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# Analysis of the Involvement of Czech Branches of Foreign Investors in Research, Development and Innovation in Czechia

Brian Havlín

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MINISTRY OF EDUCATION, YOUTH AND SPORTS

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# Analysis of the Involvement of Czech Branches of Foreign Investors in Research, Development and Innovation in Czechia

**Brian Havlín**

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# Contents

# List of Figures

# List of Abbreviations

| | |
|---|---|
| **CZ-NUTS** | Standard Classification of Territorial Units in Czechia |
| **CSO** | Czech Statistical Office |
| **EIS** | European Innovation Scoreboard |
| **EPO** | European Patent Office |
| **EU** | European Union |
| **EUR** | Euro |
| **FDI** | Foreign Direct Investment |
| **GDP** | Gross Domestic Product |
| **INKA** | Innovation Capacity Mapping |
| **SME** | Small and Medium-Sized Enterprises |
| **NACE** | Statistical Classification of Economic Activities |
| **RIS3** | Research and Innovation Strategy for Smart Specialisation |
| **IPA** | Industrial Property Office of the Czech Republic |
| **R&D** | Research and Development |
| **RDI** | Research, Development and Innovation |

# Introduction

Companies' own research and development (R&D) activities are a key factor in maintaining competitiveness and long-term growth. Investment in R&D enables companies to innovate their products and services, increase production efficiency and respond to changing market needs. Through in-house research activities, companies can gain unique know-how and technological advantages that provide a competitive edge. In addition, involvement in R&D employee creativity and professional development, generally improving both the company culture and motivation. Ultimately, in-house research and development is a strategic investment that enables companies not only to survive, but also to thrive in a dynamic and globally interconnected economic environment.

The involvement of Czech branches of foreign investors in research, development and innovation (RDI) is a key factor for the economic growth and competitiveness of Czechia. In recent years, an increasing number of foreign-owned companies have invested in their Czech branches, bringing not only financial capital, but also know-how and technological innovation. This analysis focuses on assessing the extent and manner in which Czech branches of foreign investors are involved in RDI activities, and what impact this involvement has on the Czech economy and innovation ecosystem.

The Czech national RIS3 Strategy (Research and Innovation Strategy for Smart Specialisation) is a key document that ensures the effective targeting of funds from European, national and territorial budgets to support oriented and applied research and innovation. The strategy focuses on identifying and supporting key domains of specialisation with high potential for ensuring the economic growth and competitiveness of Czechia.

The RIS3 Strategy supports companies in research, development and innovation (RDI) in several ways:

1. Support for the strategic management of RDI: The RIS3 Strategy provides strategic documents and methodological guidance to help companies manage their research and innovation activities more effectively.
2. Strengthening the RDI analytical base: The creation of the necessary documents and data sharing through the RIS3 portal provide companies with high-quality foresight and analytical inputs for their innovation activities.
3. Development of innovation ecosystems: The RIS3 Strategy supports the development of communication and information platforms that enhance communication amongst RDI stakeholders.
4. Support for start-ups: The technology hubs under CzechInvest's Technology Incubation project are in line with the priorities and domains of the National RIS3 Strategy. Supporting start-ups in these hubs contributes to the development of key areas identified in the RIS3 Strategy.
5. Investment in technology hubs: Investment through technology hubs and supporting start-ups in key specialisation domains help to create a dynamic innovation ecosystem capable of responding to new challenges and trends in industrial transformation.
6. Collaboration between technology hubs and the National RIS3 Strategy: This collaboration is key to achieving long-term innovation and economic growth objectives.

The RIS3 Strategy therefore plays a crucial role in supporting companies in research, development and innovation by providing strategic guidance, analytical support, assistance for start-ups and investment through technology hubs, all of which contribute to the development of the innovation ecosystem in Czechia. RDI indicators are also covered in great detail in the Monitoring of the RIS3 Strategy using contextual indicators assessing the substantive impacts of the RIS3 vision and strategic objectives.[1] These indicators provide information on the implementation of the horizontal priorities of the National RIS3 Strategy. From this perspective, the analysis examines the impact of foreign-owned companies.

The objective is to identify the main trends and factors influencing the involvement of foreign investors in RDI in Czechia. The objective of the survey is to determine the extent to which foreign-owned companies operating in Czechia engage in research, development and innovation activities, whether they are actively involved in higher education, and whether they make use of research results produced by Czech universities and research institutes. In other words, the analysis seeks to assess whether a higher share of Czech foreign-owned companies contributes more effectively to the fulfilment of the horizontal priorities of the RIS3 Strategy. We will also focus on specific examples of successful projects and initiatives implemented with the support of foreign-owned companies. Last but not least, the analysis will include recommendations aimed at improving conditions and support for foreign investors so that they can contribute more effectively to the development of research, development and innovation in Czechia.

[1] RIS3. (2022). Monitoring. https://www.ris3.cz/monitoring

# Methodology

The analysis uses data from the Czech Statistical Office (CSO), which conducts the Annual Survey on Research and Development VTR 5-01. The Annual Report on Research and Development (VTR 5-01) is used to collect internationally comparable data on human and financial resources devoted to research and development in Czechia. This includes the nature and scope of in-house research and development activities; the number of R&D employees and the number of persons working in R&D under work performance agreements and work activity agreements, broken down by gender and type of activity; the number of researchers by nationality, and the number of newly employed research and technical staff. It also covers expenditure on research and development by type of cost, source of funding, type of R&D activity, code of the resulting R&D output and selected fields, as well as costs and revenues related to the purchase and sale of R&D services, including contract R&D and payments for R&D in the form of so-called financial transfers. The required indicators are determined according to the place where R&D activities are carried out, in accordance with the CZ-NUTS classification, and by scientific field. These data are used for the needs of public administration, the EU and international organisations. All research and development establishments are subject to a reporting obligation. The survey is conducted annually in the form of a paper or electronic questionnaire and is conducted by the Czech Statistical Office.

In addition, data from CzechInvest on investment incentives and Eurostat data on R&D indicators were used. As public institutions cannot share corporate R&D expenditure data for analysis purposes, this data was purchased from Dun & Bradstreet, which collects the figures from corporate annual reports.

The statistical analysis was complemented by qualitative information from the Innovation Capacity Mapping of the Czech Republic ("INKA"), managed by the Technology Agency of the Czech Republic. The mapping covers all regions of Czechia at regular intervals and is currently in its 4th round. The survey aims to provide detailed information on the innovation ecosystem and companies' innovation capacity as an essential prerequisite for effective support of applied research. For the purposes of this analysis, information was drawn on the nature of R&D activities in companies, the positive and negative factors influencing innovation, and the types of cooperation in R&D activities. It also sought to identify track differences between foreign-owned and domestically owned companies.

