

IT MARKET

REPORT 2024



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01

**INTRODUCTION
TO THE REPORT**

JANA KRUZLIAKOVA

VP SALES & MARKETING - NATEK



As we enter **the 20th year of NATEK operations in the CEE region**, we decided to encapsulate all our knowledge and experience gained in this extremely dynamically developing region in a powerful report. The CEE report will provide **important insight into the development of the IT sector** in the four countries where we operate: Poland, the Czech Republic, Bulgaria and Slovakia. It will also serve as an **overview of the development of the main economic indicators in the region** for 2023.

We supplement the report with our own knowledge base and **best practices for setting up IT operations in the CEE region** with long-term cost benefits while maintaining high quality of services. However, it is not only about numbers, but also about **successes and stories about successful IT business establishments** in this region, which we would like to share, confirmed by **references from our customers and partner**.

I would also like to sincerely thank everyone who contributed to the creation of this report, which I believe will be an **insightful and comprehensive partner for many companies considering nearshoring regions**, as well as a **source of information about the current market situation for people associated with the IT industry in the region**. I look forward to contributing together to the further growth and evolution of the IT market in the CEE region and beyond.

Enjoy the reading!





KEY

FINDINGS

THE CEE REGION IS POSITIONING ITSELF AS A PREMIER DESTINATION FOR THE GLOBAL TECH INDUSTRY

CEE REGION SUMMARY

The CEE region, particularly Poland, the Czech Republic, Bulgaria and Slovakia, has become a **key hub for the global tech industry in CEE**, boasting **over 130 thousand ICT students** and **19 thousand graduates annually**. This skilled workforce in CEE has attracted significant investment, highlighted by **44 startups valued at over EUR 918 million by late 2022**. The rise of flexible and hybrid work structures has further bolstered the region's appeal, with **75% of companies in the CEE allowing domestic telecommuting**, compared to 51% in the Asia Pacific and 68% in the Americas.

IT companies in the region are increasingly **turning to specialized recruitment agencies** to streamline their hiring processes and focus on core business activities. Around **87% of organizations now integrating external workers into their workforce**. With its extensive tech talent and advanced outsourcing capabilities, CEE is a prime IT outsourcing destination. The region employs **over 2.2 million ICT professionals**, offering attractive opportunities for businesses to enhance their tech capabilities and pursue digital transformation. Moreover, initiatives like **CEE HER** are **promoting higher involvement of women in IT sector**, and further **encourage them to pursue IT education** in order to improve gender equality.

As CEE continues to evolve, its ability to adapt to new trends, nurture its tech workforce, and enhance gender imbalances will be essential for maintaining its stature as a **leading destination in the global tech landscape**.



Source: ConQuest Consulting analysis

| KEY FINDINGS ABOUT CEE REGION

COST REDUCTION VIA OUTSOURCING

57% of companies in the region use outsourcing primarily to reduce costs.

POLAND'S LARGE ICT STUDENT POPULATION

Poland has the highest number of ICT students in the region, with **70.4 thousand** enrolled.

CORE PROGRAMMING SKILLS IN EDUCATION

Java, SQL, HTML, and **Python** are key programming languages included in over 50% of VET, Bachelor, and Master programs.

BULGARIA'S ICT GENDER LEADERSHIP

Despite being the EU's poorest country, Bulgaria leads in **women's representation in ICT roles at 29%**, above the EU average of 19%.



Source: ConQuest Consulting analysis



02

**CENTRAL
AND EASTERN
EUROPE REGION**



WHY TO CHOOSE

CEE?

POLAND RANKS AMONG TOP INVESTMENT DESTINATIONS FOR NEARLY HALF OF FOREIGN INVESTORS

Poland, with its robust economy and strategic location, has cemented its position as a prime investment destination in CEE. The country boasts a **population of 37.8 million** and offers the **largest internal market** of all EU member states in the CEE region. In 2023, almost **50% of foreign investors** stated that Poland was **one of the most attractive countries to invest in**.

Poland's economy has been developing rapidly and steadily over the past 5 years, with an **average GDP growth of 4.1% per year**. This growth has been mainly due to fiscal policy, as well as the growing labor market, which was supported by the influx of workers from Ukraine. The country is recognized for its **highly skilled and well-educated workforce**. In 2022, Poland **exported goods worth EUR 343.8 billion**. The value of **imported goods was EUR 363.7 billion**, giving a **negative balance of EUR 19.9 billion**.

Most of the trade is carried out between Poland and other EU countries - **76% of exports** and **51% of imports** in value terms. Poland is an attractive destination for foreign investors, and the number of M&A transactions has been growing in recent years. In 2022, **216 M&A transactions** were carried out, almost 1/5 of which in the high-tech sector.

The **business services sector** in Poland is one of the most important and fastest-growing industries, offering **extensive domain expertise** and a **wide selection of midsize and large outsourcing vendors** catering to diverse industries. In 2023, Poland stood out as one of the busiest M&A markets in terms of deal volume in the area. The total disclosed **buyout value rose to EUR 5.4 billion**, an increase of **33% year-on-year**. Polish regions receive worthy praise for their **ability to attract investment and develop clusters** in increasingly higher-value-added segments of production. A famous example is the **Katowice's special economic zone** in Poland, which has successfully transformed the voivodeship into an investment attraction leader at the European level.

In conclusion, Poland's **strategic location, robust economy, skilled workforce, and growing market** make it an attractive investment destination. The country's **commitment to digital transformation** and its **well-established outsourcing infrastructure** further enhance its appeal to businesses seeking to optimize costs and drive innovation.



Source: N-ix.com, "Top IT outsourcing destinations of Eastern Europe", 2023; Statista database

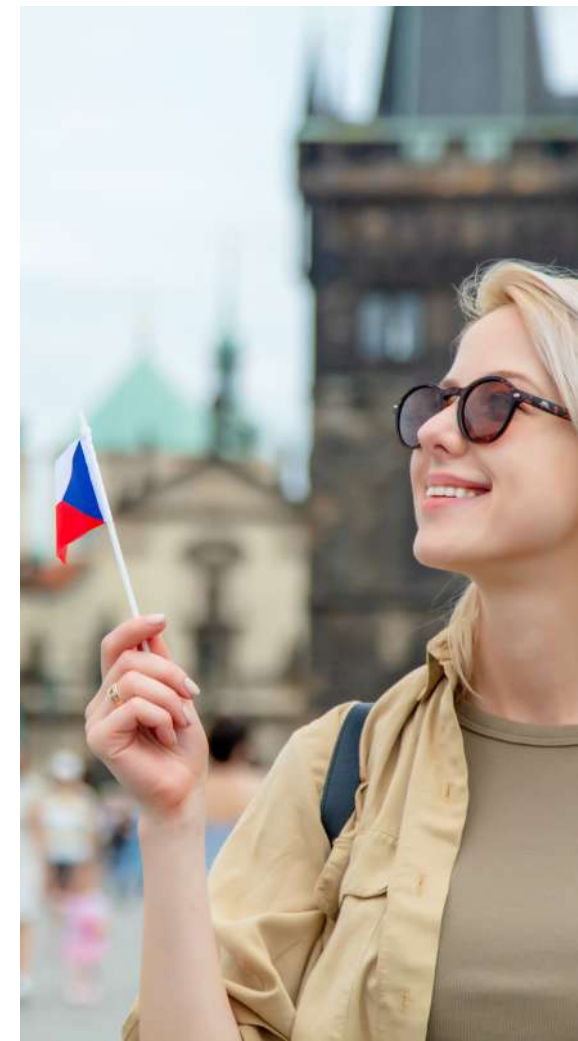
CZECHIA EMERGES AS CEE PREMIER INVESTMENT HUB AMID ECONOMIC SHIFTS

The Czech Republic, with its strategic location in Central Europe, has been a magnet for investors for over 3 decades. The country's **economic stability, high level of industrialization, and advanced digitalization** make it an attractive destination for investment. In 2023, Czechia's **GDP growth slowed down by 0.3%**, before **picking up to 2.4% in 2024**. Despite the slowdown, the country presented compelling investment opportunities.

High energy prices, tight financing conditions, and weak sentiment were expected to hold back private investment in 2023, but public investment was set to grow rapidly due to the end of the 2014-2020 EU programming period. The first quarter of 2023 saw the **retail sector** leading the way in driving a **total investment volume of EUR 485.5 million**. Local investors were responsible for a **record 78% of the investment volume in Q1**. Despite tighter financing conditions, which have become 3 times more costly, with an **average surge of 400-600 basis points** compared to the start of 2022, the investment climate remained robust.

Czechia also offers a **favorable cost structure** and an **educated workforce**, which are key considerations for businesses looking to optimize costs and enhance their technological capabilities. The country's commitment to addressing pressing issues such as **climate change** and the **green transition** is evident in its corporate investment landscape.

In 2023, the **European Investment Bank Group invested EUR 1.8 billion** in the Czech Republic. This financing supports regional development, boosts economic resilience, and improves the quality of life for its people. In addition, the **European Investment Fund provided EUR 188 million** through eight operations aiming to back small and medium-sized businesses.



Source: N-ix.com, "Top IT outsourcing destinations of Eastern Europe", 2023; Statista database

BULGARIA HAS ONE OF THE LOWEST CORPORATE TAX RATES IN EUROPE

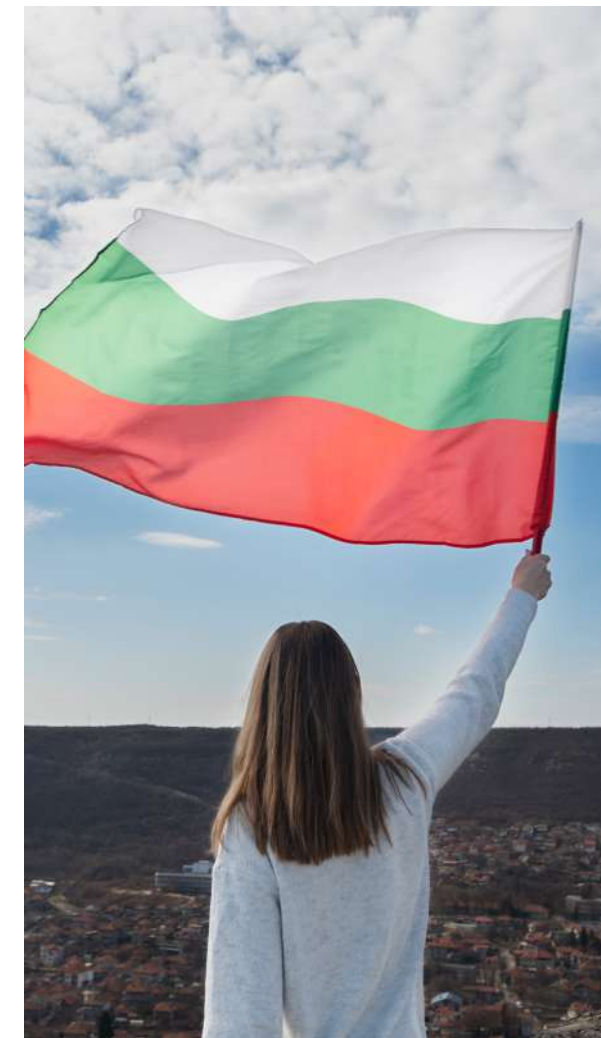
Bulgaria, with its **strategic location** and **well-established outsourcing infrastructure**, has emerged as a prime IT outsourcing destination in Eastern Europe. The country is recognized for its substantial **tech talent pool** and offers compelling opportunities for businesses seeking to augment their technological capabilities through **skilled resources, optimize costs, and drive digital transformation initiatives**. In 2023, Bulgaria boasted a significant supply of highly skilled and educated workers in key industries, particularly in the fields of **technology and engineering**.

The country's strategic location at the crossroads of Europe, Asia, and the Middle East makes it an attractive destination for businesses looking to expand into new markets. Bulgaria's **outsourcing sector** has been gaining more influence in the country's economy each passing year. The country's **low corporate tax rate of 10%**, one of the lowest in Europe, makes it an attractive destination for businesses looking to reduce their operating costs.

In 2023, **foreign direct investments in Bulgaria topped EUR 3.5 billion**. The country's economy was expected to continue its positive growth, with a **GDP growth rate of around 3.5%**. The economy was supported by **strong service sector growth**, along with a rise in **manufacturing and tourism**.

Bulgaria also has strong potential for **renewable energy sources**, such as solar, wind, and geothermal, which could further boost the economy. The country's rich cultural heritage and beautiful coastline along the Black Sea present opportunities for businesses in the **tourism and hospitality industries**.

However, it is worth noting that in 2022, **46% of businesses** in Bulgaria had **trouble filling vacancies that required ICT specialization**. This indicates a high demand for ICT professionals in the country, which could present opportunities for foreign information technology experts and companies. In conclusion, Bulgaria's **low taxes, skilled workforce** and **growing economy** make it an attractive destination for investment and business expansion.



Source: N-ix.com, "Top IT outsourcing destinations of Eastern Europe", 2023; Statista database

SLOVAKIA RAISING ITS ATTRACTIVENESS FOR INVESTORS

Slovakia, a key player in the Central and Eastern European region, has emerged as a prime destination for businesses seeking to **optimize costs, enhance their technological capabilities, and drive digital transformation**. The country attracted **EUR 2.7 billion in foreign direct investment inflows** in 2022. The total **stock of FDI stood at EUR 53.6 billion**, around **50.5% of GDP**. The majority of FDI stocks were held by the **Netherlands (22.9%), Austria (15.9%), Czechia (13.4%), South Korea (7.1%), and Germany (6.5%)**.

The sectors that attract the most investments are **manufacturing and industrial production, financial and insurance services, wholesale, and retail**. Slovakia's emerging start-up ecosystem, cost-effective and skilled labor force, and euro currency further enhance its attractiveness. The country ranks **45th** among the 132 economies **on the Global Innovation Index 2023** and **35th** out of 184 countries **on the latest Index of Economic Freedom**.

However, it's worth noting that some regions have failed to attract major investment, which has aggravated **regional disparities** in many economic and social areas. The ongoing global crisis may pose some risks, especially for the manufacturing sector, which attracts most of FDIs to the country. Recent increases in corporate taxes, changes to the Labor Code, slow dispute resolution, and recurring corruption issues are the factors that can undermine the attractiveness of the Slovak market.

Despite these challenges, the overall outlook for public and private investment in Slovakia is favorable. The country's **strong political stability, good international relations, and membership in the EU and the Eurozone** are key factors that make it an attractive business center.



Source: N-ix.com, "Top IT outsourcing destinations of Eastern Europe", 2023; Statista database

MARKUS KROEGER

CEO - COMMERZBANK DIGITAL TECHNOLOGY CENTER BULGARIA

COMMERZBANK 

Commerzbank's decision to **establish its newest technology center in Sofia, Bulgaria**, underscores a deliberate shift towards in-sourcing, which aims to internalize services and products previously outsourced from large service providers. The geographical proximity to our existing operations is also a great advantage as it **facilitates seamless collaboration and communication, mitigating logistical challenges** and **enhancing operational efficiency**. The alignment of Bulgarian mentality with German values can also be a great solution for increase productivity and cohesion in both entities.

Furthermore, **Bulgaria's skilled workforce has demonstrated an ability to deliver high-quality outcomes**, bolstering our operational capabilities and competitive advantage, thanks to the **country's robust education system and emphasis on mathematics education**. The emergence of talented graduates from Bulgarian universities highlights the country's **potential as a hub for technological innovation and excellence**.

The specialists employed in our company demonstrate a **high level of commitment and motivation to their work**, driving productivity and fostering a culture of excellence within Commerzbank's operations. We are looking forward to adding new talents to our company, where we will be able to support their development in niche technologies, and therefore, ensure a constant pipeline of skilled professionals to meet future market requirements.



STANISLAV PETROV

CHAPTER LEAD - COMMERZBANK DIGITAL
TECHNOLOGY CENTER BULGARIA

COMMERZBANK 

Our investment in Bulgaria is further justified by the country's **favorable tax policy and social contributions**, which create a conducive business environment, enabling **cost-effective business operations and maximizing profitability**. Moreover, membership in the United Nations increases the country's **credibility and its stability as a business destination**, instilling confidence of investors such as Comerzbank.

By **leveraging Bulgaria's strengths in technology and education**, Comerzbank has not only enhanced its operational efficiency, but also ensured sustainable growth and success in an increasingly competitive global market. As Bulgaria continues to **establish itself as a premier destination for IT outsourcing and innovation**, we are poised to further benefit from strategic investments in the country.





MACROECONOMICS

DATA

IT SECTOR CONTINUED TO GROW DESPITE NEGATIVE MACROECONOMIC TRENDS

MACROECONOMIC DATA

The economies of Central and Eastern Europe countries grew steadily from 2018 to 2023. The only exception was the Covid-19 pandemic, during which the slowdown affected all economies. Unemployment and inflation rates responded similarly and we saw them increase in 2020. In response to rising inflation rates, interest rates were also raised in all countries. The situation began to change in 2023 when all economies saw a decrease in the inflation rate, and, consequently, there were corresponding changes in other macroeconomic indicators.

The economic stability of all countries, despite the disruptions resulting from the pandemic, is returning to its previous level. **Reducing inflation, unemployment and interest rates** is a positive signal that economies are growing again, which may also contribute to the growth of the IT sector as **more and more companies invest in IT solutions**. However, it should also be emphasized that the **economic slowdown has not affected the IT sector** as much as other sectors. Despite Covid-19 and the macroeconomic consequences, the **IT sector continued its development and increased its importance**.

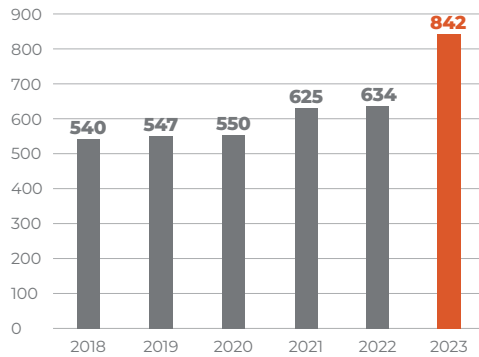


Source: ConQuest Consulting analysis

CONSTANT INCREASE IN THE SHARE OF THE IT SECTOR IN COUNTRIES' GDP

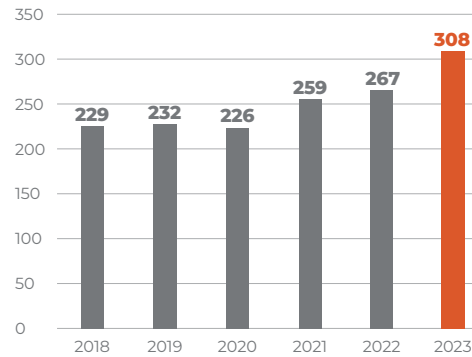
GDP (BLN EUR) IN 2018-2023

POLAND



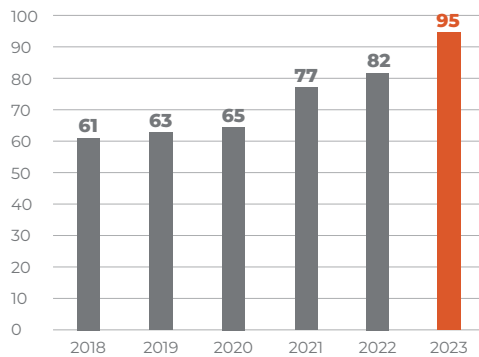
The IT industry in Poland is a rapidly growing sector of the economy, with the estimated **value of EUR 11.4 billion in 2023**. The IT industry generated approximately **8% of Poland's GDP** in 2023, which is **higher than the EU average of 5.7%**. The sector **grows every year by approximately 8.6%** in relation to GDP and is even higher than the global average. This sector demonstrates continued potential in terms of economic growth and employment opportunities in the IT industry.

CZECHIA



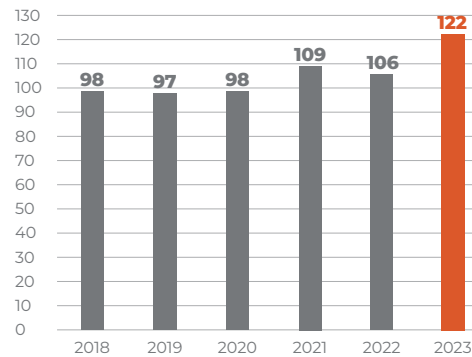
The IT industry in Czechia is a dynamic sector of the economy, with a **value amounted to EUR 3.6 billion** in 2023. The IT industry accounted for approximately **11.4% of the Czech Republic's GDP in 2023**. This sector is **growing at an average of 3.7%** in relation to the GDP each year, which is **below the average growth of the global IT market of 8.2%**. The country has shown its intention to raise these numbers by **increasing the spending on the IT sector by 6%** to support its development.

BULGARIA



The IT sector in Bulgaria, **valued at EUR 4 billion in 2023**, generates on average **4.5% of the country's GDP**. Despite a slowdown in 2021 and 2022, it **grew by 12.1% in 2023**, surpassing the global IT market average. With **IT sector turnover growing by 26.5%** annually from 2021, Bulgaria shows one of the greatest potential for economic development and job creation in the region. This is a proof of Bulgaria's **commitment to innovation and technological advancement** in the industry, thereby increasing the country's GDP.

SLOVAKIA



The IT industry in Slovakia is also a dynamic economic sector **amounted to approximately EUR 4.6 billion in 2023**. The IT industry accounted for approximately **4.6% of Slovakia's GDP** in 2023, which is **lower than the EU average of 5.7%**. The Slovak IT sector **grows by an average of 5% of GDP** each year. The country shows great potential for economic development and job creation in the IT sector, thanks to a **increase of 64% in the number of IT companies** between 2018 and 2022.

Source: Alcor BPO, "Software Development in Czech Republic", 2024; Questers, "Exploring Bulgarian IT Sector", 2024; Alcor BPO, "Software Development in Czech Republic", 2024; Statista, "Video Game Market - Poland", 2024; European Commission, "Economic and Financial Affairs", 2024; European Commission, "Economic Surveillance of EU Economies", 2024

POLAND AND BULGARIA LEAD THE REGION

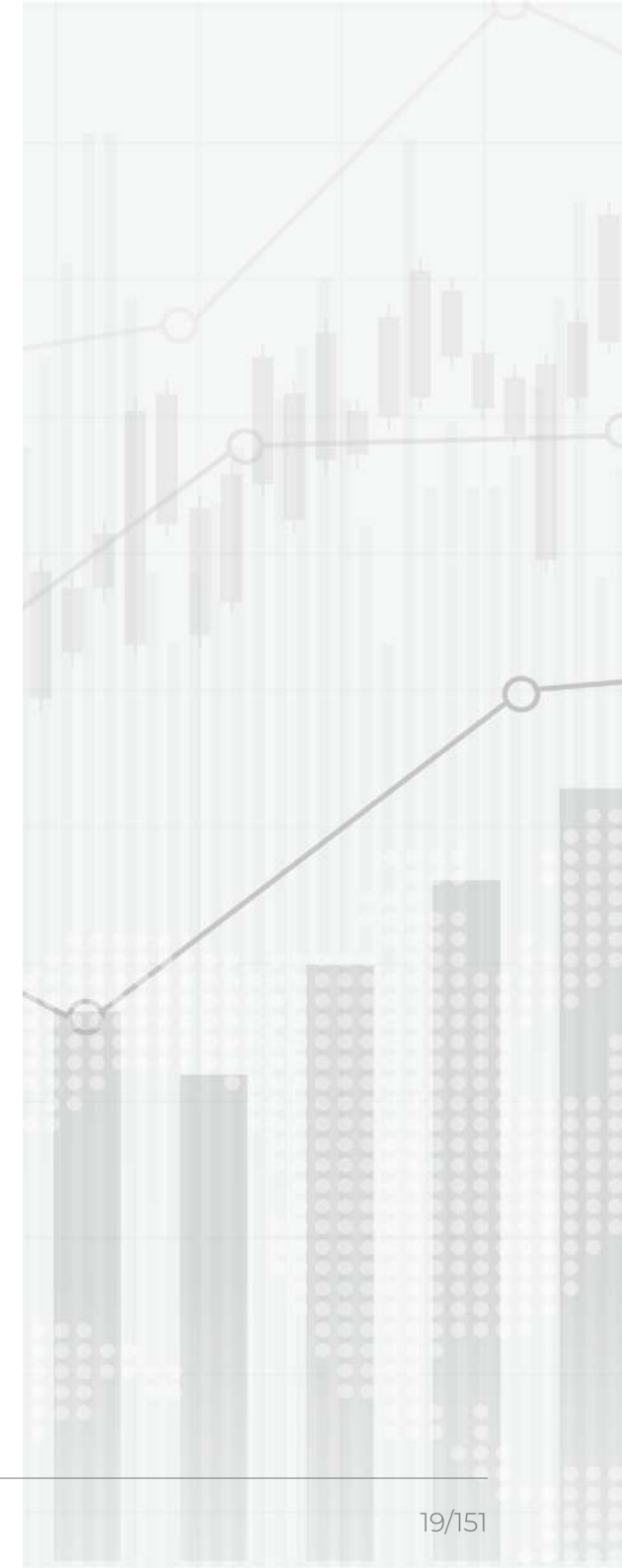
GDP IN POLAND, CZECHIA, BULGARIA & SLOVAKIA IN 2018-2023

SUMMARY

The IT industry is vital for the economy and employment in Poland, the Czech Republic, Bulgaria, and Slovakia. The **IT sector** in these 4 countries was **worth EUR 23.6 billion in 2023**, but had different GDP shares and growth rates. **Poland leads the region** with an **IT sector share of 8% and a growth rate of 8.6%**, followed by **Bulgaria with 4.5% and 12.1%** respectively. **Czechia, with 3.7%, recorded the lowest growth** in the IT sector among the countries surveyed, while **Slovakia had the lowest share of the sector in national GDP**, which amounted to **4.6%**.

The development of the IT sector in the region also has a significant impact on the countries' growth and other aspects, such as productivity, efficiency, competitiveness, innovation, and better job offers. However, the IT sector faces many challenges, such as skill gaps, cybersecurity, and digital transformation, but at the same time also offers many opportunities, like innovation, investment, and partnership. **Software development and cloud computing are two of the most relevant and dynamically developing IT services** in the CEE region. They contribute to the growth and development of the whole IT sector and the overall economy of the region. The number of developers in these 4 countries amount to over **0.8 million IT professionals**, and they rank high in various global rankings of programming skills. Moreover, **the public cloud services market in Central and Eastern Europe is foreseen to grow by 17.8% year-on-year** between 2022 and 2029 and is expected to **reach 29 billion EUR in 2029**.

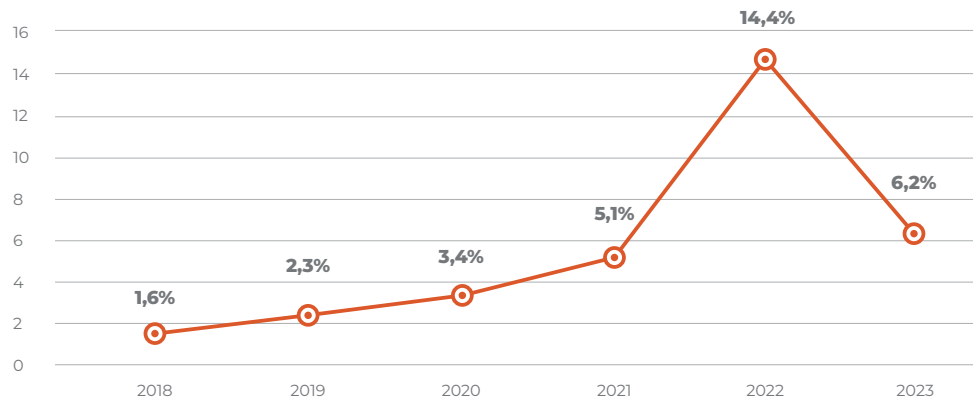
Source: ConQuest Consulting analysis; Alcor BPO, "Software Development in Czech Republic", 2024; Questers, "Exploring Bulgarian IT Sector", 2024; Alcor BPO, "Software Development in Czech Republic", 2024; Statista, "Video Game Market - Poland", 2024; European Commission, "Economic and Financial Affairs", 2024



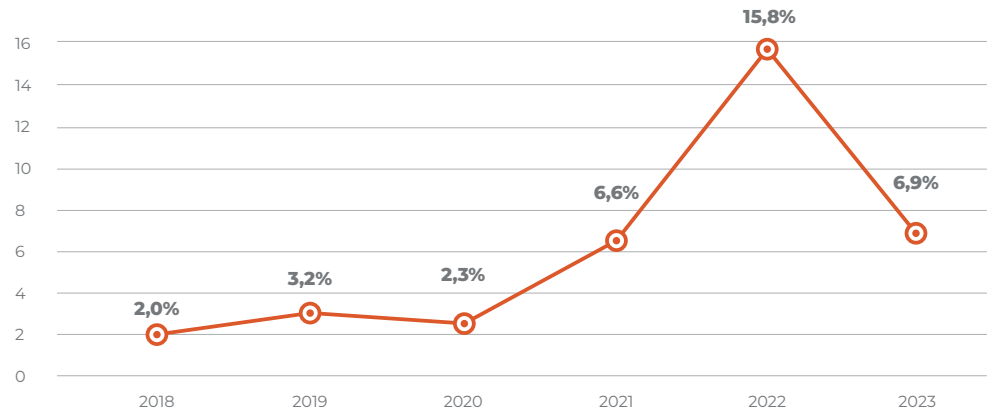
DEMAND FOR IT INDUSTRY SERVICES HAS PROVEN TO BE RESISTANT TO INFLATION SPIKE

INFLATION RATE IN 2018-2023

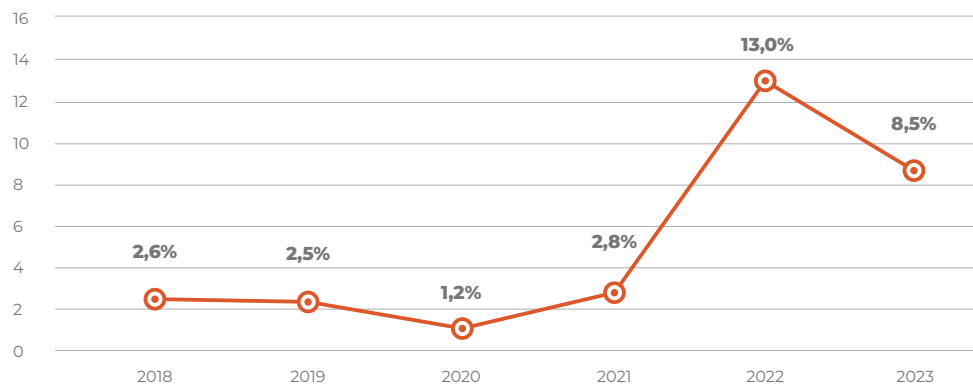
POLAND



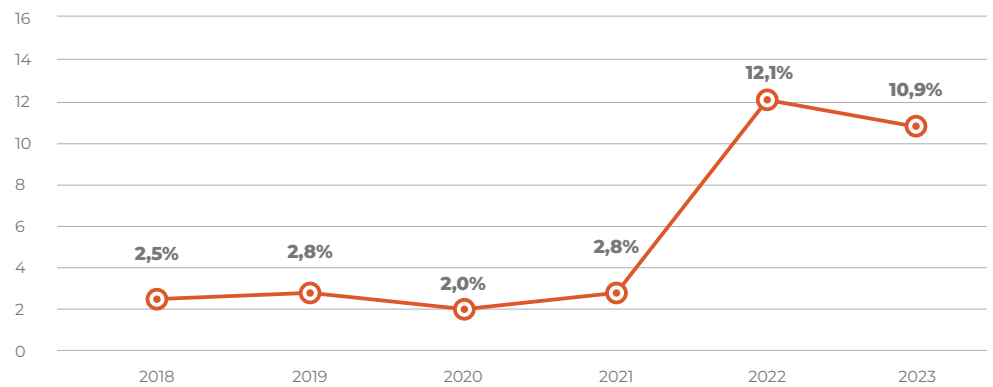
CZECHIA



BULGARIA



SLOVAKIA



Source: Alcor BPO, "Software Development in Czech Republic", 2024; Questers, "Exploring Bulgarian IT Sector", 2024; Alcor BPO, "Software Development in Czech Republic", 2024; Statista, "Video Game Market - Poland", 2024; European Commission, "Economic and Financial Affairs", 2024; European Commission, "Economic Surveillance of EU Economies", 2024

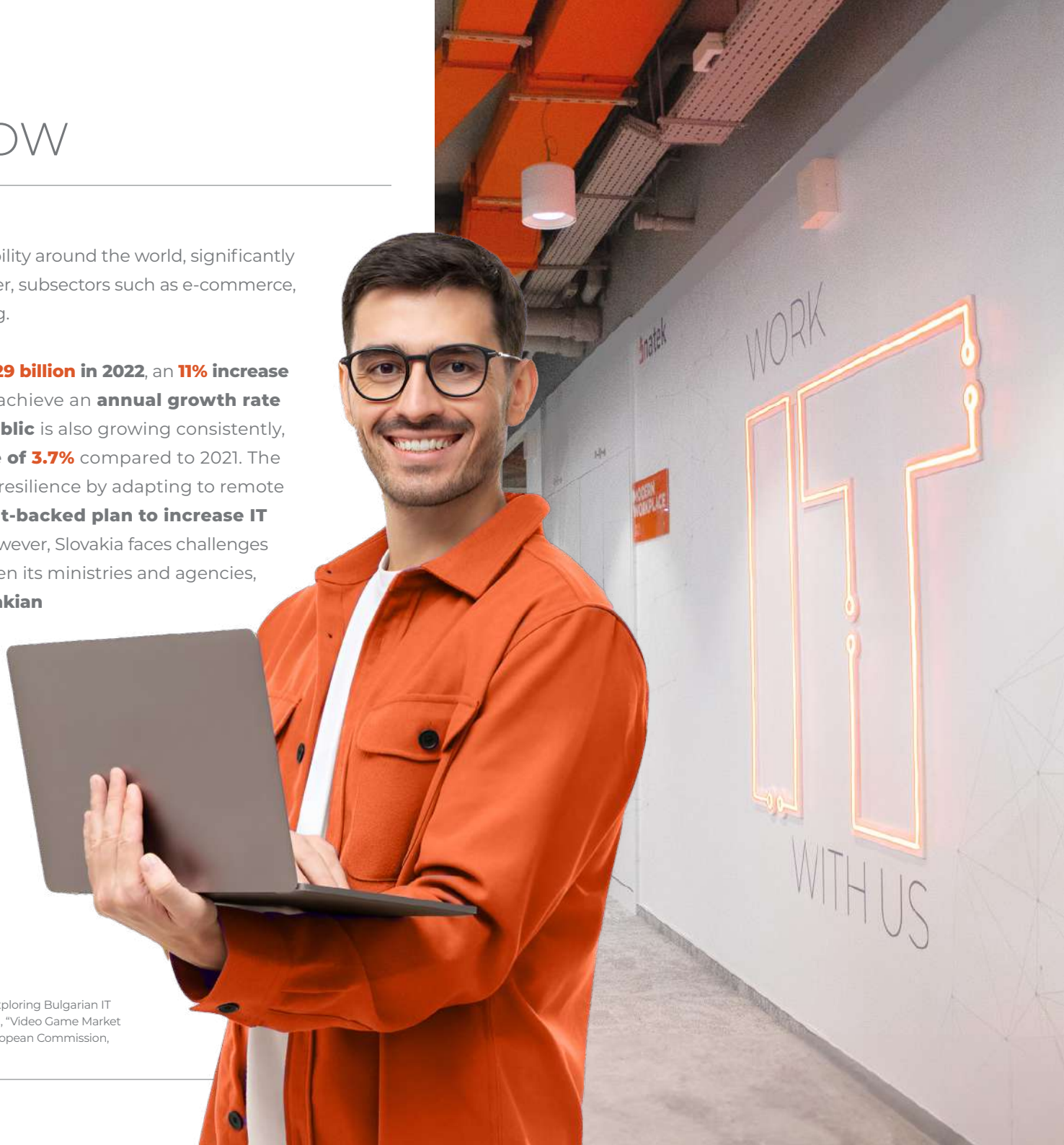
CEE IT MARKET CONTINUES TO GROW

The COVID-19 pandemic has disrupted economic stability around the world, significantly affecting all industries, including the IT sector. However, subsectors such as e-commerce, cloud computing, and online education were thriving.

