region's competitiveness and draw both foreign and domestic investors. The results of the RCI showcases that:

- **Prague**, as the capital, already exhibits strong regional competitiveness according to its score in the index EU Regional Competitiveness Index 2.0 (RCI), signalling a well-developed, diverse economy. Its advanced infrastructure and high scores in education and innovation suggest a solid foundation upon which to further build and attract knowledge-intensive industries and global talent.
- **Ústí nad Labem nad Labem's** RCI score of 86.6 suggests areas for development, particularly in health (75.4) and basic education (78.0), which are essential for a skilled workforce and a healthy population. Despite these challenges, the region's strong performance in the technological readiness pillar (78.7) indicates a potential for growth in tech-based industries. However, the lower scores in the innovation pillar (48.6) highlight the need for targeted initiatives to foster creativity and new business development that might affect the economic diversification efforts in the region.
- **South Moravian's** RCI score of 98.8 reflects a more competitive position. With high scores in higher education and lifelong learning (98.3) and labour market efficiency (106.4), the region has solid foundations to attract investment and talent. Nonetheless, there's room for improvement in the innovation sub-index (59.4), suggesting that although South Moravian has educational and labour strengths, enhancing its innovation capacity could further boost its attractiveness.

The regional socio-economic competitiveness of Czech regions, as highlighted by the EU Regional Competitiveness Index 2.0 (RCI), underscores the multifaceted nature of competitiveness, encompassing economic stability, infrastructure, healthcare, education, and innovation. This index serves as a crucial analytical tool, providing granular insights into each region's specific strengths and weaknesses, thereby guiding targeted policy interventions. For instance, in regions like Ústí nad Labem where the RCI identifies gaps in health and education, tailored investments could significantly enhance competitiveness. Similarly, in South Moravian, fostering innovation and supporting tech-sector growth could leverage existing educational and labour market strengths. Thus, regional policies, informed by the nuanced data of the RCI, are vital for addressing unique regional challenges and opportunities, enhancing the overall socio-economic competitiveness of the Czech’s regions.

Figure 6.9. Drivers of competitiveness in Ústí nad Labem and South Moravian, 2023, EU Regional Competitiveness Index 2.0 - 2022



Note: The current edition of the RCI, dubbed RCI 2.0, upholds the structure of its predecessors but introduces an updated methodological framework to enable a more seamless comparison over time. To underscore this methodological shift, past scores from 2016 and 2019 have been recalculated using the new framework, producing the RCI 2.0, 2016 edition, and RCI 2.0, 2019 edition. These recalculated scores are available for download on the designated website. Importantly, these recalculated rankings do not supersede the original RCI rankings from 2016 and 2019, which were generated using the previous methodology. Thus, the RCI 2.0 scores for 2019 and 2016 are provided without their accompanying rankings.
Sources: European Commission (2023[7]) https://ec.europa.eu/regional_policy/assets/regional-competitiveness/index.html#/

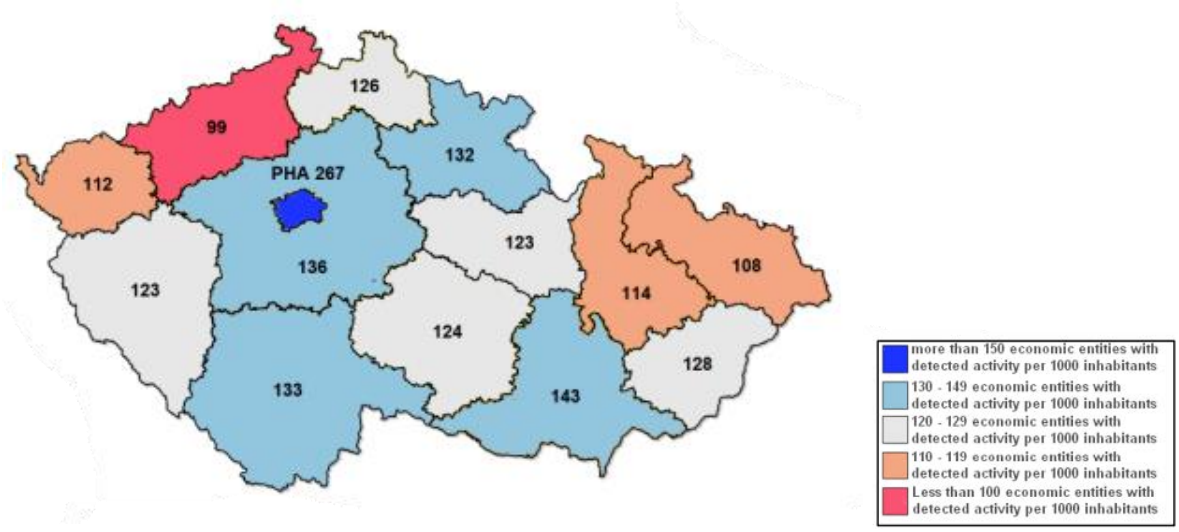
The entrepreurial characteristics of the regions outline the potential for linkages with FDI.

In Czech regions, the landscape of businesses is marked by a proportion of small firms, with micro-enterprises—those employing fewer than 10 people—making up 80% of the business sector in both Ústí nad Labem and South Moravia. This figure is slightly above the national average of 79%, which, when compared with other EU countries like Portugal (95.3%) and Slovakia (97%) (OECD, 2022[11]) (OECD, 2022[12]), highlights a comparatively lower share of micro firms in Czechia. This suggests a notable presence of small firms (employing 10 to 49 people) in the Czech business ecosystem, a factor potentially advantageous for FDI-SME spillovers due to these firms' greater access to finance and talent.

Specifically, Ústí nad Labem and South Moravia exhibit divergent trends in entrepreneurial activity. South Moravia shows a vibrant entrepreneurial environment, with one new firm being established for every 96 people, outperforming the national average of one new firm per 102 people (Figure 6.10). In contrast, Ústí nad Labem demonstrates a lower rate of business creation, with one new firm for every 144 people, indicating a more challenging environment for new enterprise development compared to the national average. This difference underscores the need for targeted strategies to foster entrepreneurship and business growth, particularly in regions like Ústí nad Labem.

The analysis of business dynamics, including both the birth and closure of firms, further reflects the regions' economic health and potential for development (Table 6.2). With business birth rates improving from 2017 in both regions and closures decreasing, there's an indication of a strengthening business environment. However, the distinct difference in the rate of new business creation between Ústí nad Labem and South Moravia highlights the importance of understanding regional disparities to tailor effective development strategies. As such, the data points to a more nuanced view of the Czech entrepreneurial landscape, suggesting that while micro-enterprises dominate, the presence of slightly larger small firms may offer good ground for enhancing FDI-SME linkages.

Figure 6.10. Interregional comparison in terms of number of economic entities with detected activity, 2018



Source: MOORE Czech Republic (2021[4]) https://lepsikraj.cz/download/srjmk21-aj-verze.pdf

Table 6.2. Birth and death companies, 2017-2021

Births and deaths of businesses:			Czechia	Prague	Usti nad Labem	South Moravia
Birth businesses	Total	2021	102	45	144	96
(Persons per birth)		2017	103	46	149	101
Death businesses	Total	2021	163	78	198	173
(Persons per death)		2017	155	89	161	156

Source: (CZSO, 2020[3])

6.2.2. Facilitating business services beyond financing at the regional level to support business creation

To foster local economic development, extending support services beyond just financing is essential, there exist a disparity of business activity across Czech regions). Establishing a 'one-stop shop' for financial and bureaucratic assistance greatly aids local business initiatives, offering comprehensive support and serving as an information hub about various programs. Funded through EU funds and regional banking programs, this initiative ensures a robust support system for businesses. One-stop shop recommendations can be found in literature developed by the OECD (OECD, 2020[13]), while France has advanced in a digital solution. In France, the transition to a single digital platform, formalities.companies.gouv.fr, marks a significant stride towards simplifying the administrative burden on businesses. Launching on January 1,

2023, this unified portal replaces the company formality centers (CFEs) and serves as a one-stop shop for all business-related formalities, including registration, changes, and cessation of activity. Designed to streamline the process of completing mandatory formalities for companies across a variety of sectors, the platform embodies the French government's commitment to enhancing the business environment (Republique Française, 2023[14]).