Each round of the mapping involves hundreds of companies, both domestic and foreign-owned. The present analysis was prepared during the course of the INKA survey and therefore works with data for 104 companies whose data have already been finalised. Of these, 81 companies are domestically owned, while the remaining 23 companies are foreign-owned. However, the main objective is not to cover the widest possible range of companies, but rather to gain access to unique information on corporate strategies, particularly the nature of R&D activities, which complements the robust statistical analysis. In the text, this qualitative information, derived from structured interviews with the management of the mapped companies, is presented in highlighted text boxes.

# Statistical Comparison of Czech and Foreign-Owned Companies

The 2019 Country Report for the Czech Republic (European Commission) indicates that Czechia has not yet developed a fully functional innovation ecosystem based on domestic research and development. From an EU perspective, despite an increase in R&D intensity, Czechia continues to rank as a somewhat moderate innovator. According to Indicator A10 — Innovators (EIS)[2] within the RIS3 monitoring framework, Czechia dropped three positions in the EIS ranking of strong EU innovators between 2023 and 2024, moving from fourth to seventh place in the area of corporate innovation (see Dashboard A10). This may be related to the absence of coherent public investment strategy aimed at strengthening weak research performance and improving collaboration between the private sector and academia. Productivity is mainly driven by large foreign-owned companies, while domestically owned enterprises lag behind in terms of value creation.

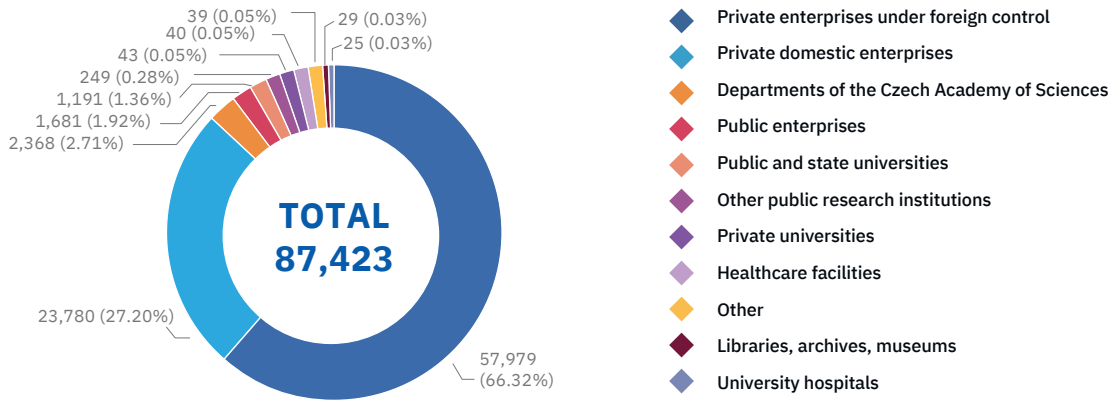
## Research and Development

The latest CSO report (2024) on research and development expenditure begins with the following statement: "In the business sector, a total of CZK 90.4 billion was spent on research and development in 2023. Businesses accounted for two-thirds of total R&D expenditure in Czechia. Foreign-controlled enterprises are playing an increasingly important role in corporate research and development in Czechia. In total, these companies spent CZK 58.9 billion on R&D in 2023, CZK 4.4 billion more than in 2022."

R&D expenditure financed from corporate sources(A01 — RIS3 Monitoring)[3] includes both current and capital expenditure incurred during the year on R&D activities in Czechia. In 2023, corporate spending reached CZK 87.6 billion. 95% of this expenditure went to the business sector. Companies in Czechia show room for improvement in supporting public R&D. 66% of funds were invested in foreign-controlled private enterprises and 27% in domestically controlled private enterprises (Fig. 1).

As show in Figure 2, foreign-controlled private enterprises have long spent approximately twice as much on R&D (CZK 58.9 billion) as domestically controlled private enterprises (CZK 28.9 billion).

**Figure 1: Expenditure on R&D Financed from Corporate Sources in 2023 (CZK million)**

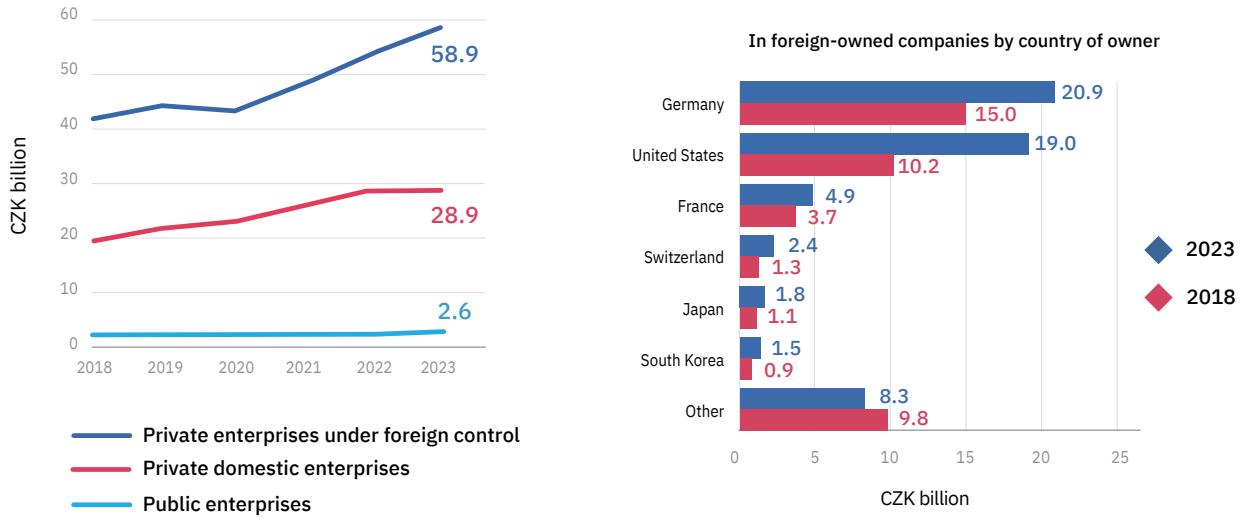



**Source: Czech Statistical Office data 2024, RIS3 Monitoring 2025, processed by the Ministry of Industry and Trade**

[2] RIS3. (2022). A10: Innovators (EIS). https://www.ris3.cz/monitoring/indikatory/a10-innovators-eis

[3] RIS3. (2022). A01: R&D Expenditure Financed from Corporate Sources. https://www.ris3.cz/monitoring/indikatory/a01-vydaje-na-vav-financovane-z-podnikovych-zdroju