Polish gaming industry, for example, **earned EUR 1.29 billion in 2022**, an **11% increase** compared to the previous year, and is expected to achieve an **annual growth rate of 6.8% by 2027**. The **IT market in the Czech Republic** is also growing consistently, overcoming inflation with an **annual increase rate of 3.7%** compared to 2021. The **Bulgarian IT sector**, on the other hand, has shown resilience by adapting to remote working and digitalization, as part of a **government-backed plan to increase IT spending by 4.2% annually** over the next 5 years. However, Slovakia faces challenges due to a lack of coordination and cooperation between its ministries and agencies, leading to resource fragmentation. Despite this, **Slovakian IT services market** is still projected to **grow at a CAGR of 8.1% between 2024 and 2028**.

Overall, the IT market in Central and Eastern Europe remained resilient amidst the pandemic, with sectors like **gaming, e-commerce, cloud computing, and online education experiencing significant growth**, while other sectors faced a temporary slowdown.

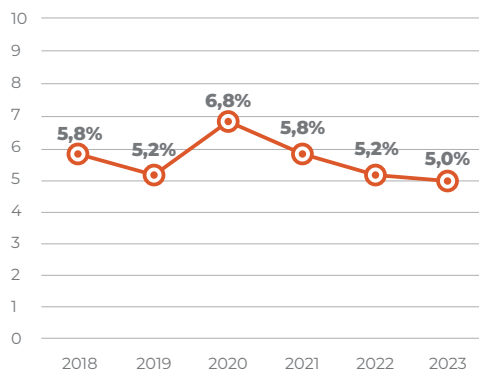
Source: Alcor BPO, "Software Development in Czech Republic", 2024; Questers, "Exploring Bulgarian IT Sector", 2024; Alcor BPO, "Software Development in Czech Republic", 2024; Statista, "Video Game Market - Poland", 2024; European Commission, "Economic and Financial Affairs", 2024; European Commission, "Economic Surveillance of EU Economies", 2024



UNEMPLOYMENT RATE IN POLAND CONTINUES TO DECLINE SINCE 2020

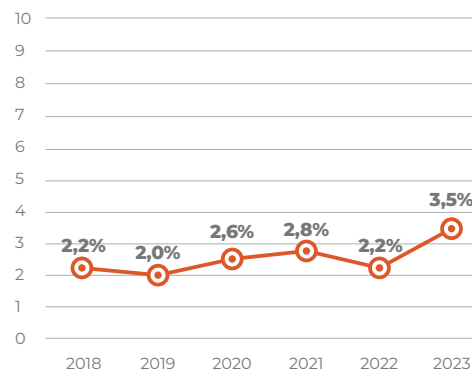
UNEMPLOYMENT RATE IN 2018-2023

POLAND



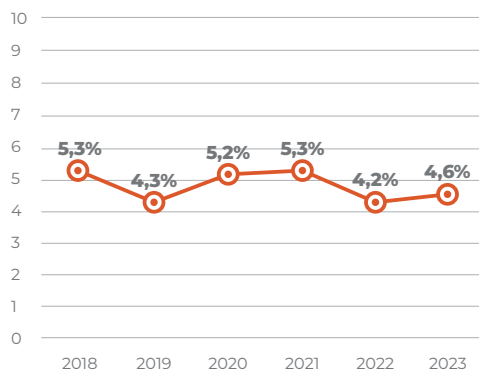
The unemployment rate in Poland hovers around **5-6%**. The exception was 2020, when due to the Covid-19 pandemic, the rate spiked to nearly 7%. As of 2023, the indicator is at 5%, which is **below the European average**. This low level of unemployment proves the **stable economic backdrop in Poland**, which is particularly significant for the IT sector. With a **shortage of skilled professionals**, this situation signals a **favorable environment for the IT industry**, creating extensive opportunities for growth and innovation in the country's thriving tech landscape.

CZECHIA



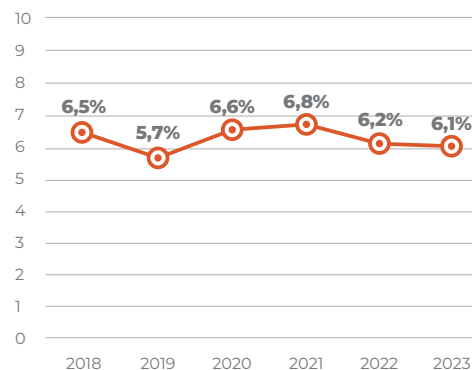
The Czech Republic could and still can boast **one of the lowest unemployment rates in EU countries**. However, in 2023 this rate **grew by 1.3%**, which was a consequence of the mild recession in a given year. Despite the growth of the unemployment rate, the **IT sector will continue to develop** slowly as it is crucial in providing innovative solutions to enterprises that lead to the country's development.

BULGARIA



The unemployment rate in Bulgaria **fluctuates between 4.2% to 5.3%** and is still **lower than the EU average**. With the unemployment rate remaining at a similar level, the economy is growing. It indicates a favorable situation for the IT industry as **the economy concentrates on innovation**.

SLOVAKIA



The unemployment rate in Slovakia **stayed at a similar level to the EU average of 5.9%**. A stable and low unemployment rate indicates **high economic growth**, which leads to **increased investments in innovation**. This situation can enhance the development of the IT sector.

Source: Statistics Poland database; Czech Statistical Office database; IMF database

RECESSION RESULTED IN AN INCREASE IN UNEMPLOYMENT RATE IN THE CZECH REPUBLIC

UNEMPLOYMENT RATE IN POLAND, CZECHIA, BULGARIA & SLOVAKIA IN 2018-2023

SUMMARY

The **unemployment rate in all 4 countries remained relatively low and stable**, with the **exception of the Covid-19 shock** that occurred in 2020 in all economies. The result was an increase in the unemployment rate from 0.6 to 1.6 percentage points. However, the economies of member states have already started to **recover after the pandemic**, and the unemployment rate has been steadily falling.

Only **Czechia faced a mild recession in 2023**, which contributed to an increase in the unemployment rate by 1.3%. The IT industries in **Poland, Slovakia and Bulgaria should record further stable revenue growth**, while in the Czech Republic growth may temporarily slow down due to the deterioration of the economic situation.

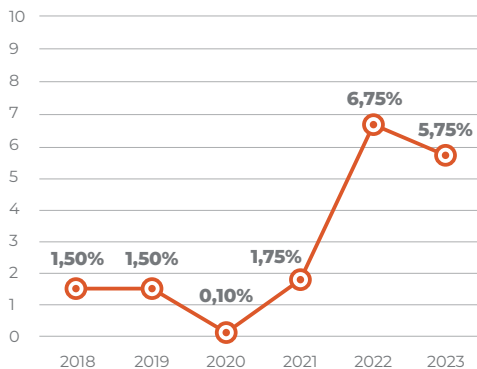


Source: Statistics Poland database; Czech Statistical Office database; IMF database

INTEREST RATE IN BULGARIA IS ONE OF THE LOWEST IN THE EU

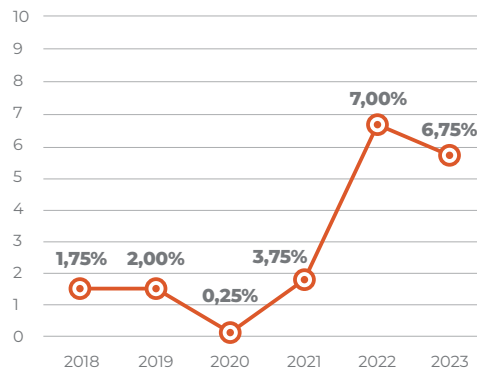
LOAN INTEREST RATE IN 2018-2023

POLAND



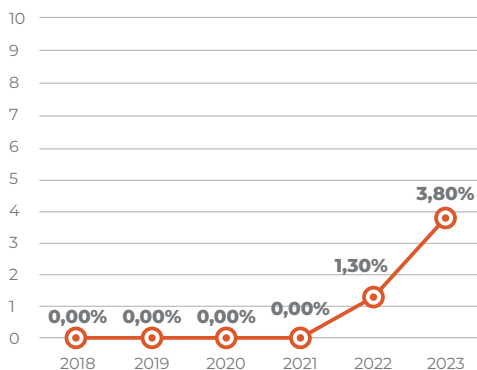
Since 2021, interest rate in the country have **significantly increased** due to the negative impact of the Covid-19 pandemic on the economy. This resulted a **cooling of the economy** and **increase in investment costs**. However, the reduction of interest rates in 2023 **enlarged enterprises' expenditure on investments by 11.5%** from the third quarter of 2023. It is forecast that **enterprise IT spendings will grow along with the increase in investment.**

CZECHIA



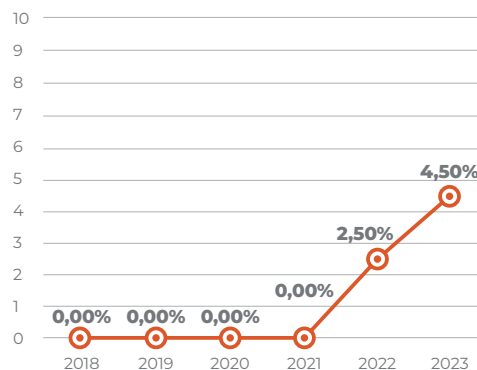
The **strong increase in interest rates in 2020-2022** was a reaction to the the Covid-19 pandemic. At the moment, the Czech government **continues to gradually reduce interest rates**. This decision helped the economy recover from recession in 2023. Despite the economic slowdown, **IT sector is projected to grow due to its importance** to the economy.

BULGARIA



As a consequence of the Covid-19 pandemic, the Bulgarian government decided to **increase interest rates in order to reduce inflation**. Although the rate was already quite low compared to the rest of EU countries, the Bulgarian Central Bank began to **gradually lower it even further at the beginning of 2024**. Decreasing interest rate can encourage enterprises to **increase the volume of investment in IT solutions**.

SLOVAKIA



Interes rates in Slovakia have **risen in recent years to the highest level since the 2008 crisis**, which was linked to growing inflation across the Euro Zone. These changes are expected to **reduce inflation and investment volume**. Interest rates are projected not be cut until summer 2024. Despite the situation, which may limit the economy's spending on new IT solutions, the **IT sector will continue to grow slowly** as it is crucial to the country's development.

Source: ConQuest Consulting analysis based on nbp.pl; www.cnb.cz; nbs.sk; www.bnb.bg

SLOVAKIA LEFT INTEREST RATES UNCHANGED IN 2023

LOAN INTEREST RATE IN POLAND, CZECHIA, BULGARIA & SLOVAKIA IN 2018-2023

SUMMARY

Interest rates in all 4 countries increased following the economic shock caused by the Covid-19 pandemic. Poland and the Czech Republic began increasing interest rates in 2021 and only started to reducing them in 2023. A moment later (in 2022), Slovakia and Bulgaria also raised them.

The only country that **has not yet started lowering interest rates is Slovakia**, where they are expected to **remain at their current level until the summer 2024**. Lowering interest rates may encourage an increase in the volume of investment in innovation, which will create an opportunity for the IT industry.

Nevertheless, the **IT sector will continue to grow**, as it is a key factor in the development of the economy.



Source: ConQuest Consulting analysis based on nbp.pl; www.cnb.cz; nbs.sk; www.bnb.bg



03

CEE IT MARKET SNAPSHOT

ESTONIA LEADS THE REGION IN TERMS OF IT EMPLOYMENT

IT SECTOR

In 2023, the **IT sector in CEE experienced substantial growth in terms of employment**, and the average monthly salary of employees in the industry varied depending on the country. **The highest salaries were offered by Lithuania, Estonia, and Slovenia.** IT specialists in these nations earn as much as **30% more than the European Union average salary of approximately EUR 3.9 thousand per month.**

Focusing on sub-regions, **North-East Europe reported the highest average gross salary** in the IT sector across all CEE sub-regions. In 2023, the average gross wage in the IT sector in North-East Europe reached **EUR 3 thousand.**

Employment within the IT sector was particularly high in CEE. In 2023, the industry **employed 2.4 million individuals**, with a total of over **120 thousand IT workers in Estonia, Latvia, and Lithuania** alone. The proportion of IT employment in the total workforce varied by country, with **Estonia leading the CEE countries** with nearly **7% of its workforce in the IT sector** in 2022. The employment of IT professionals in CEE will continue its upward trend and is expected to **increase by 25% from 2024 to 2035.**

It is worth emphasizing that the **Polish digital economy is the largest in the CEE**, and its value in 2023 amounted to approximately **EUR 50 billion.** In the years 2017-2021, **Poland's digital economy doubled in value and expanded by nearly 52%.**



Source: ConQuest Consulting analysis based on Statista database, Eurostat database

THE ENTIRE CEE REGION IS DYNAMICALLY DEVELOPING THE IT SECTOR

IT SECTOR

IT sectors in Central and Eastern Europe have experienced rapid expansion and innovation over the past few years. **Poland and Czechia have established themselves as IT leaders** in Central Europe, recording growth of approximately 20% in 2021 alone. Meanwhile, the fledgling technology industries in **Slovakia and Bulgaria are growing at an impressive pace**, with revenues and IT professionals steadily increasing.

Across all regions, **widespread use of the Internet has been a driver of IT sector growth**, enabling advances in areas such as **software, gaming, automotive IoT, and cloud computing**. Poland and the Czech Republic are leading the way in IT innovation and R&D. The number of IT professionals across the region is also growing rapidly. With strong existing foundations and continuous strategic investment, **Central and Eastern Europe is poised to become an IT powerhouse**.

Digitization and technological transformation are progressing rapidly across Central and Eastern Europe. **Poland and the well-established Czechia are demonstrating global leadership in IT innovation**, while emerging players such as **Slovakia and Bulgaria are cultivating domestic start-up ecosystems** tailored to their unique capabilities. With access to skilled talent, rising wages, and supportive government policies accelerating growth, the **entire CEE region has enormous potential for further IT development and investment opportunities**.

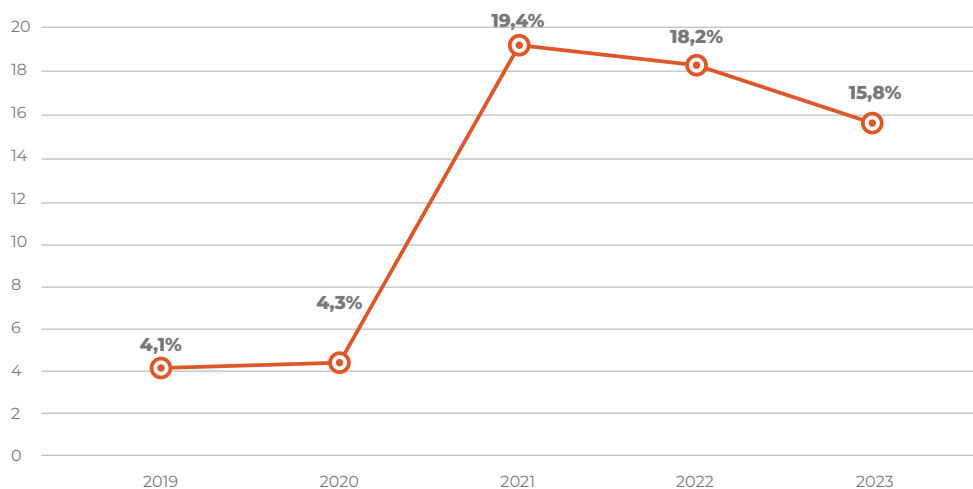


Source: ConQuest Consulting analysis

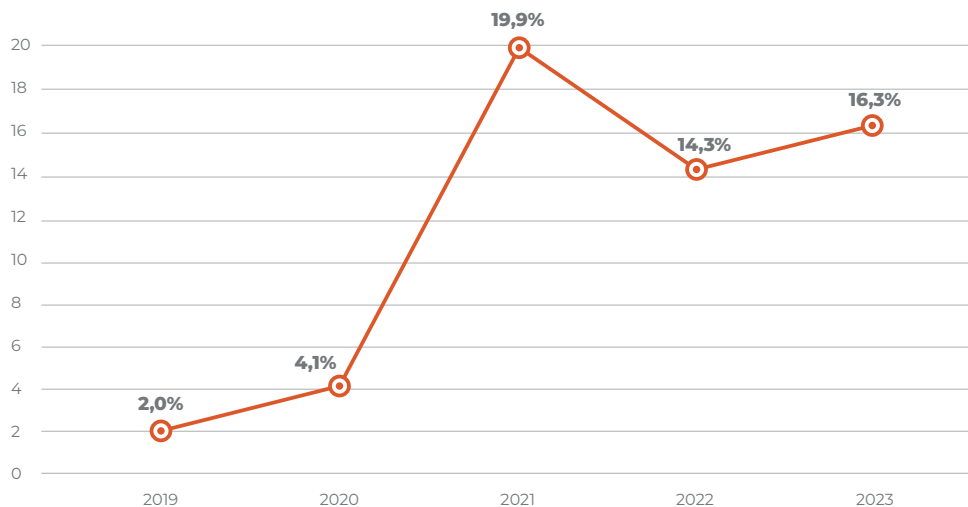
IT SECTOR DEVELOPED ALMOST IDENTICALLY IN POLAND AND CZECHIA

ANNUAL IT INDUSTRY GROWTH IN 2018-2023

POLAND



CZECHIA



Poland is the **leader in the CEE region** when it comes to the ICT sector. It **employs over 0.5 million people** and generates over **EUR 9 billion from exports**, which is equal to **1.7% of the national GDP**. The sector's growth is being driven by Poland's strategic initiatives to expand digital infrastructure and improve connectivity. Fueled by the pandemic's demand for digital solutions, Poland has also become a **globally renowned IT talent hub**, producing cutting-edge AI. An average **annual increase in turnover for the Polish ICT sector is over 8.6%**, the highest development rate in Europe, and the **sector was worth EUR 22.6 billion in 2023** with a **growth rate of 11.4%**.

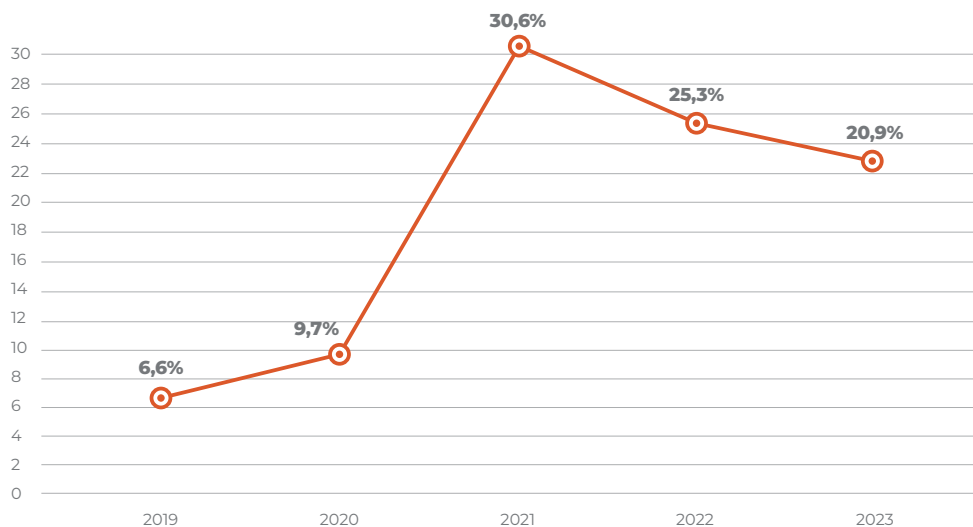
The IT industries in the Czech Republic have seen impressive growth in recent years, achieving rapid progress compared to global averages. The country's **IT sector grew by nearly 20%** and is recognized for its tech-savvy workforce and rapid cloud adoption, with its IT market set to swell by **EUR 2.16 billion by 2028**. The growth trajectories in Czechia point to **major opportunities for investors** to ride an **unstoppable wave of innovation** in the region, with few other IT sectors matching the breakneck development occurring there.

Source: BMI Industry Research, "Poland Information Technology Report", 2023; Statista databases; Sario agency, „Information & Communications Technology Sector in SLOVAKIA", 2023

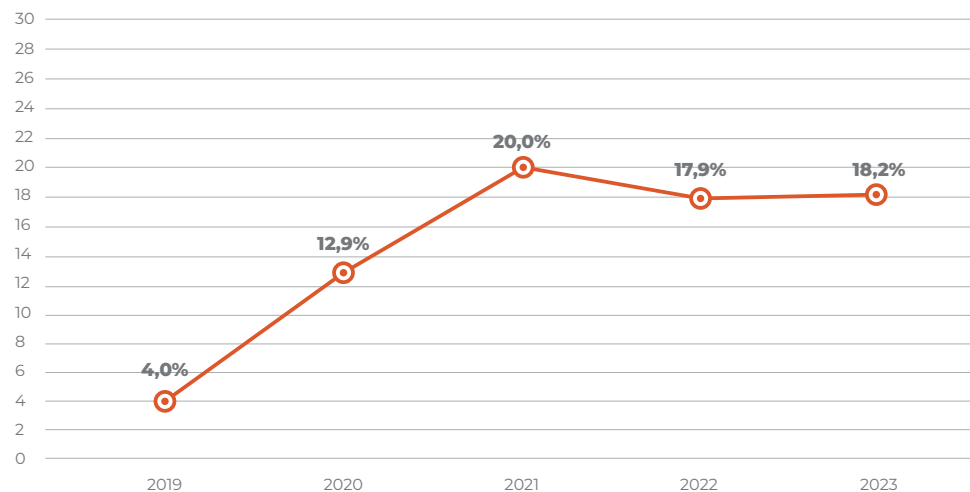
IT INDUSTRY IN BULGARIA AND SLOVAKIA IS EXPANDING RAPIDLY AND DYNAMICALLY

ANNUAL IT INDUSTRY GROWTH IN 2018-2023

BULGARIA



SLOVAKIA



Bulgaria's IT sector is one of **the fastest-growing and most dynamic** sectors in the country, contributing **4.5% of the GDP in 2023**. The sector has achieved an average **annual growth of 18% since 2019**, reaching a **revenue of over EUR 4 billion in 2023**.

Slovakia's IT sector is still small compared to leading countries, but it is experiencing gradual digital growth. Though once modest in size,

Slovakia's IT sector achieved **20% growth in 2020, reaching EUR 8.9 billion**. This highlights Slovakia's efforts to adapt to digital demands in areas like **telecommunications** and **internet services**. With **4.5% of its workforce in IT** (above the EU average) by 2022, Slovakia is slowly **building a skilled tech talent pool** to support its emerging IT industry. While not yet a major player globally, Slovakia is innovating in technologies like **machine learning** and positioning itself to be more competitive in the digital economy going forward.

Source: BMI Industry Research, "Poland Information Technology Report", 2023; Statista databases; Sario agency, „Information & Communications Technology Sector in SLOVAKIA", 2023

CENTRAL AND EASTERN EUROPE ATTRACTS GLOBAL IT INVESTMENT

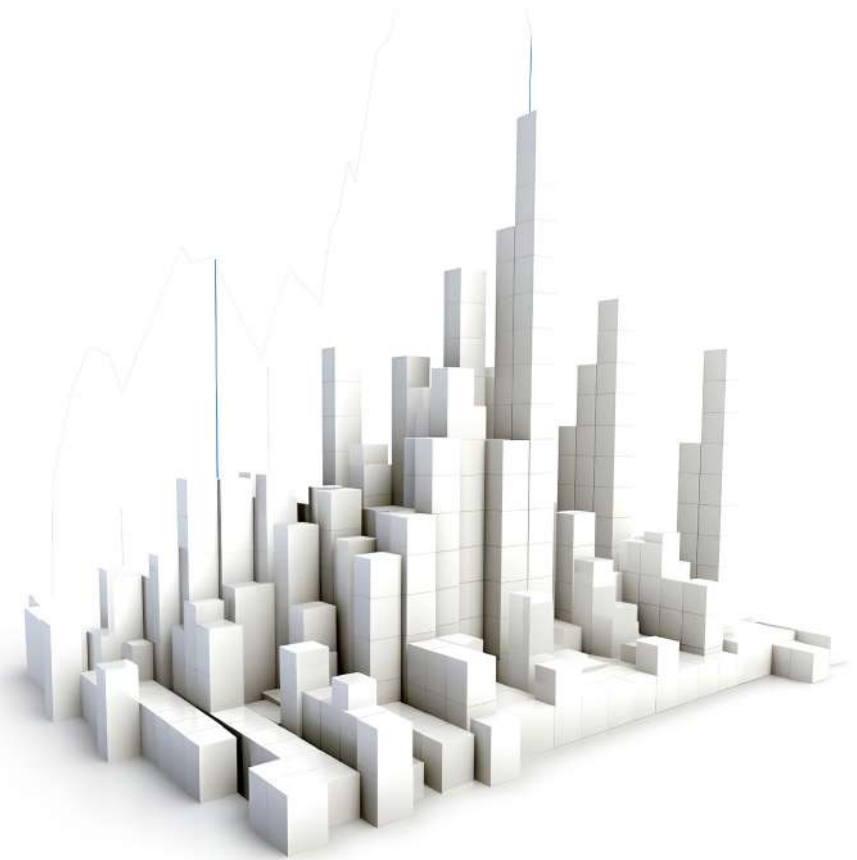
ANNUAL IT INDUSTRY GROWTH IN POLAND, CZECHIA, BULGARIA & SLOVAKIA IN 2018-2023

SUMMARY

Poland and the Czech Republic have experienced rapid expansion in their IT sectors, **growing over 19% and 20% respectively in 2021**. They have emerged as **IT talent and innovation hubs in Central Europe**, presenting major investment opportunities as leading regional digital economies.

Meanwhile, the IT industry in **Bulgaria** has achieved an impressive **18% average annual growth** since 2019, now generating **over EUR 4 billion revenue in 2023**, making up **4.5% of GDP**. Though still developing, **Slovakia** saw **20% IT sector growth in 2020**, now **valued at EUR 8.9 billion**. With **4.5% of its workforce in IT**, Slovakia is building skills to support its fledgling tech industry. Despite their smaller size, both Bulgaria and Slovakia are rapidly innovating in emerging technologies.

In summary, the breakneck growth in Poland and Czechia underscores their **dominance as Central Europe's IT leaders**, while statistics from Bulgaria and Slovakia highlight the rapid development of emerging tech talent and digitization across the wider region. This signals **ample opportunities for investment** in Central and Eastern European IT.

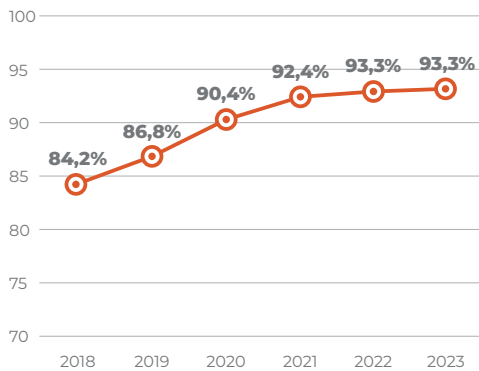


Source: BMI Industry Research, "Poland Information Technology Report", 2023; Statista databases; Sario agency, „Information & Communications Technology Sector in SLOVAKIA", 2023

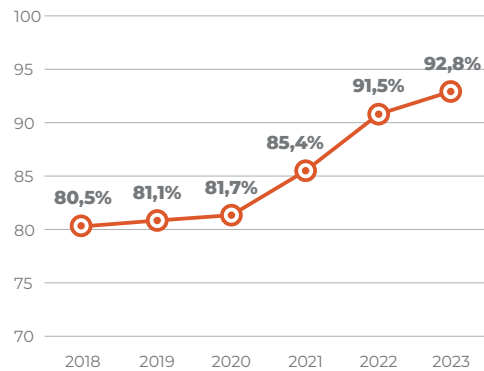
INTERNET CONNECTION PENETRATION IS EXPECTED TO REACH 100% IN NEAR FUTURE

LEVEL OF INTERNET PENETRATION IN 2018-2023

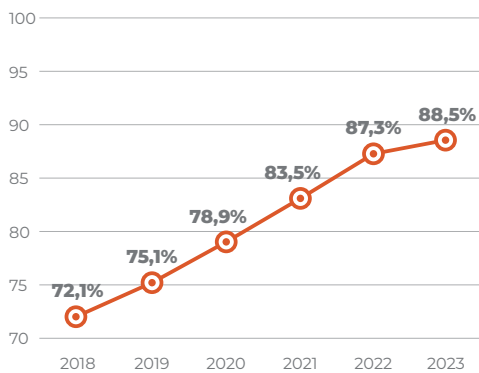
POLAND



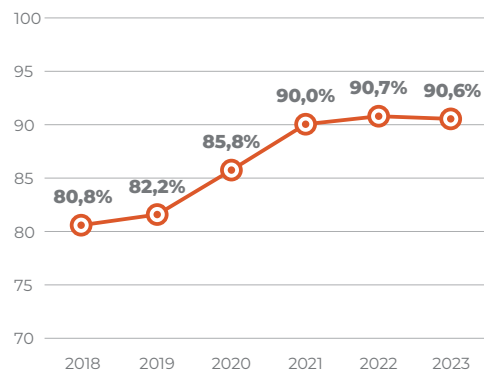
CZECHIA



BULGARIA



SLOVAKIA



Between 2018 and 2023, internet penetration in Poland, Czechia, Bulgaria and Slovakia **rose to nearly 90%**, driving growth and digital transformation in their IT sectors. This surge in digital access enabled significant advancements across all 4 countries, including expanded digital literacy, foreign investments, and boosted innovation.