To further enhance this support, the regions should provide more tailored services to local SMEs and potential investors. This can be achieved by strengthening the presence and resources of Czech Invest, Business and Innovation Agencies (API), and institutions like the Innovation Centre of the Ústí Region. While Czech Invest's workshops and conferences are beneficial (Czech Invest, 2019[15]), there is a need for a wider and more granular implementation of these programs to benefit a diverse range of local economic initiatives. This approach aligns with research highlighting the importance of regional agencies in driving economic growth and innovation, exemplified by the South Moravian Innovation Centre (JIC) (JIC, 2023[16]). Over 20 years, JIC has supported over 1,500 companies, profoundly impacted the regional innovation ecosystem and demonstrating the effectiveness of such economic support. An example is ‘’Enterprise Ireland’’. A government agency that emphasizes the growth and international expansion of Irish businesses, with a significant focus on export capabilities. It demonstrates a compelling model for regional economic enhancement by concentrating on the growth and international outreach of businesses within Irish regions, with a particular emphasis on bolstering export capabilities. Functioning as a comprehensive support hub, it delivers an array of services including financial guidance, innovation assistance, and access to global markets specifically tailored to the needs of SMEs and startups at the regional level. This approach ensures that businesses within distinct regions are well-equipped for internationalization and broader business development. By facilitating easier access to funding and encouraging innovative practices through its programmes, 'Enterprise Ireland' exemplifies how targeted regional support can significantly contribute to the economic development and enhance the global competitiveness of regional enterprises (Enterprise Ireland, 2023[17]).

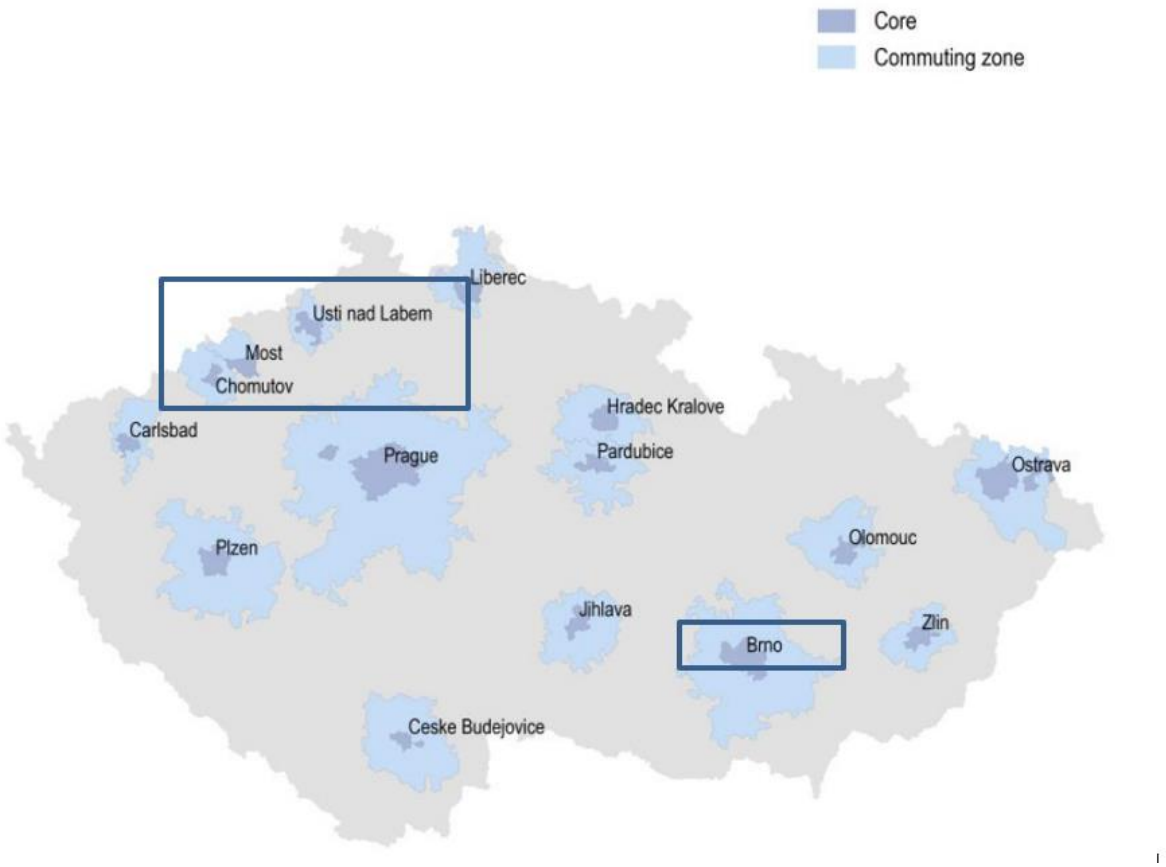
6.2.3. Regional settlement patterns define the capacity of internal markets to attract and diffuse FDI

In this broader discussion on strengthening FDI and bolstering the growth of SMEs, the concept of Functional Urban Areas (FUAs) becomes instrumental. FUAs, defined by their urban centers and commuting zones, provide a more nuanced understanding of the spatial economic activity extending beyond traditional administrative boundaries. These areas, identified through patterns of workforce commuting, reflect the intricate web of interactions between urban centers and their peripheries (Figure 6.11). FUAs refer to internal markets and commuting areas which refer to city level in most cases, yet the municipal level has an important influence in the business fabric of a region beyond the city. Due to the fragmentation of municipalities in Czechia there is an opportunity to elevate for improved governance to enhance inter-municipal cooperation generating several positive externalities as next recommendation will further elaborate on.

While Ústí's policentric configuration is an opportunity for synergies across markets, the region has yet to fully harness these economies of scale and harmonise economic activities across its three FUAs. Ústí's has three primary FUAs - Chomutov, Most, and the city of Ústí nad Labem, which suggests an opportunity to generate a more integrated and distributed economic and social ecosystem.

In the case of South Moravia, the region has benefited from the economies of scale of its singular and well performing FUA around Brno. Brno, serving as the economic and educational heart of South Moravia, acting as a catalyst for regional economic growth, significantly attracting FDI and fostering SME expansion. The concentration of resources, high-level educational institutions, and connectivity to international markets have enabled Brno to maximize economies of scale, exerting a substantial influence across the region.

Figure 6.11. Czech functional urban areas, 2022



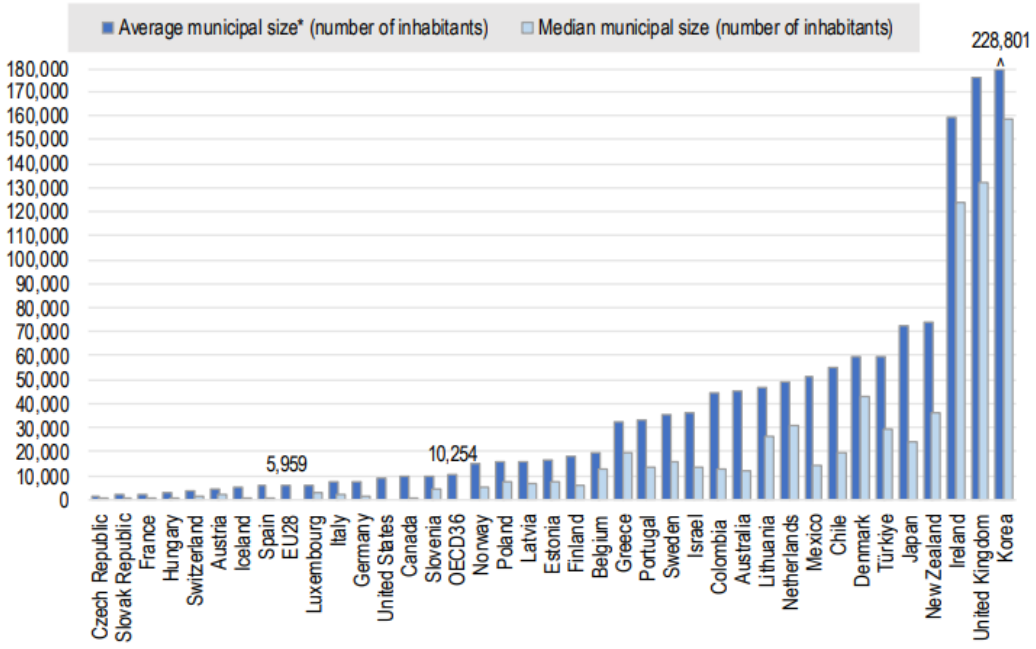
Source: OECD (2022[18]) https://www.oecd.org/cfe/regionaldevelopment/Czech-Republic.pdf

Governance efforts for inter-municipal cooperation has the potential to maximise FDI and SME potential

The Czechia stands out for its notably fragmented administrative organization, featuring a considerable number of small municipalities both in terms of population and area (Figure 6.12). This fragmentation traces its roots to legislation from the early 1990s which permitted municipalities to separate, leading to an increase in their number. By 2020, the average size of a municipality in the Czechia was strikingly the smallest among the OECD countries.