## Figure 2: R&D Expenditure in Enterprises by Ownership (CZK billion)



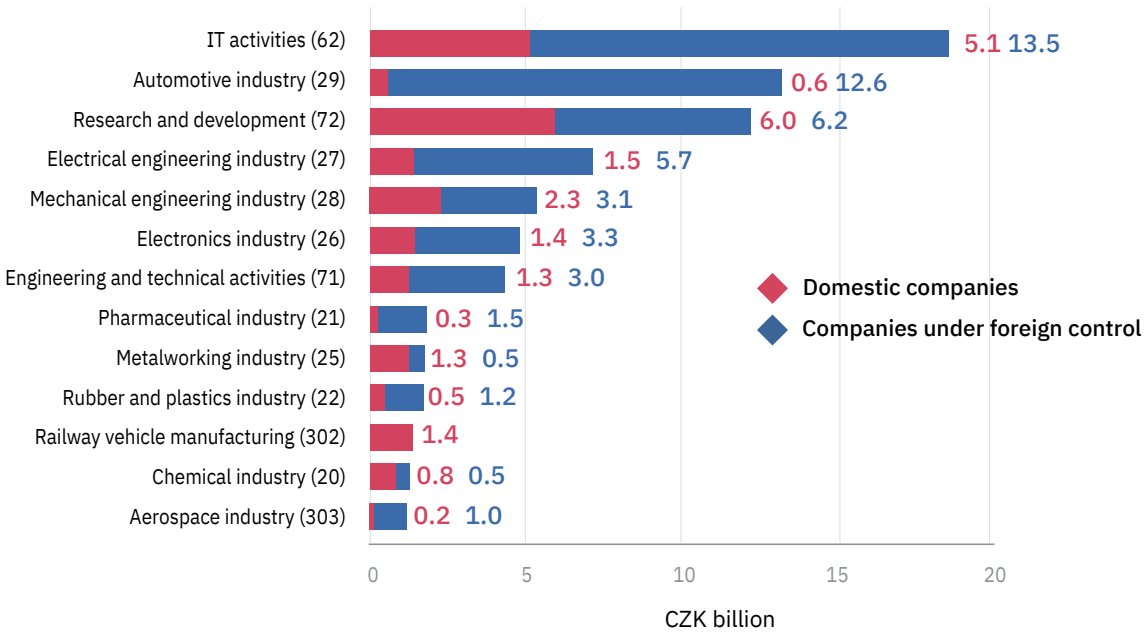

**Source: Czech Statistical Office, Annual Survey on Research and Development VTR 5-01, 2024; Dun & Bradstreet, 2025**

A total of 91% of all companies included in the INKA4 mapping report that they carry out their own R&D activities. Company management sees this as the primary means of maintaining a competitive advantage, demonstrating a proactive approach to key customers, enhancing the company's professional profile, and responding to environmental and legislative requirements. Interviews indicate that approximately two-thirds of companies hold a leading position within their group in relation to R&D activities, 72% of them being domestically owned. The remaining third, mostly foreign-owned companies, are subordinate in their R&D activities or subordinate with a leading role in a specific R&D area.
It is not the case that R&D activities are more frequent among companies that are independent in terms of strategic management and business orientation (for example, independent of a parent company or group). On the contrary, companies that do not actively carry out their own R&D are, in most cases, domestically owned independent enterprises. However, these companies still implement incremental innovations. "Our company does not have its own R&D activities. Innovation takes place at the product level in response to customer needs. These are primarily minor changes or improvements to products, such as different product dimensions, a reduction in product weight, the use of different materials in production, etc."

Most foreign-controlled companies conducting research and development in Czechia are owned by investors from Germany or the United States. In 2023, German-owned companies spent almost CZK 21 billion on research and development in Czechia, with the automotive industry being the most significant sector. US-owned companies invested CZK 19 billion, primarily in information technology (CSO 2024).

When looking at R&D expenditure by sector(Figure 3), foreign-controlled companies account for a higher share in almost all NACE categories. This dominance is particularly pronounced in the automotive industry, but is also evident in the IT, electrical engineering, mechanical engineering, pharmaceutical and aerospace industries.

## Figure 3: Business Sectors (NACE) with the Highest R&D Expenditure in 2023



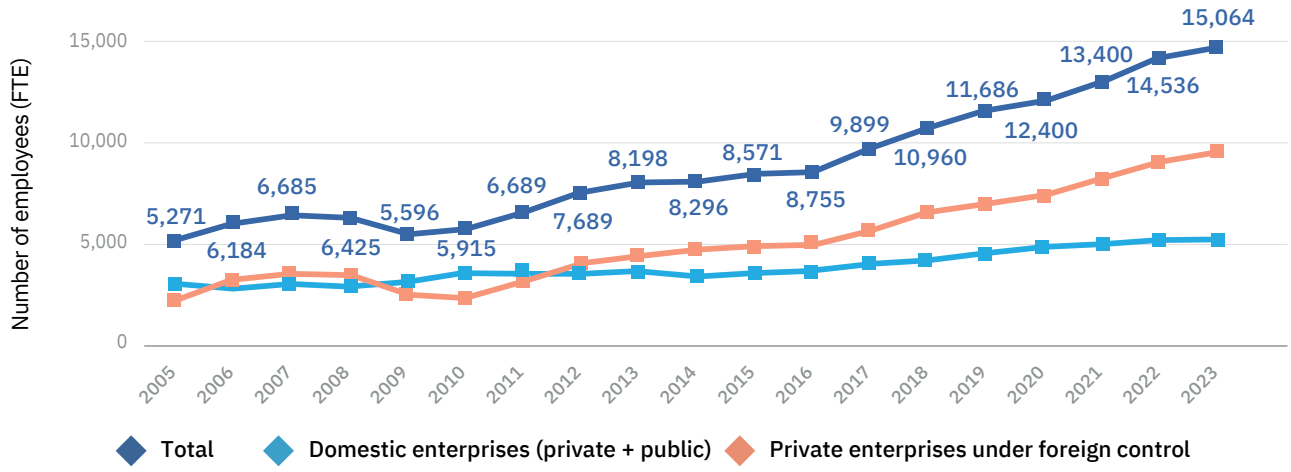

**Source: Czech Statistical Office, Annual Survey on Research and Development VTR 5-01, 2024**

This trend has long been evident in Czechia. According to CSO data, total R&D intensity reached 1.79% of GDP in 2017. Business R&D expenditure increased from 0.77% of GDP in 2010 to 1.13% of GDP in 2017. However, almost two-thirds of this was expended by foreign-controlled companies. Since 2016, R&D intensity has been increasing every year, with the exception of the turn of 2019 and 2020 when the trend slowed, probably due to the Covid-19 pandemic. A significantly negative development has been observed since 2020, as R&D intensity has declined each year. In 2023, at 1.83% of GDP, it fell back to pre-2018 levels. For more details see indicator V10 — R&D Intensity in RIS3 Monitoring.[4]

According to responses from managing directors in INKA4, in half of the cases company R&D expenditure remains at approximately the same level. If R&D expenditure decreases over time, this is due to factors such as greater utilisation of grants or the transfer of part of certain R&D activities to a sister company. Increased expenditure is most often a logical response to the overall growth of the company, although there are also cases where a company is in a phase of intensive technological development. From the perspective of the development of R&D expenditure, there are no apparent differences between domestic and foreign-owned companies.

The number of R&D personnel in the business sector in Prague also demonstrates significant growth in private enterprises under foreign control (Figure 4). Since 2012, the gap between foreign-controlled and domestically owned had widened for this indicator. R&D staff in foreign-controlled enterprises work mainly in large companies with more than 250 employees, while in domestically owned enterprises, R&D personnel are more commonly found in smaller firms.