In Poland, the IT sector now represents **8-9% of GDP**, with nearly **0.5 million ICT specialists, 40% of whom are engaged in IT outsourcing**. In 2022, **Google** announced major investments in Warsaw, while **Samsung** and **Intel** also decided to locate their R&D centers in Poland encouraged by the widespread internet access. The Czech Republic built a strong gaming industry, with globally successful titles like **"Mafia"** and **"Kingdom Come Deliverance"**. Slovakia developed a vibrant startup ecosystem, with companies such as **Eset** and **Sygyic** emerging. Bulgaria is establishing itself as a hub for fintech, e-commerce, and cybersecurity startups, with firms like **Payhawk** and **Gtmhub** thriving in the market.

Overall, the soaring internet penetration across the CEE region has unlocked **substantial digital progress** and **IT advancements** tailored to each country's unique capabilities.

Source: BMI Industry Research, "Poland Information Technology Report", 2023; Statista databases; Sario agency, „Information & Communications Technology Sector in SLOVAKIA", 2023

CENTRAL AND EASTERN EUROPE ATTRACTS GLOBAL IT INVESTMENT

MAJOR IT MARKET SEGMENTS IN 2023



POLAND

1. Machine Learning
2. Infrastructure as a Service
3. Automotive IoT
4. Cybersec Solutions



CZECHIA

1. Machine Learning
2. Platform as a Service
3. Automotive IoT
4. Cybersec Solutions



BULGARIA

1. Automotive IoT
2. Consumer IoT
3. IT Outsourcing
4. Enterprise Software



SLOVAKIA

1. Automotive IoT
2. IT Outsourcing
3. Software
4. Consumer IoT

Poland and the Czech Republic are key players in Europe's IT sector, particularly in **AI/ML** and **automotive IoT**. Both countries are investing in AI and digital technologies to enhance their competitiveness. Polish **cloud market** is projected to **reach EUR 3.2 billion by 2027**, with IT outsourcing also expanding. **AI markets** in Poland and Czechia are expected to **reach EUR 2.8 billion and EUR 11.6 billion by 2028**, respectively. The software sector in Czechia is also growing due to the quality of its software engineering services.

Although **Slovakia** is not developing as dynamically in terms of cloud adoption, it is making progress in **cybersecurity, big data and automation**, which are the key to digital transformation. Its **gaming industry** has also seen growth, with **revenues increasing by over 50% to EUR 80 million annually** since 2019.

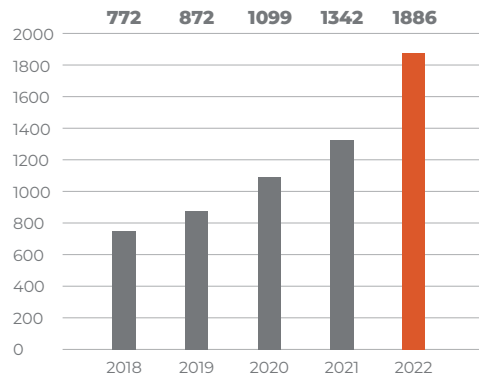
The IT revenue in **Bulgaria** has **increased by 300% since 2018 to reach EUR 2.5 billion**, driven by **software and cloud technology**, which has a projected **annual growth of 4.2% over the next 5 years**. The automotive IoT market is also flourishing. Revenues further underscore Bulgaria as a **strong and promising IT outsourcing destination** moving forward.

Source: BMI Industry Research, "Poland Information Technology Report", 2023; Statista databases; Sario agency, „Information & Communications Technology Sector in SLOVAKIA", 2023

POLAND AND CZECHIA ARE LEADING IN R&D INVESTMENTS

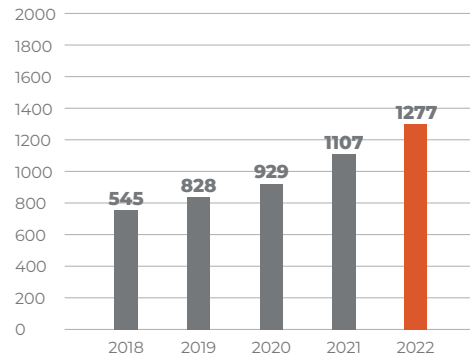
INVESTMENT IN RESEARCH & DEVELOPMENT (EUR MLN) IN 2018-2022

POLAND



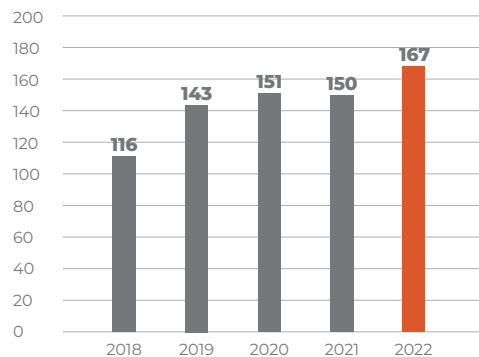
Poland is experiencing significant growth in its IT industry, with R&D investments **increasing by 170%** from 2018 and reaching **EUR 1.9 million in 2022**. Dubbed as the **"IT center of Europe"**, Poland has **more than 60,000 domestic IT companies**, which is the largest number in the continent. This continuous investment highlights Poland's commitment to technological advancement and innovation.

CZECHIA



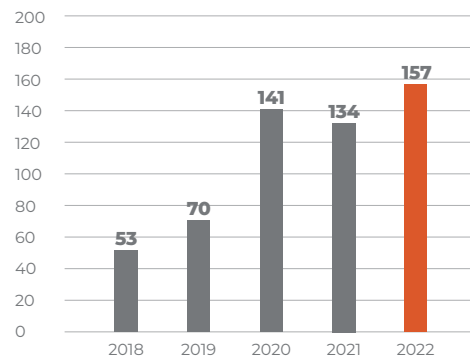
The Czech Republic's IT industry has shown a remarkable trajectory in R&D investments, **soaring by 118%** from 2018 and reaching **over EUR 1.2 billion in 2022**. This growth is fueled by the country's robust IT sector, which is known for **aggressively promoting product and process-level innovations**. The country's IT sector significantly contributed to its recognition as **one of the key technology hubs** in Europe.

BULGARIA



Bulgaria's IT industry has been slowly but steadily increasing its R&D investment, **from EUR 116 million in 2018 to EUR 167 million in 2022**. This sector, a **significant contributor to the European tech landscape**, is poised for future growth. The consistent increase in R&D investment underscores Bulgaria's dedication to **nurturing a globally competitive IT sector**.

SLOVAKIA



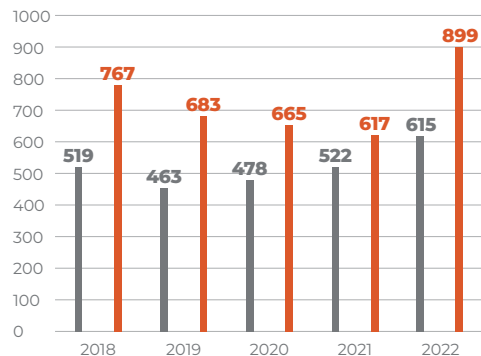
Slovakia's IT sector experienced a rise in R&D investments, **from EUR 53 million in 2018 to EUR 157 million in 2022**, showcasing a strong commitment to innovation despite minor fluctuations. Supported by tax deductions, investment incentives, and a stable eurozone environment, Slovakia **continues to bolster its funding efforts**, reflecting its **growing ambitions in terms of technological advancement and innovation**.

Source: czso.cz, 2023; WPIO, „Statistics country profile“, 2023; statistics.sk, 2023; nsi.bg, 2023

DEDICATED EFFORTS BY SLOVAKIA AND BULGARIA TO DEVELOP THE IT INNOVATION LANDSCAPE

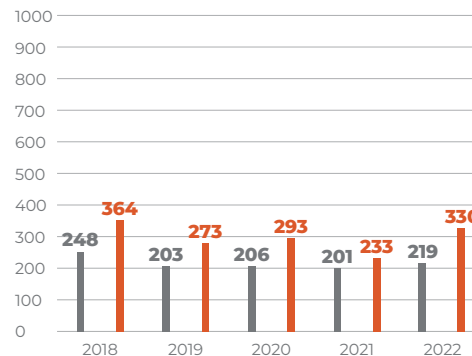
NUMBER OF PATENTS IN 2018-2022

POLAND



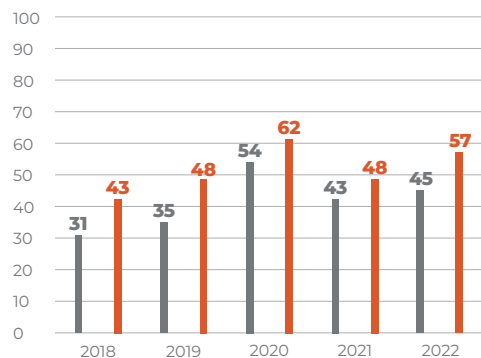
The Polish IT industry is thriving, recording a significant growth in innovation from 2018 to 2022. The sector saw an **increase in applicants to 615 and inventors to 899**, marking a record for the last 5 years. In 2022, **Poland was 28th globally for patent applications showing a 2.7% increase from 2021**. The Polish tech sector will continue to thrive thanks to investments, policy reforms, and digitalization.

CZECHIA



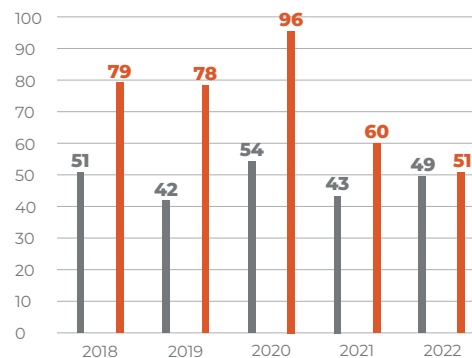
The Czech IT industry is expanding fast, fueled by a burst of creativity and new ideas. Patent filings fluctuated from 2018 to 2022, **peaking in 2022 with 219 applicants and 330 inventors**, signaling rebound after previous declines due to increased R&D funding. Despite **falling to 31st in the 2023 Innovation Index Amid**, Czechia is cementing its position as an emerging IT innovation center in Central Europe.

BULGARIA



The IT patents landscape in Bulgaria has demonstrated a **notable trend of growth**. In 2020, there was a **significant spike in both applicants and inventors**, indicating a vibrant ecosystem of technological advancement. Although there was a slight decrease in 2021, the numbers remained higher than in previous years. Despite facing challenges, Bulgaria is evolving into **one of the leading hubs for software development**.

SLOVAKIA



Slovakia's IT industry, resilient and adaptable, maintained a **steady count of patent applicants and inventors** from 2018 to 2022. Despite a minor decrease in 2021 and generally low patent application numbers, efforts are ongoing to strengthen its IT sector. This highlights Slovakia's commitment to innovation and technological progress. In 2022, Slovakia **ranked 46th in the World Innovation Index**.

Source: czso.cz, 2023; WPIO, „Statistics country profile“, 2023; statistics.sk, 2023; nsi.bg, 2023

● Applicant ● Inventor

THERE ARE VARYING LEVELS OF INNOVATION IN CENTRAL AND EASTERN EUROPEAN COUNTRIES

INVESTMENTS IN POLAND, CZECHIA, BULGARIA & SLOVAKIA IN 2018-2022

SUMMARY

Poland and **the Czech Republic** are the **two leading IT countries in Europe**, both boasting a large number of domestic IT companies, a high level of innovation and patent applications, and a remarkable growth in R&D investment.

By 2022, **Poland's R&D** spending reached **EUR 1.9 billion**, making it the **IT center of Europe**, while **R&D investment in Czechia exceeded EUR 1.2 billion**, reflecting its strength in product and process-level innovations. These countries have been experiencing impressive growth in creativity and technological advancements, thanks to **strategic investments and digital transformation**.

Slovakia and **Bulgaria** are also developing their IT sectors, with stable R&D investments of **EUR 157 million** and **EUR 167 million**, respectively. Both countries offer **favorable conditions for IT development**, such as tax deductions, investment incentives, and economic stability. These countries reflect a region with **varying degrees of progress and innovation capacity** in the IT industry, from leaders like Poland and the Czech Republic to emerging players like Slovakia and Bulgaria.



Source: czso.cz, 2023; WPIO, „Statistics country profile“, 2023; statistics.sk, 2023; nsi.bg, 2023

CHRISTOPHE PARIS

DELIVERY CENTER MANAGER - THALES DIGITAL IDENTITY AND SECURITY

The dynamic IT market is rapidly growing as organizations drive digital transformation **Cloud Computing, Cybersecurity, and Artificial Intelligence** solutions are in high demand, complemented by a focus on **Data Privacy and Protection**. Emerging technologies like **5G, IoT, and Post-Quantum Computing** unlock new opportunities, shaping the future of the industry. Thales, as a leading player in the IT space, contributes groundbreaking solutions and expertise, helping organizations navigate these transformations and secure their digital ecosystems.

THALES





TOP IT

EMPLOYERS

| TOP IT EMPLOYERS IN POLAND

1



AB

The AB Group, a trusted Polish IT firm, is among Europe's TOP 9 product distributors. With a strong presence in Central Eastern Europe, it offers 100 thousand products to its growing network of 16 thousand business partners. It excels in providing cloud and e-commerce services, Value-Added Distribution (VAD), and consumer goods. Its team of 1.3 thousand employees across Europe is committed to enhancing partnerships.

2



ALSO POLSKA

ALSO, a Swiss ICT technology provider operates in 144 countries worldwide. With a workforce of 4.2 thousand, it reported net sales of EUR 12.6 billion in 2022. It offers hardware, software, and IT services to 120 thousand resellers from over 700 vendors. ALSO operates under 3 business models Supply, Solutions, and Service, focusing on transactional hardware and software, customized IT solutions, and subscription-based cloud offerings.

3



LENOVO

Lenovo, a global tech leader since 1995, offers a wide array of products from PCs to IoT devices and data center solutions. They have shipped over 0.5 billion PCs and produce 3 devices per second. Lenovo boasts revenue of EUR 57 billion in 2023 and is positioned at 217 place on the Fortune Global 500 list. With a workforce of 77 thousand employees worldwide, it caters to millions of customers daily across 180 markets. Their global manufacturing spans over 30 facilities worldwide, allowing for region-specific offerings.

Source: Statista database

| TOP IT EMPLOYERS IN CZECHIA

1



AVAST

Founded in Prague in 1988, Avast Software is one of the Czech Republic's most successful tech companies. Now owned by U.S. cybersecurity company, Gen Digital, Avast provides antivirus and internet security solutions with over 435 million global users. With the second-largest market share in anti-malware applications worldwide, its products include antivirus software, privacy tools, and VPNs for consumers and businesses.

2



SEZNAM.CZ

Seznam.cz, founded in Prague in 1996, is the Czech Republic's leading search engine and web portal. Offering nearly 30 online services like email, maps, and news, it has cultivated a strong domestic brand known for relevant search results. With over 250 million monthly visitors in the 10-million-people nation, it is one of Google's few major single-country competitors. Over 90% of Czech internet users rely on it, making it the country's most popular website after Google.

3



JETBRAINS

Founded in 2000, JetBrains, headquartered in Prague, Czech Republic, specializes in intelligent development tools like IntelliJ IDEA and the Kotlin programming language, serving over 15.9 million developers globally. With a presence in China, Europe, and the U.S., the company emphasizes R&D in technologies like Kotlin, earning it over 115 international awards. JetBrains also supports tech education through partnerships and free licensing programs for students and teachers.

Source: Businessinfo.cz

TOP IT EMPLOYERS IN BULGARIA

1



DXC TECHNOLOGY

DXC Technology, established in 2017, provides a wide range of IT and consulting services. With a revenue of over EUR 14.7 billion in 2022, it operates globally and employs approximately 130 thousand people. DXC focuses on modernizing IT, optimizing data architectures, and ensuring security across public, private, and hybrid clouds.

2



HEWLETT PACKARD ENTERPRISE

Hewlett Packard Enterprise (HPE), a global IT leader since 1939, provides a wide range of services in consulting, software, and infrastructure. With a revenue of over EUR 26.7 billion in 2023, it operates in several countries, including the United States, Singapore, Malaysia, Thailand, and Asia. It employs approximately 62 thousand people. HPE is recognized for its technological leadership and strong ecosystem relationships, serving a large portion of the Fortune Global 500.

3



SAP

Since 1972, SAP has offered various services in infrastructure and software, generating revenues exceeding EUR 29 billion in 2023. Operating internationally, SAP has a workforce of around 107 thousand and is renowned for its well-known solutions, catering to many Fortune Global 500 companies. SAP offers tools for resource management, customer insights, data migration, and business analytics, designed to enhance profitability, adaptability, and sustainability, supporting business growth and operational efficiency.

Source: Dev.bg

TOP IT EMPLOYERS IN SLOVAKIA

1



ESET

Established in 1987, ESET is a renowned global digital security company, safeguarding more than 110 million customers and businesses worldwide. With over 30 years of award-winning technology, ESET is one of the pioneers in cybersecurity in Europe. With over 110 million protected users worldwide, over 400 thousand business customers, and operations in 195 countries, ESET is at the forefront of cybersecurity research.

2



SKYTOLL

SkyToll, founded in 2008, is a global leader in intelligent transport systems. It operates the satellite toll system in Slovakia and has designed a new electronic toll system in the Czech Republic. The company was the first in the world to develop a unique solution integrating satellite GNSS, microwave DSRC, and mobile GSM technologies. SkyToll has collected almost EUR 2.5 billion in toll fees in just 13 years and operates in several countries, including Slovakia, the Czech Republic, Slovenia, and Singapore.

3



ACCENTURE

Accenture, a global professional services giant since 1989, offers a wide range of services in strategy, consulting, digital, technology, and operations. With a revenue of over EUR 58 billion in 2023, it operates in more than 120 countries and employs approximately 743 thousand people. Accenture is recognized for its technological leadership and strong ecosystem relationships, serving more than three-quarters of the Fortune Global 500. It continues to lead the industry in Gen AI with over EUR 400 million in new bookings.

Source: Finstat.sk database



IT

OUTSOURCING

IT CONSULTING AND TECHNOLOGY ACCOUNT FOR 32% OF OUTSOURCING SERVICES GLOBALLY








INDUSTRIES THAT OUTSOURCE IT

The IT outsourcing market in Europe is expected to grow at a **compound annual growth rate (CAGR 2024-2028) of 10,5%** to reach **EUR 219 billion** by 2028. **IT consulting and technology** remain the most popular outsourced services and **accounted for 32% of the market** in 2022.

IT outsourcing is getting more popular due to the growing demand for IT services. Outsourcing IT duties helps to **significantly reduce costs, increase flexibility**, and get **access to experts without the hiring process**. Industries that prefer to outsource IT functions include healthcare and pharmaceuticals, eCommerce, education, retail, finance, automotive and transportation. The services that these industries are most likely to outsource include **EMR, EHR, CRM portals, data management & security, app and software development, AI-based solutions, IT infrastructure management, and cloud-based management**.

Costs of **software development**, which is one of the most commonly outsourced services, vary by region. The highest costs for software development are in **North America (EUR 56-190 per hour)**. In **South America and Central & Eastern Europe**, these costs are similar and amount between **EUR 24-86 per hour**. The cheapest per-hour costs for software development belong to **South and Southeast Asia (EUR 17-55 per hour)**. When it comes to **Poland (EUR 37-51 per hour)**, **Czechia (EUR 32-51 per hour)**, **Bulgaria (EUR 28-46 per hour)**, and **Slovakia (EUR 32-46 per hour)**, these costs are relatively low.

INDUSTRIES THAT MOST OFTEN OUTSOURCE IT:

-  Healthcare and pharmaceuticals
-  eCommerce and retail
-  Education
-  Finance
-  Automotive and transportation
-  Tech
-  Government projects

Source: Accelerance, „Global Software Outsourcing Rates and Trends Guide“, 2023; Statista database

NEARSHORING IS GAINING POPULARITY, AND POLAND IS THE MAIN OUTSOURCING DESTINATION

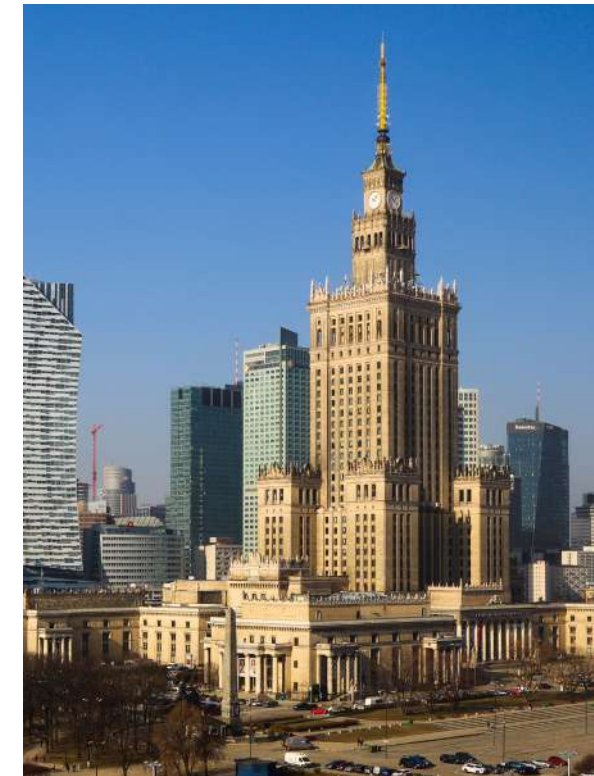
OUTSOURCING IN CENTRAL AND EASTERN EUROPE

With its substantial tech talent pool and well-established outsourcing infrastructure, CEE has solidified its position as a **prime IT outsourcing destination**. This region boasts **over 2.2 million ICT professionals**, presenting compelling opportunities for businesses seeking to augment their technological capabilities through skilled resources, optimize costs, and drive digital transformation initiatives. Increasingly, companies **prefer the nearshoring model when outsourcing to Eastern Europe**, leveraging proximity advantages while benefiting from **significant cost savings compared to Western Europe**.

Nearshoring offers better collaboration and project management than distant offshore options. According to Deloitte, **57%** of companies use outsourcing for **cost reduction**, **50%** for accessing **new expertise and adapting to business model changes**, while **45%** explore **new outsourcing models** and **30%** address **cybersecurity threats** through outsourcing.

Poland and Ukraine lead the region with the largest **tech talent pools of approximately 600 thousand and 300 thousand ICT specialists**, respectively. The countries offer extensive domain expertise and a wide selection of midsize and large outsourcing vendors catering to diverse industries, significantly more than neighboring **Czechia and Slovakia** where the numbers are just **over 200 thousand and 100 thousand respectively**.

In European countries, **23% of companies prefer to relocate outsourcing to Poland**, with Bulgaria and Romania also emerging as popular nearshore destinations. **Romania attracts 9% of EU firms**, the highest after Poland. **Bulgaria**, on the other hand, **surpasses Poland in terms of IT skills, ranking 18th globally**. These countries are creating business-friendly climates for IT.



Source: N-ix.com, "Top IT outsourcing destinations of Eastern Europe", 2023; Statista database



IT

TRENDS

THE MAIN PILLARS OF POLAND'S GLOBAL GROWTH ARE GAMING, STARTUP, AND ICT SECTORS

IT MARKET TRENDS IN POLAND

GAMING SECTOR FORTITUDE

One of the most promising ICT sectors in Poland is **video games**. This field generates **revenues of EUR 0.55 billion**, placing the country **23rd globally in terms of profitability** within this domain. Poland produces **500 games annually**, with standout titles such as "**The Witcher**", "**Cyberpunk 2077**", and "**Dying Light**" gaining international acclaim. **Over 10 thousand individuals are employed** in this sector, drawing significant foreign investment, and it is expected that this number will **increase by 8.6% annually** by 2027. Polish companies can also count on government assistance in terms of an **investment-friendly legalization system**, such as tax exemptions, subsidies, and public aid for certain business activities and sectors, as well as support from the Polish Investment and Trade Agency for International Expansion and foreign direct investment.

IT STARTUP POWERHOUSE

Poland is a hub for innovation and entrepreneurship in the IT sector. The country has a vibrant startup ecosystem, with **over 3 thousand startups** operating in various fields, such as e-health, ed-tech, biotech, and IoT and **nearly 20% of that belongs to the IT industry**. The entire ecosystem is **valued at approximately EUR 47.7 billion in 2023** and also has an innovation-friendly environment thanks to various accelerators and incubators. Poland is emerging as a **significant player in the global VC scene**, showing consistent growth despite smaller funding amounts compared to other European countries.



Source: BMI Industry Research, "Poland Information Technology Report", 2023; BMI Industry Research, "Poland Information Technology Report", 2023; Ain.capital, "Ecosystem compass poland", 2023; Statista, "Video Games - Poland", 2023

POLAND IS ONE OF THE LEADERS OF INNOVATION IN EUROPE

IT MARKET TRENDS IN THE POLAND

POTENTIAL OF E-COMMERCE

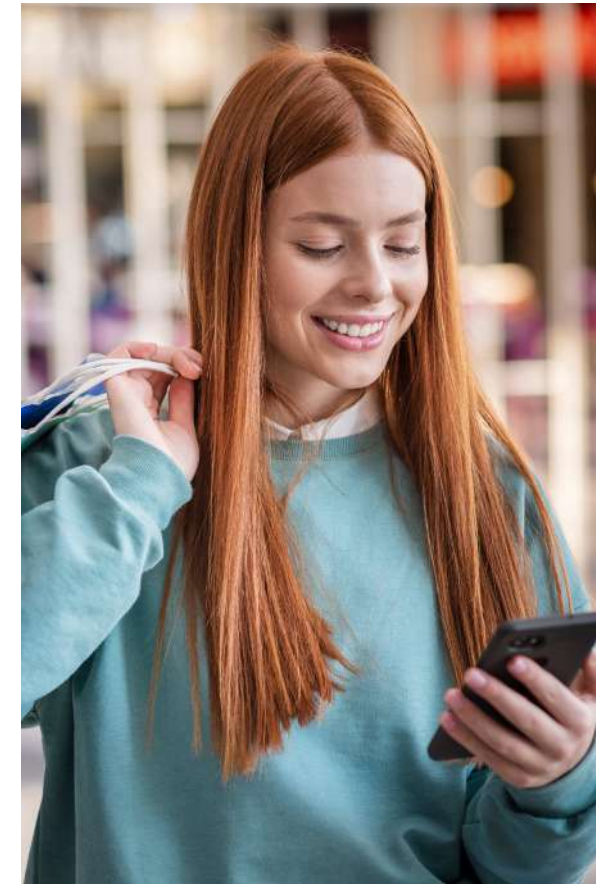
Poland is one of the fastest-growing e-commerce markets in Europe. In 2023, e-commerce reached a total **value of EUR 20 billion** of which **17% came from B2B transactions**. Despite its maturity, the market is expected to continue to grow in coming years and should **reach EUR 28 billion by 2027**. The rise of mobile commerce, where consumers use mobile devices such as smartphones or tablets for shopping, has led to an increased need for **mobile application development** and optimization.

AI DEVELOPMENT

Artificial Intelligence and Machine Learning are important aspects of the Polish IT sector. Poland has great potential when it comes to research and development of Artificial Intelligence, ranking **15th globally in terms of scientific publications on AI** and **9th in the number of patents related to AI**. The value of the AI market in Poland reached **EUR 0.9 billion in 2023** and it is expected to **grow by up to 29% annually**.

BLOCKCHAIN IMPLEMENTATION

The revenue of the blockchain market in Poland was **EUR 0.35 billion in 2023** and is expected to **grow by 20% annually**. Poland is also a favorable destination for **cryptocurrency** enthusiasts, with **over 1 million active users** and **over 100 ATMs**. Poland has a progressive regulatory approach and a vibrant community of blockchain and cryptocurrency startups and experts.



Source: BMI Industry Research, "Poland Information Technology Report", 2023; BMI Industry Research, "Poland Information Technology Report ", 2023; Statista, "Ecommerce - Poland", 2023; PWC, "Ecommerce - Poland", 2023

CZECHIA USES BIG DATA AND AI TO INCREASE IT COMPETITIVENESS AND INNOVATION

IT MARKET TRENDS IN THE CZECH REPUBLIC

BIG DATA ECOSYSTEMS

Big data ecosystems are a **strategic priority for the Czech government**, which allocates funds, particularly to small and medium enterprises to increase their digitalization. The **server and data storage segments** show a consistent **annual growth rate of around 10%**. Moreover, the market is projected to **expand by more than 20% by 2026**.

RISING INFLUENCE OF AI

By 2024, AI has **reduced operating costs in the country by 30%**. The market value of this IT sector in Czechia is expected to **increase by EUR 2 million between 2021 and 2026** at a **CAGR of 3.7%**. Since 2019 the Technology Agency of the Czech Republic supported various AI projects for a total of **EUR 120 million**. In May 2019, Czechia released its **National AI Strategy**, aiming to **enhance national economic growth and competitiveness in AI**, while also supporting local companies.



Source: FitchSolutions, "Czech Republic IT Report", 2023; BMI Industry Research, "Czech Republic Information Technology Report", 2023; Technavio, "IT Market in Czech Republic", 2022

E-COMMERCE, IOT INNOVATIONS AND CYBERSECURITY ARE TRANSFORMING CZECH IT SECTOR

IT MARKET TRENDS IN THE CZECH REPUBLIC

FUTURE PROSPECTS OF E-COMMERCE

During the pandemic, the e-commerce industry in the Czech Republic developed dynamically, **growing by 60% between 2021 and 2022** and thus reaching a **market value of EUR 13 billion**. It is expected that this industry will **grow by 9.6% annually**, targeting **EUR 15 billion by 2025**. The industry in Czechia belongs mainly to B2C transactions. Approximately **54% of the entire Czech population shops online** and the market itself accounts for **over 16% of total retail sales** and will continue to grow.

CONSTANT CONNECTIVITY AND IOT EXPANSION

IoT in the Czech Republic is developing rapidly, which is caused, among others, by the **transition to the 5G network**. Czechia consistently **spends between 2% and 2.5% of its total GDP on telecommunications development**, and the demand for new solutions and IoT specialists is constantly growing and is expected to **develop by 9.6% annually till 2030**.

CYBERSECURITY AS A TOP PRIORITY

Cybersecurity is an important aspect for Czech businesses due to the recent increase in hacker attacks. Between 2020 and 2021, the **number of attacks increased by 57%** and is trending upwards. Therefore, the demand for cybersecurity experts is also growing, worldwide this demand will **increase by 26%** by 2025, reaching the **needs of 3.4 million specialists**.



Source: FitchSolutions, "Czech Republic IT Report", 2023, BMI Industry Research; "Czech Republic Information Technology Report", 2023; ; Statista, "Ecommerce - Czech Republic", 2023; Technavio, "IT Market in Czech Republic", 2022

POLAND AND CZECHIA ARE LEADERS IN CLOUD AND SOFTWARE SECTORS

IT MARKET TRENDS IN POLAND AND THE CZECH REPUBLIC

POTENTIAL OF IT SOFTWARE SECTOR

Poland and Czechia are leading the expansion of the European IT market, with significant growth anticipated in their software sectors. By 2024, **software market in Poland** is expected to reach **EUR 2 billion**, with **enterprise software contributing EUR 0.8 billion**. This market is predicted to **grow to EUR 2.5 billion by 2028**, at a **CAGR of 5.7%**. Similarly, **software market in the Czech Republic** is on track to **achieve EUR 1.6 billion in 2024**, with **enterprise software accounting for EUR 0.7 billion**, and is forecasted to expand to **EUR 2 billion by 2028**, with a **CAGR of 5.2%**. The growth in both countries is driven by global ICT market trends, increased foreign investment, digital transformation initiatives supported by European Union funding, and the rising adoption of cloud computing and mobile applications.

THE DEMAND FOR CLOUD-BASED SOLUTIONS

The Czech Republic and Poland are among the leading countries in Central and Eastern Europe in terms of cloud adoption, with a **combined market value of EUR 2.8 billion in 2023**. The cloud market is expected to grow at a **compound annual growth rate of 12% in Poland and 11% in Czechia** between 2024 and 2027, **reaching EUR 4.5 billion** by the end of the forecast period. The main drivers of cloud adoption are the need for scalability, flexibility, cost-efficiency, and security of data and applications. The demand for cloud-based solutions has also increased due to the COVID-19 pandemic, which accelerated the digital transformation of many businesses and organizations. The most popular cloud service models in Poland and the Czech Republic are **Software as a Service, which accounts for 40% of the software market**.