- The **average area of a Czech municipality is 13 km²**, significantly smaller than the OECD average of 234 km².
- A total of 6 258 municipalities, 14 regions (Kraj) and a population density of 136 inhabitants per km².
- Fragmented administrative structure, with an **average municipality size of only 1,710 inhabitants**, the smallest in the OECD where the average is 10,250.

Figure 6.12. Average municipal size across OECD Countries, 2023



Note: Average calculations are based on population data as of 2019. Calculations do not comprise Indian Reserves and unorganised territories for Canada, Indian reservations areas for United States and French Guyana for France. For Türkiye, average and median municipal sizes exclude metropolitan municipalities in order to avoid double counting.
Source: OECD (2023[19]) https://doi.org/10.1787/41fd9e5c-en

The highly fragmented administrative structure in Czechia can lead to increased costs in public service provision. Particularly in smaller municipalities, especially those in remote areas, the challenges include higher costs for delivering public services, exacerbated by lower economies of scale, increased transportation costs, and additional financial requirements for service professionals. This issue is further intensified in regions with aging populations, which demand more specialised and potentially costly public services, a situation starkly highlighted during the COVID-19 pandemic. This lack of service delivery due to lack of scale of small municipalities also impact the business environment, and in particular SMEs.

Beyond cost concerns, the minute size of these municipalities introduces capacity challenges. The administrative strain on subnational governments is important, especially at the local level, where there's not only a lack of adequate skills but also difficulties in attracting talent and offer SMEs a business environment conducive for developing economic activities. This lack of capacity hinders the efficient provision of public services, but more pertinently, poses significant obstacles in creating an environment conducive for FDI and for their linkages with local SMEs. Investors, both domestic and international, prefer administrative ease, clear policy communication, and efficient public services, as do SMEs – aspects that may be compromised in the face of extreme fragmentation.

Regions experiencing high municipal fragmentation, cannot fully benefit from economies of scale and scope and more coordinated efforts to attract Foreign Direct Investment (FDI) and improve public service provision through inter-municipal cooperation. The prevalent hyper-fragmentation in such areas leads to direct economic, administrative, and social consequences, particularly evident in smaller, remote municipalities. These municipalities often struggle with the increased costs of public service provision due to lower economies of scale, higher transportation costs, and additional financial incentives needed for service professionals. Moreover, these challenges are often compounded in areas with aging populations,

where the demand for specialized and potentially expensive public services is heightened, as vividly demonstrated during crises like the COVID-19 pandemic.

Beyond cost concerns, smaller municipalities often face larger capacity challenges. The administrative strain on subnational governments is immense, especially at the local level, due to their lack of skills and human capital. The lower capacity hinders the efficient provision of services and poses significant obstacles in creating an environment conducive for FDI. Investors, both domestic and international, prefer administrative ease, clear policy communication, and efficient public services – aspects that may be compromised in the face of extreme fragmentation.

Box 6.2. Addressing municipal fragmentation

Municipal mergers and strengthened inter-municipal cooperation.

In addressing the challenges of municipal fragmentation, two distinct strategies emerge: **municipal mergers and strengthened inter-municipal cooperation**. While mergers represent a more integrated approach to regional planning and service provision, their implementation can be politically challenging and is often met with resistance from local stakeholders. Therefore, in many cases, the most feasible alternative is to enhance inter-municipal cooperation, which offers a more flexible and politically acceptable means to achieve similar objectives.

- **Mergers** entail the consolidation of existing municipalities into larger entities, aiming to harness economies of scale and improve the efficiency of public service delivery. This approach can potentially streamline administrative processes and create a more attractive environment for FDI by offering a unified administrative structure and policy framework. However, the complexity of political landscapes and the desire for local autonomy frequently obstruct the merger process.
- Strengthening **inter-municipal cooperation**, on the other hand, provides a practical pathway to coordinate efforts across fragmented municipalities without altering their formal independence. It allows for shared service delivery and joint strategic planning, which can reduce costs and improve investment appeal while maintaining the identity and autonomy of individual municipalities. This form of collaboration is particularly relevant where political, historical, or cultural factors make full mergers untenable.

Top-down approach. This approach involves initiatives and policies being driven by higher levels of government, such as national or regional authorities. In this framework, the central government takes the lead in identifying the challenges of municipal fragmentation and devises strategies or policies to encourage cooperation among municipalities. This could involve the creation of legislative frameworks, provision of financial incentives, or development of specific programs aimed at facilitating collaboration in public service provision and strategic development. Some examples are:

- **Slovenia** introduced a financial incentive in 2005 to encourage inter-municipal co-operation by reimbursing 50% of staff costs of joint management bodies – leading to a notable rise in the number of such entities (OECD, 2018[20]). The result has been an increase in municipal participation in such entities from nine joint management bodies in 2005 to 42, exploding to 177 municipalities today. The most frequently performed tasks are inspection (waste management, roads, space, etc.), municipal warden service,) physical planning and internal audit.
- The region of Galicia in **Spain** has many small municipalities with limited institutional capacity and spread out geographically, which increases the cost of providing public services. The regional government has taken steps to encourage economies of scale. First, it has improved

the flexibility of and provided financial incentives for voluntary ("soft") inter-municipal co-ordination arrangements. Investment projects that involve several municipalities get priority for regional funds. "Soft" intermunicipal agreements tend to be popular in the water sector. Local co-operation is also being encouraged in the urban mobility plan for public transport, involving the seven largest cities in the region. The regional government also imposed a "hard" co-ordination arrangement. Specifically, it created the Metropolitan Area of Vigo, an association of 14 municipalities. Although the metropolitan area was defined by the regional government, it was based on a history of "light co-operation" among 12 municipalities (out of 14) (OECD, 2019[21]).

- **France** has more than 36 000 communes, the basic unit of local governance. Although many are too small to be efficient, France has long resisted mergers. Instead, the central government has encouraged municipal co-operation. There are about 2 145 inter-municipal structures with own-source tax revenues aimed at facilitating horizontal co-operation. 99.8% of communes are involved in them. Each grouping of communes constitutes a "public establishment for inter-municipal cooperation" (EPCI). The EPCIs assume limited, specialised, and exclusive powers transferred to them by member communes. They are governed by delegates of municipal councils and must be approved by the State to exist legally. To encourage municipalities to form an EPCI, the central government provides a basic grant plus an "intermunicipal grant" to preclude competition on tax rates among participating municipalities. EPCIs draw on budgetary contributions from member communes and/or their own tax revenues (OECD, 2019[21])..
- Through financial incentives, **Poland** was recommended to encourage joint planning and the delivery of joint services, which is particularly relevant to face common local challenges, such as the ageing population) and attenuate increasing costs of services. Many OECD countries have recently passed regulations to encourage inter-municipal co-operation on a voluntary basis. For instance, France offers special grants and a special tax regime in some cases and other countries, like **Estonia** and **Norway**, provide additional funds for joint public investments (OECD, 2018[20]).

Inspired by these examples, Czechia can envisage assigning a share of existing funds for local development and investments exclusively to joint projects. Alternatively, Czechia can further develop the territorial contracts for projects between the national or regional self-governments and municipal unions or associations. The regional level can also play an active role in encouraging co-operation through financial incentives since the planning phase (OECD, 2018[20]).

Peer learning and the creation of capacities are also crucial processes to further encourage municipalities to co-ordinate planning, investments, and service delivery. Some OECD countries have opted to encourage collaboration by providing consulting and technical assistance, promoting information sharing or providing specific guidelines on how to manage such collaboration. Arrangements to solve capacity issues have been popular in particular among the Nordic countries (**Denmark, Finland, Norway and Sweden**) but they have also been practiced in **Chile**, **France**, **Italy** and **Spain** for example (OECD, 2017[22]), (OECD, 2019[23]).