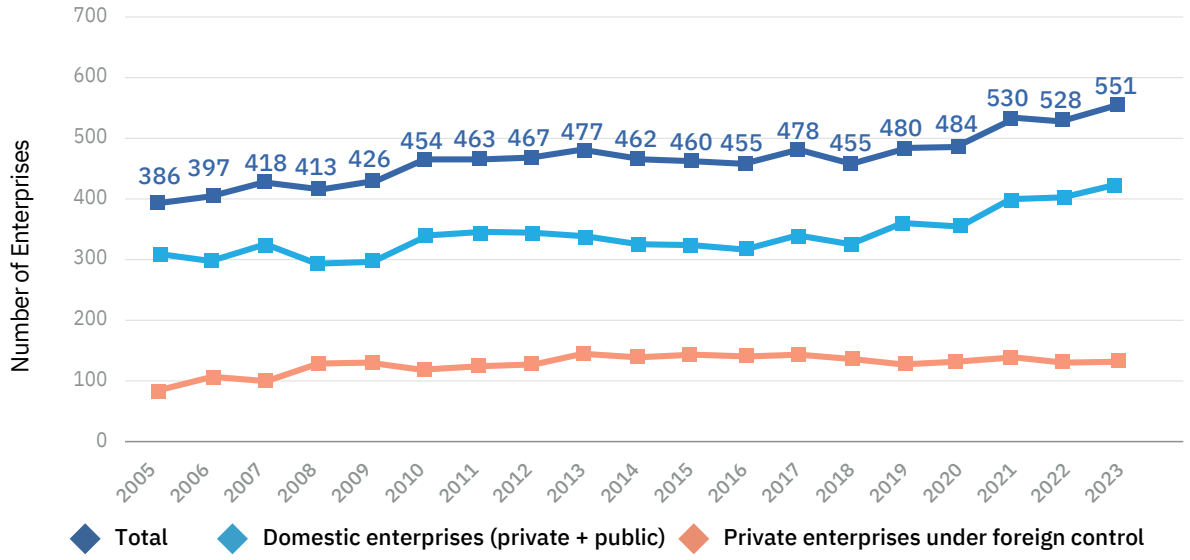
**Figure 4: Development of the Number of R&D Employees in the Business Sector in Prague**




**Source: Czech Statistical Office 2025**

The reverse is true for R&D departments in the business sector in Prague, where the number of domestically owned enterprises is significantly higher than that of private enterprises under foreign control (Figure 5). Large enterprises (250 or more employees) account for 68% of all R&D enterprises in Prague. Medium-sized enterprises (50—249 employees) 20% and small enterprises (0—49 employees) 11%.

**Figure 5: Number of Domestic and Foreign-Owned R&D Companies in Prague**




**Source: Czech Statistical Office 2025**

[4] RIS3. (2022). V10: R&D Intensity. https://www.ris3.cz/monitoring/indikatory/v10-intenzita-vyzkumu-a-vyvoje#_ftn1

Interviews with company management conducted within INKA4 show that companies most often have a total of 10 employees in R&D, which goes for both domestic and foreign-owned companies. However, companies with more than 50 R&D employees were also included in the survey. These companies often acknowledge that such employees are not exclusively involved in R&D activities. At the same time, they add that they often outsource some of their R&D activities. Another common model is that R&D is not confined to a single dedicated department, but it is a cross-cutting activity involving employees from different departments, with the composition of the team changing in line with current needs and projects.

## Innovation

Foreign-controlled companies also lead in innovation. Almost three-quarters (72.6%) of foreign-controlled enterprises in Czechia engage in innovation, which is significantly above the average for all companies in Czechia (58.3%) (CSO, 2024). Between 2014 and 2020, Czechia recorded an increase in the share of enterprises introducing process innovations, while the share of enterprises introducing innovative products and services was lower. After 2020, however, innovation activity declined. Investments in innovation amounted to only 2.3% of turnover in 2022, which is low compared to previous years. This decline may be attributable to several factors, including economic uncertainty, shifting corporate priorities or lack of financial support. It is important to monitor this trend and identify potential barriers that prevent businesses from investing in innovation(A04 — Innovative Enterprises — RIS3 Monitoring).[5]

Foreign-owned companies that conduct their own research and development in Czechia have a significant ability to transfer know-how from their parent countries. This transfer of knowledge and technology is often a key factor in the success of their Czech subsidiaries. Thanks to their global reach and experience, these companies can implement best practices, innovative technologies and management methods developed in their home countries. This process not only increases the efficiency and competitiveness of their Czech operations, but also contributes to the overall development of the Czech innovation ecosystem. Moreover, cooperation between Czech and foreign experts fosters the exchange of knowledge and skills, which can lead to further growth and innovation in the region.

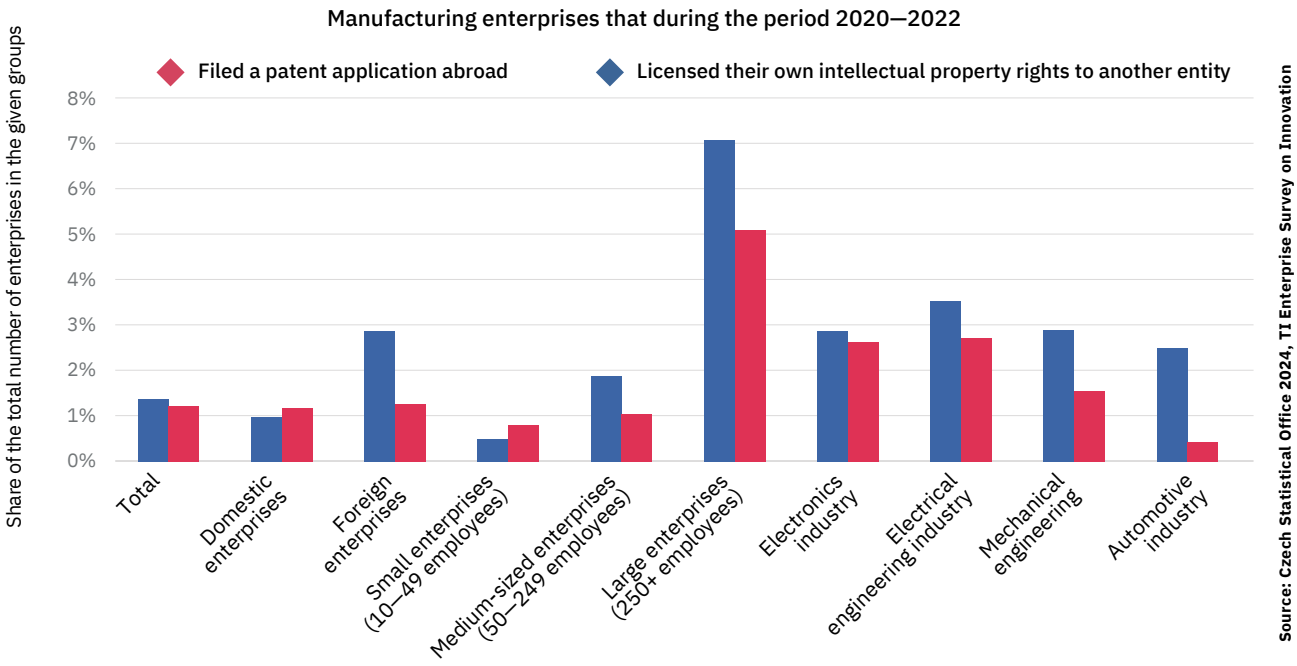
## Patents

Higher activity on the part of foreign-controlled companies is also evident in the area of patents. The chart (Figure 6) shows that between 2020 and 2022, 3% of foreign-owned enterprises in the Czech manufacturing sector filed patent applications abroad, compared to only 1% of domestically owned enterprises.