Source: Statista, „Software services - Poland“, 2023; Statista, „Software services – Czech Republic“, 2023; Statista, „Cloud services - Poland“, 2023; Statista, „Cloud services – Czech Republic“, 2023

IT SERVICES AND SOFTWARE WILL BE CRUCIAL TO IT MARKET GROWTH

IT MARKET TRENDS IN BULGARIA



PROJECTED STEADY GROWTH OF IT SERVICES MARKET

The IT services market has reached a **value of EUR 310 million** and it is projected to grow at a **compound annual growth rate of 8.0%** (similar to the growth in other European countries) for the 2024-2028 period. Modernization in other sectors (finance, transport, healthcare, retail, etc.) driven by increasing competition is seen as a major factor driving demand for IT services. The **IT outsourcing segment is particularly important** for the market. It is projected that this sector will continue to grow thanks a **favorable 0% export tax**, a well-educated workforce, and geographic proximity to EU countries.

INCREASING DOMESTIC SOFTWARE AND CLOUD COMPUTING MARKETS

The software market is expected to grow at a **CAGR of 4.9% for the 2024-2028** period, reaching a **value of EUR 307 million in 2028**. Government and the EU projects concerning the digital economy are further accelerating digitalization in Bulgaria. **E-government solutions, IT programs in education, and software for the financial sector** are areas with high demand for software solutions.

In turn, the degree of **cloud adoption in Bulgaria is much lower** than in the average enterprise in EU. In 2020, **only 10% of SMEs in Bulgaria adopted cloud solutions**, compared to **30% in the EU**. The **public cloud market is expected to grow by 11.2% annually** (CAGR 2024-2028). These markets have strong development potential due to stable growth and digitalization of the whole country.

Source: BMI Industry Research, „Reports Bulgaria Information Technology Report“, 2023; Republic of Bulgaria Ministry of Transport and Communications, „Digital transformation of Bulgaria for the period 2020-2030“, 2020; Statista databases

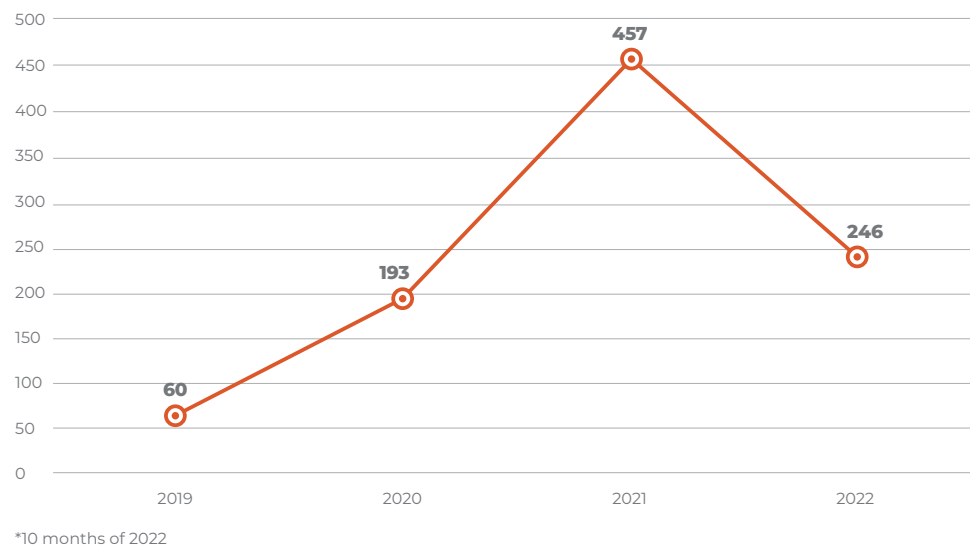
HIGH INVESTMENT VOLUME WILL RESULT IN AN INCREASE IN THE NUMBER OF IT STARTUPS

IT MARKET TRENDS IN BULGARIA

FAST GROWTH OF STARTUP ECOSYSTEM

Investments in Bulgarian startups have increased significantly in recent years, reaching a **growth of 400% between 2019 and 2022**. Moreover, startups can use the help of **accelerators and incubators** (e.g. Founder Institute Sofia, Sofia Tech Park incubator, Innovation Starter Accelerator, „Start-up Europe” Fund) in obtaining financing and identifying business models.. Most of the growing Bulgarian startups focus on **AI, Blockchain, Deep Tech, IoT, MedTech, Big Data technologies and Machine Learning**. The total number of startups **increased from 775 to around 1,500 between 2020 and 2022**. Based on this data and the investment volume, it is expected that the number of startups in the IT industry will grow rapidly. This trend intensifies competition between IT companies and increases the demand for IT specialists.

INVESTMENT IN BULGARIAN TECH STARTUPS IN MLN EUR



Source: SeedBlink's „An analysis of market trends, key players and our impact in CEE”, 2022

INNOVATION AND INTERNET OF THINGS ARE KEY DRIVING FACTORS

IT MARKET TRENDS IN SLOVAKIA

INCREASING DEMAND FOR IOT

IoT market in Slovakia is expected to grow steadily at a **compound annual growth rate of 11.78%**, reaching the **value of EUR 7.11 billion in 2028**. IoT, as one of the **main elements of Industry 4.0**, remains significant when it comes to IT market growth. The growing number of IoT devices (in Europe **from 2.3 million in 2020 to 3.5 million in 2023**) creates rising pressure for the cybersecurity segment to focus on protecting connected devices, as well as the entire network.

INNOVATION AND TECHNOLOGICAL PROGRESS FOCUS

At the end of 2023, the government and EIT Manufacturing East signed an **agreement to create a fund aimed at accelerating Slovakia's digitalization**. Until 2026 Slovak **SMEs or self-employed individuals** can apply for Innovation Vouchers. They can **receive from EUR 5 thousand to EUR 15 thousand to innovate their products, services, or processes**. These vouchers will be a strong incentive for enterprises to introduce more IT solutions to their businesses and will drive demand for IT systems (especially sales, resource planning, customer relationship management, and warehouse management).

SOFTWARE MARKET CONTINUES TO GROW

Revenue in the Slovak software market is projected to **grow on a yearly average of 5.3% between 2024-2028** and **reach the value of EUR 605 million**. Enterprises in Slovakia have been showing interest in IT solutions that can increase their efficiency. It is expected that the demand for **software that can automate business processes and analyze data** will increase.



Source: Statista databases; Sario Slovak investment and trade development agency, „Information&Communications Technology Sector in SLOVAKIA“, 2023

NUMBER OF COMPANIES USING CLOUD SERVICES IN SLOVAKIA IS CONSTANTLY INCREASING

IT MARKET TRENDS IN SLOVAKIA

CONTINUED ADAPTATION OF CLOUD SERVICES

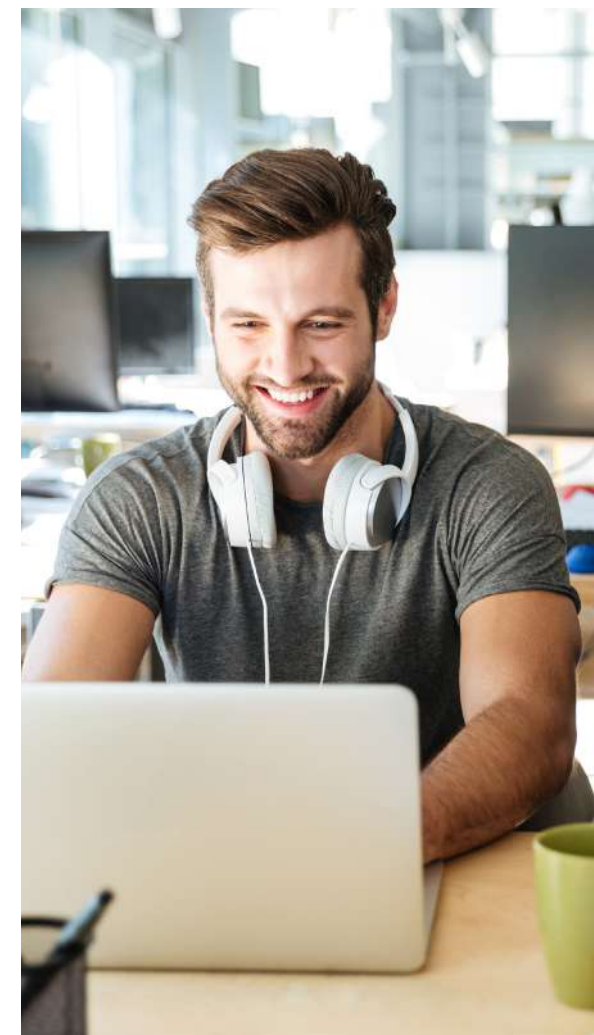
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The number of companies using cloud services **increased from 21% in 2018 to 35% in 2023**. However, it is still **lower than the EU average (45%)** and it is expected that enterprises in Slovakia will increase adopting cloud services. This can affect all business' processes and increase their efficiency, especially in the **automotive, financial, and healthcare** industries. With cloud computing, it will be much easier to scale up and down infrastructure, physical servers and data centers, and create applications in a virtual environment.

INCREASED REVENUE OF GAME DEVELOPMENT INDUSTRY

5

The game development industry **revenue has risen from EUR 51 million in 2019 to EUR 77 million in 2022**. Simultaneously the number of **game development professionals has grown from 762 in 2019 to 1,080 in 2022**. The game industry is experiencing dynamic growth and the demand for specialists in this area is increasing significantly. For this reason, there will also be a **noticeable increase in demand for artificial intelligence and cloud solutions in this segment**, as their role has become more important to the development of games in recent years (e.g. creating intelligent NPCs, procedural content generation, or streaming games from clouds).



Source: Statista databases; Sario Slovak investment and trade development agency, „Information&Communications Technology Sector in SLOVAKIA“, 2023

KAROLINA STRZĘPEK

MANAGING DIRECTOR - CONLEA



The report findings are related to what we discovered in terms of IT Manager's development in the IT Manager of Tomorrow report in 2023.

AI is a great opportunity, but also a challenge for IT Managers. It gives them potential for **automating routine tasks and processes**. AI systems can analyze huge amounts of data in real time, identify patterns and highlight potential problems, allowing them to **quickly respond to the changes and minimize the risk of failure**. Because of that, team members can **focus on more strategic and creative aspects of their work**.

On the other hand, IT Managers have identified many challenges in introducing more AI systems into their work. Adopting new technologies, including AI, often requires a change in organizational culture. The introduction of AI may **change the way an IT team works, requiring employees to adapt to new work methods and tools**. IT Managers must be ready to lead the organization through this change process, providing support and training to employees and **promoting a culture of openness to innovation and experimentation**.





EDUCATION

NUMBER OF ICT STUDENTS IN THE CEE REGION IS PROJECTED TO REACH 500,000 IN 2026

EDUCATION IN THE CEE REGION

SUMMARY

The CEE region had **over 430 thousand ICT students in 2021**. What is more, it is projected that this number will **reach 500 thousand in 2026**. Moreover, the share of **female ICT students** varies significantly between countries in the CEE region, with around **29% in Bulgaria, the highest percentage in Europe**, and approximately **15% in Poland**. In 2021, the CEE region had **over 70 thousand ICT graduates**.

Universities with IT majors located in Poland, Slovakia, Czechia, and Bulgaria are an important part of tertiary education in the CEE region. The most recognizable technical universities, **Warsaw University of Technology, Slovak University of Technology in Bratislava, Czech Technical University in Prague**, and **Technical University of Sofia**, are located in the capitals of analyzed countries and have together **over 62 thousand students**.



Source: ConQuest Consulting analysis based on Statista database; The Recursive, "Tech Talent on the Rise: 4 Reasons to Establish Your Dev Team in the CEE Region", 2023

IT STUDIES HAVE BEEN THE MOST POPULAR FIELDS OF STUDY IN POLAND FOR THE LAST 3 YEARS

EDUCATION IN POLAND

Polish education is developing with one of the **largest students population in the CEE region**. This creates huge potential for companies to acquire skilled workforce. Moreover, **IT studies have been the most popular field of study** in Poland for the last 3 years.

Women in Polish higher schools account for 58% of all students and for **63% of all graduates**. These proportions have remained at around the same level for the past 8 years, although the situation is completely different in ICT fields of study. Only **15% of ICT students are women**, however it is slowly **increasing at a rate of 1 percentage point since 2018**.

There is a **significant number of technical universities in Poland** compared to the other 3 countries, which are located in the **15 largest Polish cities**. It creates easy access to a huge, qualified technological staff for companies in all cities in Poland where there are technical universities.



1,2 MLN

STUDENTS



11,2 K

ICT STUDENTS
GRADUATING IN 2022



70,4 K

ICT STUDENTS



292,6 K

STUDENTS
GRADUATING IN 2022



15%

PERCENTAGE
OF WOMEN IN ICT



22%

PERCENTAGE OF WOMEN
GRADUATING IN ICT



359

HIGHER EDUCATION SCHOOLS



23

TECHNICAL UNIVERSITIES

Source: Eurostat database; GUS, "Społeczeństwo informacyjne w Polsce", 2023; NAWA, "Universities of Technology in Poland", 2019

IT MAJORS ARE THE MOST POPULAR STUDIES IN POLAND

THE MOST POPULAR UNIVERSITIES WITH IT MAJORS IN POLAND IN 2023

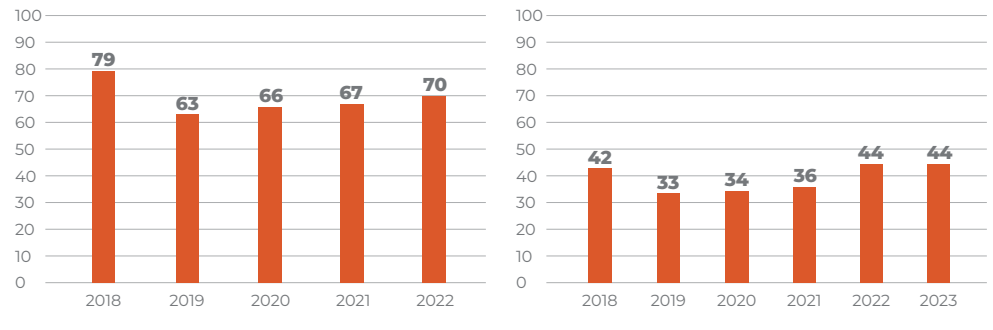


THE MOST POPULAR FIELDS OF STUDY IN POLAND IN 2023

- ▶ Social Informatics
- ▶ Informatics and Intelligent Systems
- ▶ Artificial Intelligence
- ▶ Informatics and Information Systems
- ▶ Internet of Things Engineering

Source: ConQuest Consulting analysis based on Statista database

Number of vacancies available in universities and faculties specializing in ICT and IT in Poland in 2018-2023 (in thousand)



The most popular universities with IT majors in Poland are located in Warsaw, Cracow, Wrocław, Poznań and Gdańsk. In 2023 the most popular fields of study were **Social Informatics** (the most popular field of study from 2022), **Intelligent and Information Systems, AI** and **IoT Engineering**. Other popular fields of IT studies are **Data Analysis, Cybersecurity** and **Automated Technologies**.

The number of places available at universities in the ICT and IT fields in Poland is constantly growing and there are currently **nearly 70 thousand places in ICT and 44 thousand in IT**. At the top universities, IT studies are perceived as difficult (due to the use of advanced sciences, mathematics and programming), followed by an **average of 11 thousand ICT graduates annually** since 2018. People working in their profession are most often IT graduates. **73% of ICT specialists in Poland have higher education**. IT studies are not the most important factor, but they still act as an indicator that a person has a basic knowledge of the IT sector and first project experience.

SOFTWARE AND APPLICATION DEVELOPMENT ARE VERY POPULAR FIELDS OF STUDY IN CZECHIA

EDUCATION IN THE CZECH REPUBLIC

Czechia plays an important role in the education system in the CEE region. It provides studies for **more than 304 thousand students**. What is more, **international students represents around 20% of all students** in the Czech Republic.

ICT students account for around 8% of all students. Popularity of the **"Software and Applications Development and Analysis"** fields of study is growing steadily as it account for **74% of all ICT students**.

Around **57% of tertiary education students are women**, which is slightly higher than the EU average (54%). On the other hand, the percentage of **women in ICT fields of study accounts for 17%**, which is close to the EU average (19%).



304,5 K

STUDENTS



3,6 K

ICT STUDENTS
GRADUATING IN 2022



23,5 K

ICT STUDENTS



58,7 K

STUDENTS
GRADUATING IN 2022



17%

PERCENTAGE
OF WOMEN IN ICT



19%

PERCENTAGE OF WOMEN
GRADUATING IN ICT



54

HIGHER EDUCATION SCHOOLS



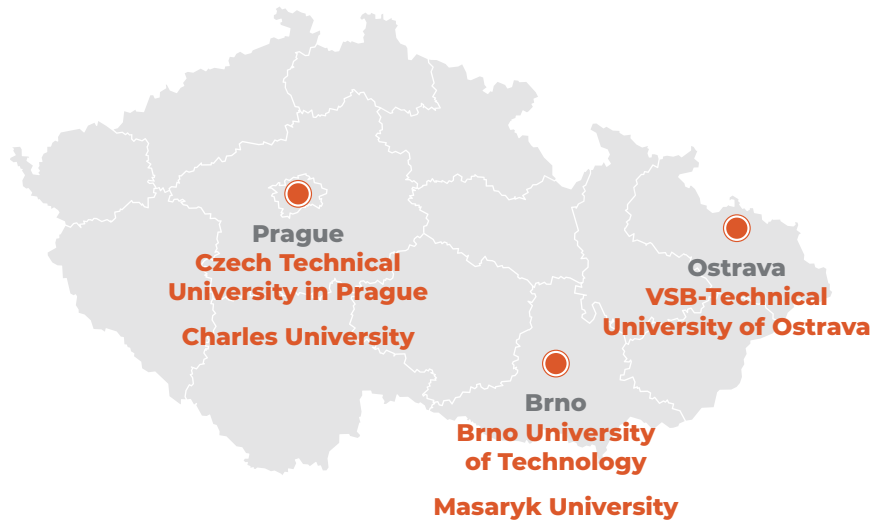
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TECHNICAL UNIVERSITIES

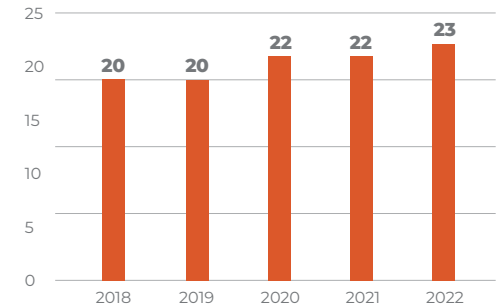
Source: Eurostat database; Czech Statistical Office database; CZSO, "Digital Economy in Figures", 2023

SOFTWARE AND APPLICATIONS FIELDS OF STUDY ACCOUNT FOR 74% OF ALL ICT

THE MOST POPULAR UNIVERSITIES WITH IT MAJORS IN CZECHIA IN 2023



Number of vacancies available in universities and faculties specializing in ICT in Czechia in 2018-2022 (thousand)



The most popular universities with IT studies are located in the 3 largest cities in Czechia (**Prague, Brno and Ostrava**). Since 2020 the list of these universities stayed the same. The number of ICT students has increased steadily from 2018 to 2022. ICT studies remain popular among students in the Czech Republic - in 2021 and 2022 **ICT studies were the sixth most popular field of study**. A particularly popular field of IT studies is the **Development and Analysis of Software and Applications** (in 2019 it accounted for 62% and in 2022 for **74% of all ICT students**). Growing number of ICT students indicates a stable increase in IT-educated professionals. In the Czech Republic, **55% of the ICT specialists have tertiary education**. It shows that **IT studies are not a decisive factor** when it comes to recruitment to the IT company.

Source: ConQuest Consulting analysis based on Czech Statistical Office database

NUMBER OF ICT STUDENTS IN BULGARIA IS INCREASING YEAR-TO-YEAR SINCE 2018

EDUCATION IN BULGARIA

Bulgaria belongs to the group of the most popular IT outsourcing destinations in the CEE region, partly due to the **growing number of ICT specialists**, which **grows at a rate of around 25% since 2019 to 2022** and relatively low labour costs. **Computer Science** studies popularity is growing among Bulgarians as the number of ICT students is increasing year-to-year since 2018. In the academic year of 2022/2023, it was the **5th most popular major**.

What is more, **83% of ICT students in Bulgaria are on bachelor study programme** compared to the **75% in the EU average**. It suggests that bachelor graduates have enough skills to start a job in the IT sector and **employers require master's degree less often**.

Bulgaria has the **highest percentage of women in ICT fields of study** among all European countries and even higher percentage of ICT graduates. The country stands out among other countries in the EU and create more diversified ICT labour market.



215 K

STUDENTS



2,3 K

ICT STUDENTS
GRADUATING IN 2022



12,8 K

ICT STUDENTS



47,7 K

STUDENTS
GRADUATING IN 2022



29%

PERCENTAGE
OF WOMEN IN ICT



37%

PERCENTAGE OF WOMEN
GRADUATING IN ICT



51

HIGHER EDUCATION SCHOOLS



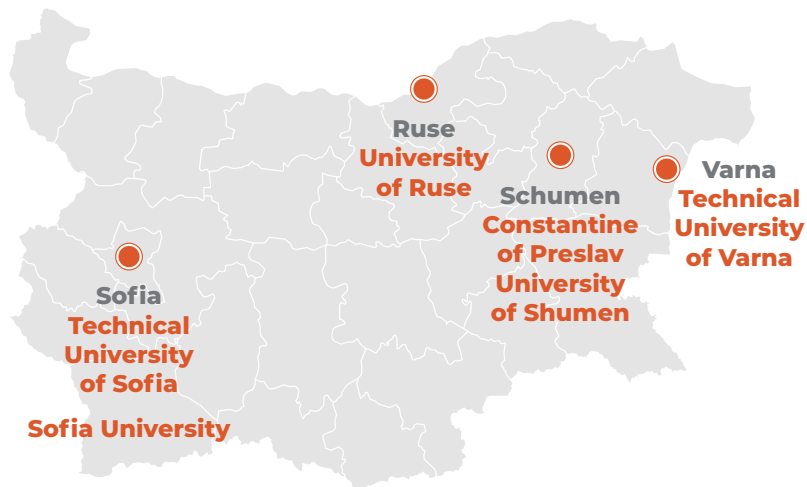
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TECHNICAL UNIVERSITIES

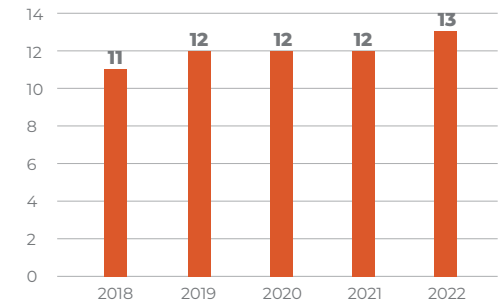
Source: Eurostat database; National Statistical Institute of the Republic of Bulgaria database

NUMBER OF ICT STUDENTS HAS BEEN GROWING YEAR BY YEAR SINCE 2018

THE MOST POPULAR UNIVERSITIES WITH IT MAJORS IN BULGARIA IN 2023



Number of vacancies available in universities and faculties specializing in ICT in Bulgaria in 2018-2022 (thousand)



The universities in **Sofia** and **Varna** are the most popular universities with IT majors in Bulgaria. They attract many students in the **ICT field**, which was **the 5th most popular major in the country in 2018-2022**. ICT majors are becoming more and more popular, and the number of students is **increasing on average by 3% every year** and now **amounts to 12,750**. The growing number of ICT students in Bulgaria is a favorable situation for the IT sector because it should increase the number of IT specialists in the coming years. In Bulgaria, **74% of the ICT specialists have tertiary education**. Although IT studies are popular among ICT specialists, **IT courses are becoming a more popular way to enter the IT sector**.

Source: ConQuest Consulting analysis based on National Statistical Institute of the Republic of Bulgaria database

AROUND 7% OF STUDENTS IN SLOVAKIA ARE IN ICT FIELDS OF STUDY

EDUCATION IN SLOVAKIA

Despite being a small country in the CEE region, Slovakia's technological potential with skilled tech workforce and positive business environment attracts global companies. Slovakia has a population of **130 thousand students**, of which **8,5 thousand are in ICT fields of study**. Around **1,8 thousand ICT graduates enter the labour market**.

In Slovakia **58% of tertiary education students are women**. On the other hand, percentage of **women in ICT fields of study is one of the lowest in EU** and **account for 13%**.

The biggest IT hubs in Slovakia are located in cities with two most important technical universities such as **Slovak University of Technology in Bratislava** and **Technical University of Kosice**.



130 K
STUDENTS



1,8 K
ICT STUDENTS
GRADUATING IN 2022



8,5 K
ICT STUDENTS



34,2 K
STUDENTS
GRADUATING IN 2022



14%
PERCENTAGE
OF WOMEN IN ICT



15%
PERCENTAGE OF WOMEN
GRADUATING IN ICT



33
HIGHER EDUCATION SCHOOLS



3
TECHNICAL UNIVERSITIES

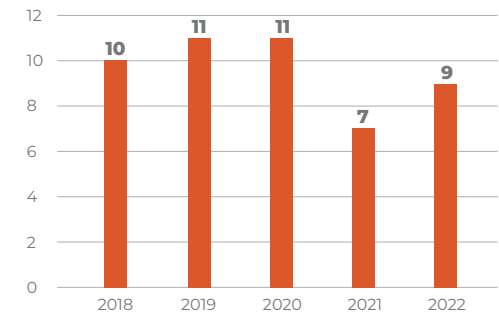
Source: Eurostat database; Statistical Office of the Slovak Republic database

AFTER A DECLINE IN 2021, NUMBER OF ICT STUDENTS IS INCREASING AGAIN

THE MOST POPULAR UNIVERSITIES WITH IT MAJORS IN SLOVAKIA IN 2023



Number of vacancies available in universities and faculties specializing in ICT in Slovakia in 2018-2022 (thousand)



The most popular universities with ICT fields are located in the biggest cities in Slovakia (**Bratislava, Kosice and Zilina**). **Technical sciences, including ICT studies, are the second most popular** choice among Slovak students. The number of **ICT students has lowered in 2021** (it might be connected with demographic changes because the number of newly admitted students decreased in all fields of study in 2021) but **rebounded in 2022**. The fluctuating number of ICT students may periodically increase difficulties in finding new IT specialists. **65% of the ICT specialists in Slovakia have tertiary education**. IT courses are becoming more and more popular as the demand for IT specialists is constantly growing.

Source: ConQuest Consulting analysis based on Sario, „ICT Sector in Slovakia“, 2018-2023



ORGANIZATIONS

PROMOTING IT

ORGANIZATIONS ADVANCING IT INNOVATION AND STRENGTHENING ITS PROMINENCE IN POLAND, CZECHIA, BULGARIA & SLOVAKIA



POLAND

1. Polish IT Society
2. ITCorner
3. ASIS International Poland Chapter
4. conlea



BULGARIA

1. Bulgarian Association of Information Technologies
2. Bulgarian Association of Software Companies
3. Bulgarian Outsourcing Association
4. ICT Cluster Bulgaria



CZECHIA

1. Czech Society for Cybernetics and Informatics (ČSKI)
2. Czech Association for the Information Society (SPIS)
3. Association for Electronic Commerce (APEK)
4. CzechInvest



SLOVAKIA

1. National Centre for Information and Communication Technologies
2. Slovak Internet Economy Association (SIEA)
3. Slovak Society for Computer Science
4. Košice IT Valley

Source: parp.gov.pl; pti.org.pl; itcorner.org.pl; asispoland.org



04

HIRING IN CEE

CEE REGIONS HAS OVER 1.3 MILLION SOFTWARE DEVELOPERS

EMPLOYMENT AND EARNINGS IN ICT SECTOR IN THE CEE REGION

SUMMARY

The CEE region has **over 2.3 million people employed in the ICT sector** and the number of these employees is increasing year on year. What is more, the region has **over 1.3 million software developers** with the **majority (0.4 million) in Poland**, followed by Ukraine, Romania, Czechia and Bulgaria. **Employment in the ICT sector** in the CEE region accounts on average for **4% of total employment**, with the highest percentage in **Estonia with 6.6%**.

Average salaries in the ICT sector in the CEE region vary between subregions, however, they remain **significantly lower than in Western Europe countries**. **The average monthly salary for a software developer** in the CEE region remains around **EUR 2.3 thousand**, while in **Western countries**, Germany, France, Spain, the UK and the Netherlands around **EUR 4 thousand**.



Source: Statista database; Grid Dynamics, "How many software developers are in the world?"; 2023; The Recursive, "Tech Talent on the Rise: 4 Reasons to Establish Your Dev Team in the CEE Region", 2023

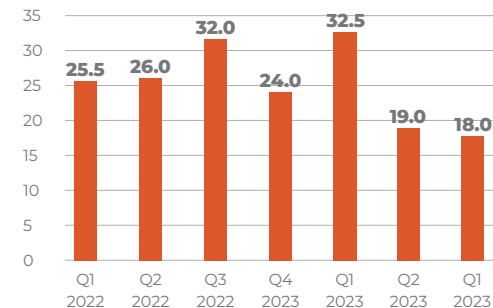
NUMBER OF JOB OFFERS IN IT DECREASED DUE TO COST REDUCTION AND AI IMPROVEMENT

ESTIMATED NUMBER OF ICT SPECIALISTS IN CITIES IN POLAND IN 2022*



*Based on Eurostat database; Statista database

Number of job offers in the IT industry in Poland from Q1 2022 to Q3 2023 (thousand)



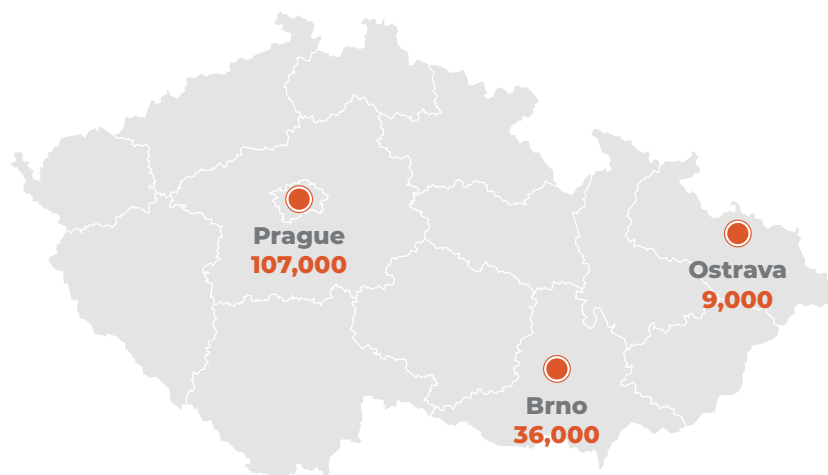
Warsaw employs over **130 thousand ICT specialists** and remains **the largest IT job market in Poland**. Other large cities are also important IT hubs, where **45 to 78 thousand ICT specialists** work.

The number of job offers in IT increases and decreases in similar time frames as the total number of job offers in Poland. Both labor markets showed steady growth until mid-2022. Since then, the IT job market has become unstable due to cost reduction and improvement of AI technology, as it could take over some of the routine assignments. Moreover, global layoffs in international companies affect the Polish IT job market, where **41% of ICT specialists work in branches of large corporations**.

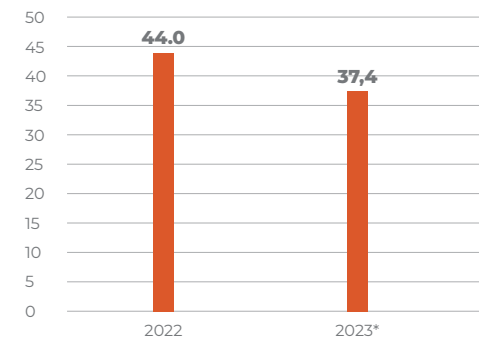
Source: ConQuest Consulting analysis based on Eurostat database; Statista database; Magazyn Rekruter, "Kryzys w branży IT: Dlaczego juniorzy mają trudności ze znalezieniem pracy?", 2023

IN 2022, THERE WERE APPROXIMATELY 44,000 JOB OFFERS IN IT INDUSTRY IN CZECHIA

ESTIMATED NUMBER OF ICT SPECIALISTS IN CITIES IN THE CZECH REPUBLIC IN 2022*



Number of job offers in the IT industry in Czechia from 2022 to 2023* (thousand)



Prague has the largest IT talent pool in the Czech Republic, followed by **Brno**, where the leading technical universities are located.