Bottom-up approach. This approach focuses on initiatives and decision-making originating at the local or municipal level. In this framework, individual municipalities themselves identify the need for collaboration and take the lead in forming partnerships or associations for shared investments and service provision. This approach is often driven by Voluntary Associations of Municipalities (VAMs), where municipalities come together voluntarily to collaborate on various public services and strategic development projects. This trend towards cooperation is increasingly seen as a grassroots solution to counterbalance the challenges of municipal fragmentation.

The design of cooperative projects stems directly from the local entities themselves, reflecting their specific needs and contexts. While this approach can lead to more tailored and locally relevant solutions, it often

faces challenges like over-reliance on temporary funding sources and the absence of overarching legislative guidance or support from higher levels of government. Despite these challenges, a bottom-up approach can foster a sense of ownership and empowerment among local entities, potentially leading to more sustainable and effective collaborative efforts.

- In **Chile**, The Association of Municipalities objective is to represent all Chilean municipalities, defend their interests and promote bottom-up policies. Its mission is "To be a democratic institution, representative and leader of all Chilean municipalities fulfilling a role of promotion of innovation and excellence, through education, training as well as technical and political support with the aim to deepen the decentralisation of the state". The association also acts as an expertise centre and think tank. It has already published a number of studies, surveys and publications that cover different topics such as municipal health, public education, citizen security, child protection, e-commerce, staff management, electoral participation, migration, transport and good municipal practices, among others. In 2017, the Association of municipalities of Chile comprises 61 municipality members (ACHM, 2023[24]).
- In **Germany**, "Zweckverbände" (Purpose Associations) are formed by municipalities to manage specific tasks like public transport systems, waste management, or regional planning. There are 4 606 municipal associations (Gemeindeverband) in 2021, which have different forms and status (e.g., joint municipalities, association of communities and syndicates). Syndicates (Zweckverbände) are special-purpose associations created to deliver standard local services, such as waste management, water and wastewater or transport. They are widespread throughout Germany and are one of the most common and oldest forms of inter-municipal co-operation in the country (SNGWOFI, 2023[25]). These associations are a common tool for inter-municipal cooperation in various German states and one of the key aspects of the initiative is that it is formed through the collaboration and agreement of the participating municipalities, rather than being imposed by a higher level of government.

Box 6.3. The Local Governance Units (LGUs) of Poland

Poland is the sixth largest country in the European Union in land area (312,679 km2) and fifth largest by population (38.4 million). Poland's population density (123 people/km2) is less than that of other large European countries such as Germany or Italy, with a relatively low geographic concentration across regions compared to other EU and OECD economies.

At the regional level it is composed of 16 voivodeships (regional self-government units in regions). At local level it consists of two types of local self-government units (LSGUs):

- 380 counties (LSGUs at the county level in all of the 16 voivodeships and, including 314 counties and 66 cities with county status);
- 477 municipalities (LSGUs at the municipal level in each of the 16 voivodeships).1 The lowest administrative level, the municipality, is divided into three categories: urban, rural and mixed (urban-rural). Since 2020, rural municipalities account for most of the municipalities (62%), above the number of mixed (26%) and urban (12%) municipalities. According to the official Polish categorisation, rural areas comprise rural municipalities and the rural parts of mixed municipalities, while urban areas comprise urban municipalities and the urban part of mixed municipalities.

Areas of improvement in Poland's municipal classification as identified in the OECD Rural Policy Reviews: The TERYT classification of municipalities could improve certain aspects:

1. **The typology relies on qualitative criteria**. Urban status is conferred to municipalities through political (supported by residents/self-government) and administrative procedures, regardless of quantitative or objective characteristics of the municipalities. The process also involves historical reasons when assigning urban status (cities with county status or the traditional administrative regional centres).
2. **There is no differentiation among different types of rural**. Rural municipalities with significant linkages with an urban centre are not distinguished from rural municipalities that are remotely located.
3. The "mixed municipality" classification, i.e., urban-rural municipality, creates limitations and distortions for policy analysis and research. Rural parts of mixed municipalities are incorporated into the definition of rural areas. However, certain statistical variables, such as municipal revenue and expenditure as well as the allocation of EU funds, are often not available at this municipality level. Such situation can bias some analyses. For example, the average accessibility of rural dwellers to public services is overestimated because services are often located in the urban part of urban-rural municipalities.

Alternative OECD territorial classification for municipalities in Poland

The alternative classification follows a three-step process:

4. **Identifying municipalities inside and outside FUAs**. The methodology identifies municipalities inside and outside FUAs (city and commuting zone).
5. **Measuring accessibility for municipalities outside FUAs**. The methodology measures the level of accessibility to population settlements by following three steps:
    - Population within a 90-minute drive around each municipality: it calculates all the population that can be reached from the centroid of each municipality outside FUAs within a 90-minute drive by car in every direction.
    - Threshold of population reached: It then calculates the bottom 10th percentile of the distribution of the population that all Polish municipalities can reach within a 90-minute drive.
    - Classify low accessibility and high accessibility municipalities: A municipality is classified with low accessibility if the level of population reached within a 90-minute drive is below that 10th percentile. Above the threshold, the municipality is classified with high accessibility.

The previous two steps identify three types of municipalities:

6. Inside FUAs
7. Outside FUAS, with high accessibility to FUAs.
8. Outside FUAS, with low accessibility to FUAs.

To account for unique characteristics of municipalities, the methodology differentiates those municipalities inside FUAs and outside FUAs by size of population. The municipalities outside FUAs with low accessibility are not differentiated by size of population given their relatively homogenous distribution in size. Therefore, the final step to classify municipalities by size of population is as follows:

Dividing municipalities with high accessibility outside FUAs and municipalities inside FUAs by population size. The methodology identifies municipalities outside FUAs with high accessibility and municipalities inside FUAs that are relatively large and small in terms of population. To define the population threshold, the methodology follows Poland's population distribution of all municipalities and Poland's official threshold to differentiate among small and medium/large cities (20 000 inhabitants). Therefore, municipalities with a population of more than 20 000 inhabitants are classified as big and

those with a population of fewer than 20 000 inhabitants as small. The previous three steps identify five subtypes of municipalities:

1. Big municipalities inside FUAs
2. Small municipalities inside FUAs
3. Big municipalities outside FUAS, with high accessibility to FUAs.
4. Small municipalities outside FUAS, with high accessibility to FUAs
5. Municipalities outside FUAS, with low accessibility to FUAs.

Source: OECD (2018[20]) https://doi.org/10.1787/9789264289925-en

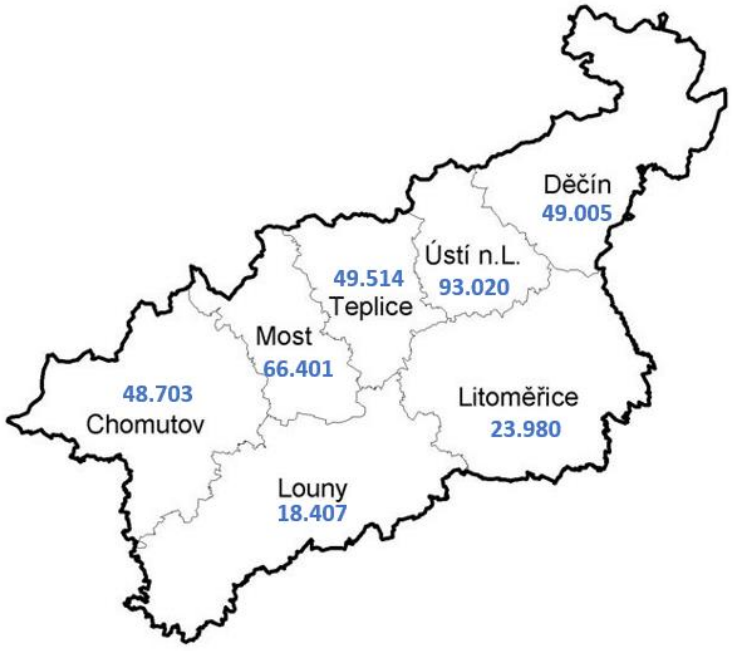
Enhancing city cooperation in Ustí nad Labem to facilitate FDI-SMEs linkages and foster regional development

Ústí nad Labem, the region exhibits a multifaceted administrative structure characterised by several mid-sized cities. This multicentric configuration is made up of populations that are not below 45,000 but none exceeding 100,000 (CZSO, 2020[3]) (see Figure 6.13). This urban settlement distribution possess challenges in attaining economies of scale and in reaching a single vision for development and for FDI attraction. Currently the region lacks a common strategy for FDI attraction and diffusion that integrates the vision of local stakeholders and the supportive role of the different cities. Greater cooperation across cities can be promoted through single forums or policy incentives. The establishment of a forum would serve as a centralised platform to gather key stakeholders and foster a cohesive strategy that leverages the strengths of each city, facilitating collaborative initiatives and pooling resources across various policy areas.