Although Czech subsidiaries of foreign-owned companies often file patent applications through their parent companies, which results in a lower number of applications filed directly in Czechia, there are also differences in patent application statistics between domestically and foreign-owned companies. According to data from the Industrial Property Office of the Czech Republic (IPO CR), a total of 5,433 patents were granted or validated in Czechia in 2023. Of these, 92% (4,979) were attributed to foreign applicants, while Czech entities accounted for only 8% (454 patents), of which just 240 were granted to enterprises. Among foreign applicants, Germany leads with 1,340, followed by the United States with 711 granted or validated patents.

This difference can be attributed to several factors, including foreign-owned companies' greater access to international resources and technology, higher investment in R&D, and stronger innovation capacity. Foreign-owned companies often use their global networks and experience when filing patent applications, enabling them to protect their innovations more effectively across multiple markets.

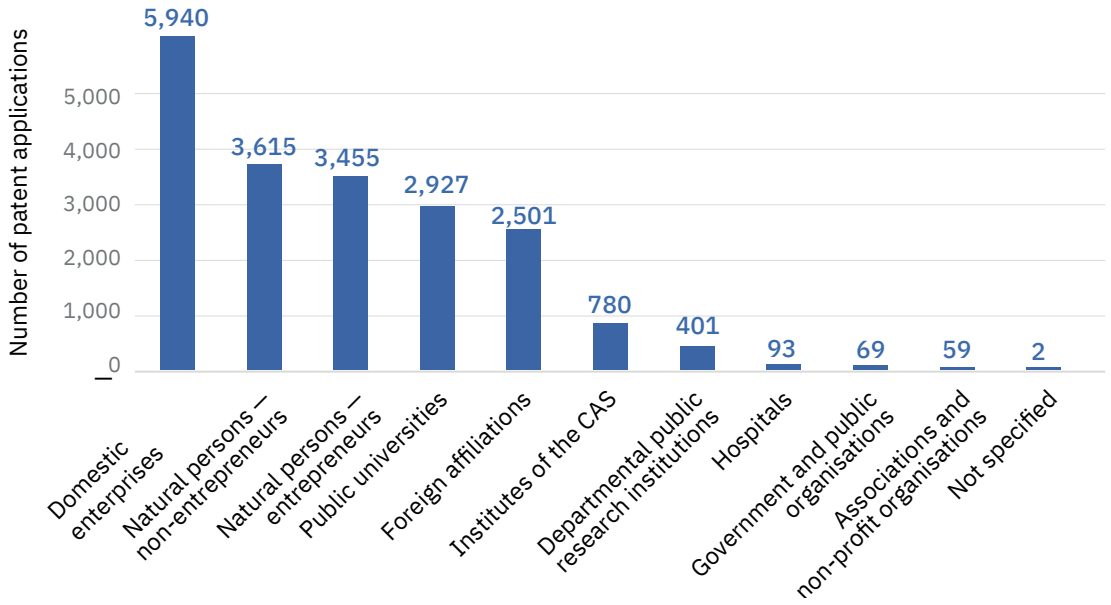
**Figure 6: Patent Applications and Licences**




[5] A04 — Basic Indicators of Innovation Activities of Enterprises with 10 or More Employees in Czechia in the Monitored Periods — Innovating Enterprises

Czechia has long lagged behind advanced countries in the number of patent applications and granted patents, including those filed abroad. In 2018, Czech entities filed only 243 patent applications with the European Patent Office (EPO), significantly fewer than similarly sized countries such as Austria, where there were ten times as many (Confederation of Industry and Transport, 2020). The number of patents granted or validated in Czechia has decreased in recent years. In 2022, 5,076 patents were granted or validated, a significant decline compared to the record year of 2019. The issue of patents is addressed in greater detail in Indicator A06 — Patent Applications Filed in Czechia (RIS3 Monitoring)[6], as well as in the study Analysis of Patents of Czech Inventors by Ownership and Analysis of Patents of Czech Owners (Unico, 2024). Figure 7 shows statistics on the number of patent applications in Czechia, with a clear lead by Czech companies, accounting for a 30% share of patent applications by applicant. Foreign affiliations have a share of around 13%, this is due to the fact that foreign-owned companies tend not to file their patents with the Industrial Property Office of the Czech Republic, but rather at the European level (EPO, EPO) or at the international level.

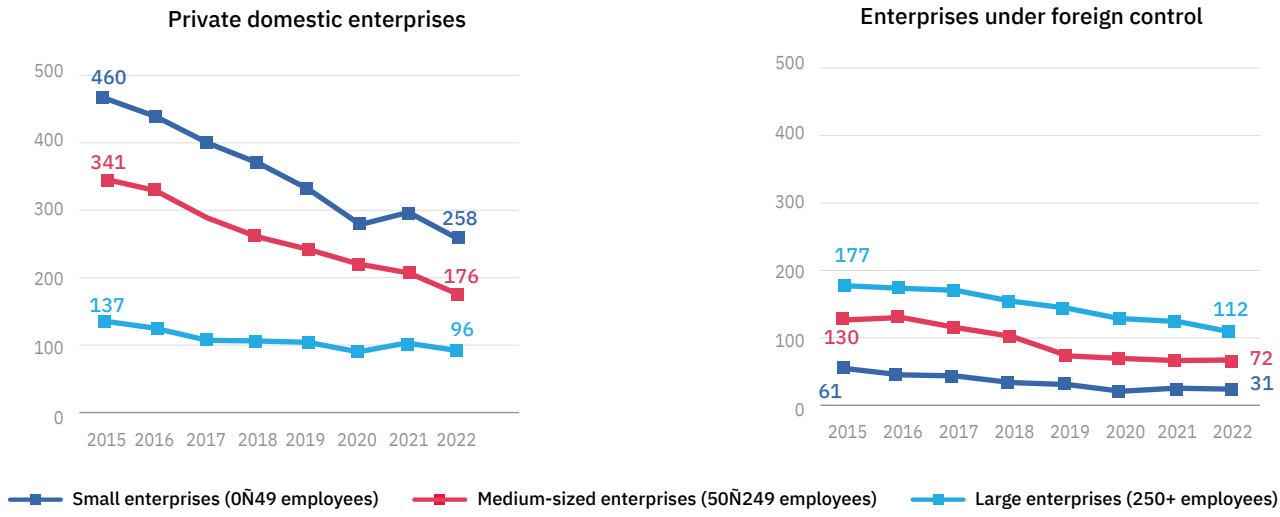
**Figure 7: Number of Patent Applications by Applicant since 1995**