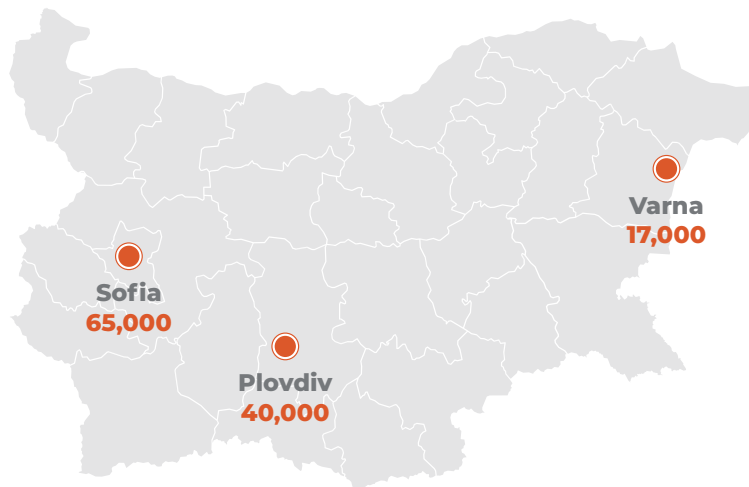
The disruptions in the global economy resulted in a slowdown in employment in the Czech IT industry in 2022 a **5% decline in the number of job offers** in Czechia. Moreover, at the end of 2022, **up to 20% of Czech companies were considering layoffs** due to increasing costs.

*Based on Eurostat database; Mobiulunity, "Software Development in Czech Republic Is Smart Decision for Business", 2020

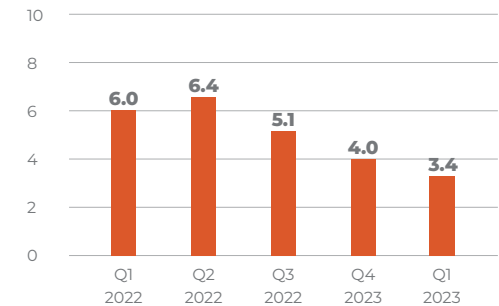
Source: ConQuest Consulting analysis based on Eurostat database; Alcor, "Software Development in Czech Republic: IT Sector Overview", 2023; Green Fox Academy, "VELKÁ ANALÝZA: Jaké jsou ceny vývojářů a jaké trendy vládou IT", 2023; Itnetowrk.cz, "Pracovní trh se ochladil, zájem o ajťáky ale přetrvává", 2023

NUMBER OF JOB OFFERS IN IT INDUSTRY HAS HALVED IN BULGARIA

ESTIMATED NUMBER OF ICT SPECIALISTS IN CITIES IN BULGARIA IN 2022*



Number of job offers in the IT industry in Bulgaria from Q1 2022 to Q1 2023 (thousand)



The capital of Bulgaria remains a city with **the largest pool of ICT specialists**. This is followed by other largest cities, where **approximately 57 thousand ICT specialists work**.

The global uncertainty in the recent 4 years, caused by rising inflation and political threats, reduced orders from companies and caused a slowdown in the Bulgarian IT job market. It is forecasted that the number of IT job offers will stabilize and slowly grow in 2024.

*Based on Eurostat database; Mobiulunity, "Software Outsourcing Bulgaria – What You Should Know?", 2020

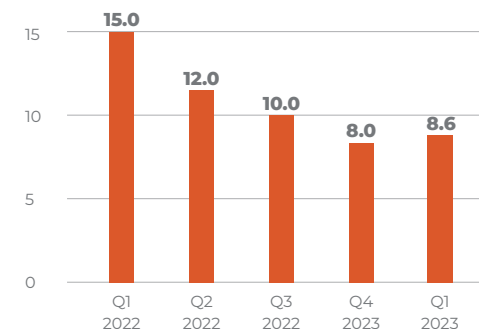
Source: ConQuest Consulting analysis based on Eurostat database; Mobiulunity, "Software Outsourcing Bulgaria – What You Should Know?", 2020; Dev.bg, "Какво се случва на пазара на труда в IT индустрията?", 2023; Economic.bg, "The entire Bulgarian IT industry depends on business from abroad": Is the national sector in crisis?"

NUMBER OF JOB OFFERS IN IT INDUSTRY DECREASED BY 30% IN 2023 IN SLOVAKIA

ESTIMATED NUMBER OF ICT SPECIALISTS IN CITIES IN SLOVAKIA IN 2022*



Number of job offers in the IT industry in Slovakia from Q1 2022 to Q1 2023 (thousand)



Bratislava and **Kosice** are the main IT hubs in Slovakia, with the largest number of ICT specialists.

The IT sector in Slovakia developed significantly, reaching an **increase from 29 thousand job offers in IT in 2019 up to 45 thousand in 2022**. It decreased in 2023 as companies realized that the demand for IT employees exceeded the supply, and they are unable to fill the number of positions among Slovak IT labor market. It is forecasted that the demand for IT specialists will not decrease in 2024.

*Based on Eurostat database; Sario, "ICT Sector in Slovakia", 2024

Source: ConQuest Consulting analysis based on Eurostat database; Sario, "ICT Sector in Slovakia", 2024; Alma Career, "Sumár roka 2023", 2024; Trend, "Slovensku chýbajú tisíce IT odborníkov, školy by ich mali lepšie pripraviť na prax", 2023; Trend, "IT firmy hľadajú ihlu v kope sena. Šikovní ľudia odchádzajú a školy neproduckujú nových", 2022; Startitup, "Dlhodobý homeoffice aj práca na technológiách budúcnosti. Toto sú aktuálne trendy I" pracovného trhu", 2023

VIKTOR MITRUK

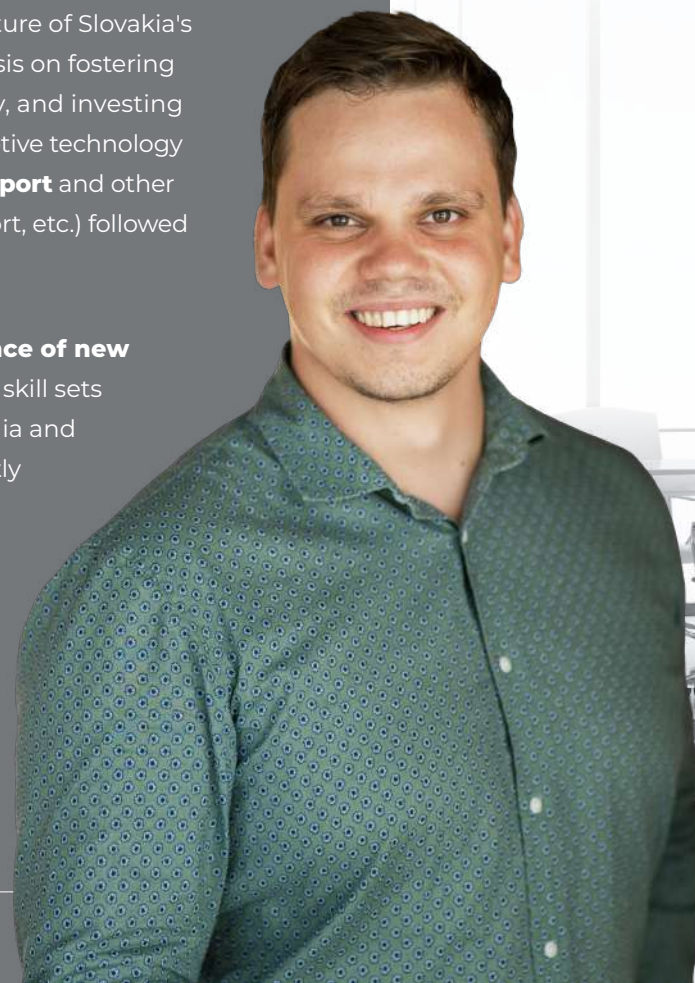
HEAD OF OPERATIONS - KOŠICE IT VALLEY

The ICT sector in Slovakia has undergone notable expansion and transformation in recent years. Slovakia's accession to the European Union in 2004 has been a significant catalyst for the growth of the ICT industry. This milestone facilitated **access to EU funding, streamlined cross-border collaboration, and standardized regulatory practices**, thereby providing a conducive environment for ICT development.

Slovakia has also emerged as **one of the leading destination for IT outsourcing and shared services**, capitalizing on its **proficient workforce, cost competitiveness, and business-friendly climate**. The future of Slovakia's tech sector is anchored in innovation, research, and development. There is a growing emphasis on fostering a knowledge-driven economy, strengthening partnerships between academia and industry, and investing in cutting-edge technologies such as Artificial Intelligence (AI), Internet of Things (IoT), Automotive technology (AT) and cybersecurity. The majority of IT services in Slovakia are composed by **application support** and other **tailor-made services** (such as helpdesk, network administration, cloud storage, remote support, etc.) followed by **tailor-made software development and outsourcing**.

The ICT landscape is marked by rapid evolution, characterized by the **continuous emergence of new technologies. Collaboration with educational institutions is imperative** for ensuring that skill sets taught align with the evolving needs of the industry, thus bridging the gap between academia and the job market. While **ICT sector salaries exceed the Slovak average**, they still lag significantly behind those in Western EU countries, yet remain competitive within the CEE region.

Slovakia's ICT sector has a rich history of growth and evolution, with **promising prospects for the future**. Businesses can tap into opportunities in software development, IT services, digital infrastructure, and innovation to thrive in this dynamic market.





HOW TO

RECRUIT

IN CEE?

RECRUITMENT PROCESSES IN POLAND, CZECHIA, BULGARIA AND SLOVAKIA

RECRUITMENT MODELS IN THE CEE REGION

Recruitment projects for IT specialists in the CEE region usually takes **from 4 to 8 weeks**. Companies use four main approaches to talent acquisition: **internal recruitment, external recruiting services, RPO** or **staffing services**.

IN-HOUSE RECRUITMENT

When entering a new market, the obvious choice for many companies is to employ candidates using their **own recruitment team**. To be successful with this option, a company must build a **recruitment department in the chosen location**, as it is rare for a remote recruiting team to function effectively.

However, building your own team is an investment that takes time and may slow down the initial development. Hiring solely with an internal team is, in most cases, **slower compared to hiring external agencies**. Recruiting for senior IT positions can be particularly difficult for a purely in-house team due to a **limited database, candidate relationships** and the **need for in-depth market knowledge**. The internal recruitment scenario is often chosen **when long-term recruitment demand is high** but a **slow start is acceptable** and when there is **no budget for fees for external recruitment agencies**.

To reduce hiring costs but maintain a fast pace, companies often choose a **hybrid mode**, starting with an agency and then continuing with internal consultants, agencies and potentially RPOs.

EXTERNAL RECRUITMENT SERVICES

There are many local and global IT recruitment agencies in Poland, Czechia, Bulgaria and Slovakia. The scope of agency involvement varies, but typically involves **advertising positions** and **actively sourcing candidates, conducting job interviews, coordinating the process with hiring managers** and other interviewers, and finally **issuing an offer**.

With **experienced technical recruiters**, agencies leverage their **in-depth knowledge of the local IT labor market** and **professional recruiting tools** to accelerate the recruitment process.

Some companies offer a success fee model, while others offer additional options such as retained search. The **agency fee ranges from 15% to 25% of the new employee's annual gross salary**. The value may be different for top-level positions.

Source: Indeed, "Career development", 2022

RECRUITMENT PROCESSES IN POLAND, CZECHIA, BULGARIA AND SLOVAKIA

RECRUITMENT MODELS IN THE CEE REGION

RECRUITMENT PROCESS OUTSOURCING (RPO)

In addition to traditional external recruitment services, some agencies offer a cooperation model based on Recruitment Process Outsourcing (RPO). At RPO, a **team of recruitment specialists is linked to the internal functions** of the hiring company and often uses the company's branding to provide the candidate with a high-level experience.

RPO is becoming increasingly popular among companies that have **extensive recruitment plans, but lack the know-how** or the **need to fill a large recruitment wave**, which may be followed by a period of lower demand.

The typical fee structure for an RPO consists of several elements, including **monthly costs** and a **reduced placement fee**. The monthly cost may include various additional coverage items such as **enrollment administration** or **enrollment management**.

RPO can take many forms and does not only apply to candidate sourcing roles, but also a **whole range of recruitment roles can be used**, including Recruitment Lead and Talent Acquisition Business Partner.

Source: Indeed, "Career development", 2022

STAFF AUGMENTATION

Staff augmentation is a solution when an **outsourcing partner provides engineers implemented to existing teams**.

This option differs from the practice of managed services, where the entire project is outsourced to a third-party provider. Thanks to staff augmentation, **candidates are onboarded as members of the company's team**, and **responsibility for the project remains internal**.

Staff augmentation enables companies to enhance their existing projects with additional IT resources, allowing them to **speed up their project timelines**. This type of engagement with skilled IT engineers is **typically short-term and aligned with the duration of the project**. The model provides clients with a **very quick ramp-up of highly qualified and experienced engineers**, enabling them to **undertake new projects with minimal onboarding costs**.

The **cost structure** of staff augmentation is typically **based on the time spent on a project**, also known as **time and materials**. This model is commonly structured around **hourly or daily rates**, encompassing all service costs.

IT COMPANIES IN CEE REGION LEVERAGE SPECIALIZED RECRUITMENT AGENCIES

RECRUITMENT MODELS IN THE CEE REGION

SUMMARY

In Poland, Czechia, Bulgaria and Slovakia, **IT companies are turning to specialized recruitment agencies for talent acquisition**, streamlining their hiring processes, and allowing companies to focus on core business activities. Specializing in the IT industry, these agencies manage tasks such as **job postings, candidate screening, and interview coordination**.

Industry data reveals that **56% of executives feel their firms lack effective employee retention strategies**, prompting a shift in talent acquisition methods, with **87% of organizations now integrating external workers into their workforce**. These agencies handle the recruitment process, including salary negotiations, facilitating a smoother transition for both employers and candidates. Leaders in this field, such as **Hireplace, NTIATIVE, and dotLinkers**, understand the specific skills required in IT and are well-versed in the local job markets, aiding in attracting the right talent.



Source: Indeed, "Career development", 2022; Deloitte, "Global Shared Services and Outsourcing Survey", 2023

OVER 62% OF COMPANIES OUTSOURCE THEIR ENTIRE HUMAN RESOURCES PROCESSES

HOW TO RECRUIT IN CEE?

SUMMARY

Outsourcing recruitment has become a strategic choice, particularly as remote work increases, enabling IT companies to avoid the complexities of HR management. With **85% of companies outsourcing at least one HR function** and **62% outsourcing their entire HR recruitment process**, this trend reflects a growing preference to enhance HR capabilities and focus on essential business operations.

The competitive nature of HR outsourcing is leading to improved services and pricing, becoming a standard practice across various industries. As the future of work continues to evolve with a significant lean towards remote operations, **HR outsourcing services are expected to grow in the market**. These services offer more flexible and comprehensive solutions to meet the changing needs of the workforce and help IT companies efficiently manage talent acquisition and maintain operational efficiency in a dynamic market.



Source: Indeed, "Career development", 2022; Deloitte, "Global Shared Services and Outsourcing Survey", 2023



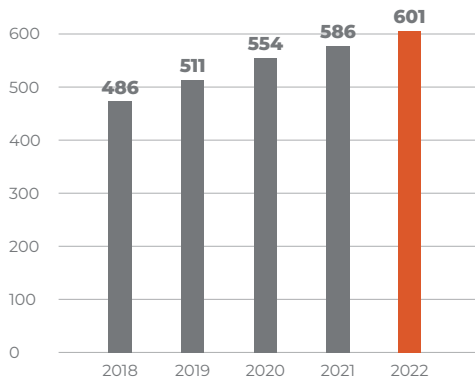
IT

SPECIALISTS

POLAND HAS THE HIGHEST NUMBER OF ICT SPECIALISTS

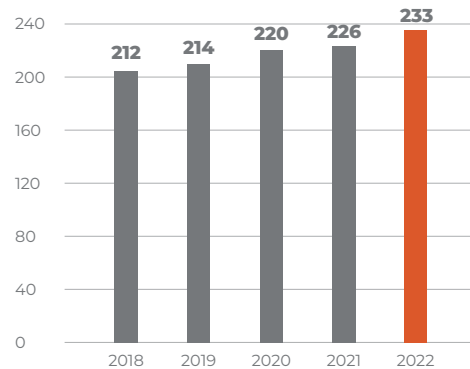
NUMBER OF EMPLOYEES (THOUSAND) IN THE ICT SECTOR IN 2018-2022

POLAND



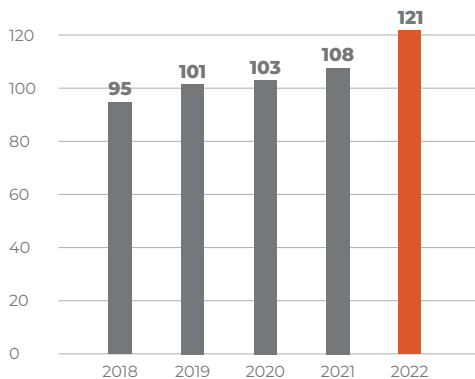
Poland has **the highest number of ICT specialists** among compared countries. It has increased steadily between 2018-2022, with an **average growth rate of 5.5%**. In 2022 the most popular specializations in the IT sector were **programming (57%), QA/Tester (15%), and Admin/DevOps (11%)**. On the other hand, Poland in 2022 had **one of the lowest proportion of ICT specialists in total employment (3,6%) in EU**.

CZECHIA



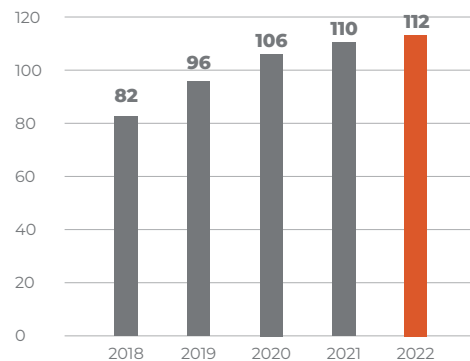
The number of ICT specialists in the Czech Republic from 2018 to 2022 is characterized by **the slowest growth rate (2.4%)**. In 2022, about **41% of them are software developers**. What is more, in Czechia in 2022, **45% of the ICT specialists did not have tertiary education**, which is one of the highest levels in the EU.

BULGARIA



The number of ICT specialists in Bulgaria **increased by 26 thousand from 2018 to 2022**, with an average **growth rate of 6.3%**. In 2022, **women accounted for 29%** of the ICT specialists in Bulgaria, which is the **highest share in the EU**. The **number of programmers**, meanwhile, is about **41%** of all IT workers.

SLOVAKIA



In Slovakia, number of the ICT specialists remained similar to Bulgaria. Slovakia had **the highest average growth rate in 2019-2020**, but the growth dynamic decreased in 2021-2022 increasing the gap in the number of ICT specialists. The **number of professional software developers** in Slovakia accounts for **around 35%**. The percentage of **ICT specialists with tertiary education is on the EU average level (65%)**.

Source: Statista database, Eurostat database

73% OF ICT SPECIALISTS IN POLAND AND BULGARIA HAVE A UNIVERSITY DEGREE

NUMBER OF EMPLOYEES IN ICT SECTOR IN POLAND, CZECHIA, BULGARIA & SLOVAKIA IN 2018-2022

SUMMARY

The number of ICT specialists is on the rise in all 4 countries. **The most dynamic growth was recorded in Slovakia**, where the **growth rate averaged 8%**, but in 2021 and 2022 this rate slowed down to 3%. **Poland, Czechia, and Bulgaria** saw stable growth of ICT specialists with an **average of 4.7%** in 2021 and 2022.

Software developers are a large group in all countries, with an **average of 41.5%**. In Poland and Bulgaria, around **73% of ICT specialists have attained tertiary education**, while in Slovakia this percentage is slightly lower at **65%**. Czechia has one of **the lowest percentages of ICT specialists with tertiary education in the EU at 55%**.

Additionally, around **40% of ICT employees** in Poland, Bulgaria, and Slovakia are **between the ages of 15-34**, while **in the Czech Republic that number is around 33%**.



Source: Statista database, Eurostat database



TECH

SKILLS

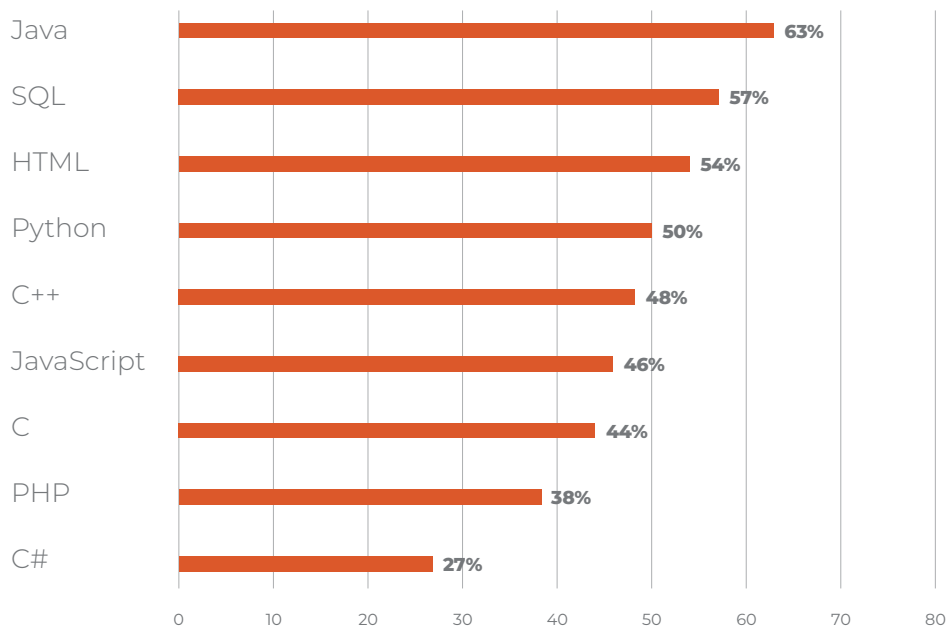
SQL, JAVA AND PYTHON WERE MOST DEMANDED PROGRAMMING LANGUAGES

IN EUROPEAN ECONOMIC AREA IN 2022

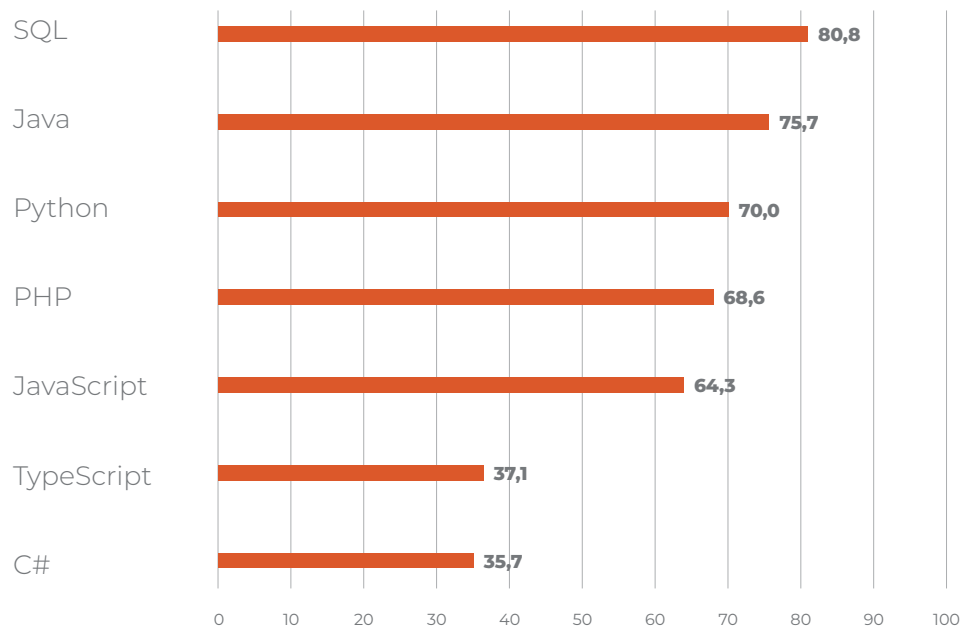
EUROPE

The most demanded programming languages by recruiters worldwide are similar to European needs. What is more, in 2021, **Java** was included in **over 60% of the studied programs**, followed by **SQL, HTML** and **Python**, which were present in at least **50% of the programs**.

MOST POPULAR PROGRAMMING LANGUAGES IN EU IN 2021



NUMBER OF JOB OFFERS IN EUROPEAN ECONOMIC AREA IN 2022 (THOUSAND)



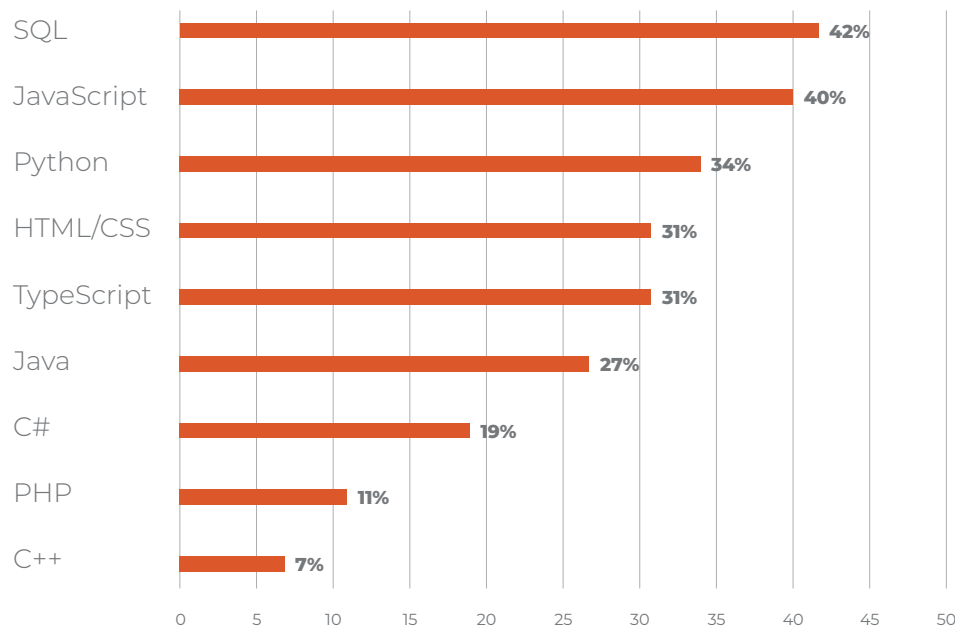
Source: Digital Information World, "Want to Become a Coder in 2022? Here Are the Programming Languages You Should Learn", 2022; Coding Nomads, "The Best Programming Languages to Learn in 2024", 2024; European Software Skills Alliance, "Europe's Most Needed Software Roles and Skills", 2021

POLAND HAS OVER 100,000 JAVASCRIPT TECH EXPERTS

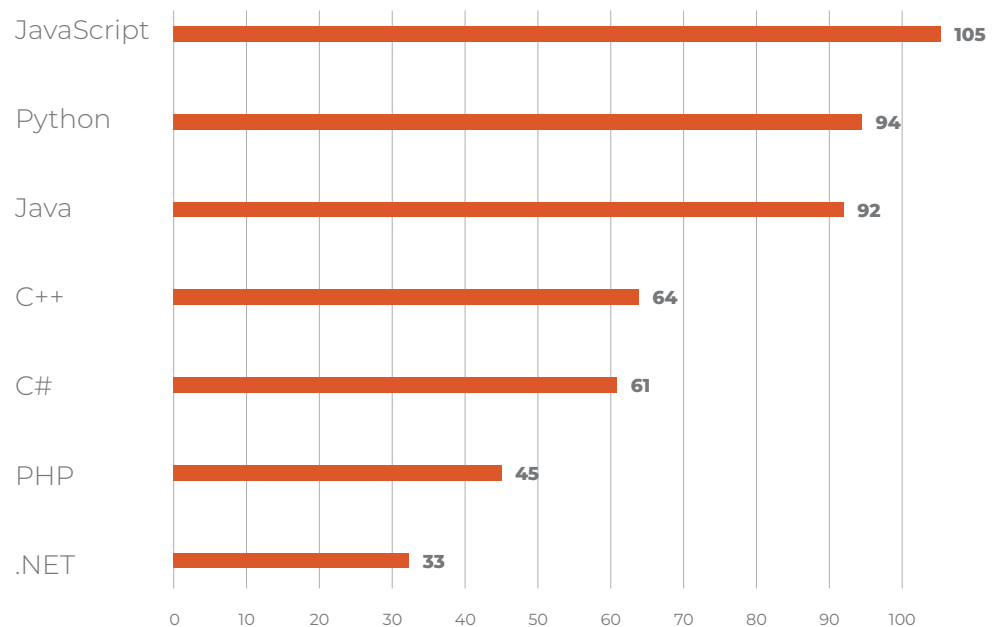
POLAND

Poland is **the biggest tech talent pool** in the CEE region as it had **550 thousand specialists in 2022** and ranked **4th in the EU in terms of access to ICT experts**. According to the Global Skills Report, Poland has competitive technology skills with an emphasis on **cloud computing** and **programming**. In the second quarter of 2023, the most popular programming languages in published job offers in Poland were **JavaScript (24%)**, **Java (21%)** and **Python (15%)**. It is expected to see the growing importance of **Python** due to more focus on **AI technologies**.

MOST USED PROGRAMMING LANGUAGE IN POLAND IN 2023



NUMBER OF TECH EXPERTS BY EXPERTISE IN POLAND IN 2023 (THOUSAND)



Source: Bulldogjob, "Raport z Badania Społeczności IT", 2024; N-iX, "Software development in Poland: major IT hubs, developers, and more", 2024; Statista database; Coursea, "The Global Skills Report", 2021

JAVASCRIPT REMAINS THE MOST POPULAR PROGRAMMING LANGUAGE IN THE CEE REGION

CZECHIA

Highly qualified IT workforce, which in 2022 numbered approximately **226 thousand ICT specialists**, combined with technology-oriented education (the percentage of ICT students among all students has increased by **1% annually** since 2016), has resulted in funding for **370 startups since 2021** and encouraging global IT companies to open branches here. According to the Techloop recruiting platform, the most sought-after programming languages are **JavaScript, Java** and **PHP**.

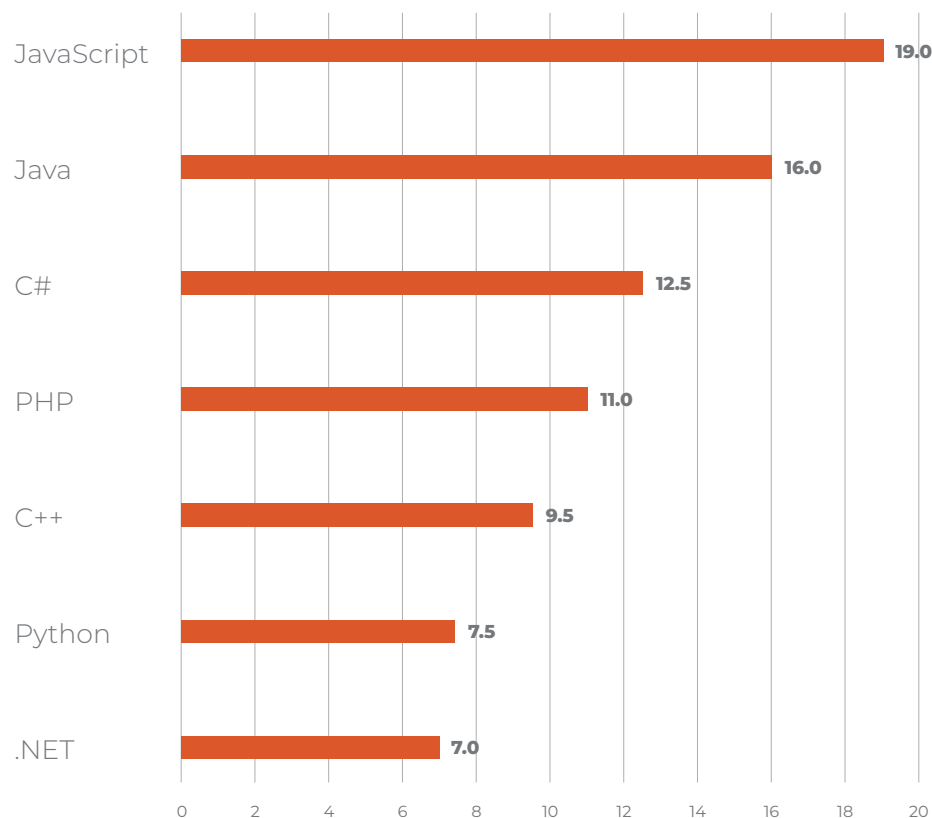
SLOVAKIA

Similarly to other countries in the world, **JavaScript, Python** and **Java** are the most popular programming languages in Slovakia and are expected to be still relevant in the next years.