The forum could support the regions in fostering effective communication and the sharing of best practices and innovative solutions. It could include including representatives from regional offices of CzechInvest, the Transformation Centre of the Ústí Region, the University of Jan Evangelista in Ústí nad Labem (UJEP), Regional Council Bodies, and municipalities with extended competence (Obec s rozšířenou působností - ORP). The regional office of Ústí (Krajský úřad Ústeckého kraje) is positioned to play a pivotal role in this initiative, providing a venue for meetings in the capital city of Ústí nad Labem.

This collaborative type of platform can help transform the regional landscape into a competitive and dynamic economic area that is attractive to broader investment and development opportunities. As an example, the Randstad Metropo approach can be of guidance for Ústí nad Labem. The Randstad Metropo a polycentric conurbation in the Netherlands, encompassing major cities such as Amsterdam, Rotterdam, The Hague, and Utrecht. These cities are part of the Randstad region and are connected by the "Randstad Authority," a collaborative platform for municipalities and provinces to discuss and align their strategies on transportation, economic development, housing, and environment. This joint effort aims to strengthen the region's global competitiveness while maintaining local autonomy and addressing regional challenges collectively (Lambregts, Janssen-Jansen and Haran, 2008[26]).

Figure 6.13. Inhabitants in the cities of Usti nad Labem region, 2018



Source: Map extracted from TOP09 (2020[27]) https://www.top09.cz/regiony/ustecky-kraj/krajska-organizace/reseni-pro-kraj-dualni-vzdelavani-je-vyhra-pro-vsechny-27522.html and population from CZSO (2020[3]). https://www.czso.cz/csu/czso/home

Improving the regional branding to help increase qualified labour supply and appeal towards investors

The regional branding has clear room for improvement. This is particularly true for Usti nad Labem, owing to its traditional industrial base and migration legacy, as observed during the OECD's on-site visit in April 2023. For instance, enhancing the region's branding could not only bolster interregional and international inward migration of qualified individuals and investors but also counteract and prevent brain drain. The strategy must, therefore, be implemented through a multifaceted approach and can also be developed by forum such as the proposed in the previous recommendation. Such approach should consider beyond the economic development to include efforts aimed at showcasing the region's unique benefits. Enhancing the region's appeal could involve marketing campaigns, showcasing success stories, and improving living standards and quality of life.

For instance, building an attractive ecosystem for investors extends beyond the availability of land; the presence of qualified professionals plays a significant role. These professionals seek environments that offer opportunities for development, competitive salaries, and high life satisfaction among other, often grounded in the assets a community can offer. Regions compete for this qualified labour, leveraging their strengths and mitigating weaknesses to enhance their appeal as destinations for talent. For increasing the supply of qualified professionals there are two side phenomena to take place: i) turn communities into appealing places worth moving to and ii) a labour mobility that is willing to relocate for better opportunities.

The regions could draw inspiration from Asturias, Spain, which, historically a mining region, successfully rebranded itself as a destination celebrated for its natural beauty and cultural richness, with campaigns such as "*From Madrid to Heaven*" By highlighting its stunning landscapes, rich cultural heritage, and the transformation of former mining sites into tourist attractions, Asturias has managed to shift its image from

that of an industrial to a vibrant, green, and culturally appealing region. This strategic rebranding aims to boost tourism and attract new investments (FusionAsturias, 2024[28]).

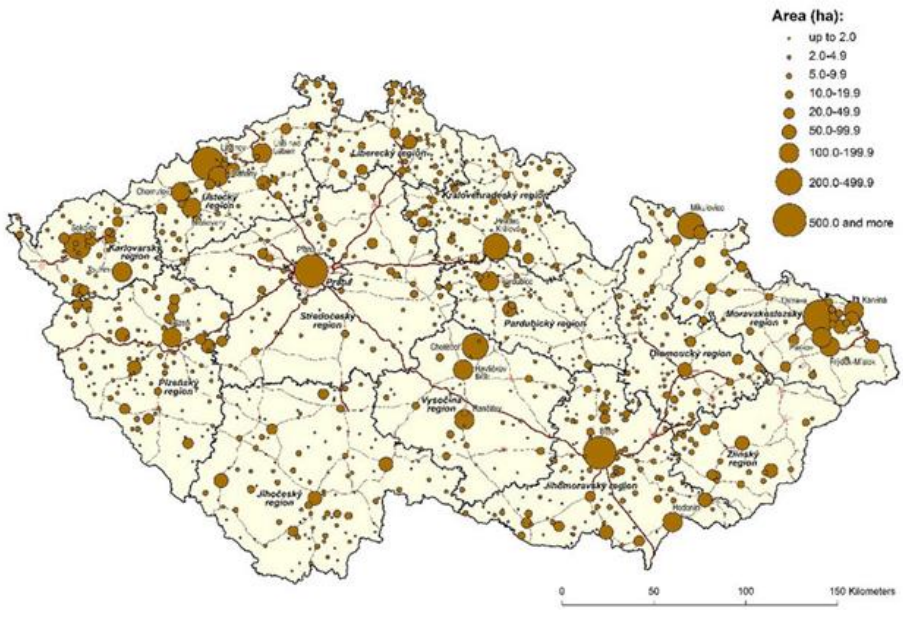
Leveraging brownfields to create places of entrepreneurship

There is a large stock of brownfield locations that offer significant potential for further development in Czechia (Figure 6.14). Brownfields are remnants of industrial, agricultural, residential, military, or other activities so they typically cannot be used effectively and appropriately without undergoing a process of regeneration, which might require collaboration from public institutions. For instance, CzechInvest supports revitalising brownfield sites across the Czechia. It identifies suitable locations for development projects via the National Brownfield Database and supports their regeneration with state and EU funding (based on the National Brownfield Regeneration Strategy). Additionally, CzechInvest organises property tours, and hosts seminars and conferences on brownfield redevelopment (CzechInvest, 2024[29]).

While the role of CzechInvest is pivotal in the reutilisation of brownfields, there's room for improvement in the capacity of local governments to lead and coordinate local economic initiatives with these land areas. This coordination should come in first instance from the Local and Municipal Government supported by the regional government and the National Agencies with regional representation. For instance, Usti nad Labem has over 4 000 brownfields which might benefit by facilitating the permitting of activity and land use to investors, together with fiscal incentives and decrease of red tape for its private exploitation.

These sites can be transformed into hubs of innovation and entrepreneurship, offering a canvas for new industries and businesses (e.g., the Tonaso and Severní Předlice Industrial Zones) (Usti, 2023[30]). Redeveloping these areas could attract private investment and serve as a way ahead to the region's commitment to environmental and economic regeneration. The country could be inspired by the EPA's Brownfields Program of the United States. This program has provided grants and technical assistance to assess, clean up, and reutilize contaminated properties. Successful projects have led to job creation and have been instrumental in the economic redevelopment of distressed communities (EPA, 2023[31]).

Figure 6.14. Bronwfields stock across Czechia, 2018



Source: Kunc et al (2018[32])
https://www.researchgate.net/publication/326877683_Industrial_legacy_towards_brownfields_Historical_and_current_specifics_territorial_differences_Czech_Republic

6.2.4. Leveraging geographical proximity to Central Europe to attract investment

The advantageous positioning is pivotal for the South Moravian and Ústí regions to strengthen their roles as gateways for economic growth and innovation. Their proximity to affluent markets can attract foreign investments and enhance market accessibility for SMEs and FDI. Table 6.3 illustrates the strategic positions of these regions due to its proximity to European cities. For example, Brno is only 130 km from both Bratislava and Vienna, and Ústí nad Labem is just 70 km from Dresden, highlighting their proximity to major European capitals and enhancing their roles as crucial connectors in Central Europe.