**Source: Czech Statistical Office, prepared by the Technology Agency of the Czech Republic, RIS3 Monitoring 2025**

Increasing the appeal of tax depreciation is crucial for encouraging investment in research, development and innovation (RDI) in Czechia. The current situation shows that these deductions are being used by a decreasing number of companies, both domestic and foreign-controlled. Figure 8 illustrates the differences between domestically owned and foreign-controlled enterprises that utilise R&D tax support. Among small and medium-sized enterprises (SMEs), domestically owned enterprises dominate, but their number has declined sharply since 2015 (almost halving within seven years). As regards large enterprises, foreign-controlled enterprises slightly outnumber domestically owned firms. It is interesting to note that domestically owned private enterprises make the most use of tax support, small companies the least, while the opposite trend is observed among foreign-controlled companies.

**Figure 8: Number of Enterprises Benefiting from R&D Tax Support**




**Source: Czech Statistical Office 2025**

[6] RIS3. (2022). A06: *Patent Applications Filed in Czechia.* https://www.ris3.cz/monitoring/indikatory/a06-patentove-prihlasky-podane-v-cesku

It is also interesting to note the share of companies that use grant programmes to support R&D. The latest INKA survey indicates that approximately 35% of domestic firms and 30% of foreign-owned companies receive R&D grants. This result shows there is little difference in access to and interest in grants according to ownership structure.

## Cooperation between Companies and the Higher Education Sector

Foreign-owned companies often have better access to international networks and resources, enabling them to collaborate more effectively with research institutions and universities. They also frequently introduce best practices and technologies from their home countries, which can increase the quality and efficiency of research projects. Domestically owned enterprises may possess a deeper knowledge of the local market and the specific needs of Czech customers, enabling them to better target their research activities. Interviews with academics at technical universities indicate that social proximity plays an important role in establishing cooperation, which may favour domestically owned enterprises. Cooperation between research teams and companies works mainly on the basis of personal contacts and mutual trust (Havlín, 2018). Mutual trust between actors is emphasised as a key factor in establishing cooperation (Lundvall & Maskell, 2000).

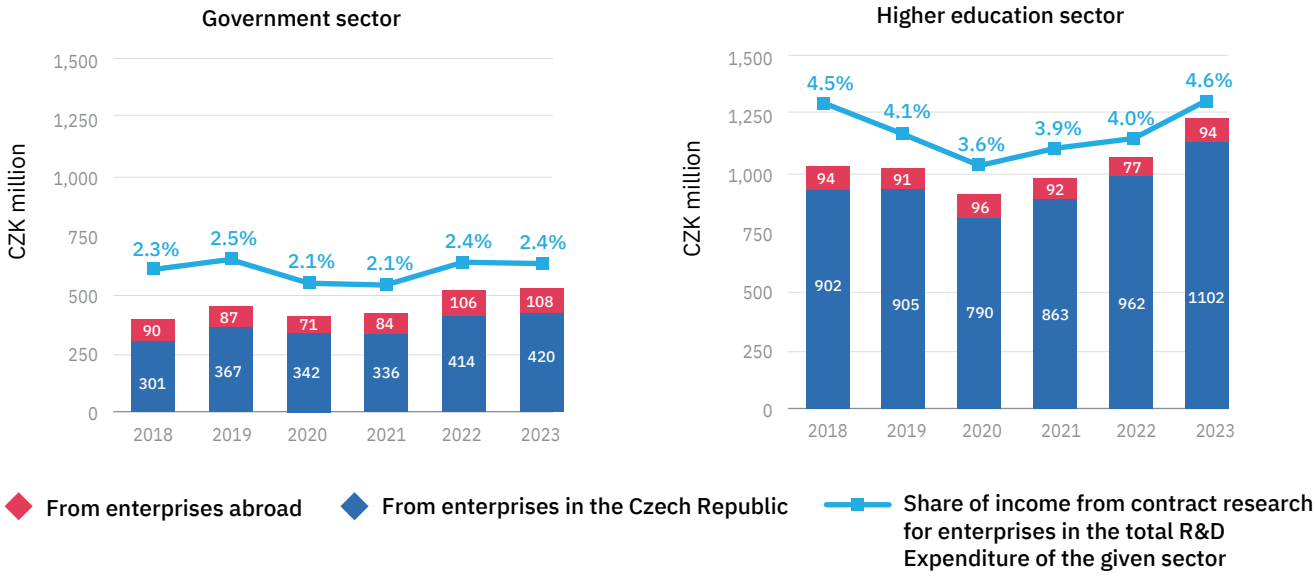
Cooperation in R&D activities is used by 89% of companies included in the INKA4 mapping; in most cases, they cooperate with a research organisation, most frequently a university. These institutions, for example, test the quality of chemical products, carry out technical calculations, manufacture equipment for drying nanofibres, analyse waste reduction options, and assist with certification.

"We cooperate with several universities. It is beneficial for both sides, as the students gain hands-on experience and we are able to recruit them as employees after they graduate." (representative of a foreign-owned company)

"We cooperate with research organisations and universities. The problem is speed, because the academic sector is not able to solve research problems fast enough to match our pace. In this respect, cooperation with the German Fraunhofer Institute works better." (representative of a foreign-owned company)

The reasons given by the 11% of companies that do not participate in R&D cooperation vary - they guard their specific know-how, R&D activities are limited and can be covered internally, or they are waiting for an opportunity arising from institutional support.

**Figure 9: Revenue from Contract Research Carried Out for Enterprises**




**Source: Czech Statistical Office, Annual Survey on Research and Development VTR 5-01, 2024**

## The Importance of Investment Incentives

**Investment Incentives**

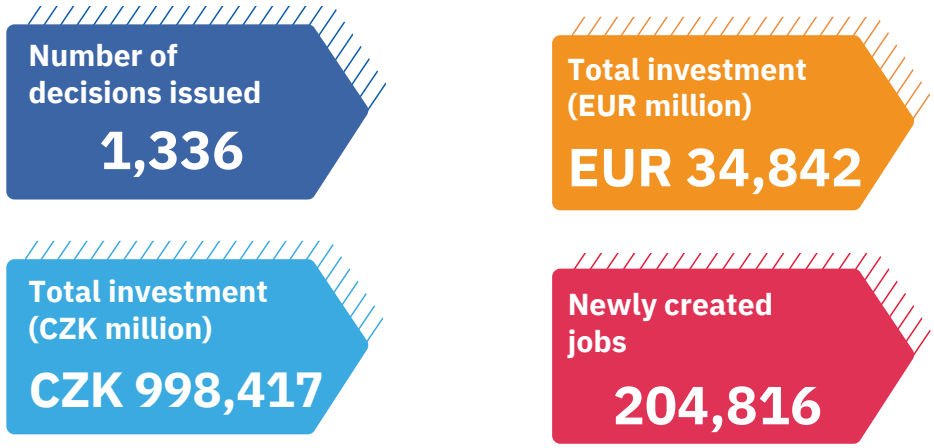
Investment incentives as a factor of economic growth include several key aspects. Investment incentives play an important role in promoting economic growth. They are designed to attract capital investment, foster innovation and increase productivity. Through such incentives, the state can achieve higher economic performance, which translates into higher GDP growth and increased employment.