BULGARIA

Thanks to the **growing number of qualified IT specialists**, the number of which **increased from 88 thousand in 2016 to over 100 thousand in 2022**, more and more companies in Europe outsource IT to Bulgaria and new technology startups are created. In 2020-2022, Bulgaria recorded a **record level of startup investments worth nearly EUR 900 million**. **JavaScript** and **Java** were the most popular programming languages in Bulgaria in 2021.

NUMBER OF IT SPECIALISTS IN BULGARIA BY EXPERTISE IN 2021 (THOUSAND)



Source: N-iX, "Everything you need to know about software development in Bulgaria", 2024; Relevant, "Outsourcing Software Development to the Czech Republic: The Ultimate Guide", 2023; Smartacademy, „Programovacie jazyky, ktoré sa oplatí naučiť – veľký prehľad 2023“, 2023; Distantjob, "Which Country Has the World's Best Programmers? Here are the Stats", 2024; www.czechstartups.org

CEE REGION IS AN IT INNOVATION HUB WITH A VALUE OF OVER EUR 1 BILLION

SUMMARY

For the last two decades, CEE region increased its importance to the tech industry significantly as IT market increases year-to-year and inflow of global IT companies can be seen. Over the past 20 years many multinational corporations, including **Amazon, IBM, Microsoft, Google** and **Intel**, were attracted by CEE region and opened offices in the region.

As of the end of 2022, **44 unicorns**, i.e. start-ups worth over USD 1 billion, were created in the CEE region. Educational outcomes in CEE are also at a high level and have resulted in the **number of ICT students increasing by over 10%** in the last 5 years and the **number of qualified ICT specialists by approximately 6%** in the last 3 years.

JavaScript, Python and **Java** are one of the most popular programming languages. On the other hand, niche tech like **Kotlin, Go** or **Rust** along with **over 1,3 million software developers** make the CEE region an important place for the global IT market due to its relatively low labour costs and skilled workforce.

Poland, Czechia, Bulgaria and Slovakia are characterized by a well-educated IT workforce with **130 thousand students on ICT fields of study** and **19 thousand ICT graduates annually** in 4 countries. This attracts international companies to outsource IT services to these countries and supports startups, of which **15 were established in this area in 2022**, and **their value exceeded over EUR 1 billion**.

The popularity of the programming languages in those countries is similar to the global statistics. **JavaScript, Python** and **Java** still belong to the most commonly used technologies among developers. It is projected that **Python** will become more popular alongside the development of **AI technologies**. Moreover, Python is a relatively simple programming language as it was designed to be concise and easy to read. **57% of global developers learning to code in 2023 chose Python** as a programming language that they will work in over the next year. These factors can increase the number of new learners looking for a valuable programming language.

Source: The Recursive, "Tech Talent on the Rise: 4 Reasons to Establish Your Dev Team in the CEE Region", 2023; Bulldogjob, "Raport z Badań Społeczności IT", 2024; Pwc, "How CEE can build the next generation of climate tech unicorns", 2022; Statista database; Stack Overflow, "Developer Survey", 2023



SALARIES IN THE

IT SECTOR

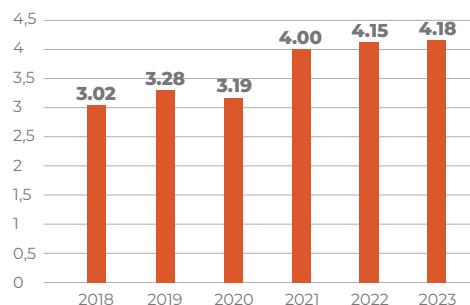
AVERAGE SALARIES IN THE CEE REGION HAS SIGNIFICANTLY INCREASED

AVERAGE SALARY (THOUSAND EUR) IN POLAND, CZECHIA, BULGARIA & SLOVAKIA IN 2018-2023

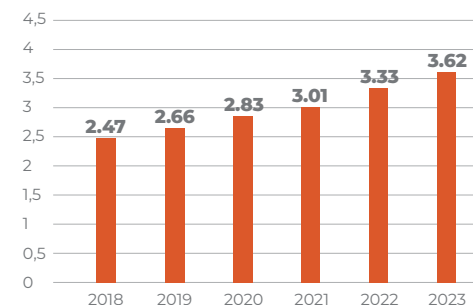
Since 2018, the average salary in the IT sector in all countries has been increasing year by year. **The most significant salary increase was recorded in Bulgaria**, which amounted to **75%**. **Poland has the highest average salary** in the IT industry, which is **EUR 4,18 thousand**, while **Slovakia and Bulgaria have the lowest** among the compared countries, which is **around EUR 2,5 thousand**. **The highest-paid specializations** in this industry are **IT architects, programmers, DevOps, software developers, system analysts, and data security professionals**.

In Poland, **employment contracts** in the IT sector are becoming less popular, **decreasing from 57% in 2022 to 51% in 2023**, in favor of single entrepreneurship contracts. The **IT sector remains one of the best-paid industries** in all 4 countries. In addition to salaries, companies in all countries use **non-financial incentives** like supplementary benefits (flexible working hours, life insurance, private medical care) to retain employees or hire new ones.

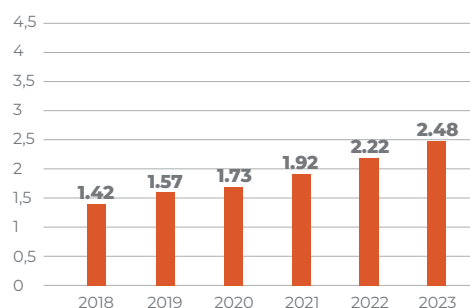
POLAND



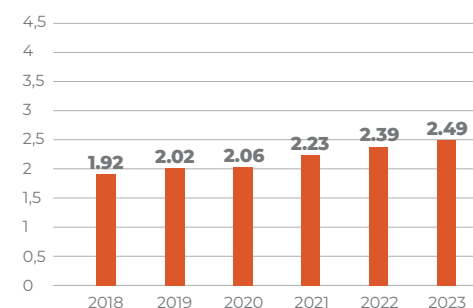
CZECHIA



BULGARIA



SLOVAKIA



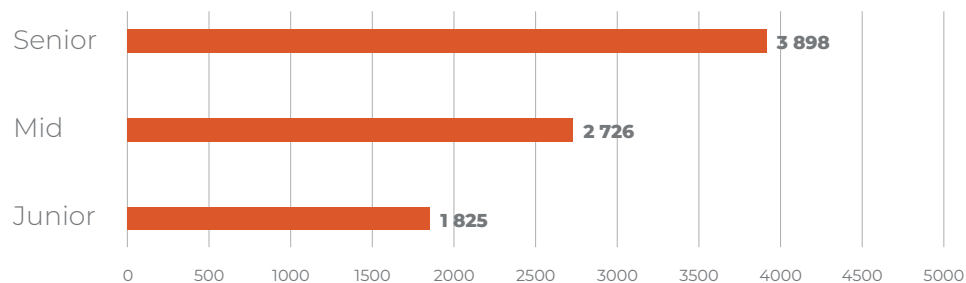
Source: Bulldogjob, „Raport z Badania Społeczności IT”, 2023; Czech Statistical Office database; National Statistical Institute of the Republic of Bulgaria database; Statistical Office of the Slovak Republic database

AVERAGE SALARIES IN THE IT SECTOR IN POLAND HAVE INCREASED BY 33% SINCE 2021

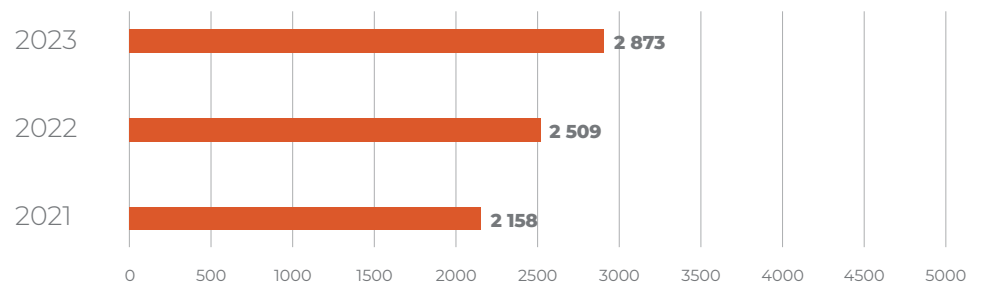
SALARIES IN POLAND

Salaries in the IT sector were steadily growing from 2021 to 2023, however, at the end of 2023, the growth of wages had slowed down. **IT specialists are the best-paid employees** in Poland. In 2023, **juniors could earn 19% more** than in the previous year, **mids 24%** and **seniors over 28%**.

AVERAGE SALARIES IN THE IT SECTOR BY EXPERIENCE IN POLAND IN 2022 (EUR)



AVERAGE SALARIES IN THE ICT SECTOR IN POLAND IN 2021-2023 (EUR)

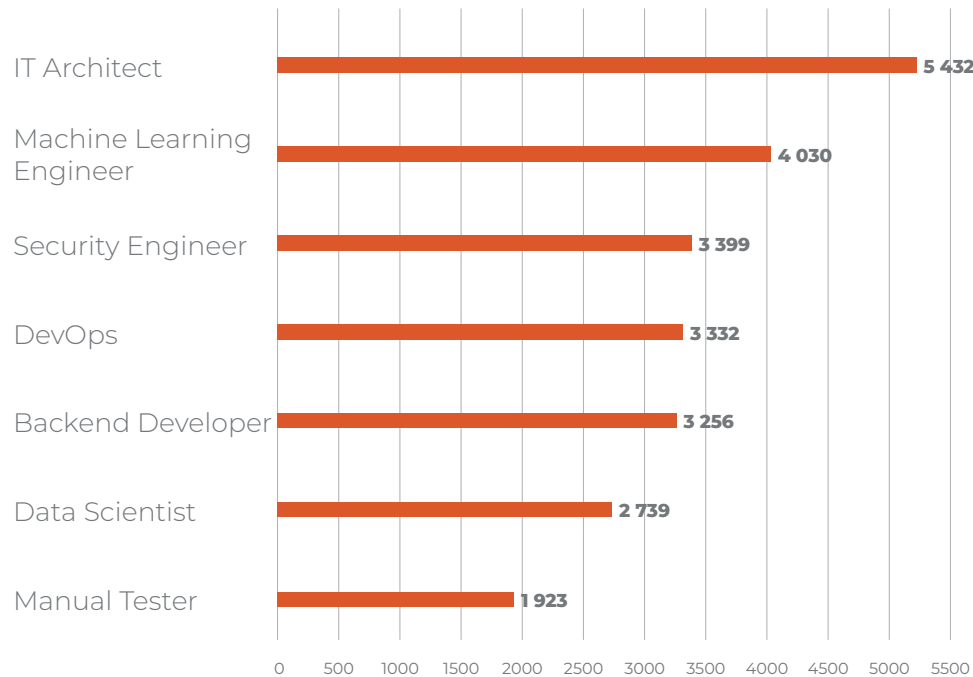


*Presented data are monthly salary on the employment contract.

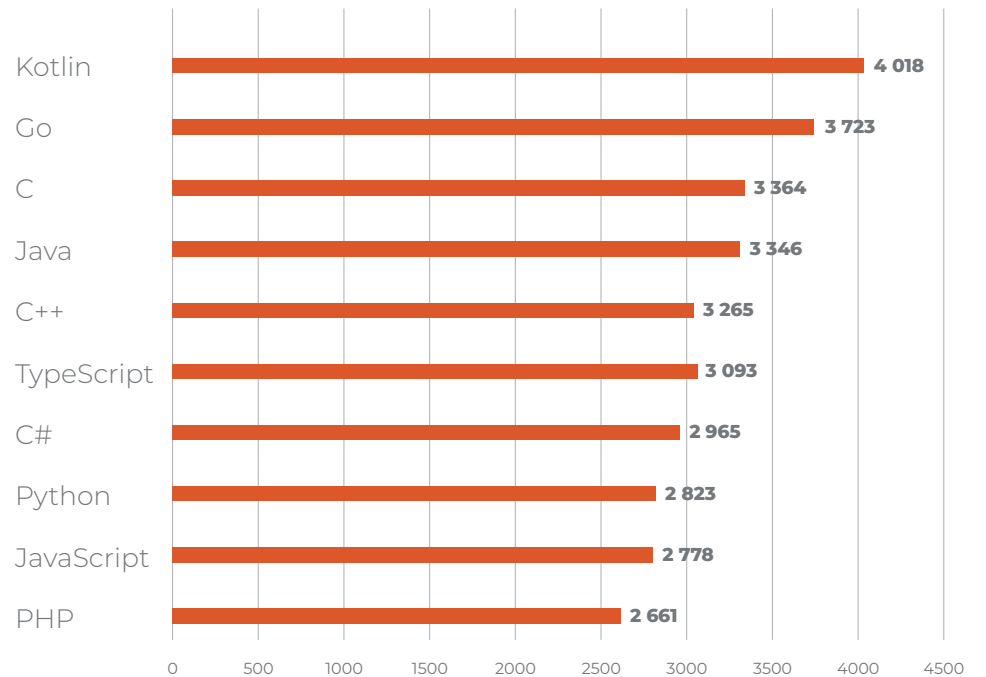
Source: Bulldogjob, "Raport Społeczności IT", 2024

AVERAGE SALARIES THE IT SECTOR IN POLAND IN 2024 (EUR)

SALARIES BY ROLE



SALARIES BY PROGRAMMING LANGUAGE



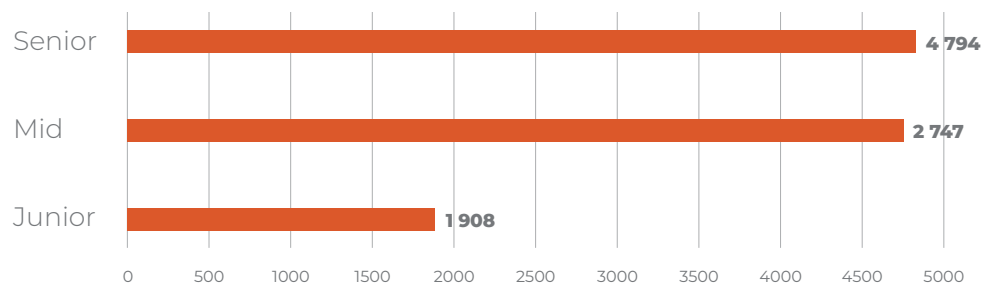
Source: Bulldogjob, "Raport Społeczności IT", 2024

AVERAGE SALARY IN THE THE ICT SECTOR IN CZECHIA WAS EUR 3,000 IN 2022

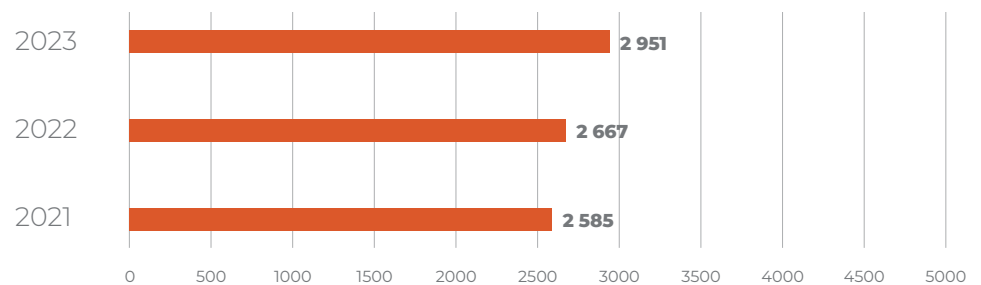
SALARIES IN THE CZECH REPUBLIC

Average salaries in the ICT sector are increasing each year and are almost **2 times higher than general average salaries** in the Czech Republic. According to StartupJobs, **senior employee's wages** in the IT industry were **74% higher** than employees with lower experience.

AVERAGE SALARIES IN THE IT SECTOR BY EXPERIENCE IN CZECHIA IN 2023 (EUR)



AVERAGE SALARIES IN THE ICT SECTOR IN CZECHIA IN 2020-2022 (EUR)

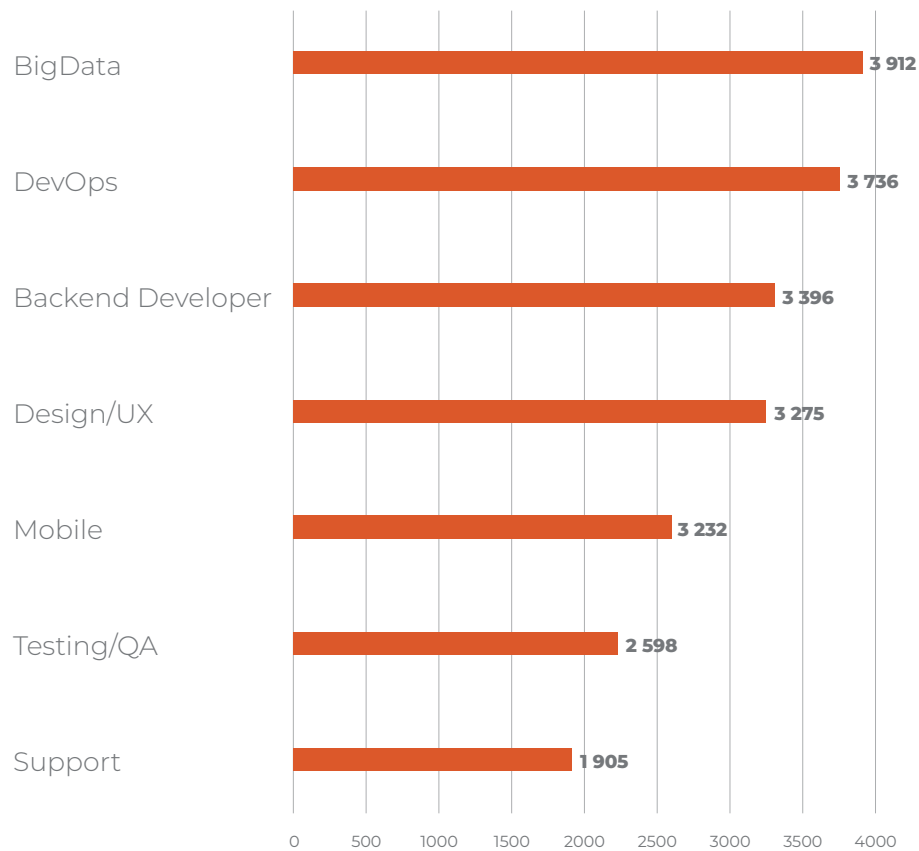


*Presented data are monthly salary on the employment contract.

Source: Seznam Zpravy, "Obrat na trhu práce: Ani „ajťáci“ si už nemohou říkat o stále více peněz", 2023; Engeto, "Kolik si vydělá ajťák v Česku?", 2024; No Fluff Jobs, "The IT job market in 2022", 2022

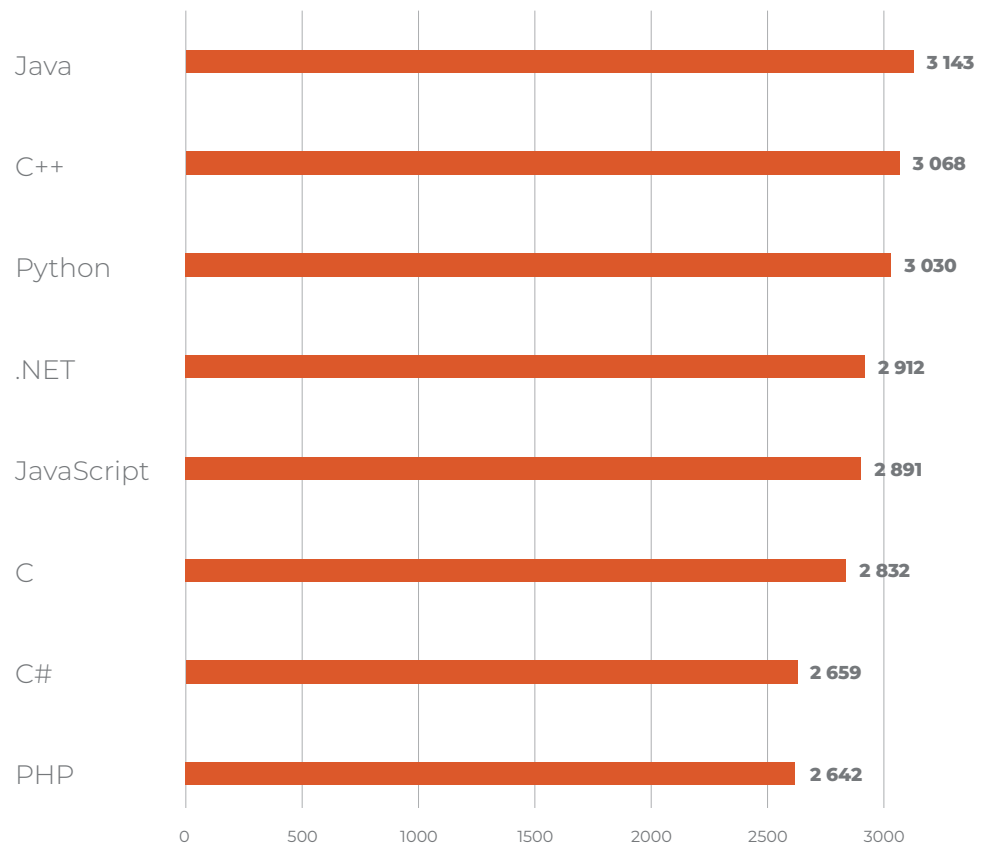
AVERAGE SALARIES IN THE IT SECTOR IN CZECHIA IN 2022 (EUR)

SALARIES BY ROLE



Source: No Fluff Jobs, "The IT job market in 2022", 2022

SALARIES BY PROGRAMMING LANGUAGE



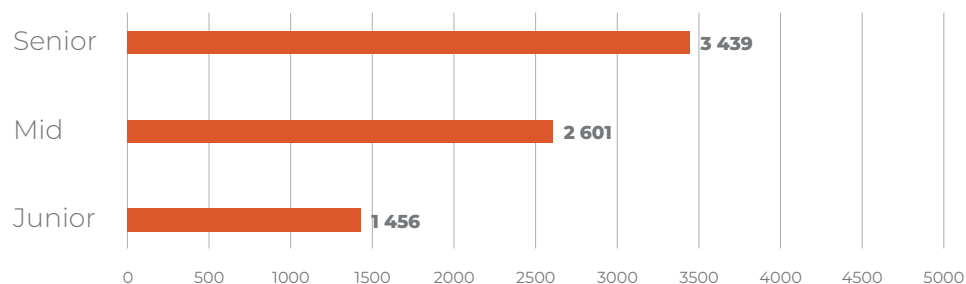
Source: Platyz.cz, "Salaries in Information Technology in Czech Republic", 2024

AVERAGE SALARIES IN THE ICT SECTOR IN BULGARIA HAVE INCREASED BY 26% SINCE 2021

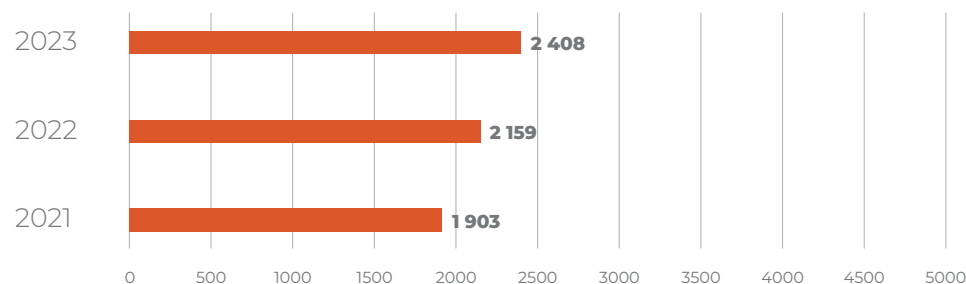
SALARIES IN BULGARIA

ICT employee's wages are nearly **2 times higher than the general average monthly salary** in Bulgaria. Average **salaries in the information and communication sector** in 2023 were almost **EUR 750 higher than the second-best-paid industries** which were electricity, gas, steam and air conditioning supply.

AVERAGE SALARIES IN THE IT SECTOR BY EXPERIENCE IN BULGARIA IN 2022 (EUR)



AVERAGE SALARIES IN THE ICT SECTOR IN BULGARIA IN 2021-2023 (EUR)

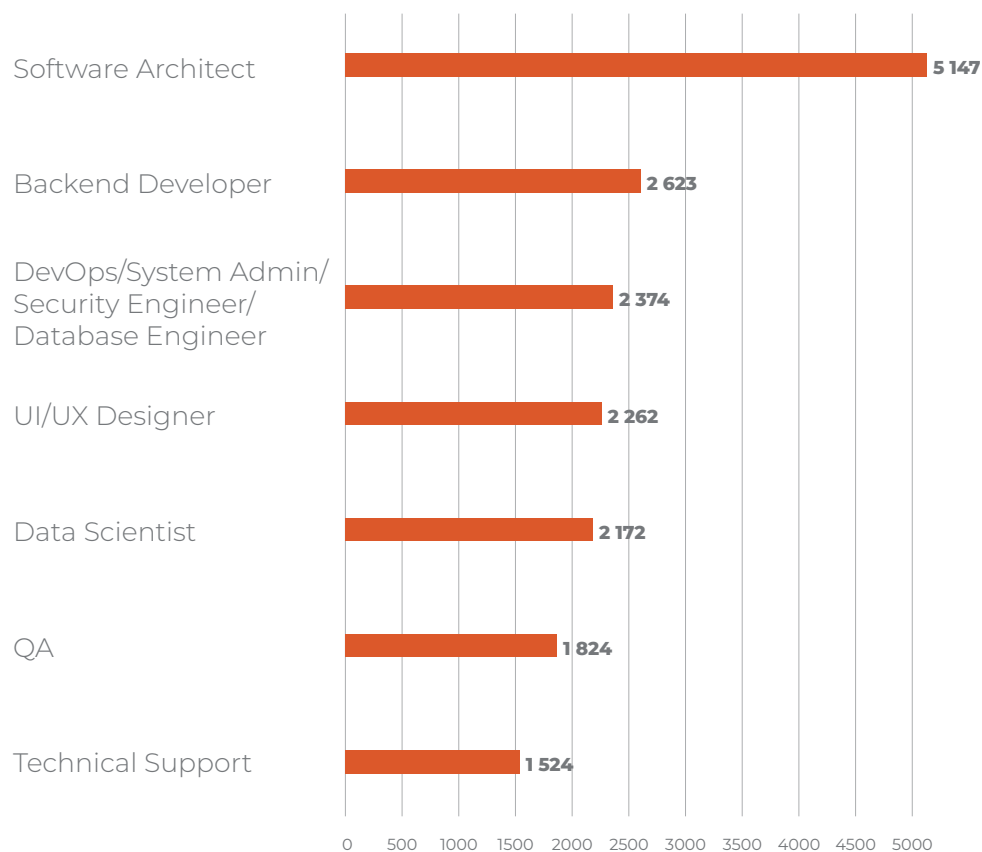


*Presented data are monthly salary on the employment contract.

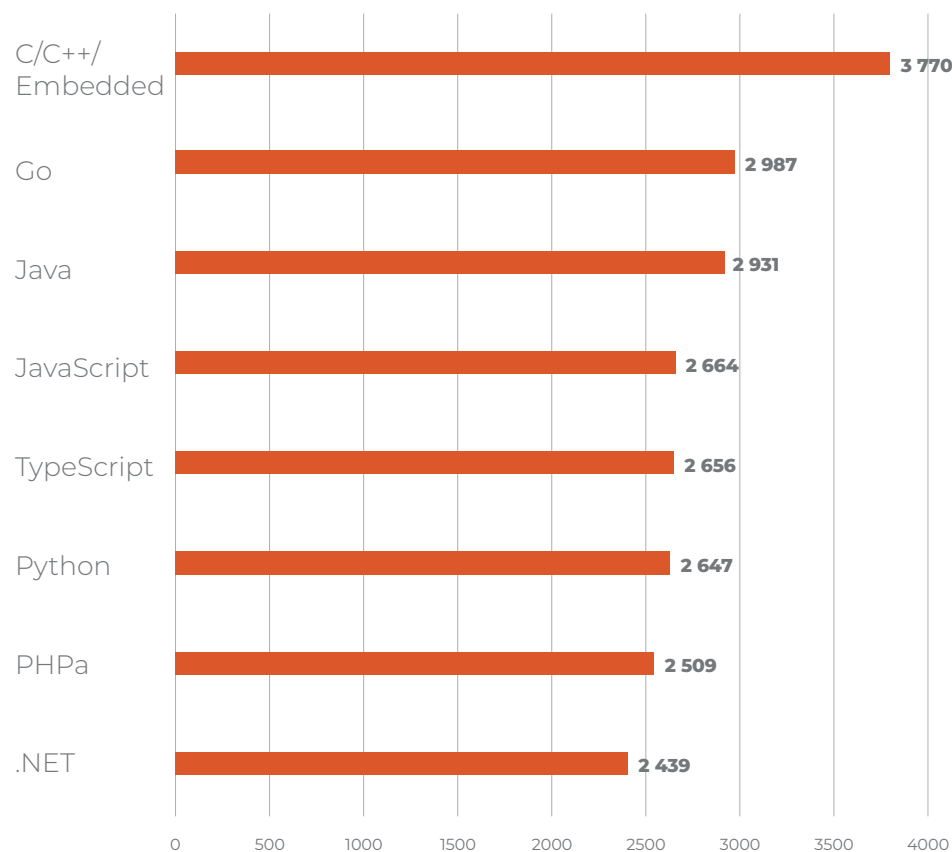
Source: National Statistical Institute of the Republic of Bulgaria database; Noble Hire, "Заплащане в IT сектора в България", 2022

AVERAGE SALARIES IN THE IT SECTOR IN BULGARIA IN 2022 (EUR)

SALARIES BY ROLE



SALARIES BY PROGRAMMING LANGUAGE



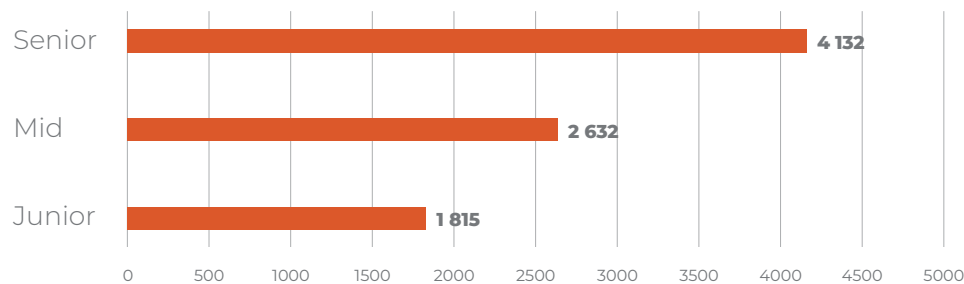
Source: Noble Hire, "Заплащане в IT сектора в България", 2022

AVERAGE SALARIES IN THE ICT SECTOR IN SLOVAKIA HAVE INCREASED ON AVERAGE BY 6% SINCE 2021

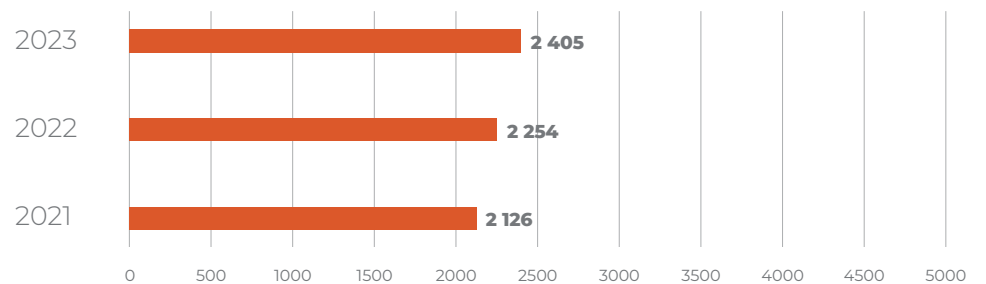
SALARIES IN SLOVAKIA

Average salaries in the ICT sector are **EUR 1 thousand higher than the average wage** in Slovakia. IT employees in the Bratislava region earned on **average EUR 2.7 thousand**, while in **Kosice**, they earned **EUR 2.3 thousand**.