South Moravian and Ústí regions are well-placed to leverage their geographic proximity to neighboring countries to build a strong, export-oriented economy that benefits not only large corporations but also the vibrant SMEs that form the backbone of their economic landscape. There are three corridors running through the Czech network (EC, 2023[33]):

- **Baltic-Adriatic**, in the eastern part of the country between the Polish border and the Austrian border via Brno.
- **Orient/East-Med**, from the German border to the Austrian and Slovakian borders, via Prague and Brno.
- **Rhine-Danube**, between the German border and the Slovakian border in Ostava.

Table 6.3. Distance between Brno and selected European capitals (km)

	Bratislava	Vienna	Prague	Budapest	Ljubljana	Zagreb	Berlin	Warsaw	Dresden
Brno	**130**	**130**	**200**	330	500	500	550	550	350
Ústí nad Labem	420	420	**90**	615	800	780	**270**	740	**70**

Source: Estimations from Klímová and Žítek (2017[6]) https://is.muni.cz/do/econ/soubory/katedry/kres/rinstin/CERS2017_KlimovaZitek.pdf and Google Maps (2023[34]) https://www.google.com/maps

This strategic geographic location that can be leveraged to strengthen their roles as gateways for economic growth and innovation. Their proximity to markets presents a unique opportunity to attract foreign investment and improve market accessibility for Small and Medium-sized Enterprises (SMEs). This geographical advantage positions both regions as ideal hubs for businesses seeking to tap into the larger European market.

By effectively showcasing their strategic locations, South Moravian and Ústí can attract businesses aiming to leverage the proximity to affluent European markets. This approach not only appeals to foreign investors but also benefits SMEs by facilitating easier access to cross-border supply chains, expanding customer bases, and fostering collaborative opportunities with foreign partners. The outcome is a potential increase in exports and business growth for local enterprises, capitalizing on the regions' unique positioning. A good example can be The Lombardy region in Italy effectively showcases its strategic location as a gateway to European markets. Positioned in the heart of Europe, Lombardy has attracted a multitude of foreign investors, especially in sectors like fashion, technology, and manufacturing, by emphasizing its connectivity to major European cities and markets (Regione Lombardia, 2020[35]).

Leveraging cross-border educational and vocational training programs to prepare the workforce with the skills required by international businesses, beyond just physical market access for goods and services. Collaborations with educational institutions in neighbouring countries will be instrumental in developing a workforce that is both multilingual and culturally adept. Such a skilled workforce will make the regions more attractive to multinational companies, further enhancing economic activity and addressing regional employment challenges. For cross border programs, a good example takes place in the Greater Region, encompassing parts of Belgium, France, Germany, and Luxembourg, utilizes cross-border educational programs to create a multilingual and skilled workforce. Initiatives like the University of the Greater Region

consortium enable students and professionals to gain diverse skills and language proficiencies, making the region attractive to multinational companies (European Commission, 2023[36]).

6.2.5. Closing distances with greater digital infrastructure

Expanding high-speed internet access across Czechia is essential for levelling the playing field for all regions, not just for connectivity but for enhancing the productivity of domestic firms in Usti nad Labem and foreign firms in South Moravia on the business side, and public administrations on the public one. With the current fiber optic penetration at only 7.6%, significantly below the OECD average (13.2%), there is a clear need for improvement. Increasing internet coverage aims to bridge the geographical divide, enabling companies throughout Czechia to leverage digital tools essential for modern business operations and compete on a global scale. This initiative is not only crucial for boosting firm productivity but also for enhancing the efficiency of public administration. To complement this infrastructure expansion, implementing digital literacy programs is imperative. Such programs will ensure that citizens, especially SMEs, are well-equipped to engage in the digital economy through practices like e-commerce and the integration of digital tools into their business models.

Digital Infrastructure

The initiative to broaden the deployment of fiber optic networks aims to universally provide high-speed internet access. Given the current fiber optic penetration of 7.6% in Czechia, lagging the OECD average of 13.16%, there's a marked potential for growth (OECD, 2023[1]). Expanding this infrastructure is vital for enabling firms to access digital business tools essential for competitiveness in today's economy. This strategic expansion, aimed at reaching and surpassing OECD levels, will facilitate access to e-commerce, cloud computing, and big data analytics, fostering productivity gains and competitive edges for Czech firms.

Fostering Digital Literacy

Parallel to infrastructure enhancements, comprehensive digital literacy programmes are crucial for ensuring that citizens and SMEs are well-equipped to navigate the digital landscape. These initiatives will prepare the workforce and businesses, particularly SMEs, to effectively utilise digital tools, thereby unlocking new opportunities in the digital transformation era. Highlighting the uniformity of internet utilisation across Czech regions, the strategy promotes inclusivity in digital participation, contrasting with the varied digital adoption landscapes of countries like Poland and Portugal (Figure 6.15).

Digitalising Public Administration

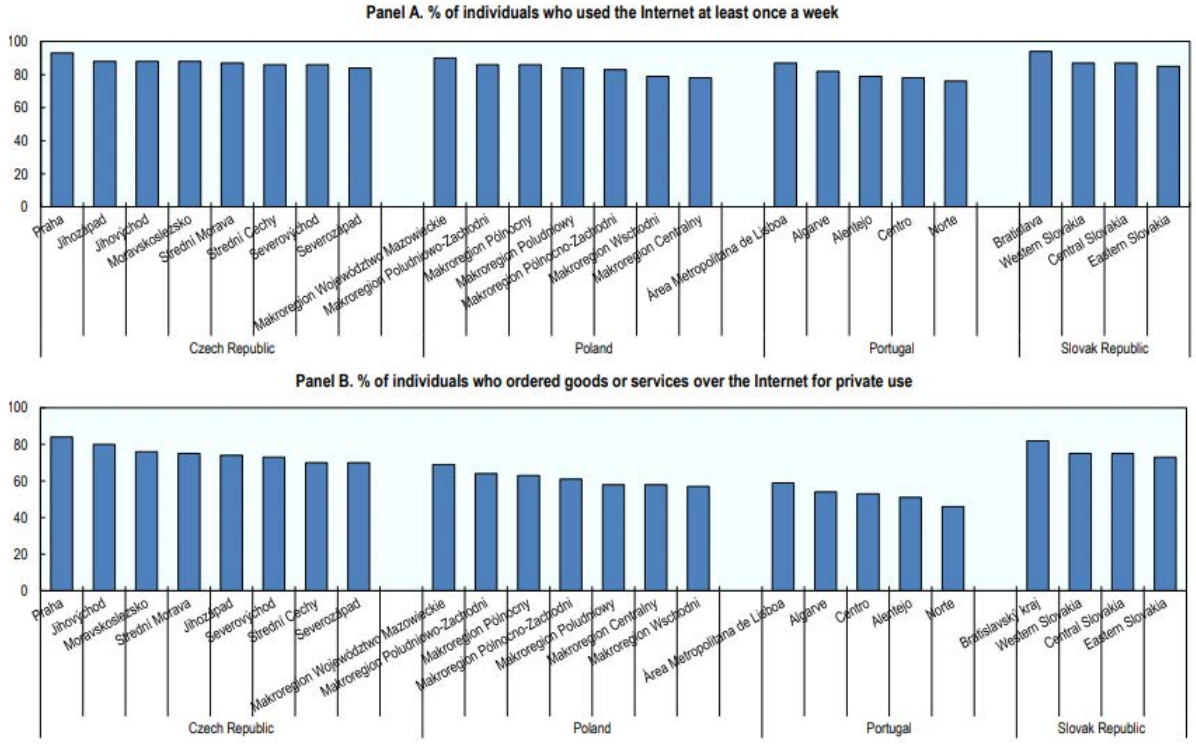
The modernisation of public services through digitalisation aims to simplify administrative procedures and foster inter-municipal cooperation, enhancing process efficiency for SMEs and attracting FDI. This approach is especially pertinent at the municipal level, where challenges posed by limited human capital and bureaucratic red tape can hinder FDI attraction. Drawing inspiration from Estonia’s e-Government initiatives, Czechia’s strategy involves a comprehensive digitalisation of government services to improve public sector efficiency. As an example, in Estonia, there has been putted in place e-Government initiatives for public sector efficiency, involving digitalization of government services and inter-agency cooperation. The range of activities cover several fields such as: e-identity, Cyber security, Interoperability services, e-Health, e-Governance, Ease of doing Business among others. (e-Estonia, 2023[37]).