Investment incentives are a means of attracting foreign direct investment (FDI), which can have a positive impact on economic growth. Foreign investment brings new technology, know-how and capital, which helps to modernise industry and boost competitiveness. Foreign-owned companies also create jobs, which increases employment and household incomes (Analysis of Investment Incentives in the Czech Republic, Schwarz, 2007).

Foreign direct investment accounts for almost a third of all jobs (more than in any other country in the region). Foreign-owned companies generate approximately two-thirds of value added in the Czech manufacturing sector. In the automotive industry, their share exceeds 90% (Czech Republic Country Report 2019, European Commission). Adámek and Rybková (2015) also concluded that investment incentives are an appropriate economic policy tool for reducing unemployment and improving regional productivity. At the same time, they recommend simplifying the process of granting incentives and focusing on investments with higher added value, in line with CzechInvest's strategic objectives. This recommendation is also reflected in the Economic Strategy of the Czech Republic. Cedidlová (2013) also confirms the effectiveness of investment incentives from the government's perspective as an important means of attracting foreign investment, resulting in positive fiscal returns for these companies. There is a moderately strong positive relationship between the volume of state aid and GDP growth (Musil & Hedija, 2020).

On the other hand, foreign direct investment may also limit the activities of small and medium-sized enterprises and lead to local enterprises being "locked" into disadvantageous positions within global production networks. More globally integrated and technologically advanced companies are not strongly embedded in regional/national innovation systems through R&D collaboration (Květoň & Horák, 2024). According to Pavlinek (2017), most regions of Central Europe suffer from a so-called "branch-plant syndrome", where most higher value-added activities are carried out by foreign-owned companies in other countries.

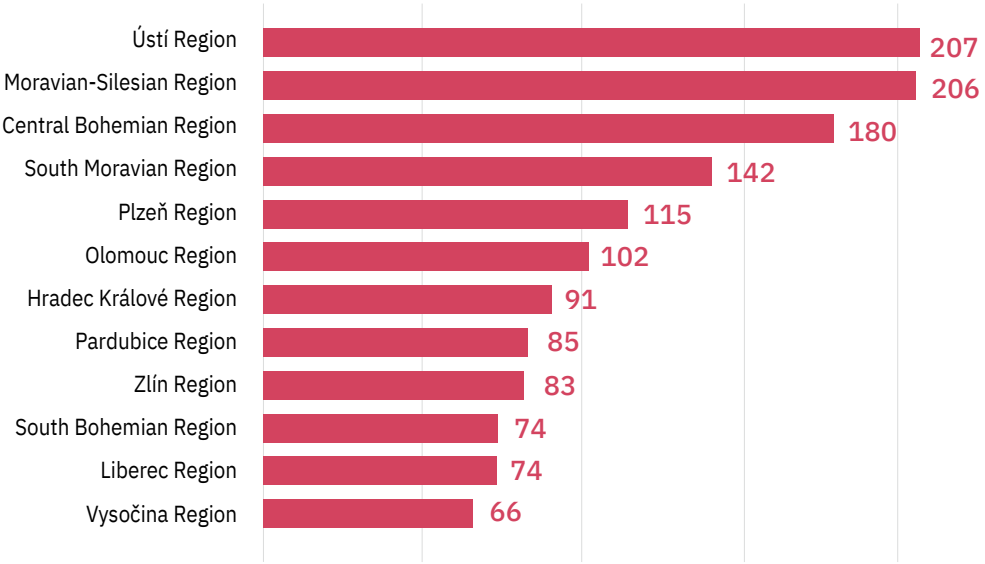
**Figure 10: Statistics of Companies that Received Investment Incentives**




**Source: CzechInvest 2025, authors' analysis**

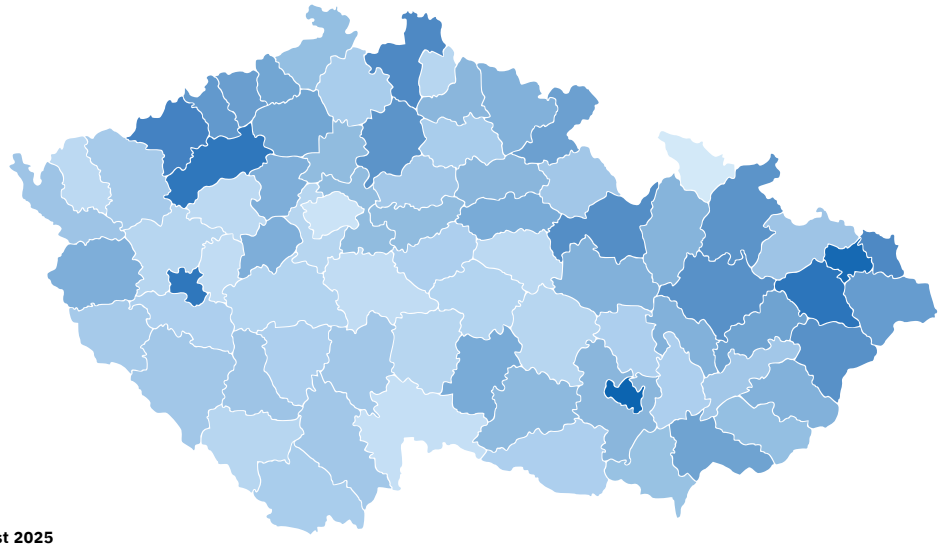
Investment incentives can also help reduce regional disparities. By channelling investment into less developed areas, these regions may gain the impulse they need to grow. This is also confirmed by CzechInvest data (Figure 11), showing that the highest number of supported projects is in the Ústí nad Labem and Moravian-Silesian regions. A more detailed breakdown at district level is presented on the map (Figure 12). Incentives can stimulate the development of infrastructure, education and workforce skills, leading to balanced growth and the development of the entire economy.

**Figure 11: Investment Incentives by Region — Number of Supported Projects**




**Source: CzechInvest 2025**

**Figure 12: Number of Supported Projects by District**



**Source: CzechInvest 2025**

Foreign-owned companies are also setting up R&D centres here, whose presence brings a number of benefits for the innovation ecosystem and Czech research and development.