AVERAGE SALARIES IN THE IT SECTOR BY EXPERIENCE IN SLOVAKIA IN 2023 (EUR)



AVERAGE SALARIES IN THE ICT SECTOR IN SLOVAKIA IN 2021-2023 (EUR)

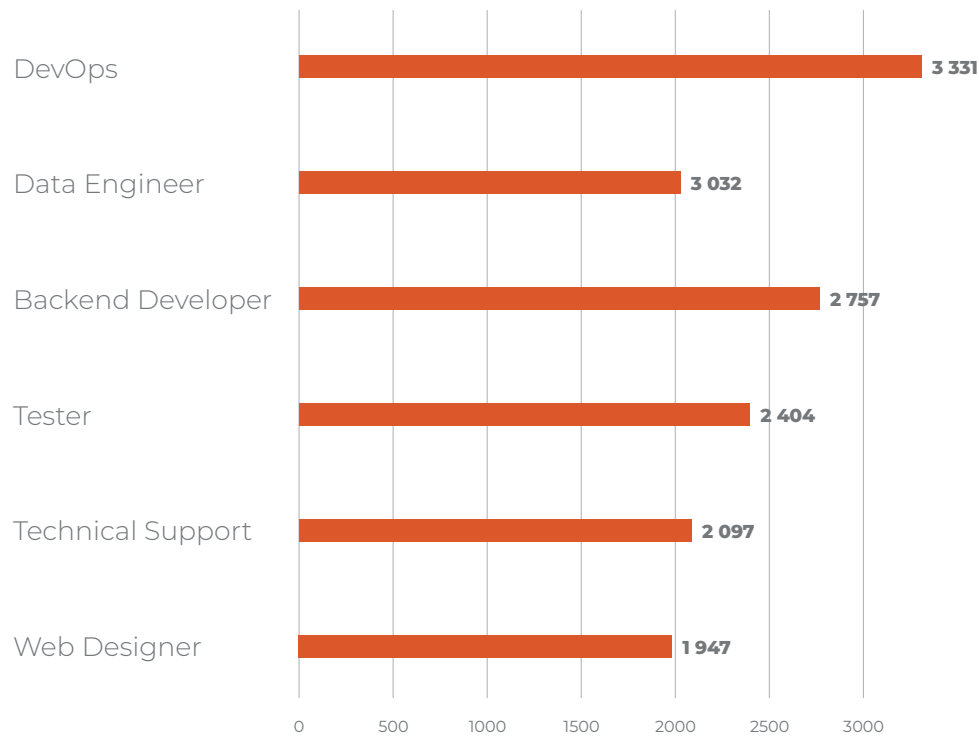


*Presented data are monthly salary on the employment contract.

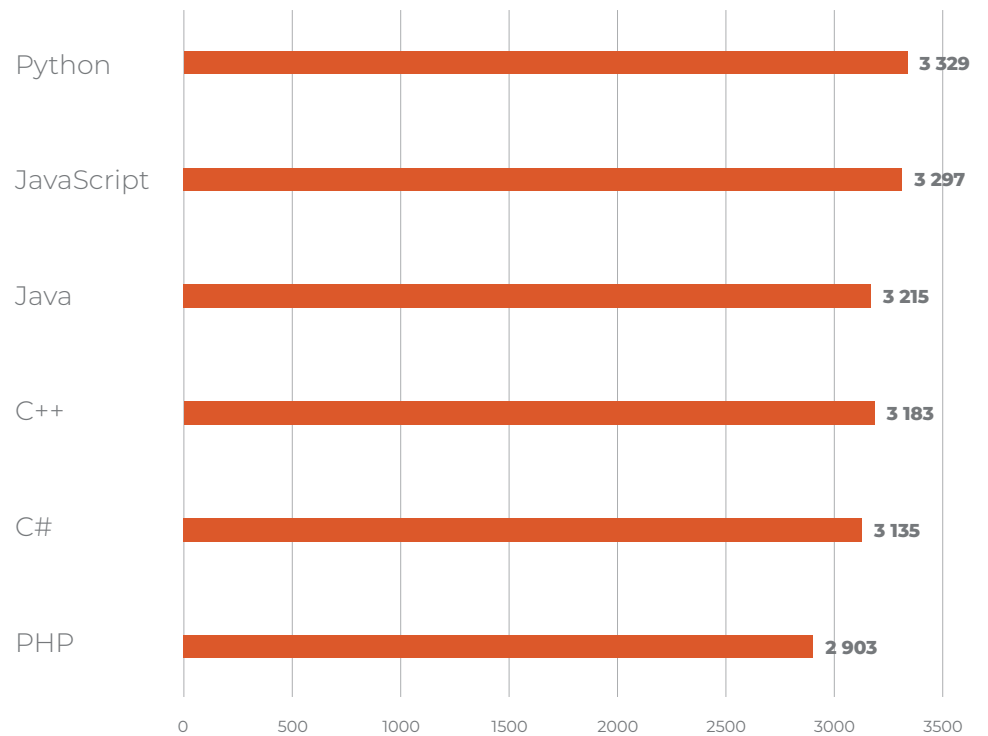
Source: Statistical Office of the Slovak Republic database; Alcor, "Slovak Developers: Benefits, Rates & IT Market Overview", 2023; platy.sk, "Salaries in Information Technology in Slovak Republic", 2024; Index.sme.sk, "Desatina IT pracovníkov zarába takmer trojnásobok priemernej mzdy", 2024

AVERAGE SALARIES BY ROLE IN THE IT SECTOR IN SLOVAKIA IN 2023 (EUR)

SALARIES BY ROLE



SALARIES BY PROGRAMMING LANGUAGE



Source: platysk, "Salaries in Information Technology in Slovak Republic", 2024; profesia.sk

Source: Alcor, "Slovak Developers: Benefits, Rates & IT Market Overview", 2023; platysk, "Salaries in Information Technology in Slovak Republic", 2024



WOMEN

INTT

CEE COUNTRIES ARE MAKING EFFORTS TO INCREASE WOMEN'S EMPLOYMENT IN THE IT INDUSTRY

WOMEN ON THE IT MARKET IN CEE COUNTRIES

REPRESENTATION OF WOMEN IN THE CEE IT MARKET

The CEE region is **making significant strides in increasing gender diversity within the IT industry**. Countries such as Czechia, Hungary, Croatia, and Slovakia are beginning to address the lower representation of women in ICT roles by **implementing initiatives that encourage gender inclusion and support women's education and training** in the field.

Targeted efforts are underway to counter underrepresentation through **retraining programs** and the **promotion of computer science education for females early in their lives**. These measures are closing the gender gap and contributing to a **more inclusive and diverse workforce**, resulting in **more than 46% of STEM graduates in the region being women** and **approximately 36% of ITC and technology jobs held by female professionals**. This provides a solid foundation for progress in the technology industry.

Initiatives like **CEE HER**, powered by GLOBSEC, are contributing to this progress by **enhancing gender equality and amplifying the presence of female experts in IT and other fields**. These efforts include developing accessible online platforms that highlight female experts across various disciplines, paving the way for a more inclusive and vibrant industry.

This positive shift toward diversity and inclusion signals **new opportunities and growth for the industry and its workforce**. It also positions the CEE region as an **attractive destination for potential investors looking to support its flourishing tech landscape and supporting the idea of diversity and inclusion**.



Source: McKinsey, "Women in tech", 2023; Eurostat database

WOMEN MAKE UP 20% OF IT SECTOR IN THE LEADING TECHNOLOGY COUNTRIES OF CEE

POLAND

16,7%

In Poland, **women comprised 16.7% of the IT sector workforce in 2022**. This presents an opportunity to tap into an underrepresented talent pool, especially considering the **presence of 150 thousand job vacancies**. Despite the lower representation of women in the IT workforce, there is a **positive trend with the rise of female-led businesses, which make up over 20% of startup companies**. This highlights the **growing influence and impact of women in Polish technology and IT sector**, pointing towards a more inclusive and dynamic industry in the future.

CZECHIA

10,9%

In 2022, **women made up 10.9% of IT workers** in the Czech Republic and there is a **growing awareness of the importance of gender diversity in the technology sector**. Efforts are underway to address challenges such as **work-life balance in technology-related roles** and the **promotion of women to leadership positions** based on merit and qualifications. While there has been a **4% annual decrease in the percentage of women graduating from STEM universities**, proactive initiatives aim to reverse this trend. Czechia is laying the groundwork for a **more balanced and inclusive workforce in the future**. These changes signal a promising outlook for the country's technology industry as it continues to evolve and grow.

SLOVAKIA

14,9%

In 2022, **women made up 14.9% of Slovakia's IT sector**, which is lower than the **EU average of 18.9%**. Despite this, progress is being made through initiatives like "Aj Ty v IT" which has **increased the percentage of female IT students from 5% to 15% in the last five years**. To boost women's participation in IT, Slovakia is focusing on programs such as **coding camps, mentorship, curriculum changes, bias training, and family-friendly policies**. These initiatives aim to create a more inclusive and diverse technology sector, paving the way for future growth and innovation.

BULGARIA

28,9%

Bulgaria **leads the EU in women's ICT roles**, with **women making up 28.9% of the country's ICT workforce**, surpassing the EU average. This success stems from Bulgaria's **strong support for women in tech** and a **history of promoting gender equality**, such as the early work of the **Bulgarian Women's Union**, one of the first major feminist organization in EU. In the broader technology sector, Bulgaria also **ranks second among EU nations for gender diversity**, with **women comprising 44.6% of the workforce**. These achievements demonstrate Bulgaria's commitment to fostering an inclusive and diverse technology industry.

Source: McKinsey, "Women in tech", 2023; Eurostat database

BIANKA SIWIŃSKA

CEO - PERSPEKTYWY EDUCATION FOUNDATION

The problem of inequality exists on many levels: from the low percentage of women working in IT, through pay inequalities affecting them, to discrimination and the "glass ceiling" phenomenon. The source of this situation are gender stereotypes that already exist at the stage of children's education and the division into "male" and "female" interests, fields, educational paths and professional careers. The school and the surroundings do not support girls in their interests in the area of STEM, which is why talking about limited access to appropriate education, even in large cities, is not an exaggeration at all. Girls are still missing female "role models" who courageously and actively work in areas of science or professions generally considered masculine.

We have been trying to change this for over 16 years as part of **Perspektywy Women in Tech's activities**, for example as part of the **"Girls for technical universities!"** and **"Girls for science"** campaigns. So far, **over 200,000 girls have participated in the campaigns** and we can see that the **share of women at technical universities has increased by 10%**, and the **growth rate of the number of female IT students is twice as fast as that of male students**. But this is still not enough to fill this digital gap. Why?

It still happens that highly educated young female engineers are passed over due to their gender during recruitment processes or face other forms of discrimination and prejudice. And once they enter the IT industry professionally, they encounter a lack of transparency in remuneration systems and, to put it bluntly: they earn much less than their male colleagues, they are promoted less often, and they are more often exposed to mobbing. It's all demotivating! Similarly to the lack of support from more experienced women, who could naturally become their mentors.

Making it difficult for young women to pursue a professional career in the IT industry seems very unreasonable, if we take into account that in Europe alone there is a shortage of one million specialists - IT specialists, to be precise. **And thanks to women in IT - according to the European Commission - GDP would have a chance to increase by EUR 16 billion per year!** Meanwhile, instead, we struggle every day with the effects of this digital gender gap: let's just mention the lack of diversity, which is so important for creating innovative solutions in IT.

Perspektywy



BIANKA SIWIŃSKA

CEO - PERSPEKTYWY EDUCATION FOUNDATION

A good example here is Artificial Intelligence. AI systems accompany us at every step (GenAI, IoT, MedTech, FinTech, Biometric solutions), and their importance will grow at an exponential rate. Therefore, it is in all of our interests that Artificial Intelligence is as impartial, transparent and as fair as possible. Meanwhile, it is created mainly by men and for men.

According to the Digital Poland 2020 Study, women constitute less than 13% of employees dealing with AI systems in Poland today, and according to PARP estimates, by 2025 we will need as many as 200,000 IT specialists specializing in this field. If we do not timely diversify and eliminate gender disproportions in this area, artificial intelligence algorithms will soon begin to be based on false models of the world, ignoring the principles of diversity and objectivity. But the lack of diversity due to the underrepresentation of women in IT is only part of the problem. **Increasing the presence of women in the IT industry and working on modern technologies will bring a number of benefits both for the industry itself and for society as a whole.** What I mean here is, first of all, greater balance of the labor market in the face of a shortage of qualified employees in the IT sector. It will also improve the image of the industry itself, making it more attractive to potential employees.

Additionally, **greater female representation in IT can help reduce gender pay inequalities** and break the “glass ceiling” by allowing women to advance freely and access management positions. And from here, changes in corporate decisions regarding employee, technological, social and ecological issues are not far away. After all, **women in key roles decide much more often to take pro-climate activities or serve society.**

Promoting gender equality in the workplace is also a step towards a more just and sustainable society. It is also a **chance for new role models to emerge in the minds of girls and young women** - inspiring, educated and strong women for whom it is worth choosing STEM education and focusing on development and careers in the IT industry.

Perspektywy





EMPLOYEE

BENEFITS

IT EMPLOYEES IN POLAND BELIEVE THAT FLEXIBLE WORKING HOURS SHOULD BE A STANDARD

BENEFITS FOR EMPLOYEES IN THE IT SECTOR IN POLAND, CZECHIA, BULGARIA & SLOVAKIA

THE MOST POPULAR BENEFITS FOR EMPLOYEES IN THE IT SECTOR

Private medical care, flexible working hours, life insurance, and sports card are the most popular benefits in the IT sector. Moreover, **55% of IT workers in Poland consider life insurance a standard** rather than a benefit. IT employees in Poland find **private medical care (57%), flexible working hours (38%), more paid-off days (35%), remote work (27%),** and **reimbursement of commuting costs (27%)** as the most attractive benefits. They also think the cafeteria, free snacks, and internal training are crucial office amenities.

In **Czechia** and **Slovakia**, **meal vouchers** are a common benefit as they are **tax deductible up to 55%**. In **Bulgaria**, meal vouchers are **tax-free up to a limit of EUR 102 per person**.

In all countries, **flexible working hours, additional days off,** and **life insurance** stays as well-perceived by the employees.



Flexible working hours, 100% remote work



Private medical care



Life insurance



Annual bonuses



Sports card



Workplace canteens and meal vouchers



Budget for vocational and language courses

Source: Enterthecode, „Raport benefitów pracowniczych 2023”, 2023; Bulldogjob, "Raport Społeczności IT", 2024; Dev.bg; Jobs.bg; Profesia.sk; Jobs.cz; Expats.cz

IMPROVING EMPLOYEE MORALE ARE THE MOST IMPORTANT BENEFIT OF IMPLEMENTING CSR

CSR REDUCES BRAND REPUTATION RISK

76% of companies think that CSR implementation is an adequate way to reduce risk in brand reputation as it **upholds their reputation of being socially and environmentally responsible**. More and more customers pay attention to companies' contribution to society and the environment. Moreover, **66% of executives** think that **CSR initiatives boosting their employee's morale are the most important benefit of CSR implementation**. As people pay more attention to the social and environmental situation on the planet, they expect that enterprises will contribute to the economy as well as to society.

CUSTOMERS ARE MORE POSITIVE TO SOCIALLY RESPONSIBLE COMPANIES

In **Poland** and **Bulgaria**, **49% of customers**, while in **the Czech Republic** and **Slovakia** **39% of customers**, are **willing to pay more for products and services offered by socially responsible companies** because they can feel that they play a role in making the world a better place. Between 2014 and 2023, the percentage of consumers willing to pay more for products and services offered by socially responsible companies in Europe **increased from 40% to 61%**.



Source: Statista database



HYBRID AND

**REMOTE
WORK**

MAJORITY OF ORGANIZATIONS IN THE CEE REGION HAVE ADOPTED A HYBRID WORK APPROACH

SUMMARY

Flexible and hybrid work structures are on the rise, with **over 50% of all companies choosing a blended strategy**. Only about **10% of firms do not support any form of telecommuting**, underscoring global differences. In the CEE region, **75% of companies allow domestic telecommuting**, which is higher than in the **Asia Pacific (51%)** and the **Americas (68%)**. The adoption of hybrid work is propelled by its potential to improve the staff experience and broaden the talent base.

However, there are obstacles such as **regulatory compliance and cultural implications**. Around **30% of companies in the EU have not yet established a formal teleworking policy** and there is still a lack of effective monitoring of remote work requests. The survey also found that **53% of employees also now prioritize personal goals and well-being over professional responsibilities** and are looking for opportunities to adapt and interact. Moreover, **44%** of employees are willing to **take a 10% pay cut for flexible work hours**, **25%** would take a **15% pay cut to accommodate location flexibility**, and **6%** would **quit if off-site work options were removed**.

Source: Deloitte, "Global Remote Work Survey", 2023



OVER 40% OF EMPLOYEES IN CEE IDENTIFY STRICT WORKING HOURS AS A SIGNIFICANT BARRIER TO JOB ACCEPTANCE

Research shows that **over 40% of candidates consider strict working hours to be a significant obstacle to employment**. Tension is also noticeable among supervisors - **54% perceive a gap between the demands of leaders and the expectations of staff**. Moreover, **38% of hybrid workers report difficulty determining the need for and duration of presence in a physical office** because work-related interactions often extend beyond standard working hours.

Although most employees performing mixed work maintain effective contacts within the team, **only 50% of teleworkers declare good relationships with their direct coworkers**. The transition to new work culture norms could be facilitated by technologies adapted to these hybrid environments.

These findings highlight the evolving nature of job roles and the need for organizations to **effectively integrate a hybrid approach** with their broader strategic goals, ensuring a productive and inclusive company climate.



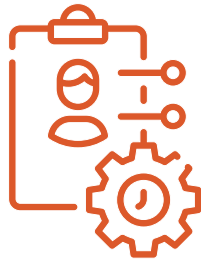
Source: Deloitte, "Global Remote Work Survey", 2023

HYBRID AND REMOTE WORK IN POLAND



PREFERENCES

In 2023, JLL research found that **64% of Polish workers preferred a hybrid model**, usually 2 days in-office. While **55% highlighted the office's importance for culture**, and **over 60% valued in-person interactions**, **50% worked in the office once a week or less**. Only **25% of companies required 2-3 office days**. Construction, real estate and public sectors saw more full-time office work, unlike shared service centers and banking. Only **14% of companies had no workplace rules**, with **59% of employers favoring hybrid work**.



LEGAL REGULATIONS

Poland has enacted **legal guidelines for telecommuting**. These provisions, effective from April 7, 2023, characterize telecommuting as tasks carried out wholly or partly at a location chosen by the staff member, agreed upon with the employer each time. The protocols for such telecommuting should be outlined in a pact between the employer and the company's labor union, telecommuting guidelines (handbook), a directive to undertake this model of work, or a contract signed with the staff member.



ALLOWANCES

The law mandates **3 benefits for remote workers** such as **equipment provision, maintenance**, and **running costs reimbursement**. It allows employer discretion in reimbursing remote work costs. Employers should pay fully remote workers **approximately EUR 14.50 per month** to cover these expenses, according to updates to the Polish Labor Code. This amount may vary from 13 to 15 euros, depending on the equipment, days of remote work and average internet and energy prices in Poland.

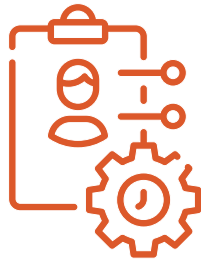
Source: Deloitte, "Global Remote Work Survey", 2023; Statista database; Dudkowiak.com; CMS.law

HYBRID AND REMOTE WORK IN CZECHIA



PREFERENCES

A study conducted by STEM/MARK on behalf of Home Credit reveals that **half of the Czech population favors a hybrid employment approach**, merging on-site and off-site duties. Close to **40% of companies now permit their staff to select their preferred work setting**. Moreover, **vacancies advertised with adaptable employment conditions attract as many as 7 times more candidates** compared to those lacking such alternatives, underscoring the strong interest in flexible job arrangements.



LEGAL REGULATIONS

Legislation regarding teleworking has been introduced in the Czech Republic. These provisions are subject to the jurisdiction of labor law, in particular Act No. 262/2006 Coll., referred to as the Labor Code. This code **allows for widespread home-based employment for all employees**, provided that there is a documented agreement with the employer. The conditions of working from home should be specified in the contract between the employer and the employee.



ALLOWANCES

The law mandates benefits for remote employees which are **equipment provision, its maintenance**, and **running expenses reimbursement**, with employer discretion in determining the reimbursement specifics. From October 2023, remote workers may receive reimbursements, guided by a Ministry of Labor decree, potentially offering a **flat rate of EUR 0.18 per hour worked from home**.

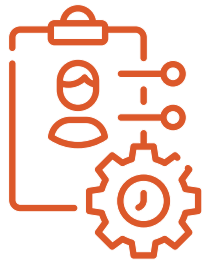
Source: Deloitte, "Global Remote Work Survey", 2023; Statista database; CMS.law

HYBRID AND REMOTE WORK IN BULGARIA



PREFERENCES

In Bulgaria, companies are moving to a mixed employment structure that includes **2 days of remote work and 3 days in a corporate environment**. Despite the rarity of telework in the country, where only **1.2% of the workforce performs it from home**, approximately **80% of companies saw an increase in productivity after enabling telework for two days**. Moreover, Bulgaria is gaining recognition as a hotspot for digital nomads, attracting remote workers from all over the world.



LEGAL REGULATIONS

Remote work arrangements can be established through **mutual agreement in a collective contract or an individual employment contract**. An employer may mandate remote work without employee consent only during a declared state of emergency or epidemic.



ALLOWANCES

Employers are obliged to **provide the necessary technological resources and Internet access to perform telework**, most often by compensating the employee for these expenses. They are also responsible for **providing all necessary equipment and office supplies** for remote work. While these requirements are required by law, it leaves employers some discretion in administering compensation for hybrid work expenses.

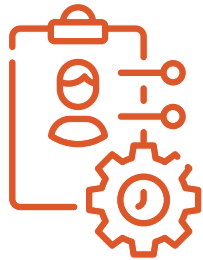
Source: Deloitte, "Global Remote Work Survey", 2023; Statista database; CMS.law

HYBRID AND REMOTE WORK IN SLOVAKIA



PREFERENCES

A study conducted by Comenius University in Bratislava, Slovakia, indicates that employees **highly value the adaptability of their work schedule**. However, the **significance of location adaptability** is also increasing. The hybrid work approach, which combines both aspects, seems to be the most suitable arrangement for employee preferences. Despite this, data from 2022 shows that only a small percentage, specifically **5%**, of the workforce in Slovakia typically **operated under a hybrid work approach**.



LEGAL REGULATIONS

In Slovakia, Act No. 311/2001 Coll, governs the idea of working remotely. It specifically outlines **“domestic work”** and **“telework”** as unique arrangements where the agreed-upon job location is not at the employer’s premises. The designated place could be the employee’s residence or another location, but this detail needs to be specified in the employment agreement.



ALLOWANCES

The allowances for working from a distance can differ significantly, depending on the policies of individual companies and the conditions in employment agreements. However, the Labour Code does provide certain benefits for those engaged in such roles. These include **overtime compensation**, **increased wages for night shifts**, and **extra remuneration for working on holidays**. These benefits aim to ensure fair treatment and compensation for employees working from a distance.

Source: Deloitte, "Global Remote Work Survey", 2023; Statista database; CMS.law



05

**DOING BUSINESS
IN CEE**

INSIGHTS FOR STRATEGIC FINANCIAL PLANNING IN THE CEE MARKET

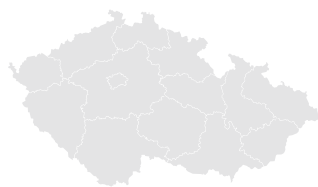
COST OF DOING BUSINESS IN POLAND, CZECHIA, BULGARIA AND SLOVAKIA

The chapter is addressed to **CFOs and decision-makers** whose task is to **assess costs and develop a business model for market entry** in Poland, the Czech Republic (Czech Republic), Bulgaria and Slovakia. On the following pages you will find important information that will help you **understand the expenses associated with running a business** in these countries. By analyzing the data and insights provided, you will be better prepared to assess the financial impact of being present in these markets. This includes understanding the **costs of hiring employees**, as well as the **expenses associated with securing office space**. Additionally, you'll gain insight into the **tax structures and incentives** available in each country, which can significantly impact your overall costs and profitability. This chapter is a **comprehensive guide to help you make informed choices and develop a sustainable business model** to successfully enter the CEE market.



POLAND

 PLN Polish Zloty
 32k EUR
 50k EUR
 19,5 EUR
 75 EUR
 20 EUR



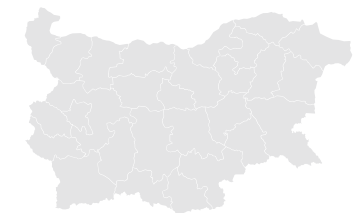
CZECHIA

 CZK Czech Koruna
 31K EUR
 43K EUR
 19 EUR
 80 EUR
 14 EUR





SLOVAKIA



 EUR Euro
 30K EUR
 30K EUR
 18 EUR
 80 EUR
 15 EUR





BULGARIA

 BGN Bulgarian Lev
 25K EUR
 30K EUR
 17 EUR
 200 EUR
 10 EUR

	Average gross annual salary in the business sector
	Average gross annual salary in the IT sector

	Average monthly cost of office space per m2
	Average hourly fee for legal services

	Average monthly cost of payroll services per person
	Currency

Source: Glassdoor

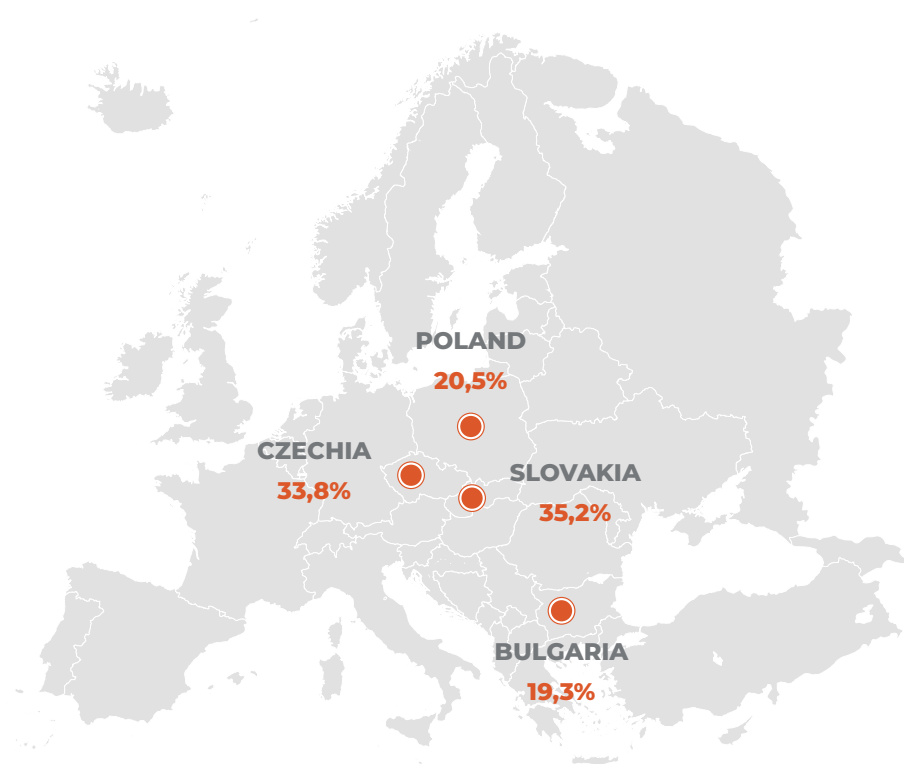


COST OF

EMPLOYMENT

INSIGHTS FOR STRATEGIC FINANCIAL PLANNING IN THE CEE MARKET

COST OF DOING BUSINESS IN POLAND, CZECHIA, BULGARIA AND SLOVAKIA



Level of additional costs that the employer has to incur in addition to the salary resulting from permanent employment contract

When establishing a technology center in Poland, Czechia, Bulgaria and Slovakia, an average of **70% of the cost is dedicated to employment costs and benefits**, with around **30% of this expenditure covering supporting functions** such as recruitment, office space, and equipment. That is why understanding the remuneration component is crucial for developing a strong business case for a project in the CEE region.

To estimate the **total annual employment costs** in these countries, the monthly salary of an employee hired under an employment contract, along with the employer's additional costs, must be considered. The total cost of employing one employee includes **gross remuneration and social security contributions paid by the employer**, which amount on average to approximately:

- ▶ in Poland - **20.5%**
- ▶ in the Czech Republic - **33.8%**
- ▶ in Bulgaria - **19.3%**
- ▶ in Slovakia - **35.2%**

By accounting for these factors, **accurate budgeting and planning for the technology center** can be achieved. Understanding these costs allows for the **development of a precise and sustainable business plan**.

Source: Eurostat, US Bureau of Labor Statistics, Papaya Global Payroll and Benefits Guide, 2023



TAXES AND

TAX

RELIEFS



PRIMARY TAXES

PIT (PERSONAL INCOME TAX)

- ▶ **12%** rate on annual income up to **EUR 27.6 thousand**.
- ▶ **32%** rate on annual income above **EUR 27.6 thousand**.
- ▶ **Tax-free** amount is **EUR 6.9 thousand** on annual income.

CIT (CORPORATE INCOME TAX)

- ▶ Legal persons, certain partnerships, and general partnerships are subject to **corporate income tax (CIT)**.
- ▶ Flat rate of **19%**.
- ▶ Reduced CIT rate by **9% for small taxpayers** or new businesses.

VAT (VALUE-ADDED TAX)

- ▶ **23%** standard VAT rate.



CORPORATE TAX EXEMPTIONS

TECHNOLOGICAL ADVANCEMENTS

- ▶ Deducts **50% of costs for investments** in robotics and related employee training.
- ▶ Offers tax deductions for costs related to **trial production** and **launching new products**.

R&D INCENTIVES

- ▶ Research and Development tax relief enables deduction of various R&D costs, with increased deductions from 2018, allowing **100% of qualified costs**, and **200% for employee costs** from 2022.
- ▶ Innovation Box offers a reduced **5% tax rate on income from intellectual property rights**, contingent on conducting R&D-related activities.

CSR AND CHARITY CONTRIBUTIONS

- ▶ Deductible up to **10% of income**, with restrictions on donations to certain entities or for specific purposes.
- ▶ Corporate social responsibility relief allows for an additional deduction of **50% for costs** related to sports, culture, education, and science.



PRIMARY TAXES

PIT (PERSONAL INCOME TAX)

- ▶ **15%** rate for income up to **EUR 59.4 thousand**.
- ▶ **23%** rate for income above **EUR 59.4 thousand**.
- ▶ Rates exclude income taxed by final Czech WHT and certain foreign income.

CIT (CORPORATE INCOME TAX)

- ▶ Legal persons, certain partnerships, and general partnerships are subject to **corporate income tax (CIT)**.
- ▶ **21%** CIT rate from 2024, previously 19%.

VAT (VALUE-ADDED TAX)

- ▶ **21%** standard VAT rate.



CORPORATE TAX EXEMPTIONS

INVESTMENT INCENTIVES

- ▶ Investment incentives are provided to Czech entities, offering CIT relief, cash support for job creation and training, grants for capital expenditures, and reduced price land transfers.
- ▶ Incentives target the manufacturing sector, technology centers, strategic services, data centers, and customer support centers, with support ranging **from 20% to 50% of eligible costs**.

R&D ALLOWANCE

- ▶ Research and development allowance allows for a deduction of **up to 100%** of specific R&D expenses in the tax year, with the possibility of deducting these costs twice.
- ▶ An **additional 10% allowance** is available if current year R&D costs exceed those of the previous year.

CHARITABLE CONTRIBUTIONS

- ▶ Deductible within limits, with expanded criteria for donations related to Ukraine until February 2024.

NET OPERATING LOSSES

- ▶ Can be carried forward for 2 years to offset taxable profits, capped at **EUR 30 million**.

Source: PWC, "Worldwide Tax Summaries Poland", 2024



PRIMARY TAXES

PIT (PERSONAL INCOME TAX)

- ▶ Flat rate of **10%** for most income types.

CIT (CORPORATE INCOME TAX)

- ▶ Legal persons, certain partnerships, and general partnerships are subject to **corporate income tax (CIT)**.
- ▶ Standard CIT rate is **10%**.

VAT (VALUE-ADDED TAX)

- ▶ **20%** standard VAT rate.



CORPORATE TAX EXEMPTIONS

CIT AND EMPLOYEES

- ▶ Partial granting of the CIT due for the performance of agricultural activities.
- ▶ Additional tax deductions for hiring of long-term unemployed, handicapped, or elderly persons.
- ▶ Granting back **up to 100% of the CIT** due for investment in regions with high unemployment.