Supporting SMEs in the Digital Transition

Access to advanced digital infrastructure and the adoption of digital tools are imperative for SMEs to streamline operations and expand market reach. Emphasising digital literacy and the integration of digital

technologies, such as e-commerce, is crucial for maintaining SME agility in the fast-evolving business environment (OECD, 2023[38]). The example of Singapore's "SMEs Go Digital programme" illustrates a successful national strategy to support SME digitalisation, providing a model for Czechia's efforts in this direction. In Singapore there is a "SMEs Go Digital programme", which is a comprehensive national strategy aiming to support small and medium-sized enterprises in embracing digital technologies. This campaign includes the provision of high-speed internet infrastructure even in rural areas, training programs for digital skills, and subsidies for SMEs to adopt digital tools for e-commerce (IMDA, 2023[39]).

Figure 6.15. Internet use by individuals in Czechia regions, 2021



Notes: Regions are defined at NUTS II level (see Box 6.1 for more information on current data limitations and the territorial classifications used in this report).
Source: Eurostat (2023[40]) https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Digital_society_statistics_at_regional_level; Regional statistics, Regional digital economy, and society (accessed 31 March 2023)

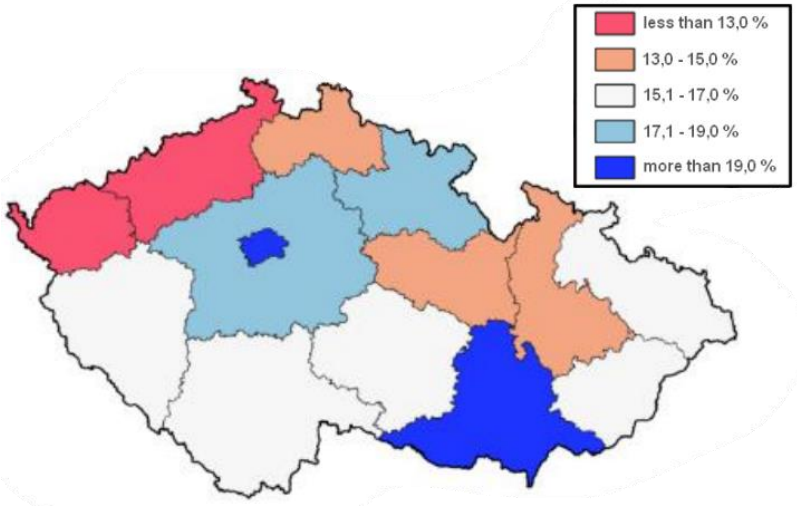
6.2.6. Higher levels of tertiary education and investments in R&D help increase the competitiveness of the regions in Czechia

The educational and R&D landscape of Czechia reveals varied regional differences and emerging challenges. Data reveals that the percentage of people with a university degree in different regions, such as Ústí nad Labem and South Moravia, exhibits significant variation, with figures in 2018 indicating less than 13.0% in Ústí and over 19% in South Moravia and Prague (Figure 6.16). This educational divide correlates with regional differences in research and development (R&D) investment and the share of population with tertiary education in 2022. For instance, the Southeast-South Moravia region demonstrates a notable 27.2% share of population with tertiary education, coupled with a substantial R&D investment of 24,512 million CZK.

In contrast, the Northwest-Ústí region has a lower 15.6% share and significantly lower R&D investment of 1,809 million CZK. (Figure 6.17). It underscores the improve tertiary education incentives, especially in a

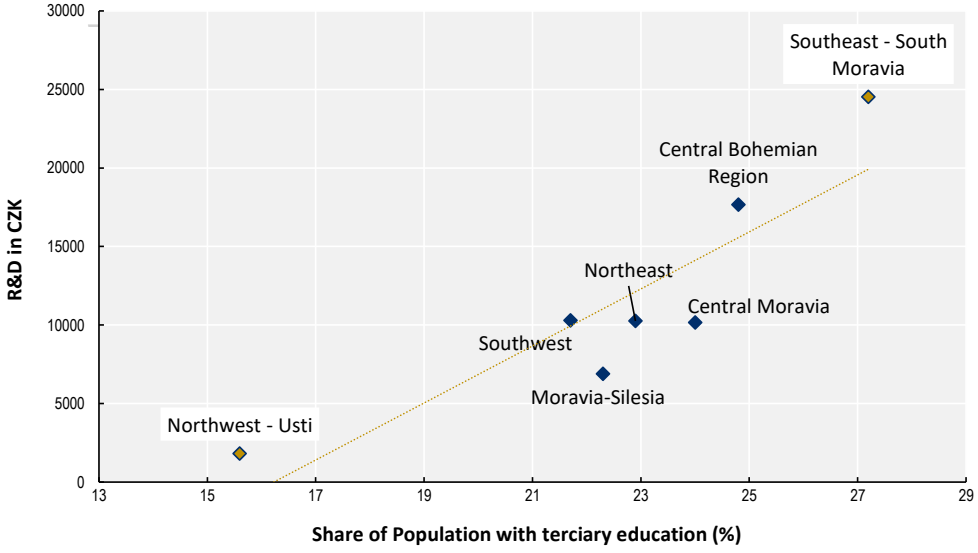
context of under-structural unemployment rates. Addressing these educational and economic disparities is crucial not only for fostering regional development but also for preventing the outflow of human capital in the short term. Short-term solutions could focus on quickly implementable programs aimed at skills development, tailored to the existing job market, and partnerships with local businesses to create immediate employment opportunities.

Figure 6.16. Percentage of people with a university degree in Czechia, 2018



Source: Image from MOORE Czech Republic (2021[4]) https://lepsikraj.cz/download/srjmk21-aj-verze.pdf with data extracted from CZSO (2020[3]). https://www.czso.cz/csu/czso/home

Figure 6.17. R&D (million CZK) and share of population with tertiary education (%) by region in Czechia, 2022



Note: R&D in millions of CZK. Education corresponds to the share of population with tertiary education over the 15-64 total population of the region.
Source: Data for R&D extracted from CZSO (2020[3]). https://www.czso.cz/csu/czso/home and data for education extracted from OECD (2023[5]) https://stats.oecd.org/Index.aspx

6.2.7. Strengthening university-industry collaboration to enhancing regional innovation capacities for attraction and diffusion of FDI

Czech regions display a diverse spectrum of innovation and collaboration between the private and public sectors. Utilising patents as an indicator of innovation, the Central Bohemian region, which includes Prague, stands out with 23.9 patent applications per million population, signifying a robust ecosystem conducive to innovation. Conversely, the Northwest region, encompassing Ústí, shows a lower rate of 13.7%, pointing to possible untapped innovation potential within the area. The Southeast region, including South Moravia, with a patent application rate of 16.7%, demonstrates a moderate level of patent activity. This reflects its balanced mix of traditional and technology-driven industries, indicating a healthy, albeit moderate, innovation landscape (Figure 6.18).

The collaborative efforts in patent applications are noteworthy, especially the significant proportion of patents co-patented with foreign entities in both Ústí and South Moravia, at 70% and 73.3% respectively. This not only highlights active engagement in the international innovation arena but also underscores the opportunity to strengthen innovation collaborations regionally. In South Moravia, 6.4% of patent applications result from university-industry collaboration, a rate that equals that of Prague and signifies robust academia-industry links crucial for fostering innovation. Ústí, however, with a 4% rate, showcases the potential for enhancing university-private sector partnerships.