**Benefits for the innovation ecosystem:**

Foreign-owned companies often bring advanced technologies and know-how that can be shared with local companies and institutions. This transfer of knowledge is crucial for the development of innovations and technologies that can move Czech companies up the value chain. The presence of foreign R&D centres also increases the competitiveness of Czech companies on the global market by providing access to the latest technologies and innovations. Moreover, foreign R&D centres create highly skilled jobs, which contributes to the development of the local economy. These centres often collaborate with local universities and research institutions, generating synergies and knowledge exchange, another important benefit for the innovation ecosystem.

**Impact on Czech research and development:**

Foreign-owned companies invest substantial resources in research and development in Czechia, leading to an overall increase in total R&D expenditure. These investments contribute to the development of research infrastructure, thereby improving conditions for local researchers. The presence of foreign R&D centres also supports international cooperation and the exchange of experience between Czech researchers and those abroad. Access to advanced technologies and methods increases the quality of research conducted in Czechia, another important aspect of the positive impact of foreign R&D centres.

Overall, the presence of foreign research and development centres in Czechia has many positive impacts on the innovation ecosystem and on Czech research and development. These benefits include the transfer of know-how, increased competitiveness, job creation, strengthened cooperation, higher investment, infrastructure development, international cooperation and improved research quality. The presence of foreign R&D centres therefore represents a significant contribution to the Czech economy and research environment. At the same time, it should be noted that companies first relocate their business (production or services) to Czechia, and it is only after several years, once they have adapted to the new market, that they invest in establishing an R&D centre as part of their expansion.

Company management agrees on several major barriers to innovation and innovation processes within their companies:

- a lack of skilled and qualified personnel
- insufficient financial resources
- complex rules for drawing grants

A member of the management of a foreign branch that spends more than CZK 200 million on R&D activities and employs around 100 people in research comments on the barriers to innovation as follows:

“I see the fundamental problem as being a lack of resources, both financial and human. The main task of our company is to manufacture, not to develop. Research and development is a secondary competence, and is therefore often subject to cuts. Administration is very burdensome for us and also limits the development of innovation. Instead of R&D, we have to focus on the reducing and calculating our carbon footprint.”

However, in around one-fifth of cases (in both domestic and foreign-owned companies), management perceives no constraints or barriers to implementing innovation within the company. When it comes to the positive impact of innovation, company management is also very often in agreement. The most frequently cited benefits of innovation are:

- market development and customer requirements
- an innovation-oriented corporate culture
- efforts to strengthen competitiveness and improve economic performance
- a proactive management approach
- effective cooperation with a research organisation

# Conclusion

Analysis of the involvement of Czech branches of foreign investors in research, development and innovation has provided several key findings that have a significant impact on the Czech economy and innovation ecosystem.

Firstly, foreign-owned companies play a crucial role in the Czech business sector, particularly in terms of research and development expenditure. In 2023, they spent almost CZK 58.9 billion on R&D, a significantly higher amount than domestically owned enterprises. Foreign-owned companies also lead in innovation, with almost 72.6% of them introducing innovations, which is significantly above the average for all companies in Czechia. In summary, a higher proportion of Czech companies under foreign ownership contributes more significantly to fulfilling the horizontal priorities of the RIS3 Strategy. The analysis shows that foreign-owned companies make a substantial contribution to achieving the strategic objective of Increasing the Innovation Performance of Companies and, through cooperation with universities and research organisations, also support the strategic objective of Increasing the Quality of Public Research.

Over 91% of companies included in the INKA4 mapping report that they carry out their own R&D activities. Company management sees this as the primary means of maintaining a competitive advantage, demonstrating a proactive approach to key customers, enhancing the company's professional profile, and responding to environmental and legislative requirements. Interviews indicate that approximately two-thirds of companies hold a leading position within their group in relation to R&D activities, 72% of them being domestically owned. The remaining third, mostly foreign-owned companies, are subordinate in their R&D activities or subordinate with a leading role in a specific R&D area. It is not the case that R&D activities are more frequent among companies that are independent in terms of strategic management and business orientation (for example, independent of a parent company or group). On the contrary, companies that do not actively carry out their own R&D are, in most cases, domestically owned independent enterprises.

Another important area is cooperation between foreign-owned companies and Czech universities and research institutions. Foreign-owned companies often bring proven practices and technologies from their home countries, thereby increasing the quality and efficiency of research projects. This cooperation supports the development of the Czech innovation ecosystem and promotes the professional growth of Czech employees.

Cooperation in R&D activities is used by 89% of companies included in the INKA4 mapping; in most cases, they cooperate with a research organisation, most frequently a university. These institutions, for example, test the quality of chemical products, carry out technical calculations, manufacture equipment for drying nanofibres, analyse waste reduction options, and assist with certification.

Investment incentives have proven to be an important means of attracting foreign investment, which has a positive impact on economic growth and employment. Foreign-owned companies in Czechia generate approximately two-thirds of value added in the manufacturing sector, with their share in the automotive industry exceeding 90%. However, it is important to strengthen the public investment strategy not only to improve cooperation between the private sector and academia, but also to make the process of applying for investment incentives faster and more transparent.

It is also interesting to note the share of companies that use grant programmes to support R&D. The latest INKA survey indicates that approximately 35% of domestic firms and 30% of foreign-owned companies receive R&D grants. This result shows there is little difference in access to and interest in grants according to ownership structure.

In the field of patents, foreign-owned companies again lead, with the majority of patent applications coming from foreign applicants. This trend suggests that foreign-owned companies have greater access to international resources and technologies, enabling them to better protect their innovations.

The INKA4 mapping showed that companies most often employ approximately 10 staff in R&D, which goes for both domestic and foreign-owned companies, while they also often outsource part of their R&D activities.

The management of companies operating in Czechia agree on several main barriers to innovation and innovation processes: a lack of skilled and qualified personnel, insufficient financial resources and complex rules for drawing grants. Administrative burdens also limit the development of innovation. However, in around one-fifth of cases, management perceives no constraints or barriers to implementing innovation within the company. The most frequently cited benefits of innovation are: market development and customer requirements, an innovation-oriented corporate culture, efforts to strengthen competitiveness and improve economic performance, a proactive management approach and effective cooperation with a research organisation.

In conclusion, the involvement of Czech branches of foreign investors in research, development and innovation is crucial for the competitiveness and long-term growth of the Czech economy. It is essential to continue to encourage foreign investment and improve conditions for research and development to enable Czechia to fully exploit the potential of its innovation ecosystem. Czechia should also promote itself more actively as an attractive investment destination for R&D. More favourable tax allowances should be introduced for companies that decide to invest in RDI. Improved tax allowances could provide a stronger incentive for foreign-owned companies to reinvest their profits in Czechia than transferring dividends abroad. This step would not only encourage the growth of local investment, but also help to strengthen the Czech innovation ecosystem as a whole. Technology transfer centres should more actively promote universities and research institutions to companies and provide comprehensive administrative support for contract and collaborative research. This could lead to closer and more effective cooperation between academia and industry, which would have a positive impact on the country's overall innovation capacity.

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