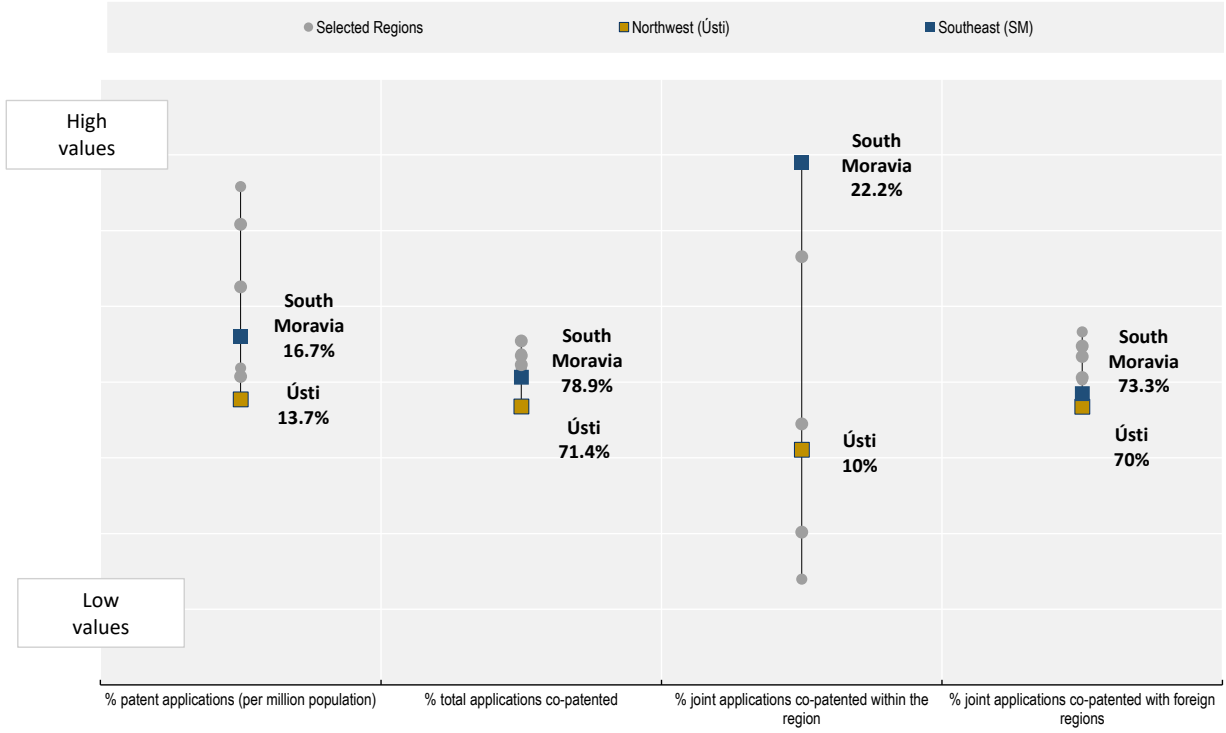
These observations reveal a clear directive for Czech regions to develop a more vigorous regional innovation system. There is a pressing need to encourage both local and international partnerships, which could significantly improve SMEs' ability to absorb new knowledge and technologies. The Central Bohemian region, presenting the highest rate of patent applications in Czechia, sets a benchmark for innovation. In contrast, Ústí nad Labem and South Moravia present ripe opportunities for growth in their innovation capabilities. A substantial portion of patents in the Czechia involve international collaboration, with South Moravia exhibiting an impressive level of engagement with foreign entities, suggesting a global orientation in its innovation efforts.

Enhance the regional innovation ecosystem by linking the academic excellence of local universities with the dynamic business environment. Universities and research institutions play an important role in both high-tech innovation and in local spill-over effects that involve knowledge transfer within territories and spin-offs firms (OECD, 2021). To catalyse the region's innovative capacity and address future labour market demands, the regions should fortify the nexus between educational institutions and the business sector.

Central to this initiative is South Moravian Innovation Centre (JIC). Situated in proximity to local universities, the park is ideally positioned to lead as a conduit for skills exchange and collaboration. Structured partnerships between companies and neighbouring universities could yield a robust talent pipeline, where academic curricula are fine-tuned to meet the evolving needs of industry. By facilitating joint ventures, offering internships, and fostering apprenticeship programs, these collaborations would provide students with real-world experience and foster a workforce adept at navigating the demands of a dynamic economic landscape. An example that could inspire Czechia to foster collaboration between public and private is the "Silicon Fen" in Cambridge, UK. The program displays a great set of academic-industry partnerships, where the University of Cambridge's cutting-edge research fuels a thriving ecosystem of tech enterprises and startups, significantly contributing to regional economic dynamism (University of Cambridge, 2023[41]). Also, the European Commision has developed the Digital Innovation Hubs which are are one-stop shops supporting companies and public sector organisations to respond to digital challenges and become more competitive improving business/production processes, products, or services using digital technologies. EDIHs combine the benefits of a regional presence with the opportunities available to a pan-European network. This regional presence leaves them well-placed to provide the services local companies need, through the local language and innovation ecosystem. The European coverage of the network facilitates

the exchange of best practices across hubs in different countries as well as the provision of specialised services across regions when the required skills are not locally available (European Commission, 2023[42]).

Figure 6.18. Patents indicators across Czech and Slovak Regions, 2017-2022



Note: Regions include countries with data availability across Czechia and Slovak Republic.
Source: % joint applications co-patented with foreign regions Data for 2015 OECD Regional Innovation Database % joint applications co-patented within the country Data for 2015 OECD Regional Innovation Database % joint applications co-patented within the region Data for 2015 OECD Regional Innovation Database % university-industry applications Share of patent applications where at least one applicant belongs to the HEIs sector and one to the business sector. Data for 2015 PATSTAT # applicants Data for 2015 PATSTAT % SME collaborating in innovation Data for 2019 Regional Innovation Scoreboard % public-private copublications (per million population) Data for 2019 Regional Innovation Scoreboard

Box 6.4. Adoption and diffusion of innovation in rural areas

The ability for rural people and businesses to successfully adopt innovations depends on their connectivity to other regions. Of particular importance is proximity to access knowledge networks in, and knowledge spillovers from, urban areas. However, there is some variation in the role of linkages and networks within OECD countries. In the case of Europe, differences in territorial scale do not appear to play quite the same productivity-enhancing role that they do in the US. While size is important in both the context of innovation for both Europe and the United States, European cities tend to rely relatively more on what is often termed as 'borrowed size' (Garcilazo and Oliveira Martins, 2020[43]), in which urban-rural linkages play a crucial productivity-enhancing role. This does not appear to have a parallel in the US. Rather than focusing simply on urban scale, opportunities for enhancing rural and small-town innovation are more widespread when spatial networks are more developed than where growth is overwhelmingly urban dominated. For remote rural areas, dependence on digital networks and supply chain linkages (where possible through infrastructure), are increasingly important.

Innovation adoption and diffusion through rural-urban linkages. The depth and reach of linkages between rural and urban areas is an important factor for facilitating the transfer of knowledge between places. These linkages can be facilitated through institutional partnerships. For example, national, regional and local government authorities can create opportunities to deepen networks and bring in new players through networking events within functional areas, facilitating access to national programs for sub-national stakeholders and entrepreneurs, or building networks of entrepreneurs to learn from challenges and opportunities from different regions. Other forms of deepening linkages include facilitating access to research partners such as universities, the private sector and civil society organisations.

Innovation adoption and diffusion occurs in networks, but not much is known about the role of rural-urban networks for innovation adoption and diffusion. Fast-growing economies tend to have a more rapid diffusion of relatively new innovations and technologies (Bassanini, 2002[44]). Yet little is understood about barriers to diffusion of innovation within countries in places that are growing at different speeds. In addition, entrepreneurs in rural areas (whether in federal or unitary governments) often face challenges in physical (and digital) access to services and resources, such as skilled labour, that facilitate innovation adoption and diffusion. This includes factors such as supply chain networks, (specialised) labour markets, international finance networks, and regional or international markets that are more difficult to access for rural entrepreneurs than urban entrepreneurs.

Source: Networks and rural-urban linkages for rural innovation Marshalian, Chan and Bournisien de Valmont (2023[45]) https://doi.org/10.1787/4928f26b-en

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Strengthening FDI and SME Linkages in Czechia

This report assesses the potential for linkages between foreign direct investment (FDI) and small and medium-sized enterprises (SMEs) in Czechia, and provides policy recommendations to foster productivity and innovation spillovers to the local economy. The report examines the quality of investment that the country attracts, the productive and innovative capacities of Czech SMEs, and a broad range of economic, business and policy conditions that can strengthen knowledge and technology diffusion from foreign multinationals to domestic enterprises. It also assesses Czechia's institutional environment and policy mix across the areas of international investment, SMEs and entrepreneurship, innovation and regional development, noting areas for policy reform. The report includes a regional focus on the potential for FDI and SME linkages and spillovers in South Moravia and Usti.

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