CHARITABLE CONTRIBUTIONS

- ▶ Deductible **up to 10% of a company's accounting profit** for designated entities or individuals.

NET OPERATING LOSSES

- ▶ Losses can be **carried forward for 5 years**, with limitations on offsetting against positive financial results.
- ▶ Foreign-source losses are restricted to income from the same source, except for EU/EEA-source losses, which may offset broader income categories.



PRIMARY TAXES

PIT (PERSONAL INCOME TAX)

- ▶ **19%** rate for annual income **up to EUR 41 thousand** in 2023 (176.8 times the subsistence level).
- ▶ **25%** rate for annual income **above EUR 41 thousand**.

CIT (CORPORATE INCOME TAX)

- ▶ Legal persons, certain partnerships, and general partnerships are subject to **corporate income tax (CIT)**
- ▶ Standard CIT rate **21%** for 2023.
- ▶ Reduced CIT rate by **15%** for incomes **up to EUR 49.7 thousand** in 2023

VAT (VALUE-ADDED TAX)

- ▶ **20%** standard VAT rate.
- ▶ **10%** reduced VAT rate.



CORPORATE TAX EXEMPTIONS

INVESTMENTS DEDUCTIONS

- ▶ Tax relief for investments is available in sectors like industry, technology, shared services, and tourism, with Slovak authority approval and applicable for ten years post-grant.
- ▶ From 1 January 2022, a new investment deduction allows taxpayers to deduct a **percentage of depreciation expense** based on reinvestment values.

R&D INCENTIVES

- ▶ R&D super deduction offers **100% to 200% cost deduction from the tax base**, depending on the year, with carryforward provisions for five years if the tax base is insufficient.

INTELLECTUAL PROPERTY EXEMPTIONS

- ▶ The patent box initiative provides a **50% tax exemption** on income from certain intellectual property uses.

CHARITABLE CONTRIBUTIONS

- ▶ Charitable contributions are **non-deductible**.

Source: PWC, "Worldwide Tax Summaries Poland", 2024



EMPLOYMENT

CONDITION

AVERAGE WORKING TIME IN POLAND WAS LONGER THAN THE EU AVERAGE

EMPLOYMENT CONDITION IN POLAND

Poland has the **longest weekly average working time** among compared countries. Maternity leave is **shorter on average by 140 days** compared to other analyzed countries but is **100% paid** and can be extended by a **41-week parental leave**, which is **70% paid**. The notice period varies depending on the duration of employment with a specific employer. The **period of education is also included in the years of experience** when it comes to calculating the number of paid days off.



NUMBER OF WORKING DAYS IN 2024

- ▶ 251



AVERAGE NUMBER OF HOURS WORKED PER WEEK IN 2022

- ▶ 41,3



NUMBER OF PAID DAYS OFF

- ▶ 20 days for an employee with less than 10 years of experience
- ▶ 26 days for an employee with at least 10 years of experience



OVERTIME WORKING HOURS

- ▶ Up to 8 hours a week
- ▶ Up to 150 hours a year
- ▶ 50% of regular overtime pay and 100% of overtime pay for working nights, Sundays and public holidays



MATERNITY LEAVE

- ▶ 20 weeks
- ▶ 100% paid maternity leave based on the average wage paid to an employee for the last 12 months



SICK LEAVE

- ▶ From 1st day of sick leave with medical certificate
- ▶ 80% paid



THE TERMINATION PERIOD

- ▶ Minimum notice period is 2 weeks
- ▶ 1 month, if the employee was employed for at least 6 months
- ▶ 3 months, if the employee was employed for at least 3 years

Source: ConQuest Consulting analysis based on www.biznes.gov.pl; www.gov.pl; Eurostat database

STATUTORY MINIMUM NOTICE PERIOD IN CZECHIA IS 2 MONTHS

EMPLOYMENT CONDITION IN THE CZECH REPUBLIC

Labor law in the Czech Republic regulates a **minimum notice period of 2 months**, which is significantly higher than in other countries. Additional pay for **overtime working hours is a minimum of 25% of the wage**. However, the employee and employer can agree on extra time off instead of additional pay.



NUMBER OF WORKING DAYS IN 2024

- ▶ 252



AVERAGE NUMBER OF HOURS WORKED PER WEEK IN 2022

- ▶ 40,9



NUMBER OF PAID DAYS OFF

- ▶ 20 days



OVERTIME WORKING HOURS

- ▶ Up to 8 hours a week
- ▶ Up to 150 hours a year
- ▶ Additional pay of at least 25% of the employee's average earnings



MATERNITY LEAVE

- ▶ 28 weeks
- ▶ Maternity leave is paid at 70% by the government



SICK LEAVE

- ▶ 60% paid for the 1st 14 days by the employer
- ▶ 60% paid from the 15th day to the 30th day by the government
- ▶ 66% paid from the 31th day to the 60th day by the government
- ▶ 72% paid from the 61th day by the government



THE TERMINATION PERIOD

- ▶ Minimum notice period is 2 months

Source: ConQuest Consulting analysis based on Eurostat database; www.euraxess.cz; www.mpsv.cz; www.cssz.cz

BULGARIA HAS THE LONGEST MATERNITY LEAVE IN THE EU

EMPLOYMENT CONDITION IN BULGARIA

Family is an important aspect in Bulgaria, which is demonstrated by providing its citizens with the **longest maternity leave in the EU**. What is more, **sick leave is favorable for employers** as the government pays from the 3rd day of sick leave. The limit on overtime working hours per year remains the same as in other countries. **Pay for overtime work is relatively high** and varies from 50% to 100%.



NUMBER OF WORKING DAYS IN 2024

- ▶ 251



AVERAGE NUMBER OF HOURS WORKED PER WEEK IN 2022

- ▶ 40,4



NUMBER OF PAID DAYS OFF

- ▶ 20 days after 8 months of service with the employer



OVERTIME WORKING HOURS

- ▶ Up to 150 hours a year
- ▶ Additional 50% pay, 75% for work on holidays and 100% for work on public holidays



MATERNITY LEAVE

- ▶ 410 days
- ▶ Maternity leave is paid at 90% by the state social insurance



SICK LEAVE

- ▶ 70% paid for the 1st 3 days by the employer
- ▶ 80% paid from the 3rd day by the government



THE TERMINATION PERIOD

- ▶ Minimum 30 days, unless the parties have agreed on a longer period, but not longer than 3 months

Source: ConQuest Consulting analysis based on Eurostat database; Vacation tracker, "Bulgaria Leave Laws & Holidays", 2023; www.bulgaria-labour-law.bg

SICK LEAVE IN SLOVAKIA IS ONLY 25% OF EMPLOYEE'S SALARY FOR THE FIRST 3 DAYS

EMPLOYMENT CONDITION IN SLOVAKIA

Maternity leave in Slovakia is **one of the longest in the EU**. In Slovakia, employees over 33 years old are entitled to **5 more paid vacation days**. **Sick leave is only 25% of the employee's wage for the first 3 days** and belongs to the lowest among compared countries. The Labor Law indicates a specific termination period, which depends on the length of employment with a given employer.



NUMBER OF WORKING DAYS IN 2024

- ▶ 251



AVERAGE NUMBER OF HOURS WORKED PER WEEK IN 2022

- ▶ 40,2



NUMBER OF PAID DAYS OFF

- ▶ 20 days
- ▶ 25 days for employees who are 33 years old or older



OVERTIME WORKING HOURS

- ▶ Up to 150 hours a year
- ▶ Additional pay of at least 25% of the employee's average earnings



MATERNITY LEAVE

- ▶ 34 weeks
- ▶ Maternity leave is paid at 75% by the social security system



SICK LEAVE

- ▶ 25% paid for the 1st 3 days by the employer
- ▶ 55% paid from the 4th to the 10th day by the employer
- ▶ 55% paid from 11th day by the government's social security



THE TERMINATION PERIOD

- ▶ Minimum notice period is 1 month
- ▶ 2 months if the employee was employed for at least 1 year
- ▶ 3 months if the employee was employed for at least 5 years

Source: ConQuest Consulting analysis based on Eurostat database; Vacation tracker, "Slovakia Leave Laws & Holidays", 2024; Replicon, "Slovakia Employment Law"; employment.gov.sk



OFFICE

MARKET

CEE OFFICE INVESTMENT SUFFERS 80% PLUNGE, MARKING DECADE'S LOWEST POINT

OFFICE MARKET IN THE CEE REGION IN 2023-2024

The office markets in CEE have seen significant changes from 2023 to 2024, reflecting both challenges and opportunities. The overall trends point to a **shift towards more flexible and sustainable office spaces**, driven by evolving work patterns and environmental priorities. **Investment plummeted by 80%**, with **transactions at EUR 427 million**, the lowest in a decade, due to geopolitical tensions.

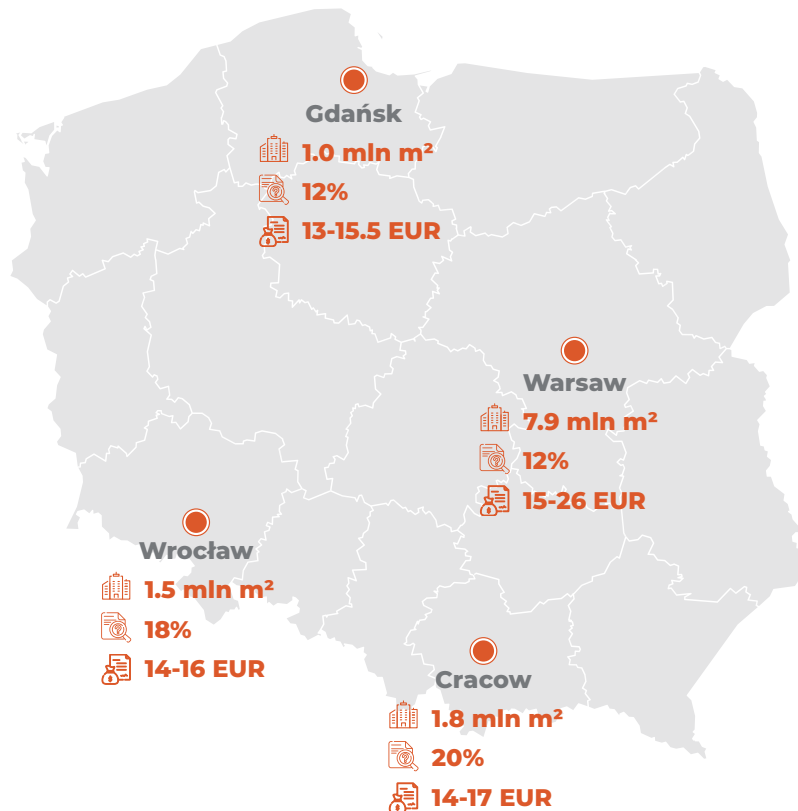
Warsaw's office supply dropped to below 100 thousand m², while **regional activity in Poland added 350 thousand m²**, leading to a **total of 420 thousand m²**, indicating tenant demand for diversification. The Czech Republic saw varied trends, with **Prague's gross take-up decreasing by 34% to 88.2 thousand m²** and **net take-up by 45% to 41.8 thousand m²**, whereas Brno and Ostrava improved. **Slovakia's market**, particularly in Bratislava, recorded rapid growth, with **97.9 thousand m² rented**, which means an **increase of 50%**. In **Bulgaria**, especially Sofia, **office leases and renewals reached 181.5 thousand m²**, exceeding the 2019 level of 148.2 thousand m².

The region's **flexible office space expanded by 21% to 728 thousand m²**, contrasting with a **46% decline in Western Europe**. Lease terms varied, with **5 years agreements prevalent in Poland, under 6 years in Czechia, and 5 to 10 years in Slovakia and Bulgaria**. The market is adapting to these shifts, with a renewed emphasis on sustainability, flexibility, and regional diversification.

Source: ConQuest Consulting analysis



IT COMPANIES ARE OCCUPYING 1/3 OF THE OFFICE SPACES IN POLAND



OFFICE SPACE IN THE LARGEST POLISH CITIES IN 2023



Office space - 12,8 mln m²



Vacancy rate - 17%



Average prime rent (m²/month) - 19-20 EUR

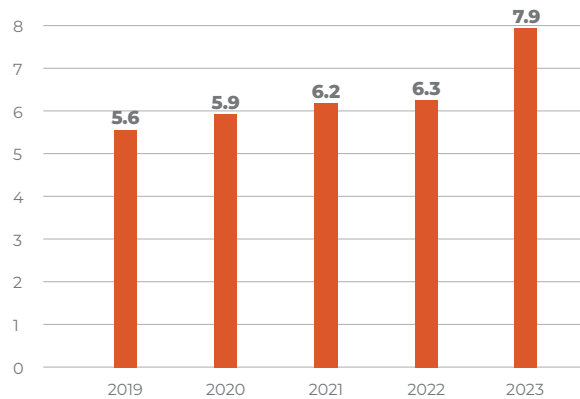
In 2023, **Poland's regional cities** experienced increased office demand, predominantly from the IT sector, **accounting for 29%**. **Warsaw** encountered supply challenges, prompting the **adoption of recycled offices** for cost-effectiveness and environment. The **popularity of flex offices** rose due to their short leases and eco-friendly appeal. Despite high costs and evolving tenant preferences for flexible, safe, and modern offices, the **office market saw investment and development**. With the shift to hybrid work, **63% of rapidly expanding companies downsized** for efficiency and savings, **with 35% opting for smaller spaces**.

Source: Brookfield Partners "Office Market Pulse", 2023; BNP Paribas Real Estate, "At a glance regional office market", 2023

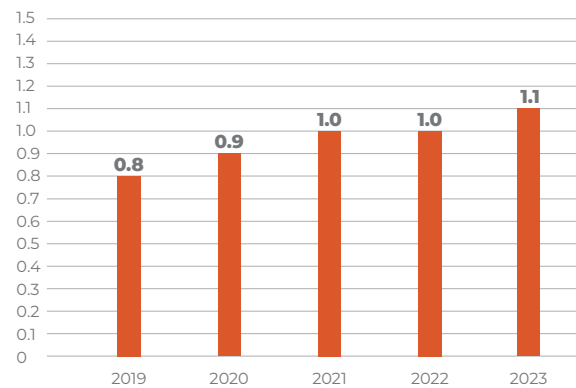
WARSAW HAS THE LARGEST AMOUNT OF OFFICE SPACE

OFFICE STOCK EVOLUTION IN WARSAW, GDAŃSK AND WROCŁAW IN 2019-2023 (M² MILLION)

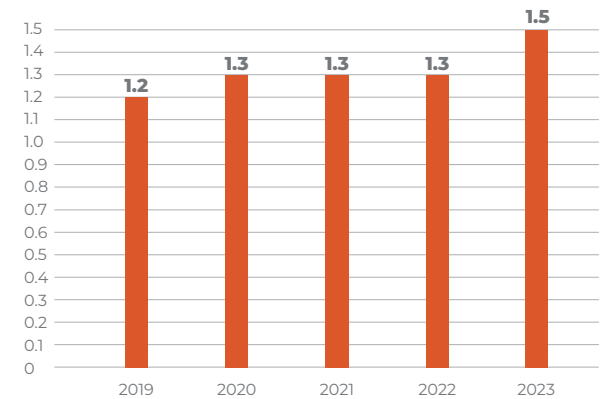
WARSAW



GDAŃSK



WROCŁAW



Poland's office market is primarily characterized by **medium-term 5-year lease agreements**, which are the most prevalent. However, **longer lease durations of 7 or 10 years are also common**, particularly for larger tenants seeking long-term stability. These longer leases often include rent escalation clauses and renewal options.

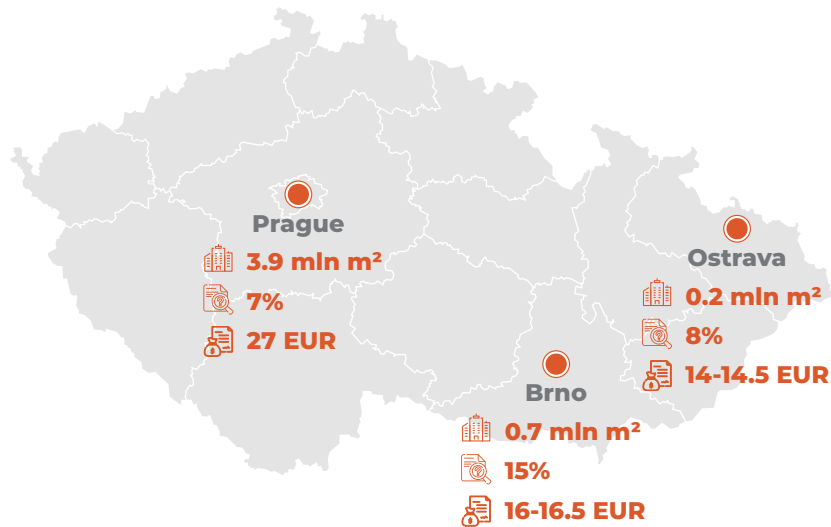
Gdańsk maintained a **vacancy rate of 11-13%**, while **Wrocław** exhibited slightly **higher levels of 16-18%** during the time period of 2019 to 2023. **Warsaw**,

the capital, had a comparatively **low average vacancy rate of around 12%**, indicating strong demand.

In terms of total office stock, Gdańsk ranked second after Wrocław. Gdańsk's office space grew from **840 thousand m² in 2019 to 1.1 million m² in 2023**. Wrocław increased from **1.2 million m² to 1.5 million m²** during the same period. Warsaw, being the largest market, expanded from **5.6 million m² in 2019 to 7.9 million m² in 2023**, exhibiting steady growth.

Source: Brookfield Partners "Office Market Pulse", 2023; BNP Paribas „Poland - Offices - At a Glance Regional Office”

OFFICE SPACE RENT IN PRAGUE IS THE LOWEST SINCE 2020



OFFICE SPACE IN THE LARGEST CZECH CITIES IN 2023



Office space - 4.8 mln m²



Vacancy rate - 10%



Average prime rent (m²/month) - 19 EUR

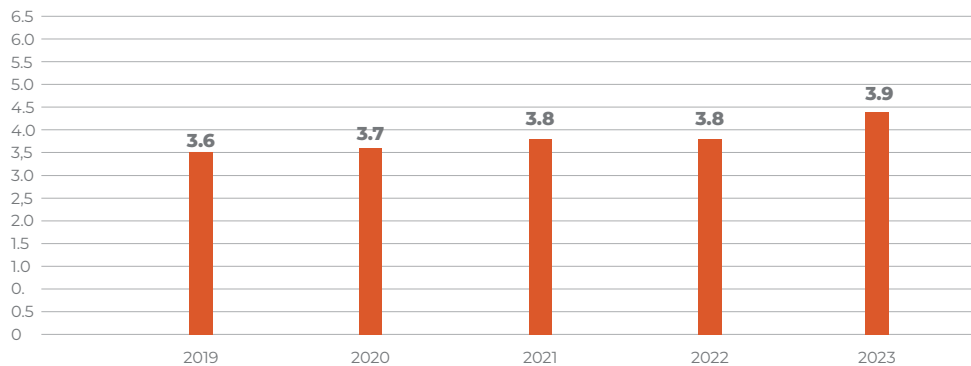
In 2023, office market in Czechia exhibited varied performance across its major cities. **Prague experienced a surge in rents by 15%** and **investments of EUR 120 million** in the same year, while also having **the highest prime rent of EUR 27**. **Brno** added new projects like **Centrum Šumavská** to its **growing office stock of 692,000 m²**. **Ostrava** maintained a steady market with a **modest office supply of 217,000 m²** and stable rents. **Consumer goods and technology sectors dominated the demand**, indicating a diverse and dynamic market. However, the **vacancy rates in Brno and Ostrava also increased to 15% and 8%**, respectively, suggesting a shift in office space needs.

Source: CBRE, „Prague Office Figures“, 2023

PRAGUE HAS THE LOWEST VACANCY RATE

OFFICE STOCK EVOLUTION IN PRAGUE IN 2019-2023 (M² MILLION)

PRAGUE



In Prague, **office leases usually last less than 6 years** and are intended for companies looking for flexibility and security in case the company does not survive long-term. **Startups and small companies typically prefer shorter leases of 3 to 5 years** for greater flexibility, while **larger enterprises choose to lease for 5 to 10 years** to secure their location and stabilize rental costs. Between 2019 and 2023, office space in Prague **increased from 3.6 million m² to 3.9 million m²**, maintaining the **vacancy rate at around 7%**. These market dynamics support both smaller companies opting for shorter leases as a contingency plan and larger organizations planning for the future, reflecting a **balanced office market** that takes into account a variety of business needs.



Source: CBRE „Czech Republic - Prague Office Figures“

GROWING POPULARITY OF HYBRID WORK IS LEADING TO FURTHER INCREASES IN RENTS IN SOFIA



OFFICE SPACE IN SOFIA IN BULGARIA IN 2023



Office space - 2.4 mln m²



Vacancy rate - 14%



Average prime rent (m²/month) - 17 EUR

In 2023, Sofia's office market saw no new project completions, maintaining momentum from prior development. **Prime yields stood at 8.2%**, with **EUR 16.5 per m² monthly rents**, a **6.5% year-on-year increase**. The **vacancy rate slightly rose to 14.4%**. Hybrid IT work models have impacted the office market by changing company demands.

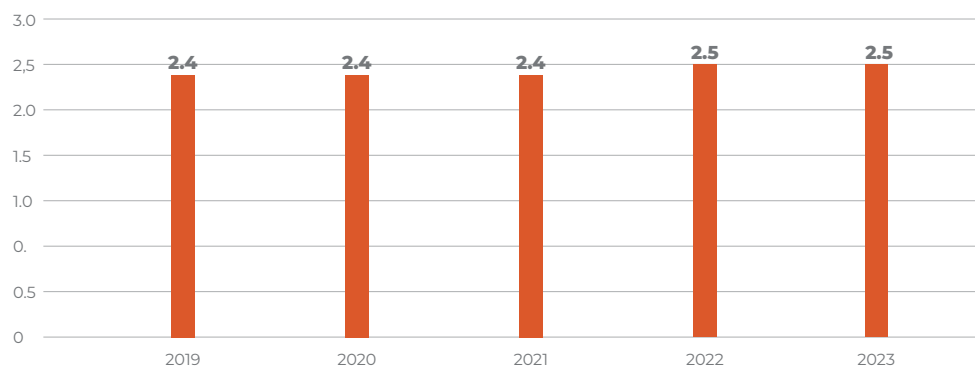
The IT office market has become more diverse and flexible, adapting to employee needs despite persistent hybrid work. Demand for offices remains amid this hybrid approach. The 2024 **forecast of 124,000 m² new office space** suggests stable demand, although rental growth is expected given inflation and economic uncertainty.

Source: CBRE, "Sofia Office Figures", 2023

AVAILABLE OFFICE STOCK IN SOFIA GREW ONLY BY 6% OVER THE LAST 5 YEARS

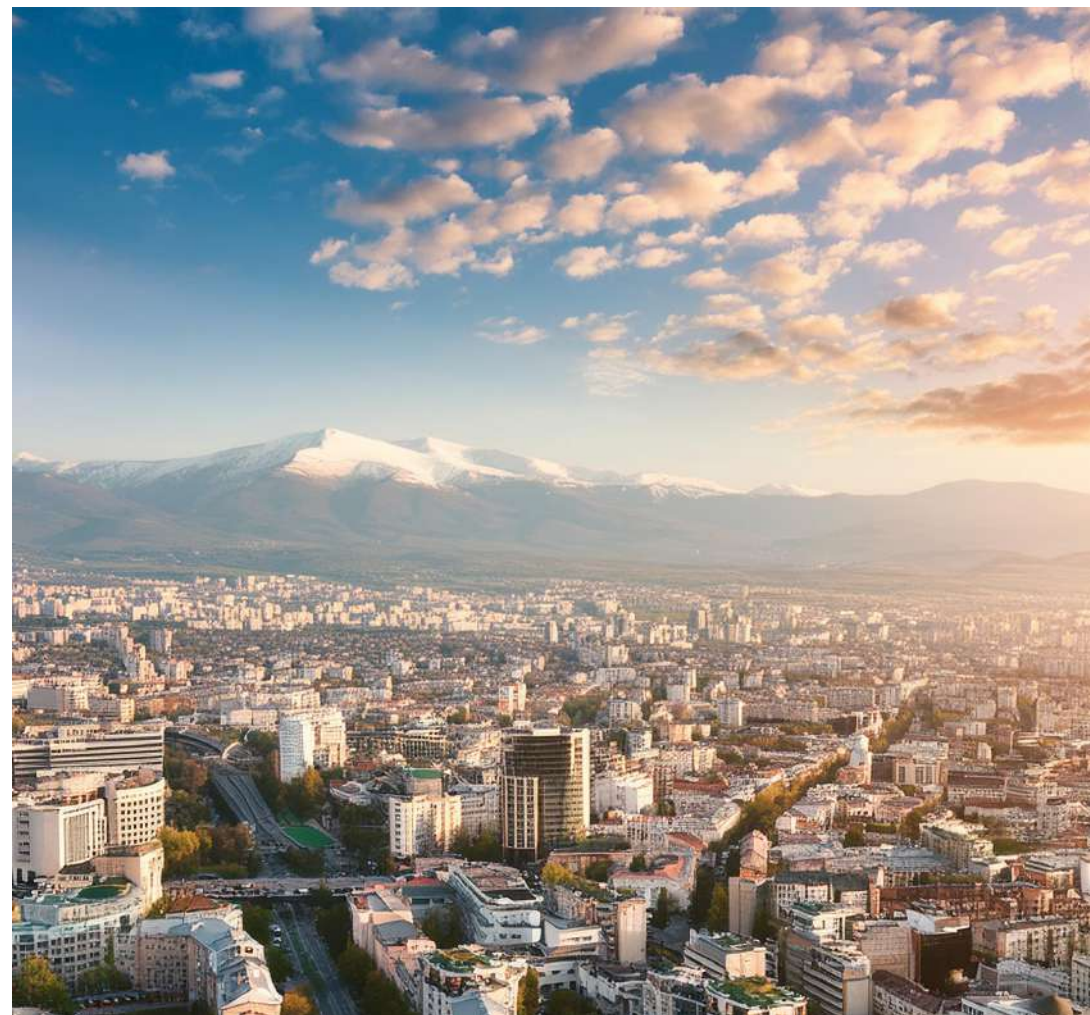
OFFICE STOCK EVOLUTION IN SOFIA IN 2019-2023 (M² MILLION)

SO FIA



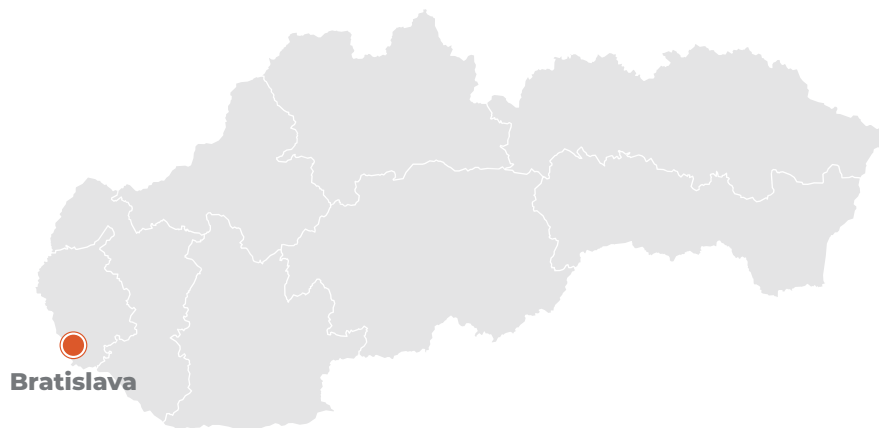
In Sofia, the **average lease term for office spaces is approximately 5 years**, aligning with the preferences of companies that desire operational flexibility. This lease duration offers a balanced solution for businesses, providing them with a **temporary foothold without committing to long-term obligations**.

From 2019 to 2023, Sofia experienced a gradual expansion in its property market, with **office space increasing from 2.3 million m² in 2019 to 2.5 million m² by 2023**. Throughout this period, the **vacancy rate remained relatively high at around 14%**, indicating a market with more available space and less competition from tenants. This trend suggests that both emerging startups and established enterprises can find suitable premises in Sofia without the pressure of rapid decision-making.



Source: Forton Bulgaria „MARKETBEAT Office”

IT INDUSTRY MAKES A SIGNIFICANT CONTRIBUTION TO OFFICE RENTAL IN BRATISLAVA



OFFICE SPACE IN BRATISLAVA IN SLOVAKIA IN 2023



Office space - 2.1 mln m²



Vacancy rate - 14%



Average prime rent (m²/month) - 18 EUR

Bratislava saw significant activity in Slovakia's office market in 2023, with **prime yield at 6.0%, prime rents up by 5.9% to EUR 18 per m² monthly**, office **stock up by 25 thousand m² to 2.1 million m²**, and **vacancy rate up to 14%**.

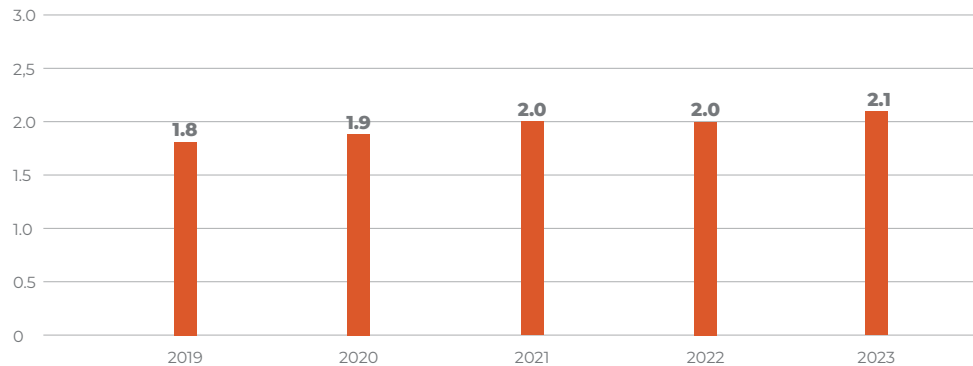
The **IT sector was a key driver, leasing 16,635 m² of space** and **boosting the total leasing activity by 17%**. The IT sector's demand for office spaces was high, as they served as a central hub for client interactions and a resource center with facilities not available at home, despite the remote work trend.

Source: CBRE, „Bratislava Office Figures“, 2023

LEASE PERIODS IN BRATISLAVA ARE SIMILAR ACROSS MANY DIFFERENT INDUSTRIES

OFFICE STOCK EVOLUTION IN BRATISLAVA IN 2019-2023 (M² MILLION)

BRATISLAVA



In Bratislava, the **average office lease period is 5 to 10 years** and is intended for organizations that value the **long-term stability of their operational facilities**. This duration is standard across office, retail, and industrial spaces, indicating a market preference for **sustained tenancy agreements**.

From 2019 to 2023, Bratislava's **office space inventory grew from 1.8 million m² to 2.1 million m²**. In analyzed period, the city experienced an average **vacancy rate of 11%**, signifying a stable market with a consistent level of unoccupied space. This scenario provides a balanced environment for both large corporations seeking to establish or maintain their presence and smaller businesses looking for opportunities in a market that is not overly saturated.



Source: CBRE „Slovakia - Bratislava Office Figures“

ADRIANA BINKIEWICZ

STARSZY DORADCA/SENIOR ADVISOR - BROOKFIELD PARTNERS



The past year has seen a noticeable **trend of returning to offices**. While the situation hasn't fully reverted to pre-pandemic times, **hybrid work has become our new reality**. Companies are striving to make more efficient use of their office space, which is no longer fulfilling its purpose and meeting the needs of hybrid employees. Some companies are tackling this challenge by **reducing their leased space and implementing a rotational work system**. Others are focusing on **adapting their office to the changing needs and work styles** of employees and teams.

Over the past three years, there has been an **increased awareness of the importance of thoughtfully planned work environments**. Workshops on workplace planning have become a regular part of office design projects for many architects.

It's undeniable that the **pandemic has halted the development of the office real estate market**. In Warsaw, the vacancy rate is at a similar level to previous years - 12%. However, **visible migration of companies to the most modern locations is worth noticing**. With the introduction of ESG standards, the situation for older office buildings becomes more challenging year by year.

The situation differs in other regional cities. In Krakow, Wroclaw, and Gdansk, the vacancy rate has clearly increased compared to 2022. This is mainly due to two reasons: a **significant amount of modern office space has been brought into use** in regional cities compared to previous levels of supply, and there is a **noticeable decrease in new office investments**. It is estimated that the vacancy rate in regional cities will slowly decline.

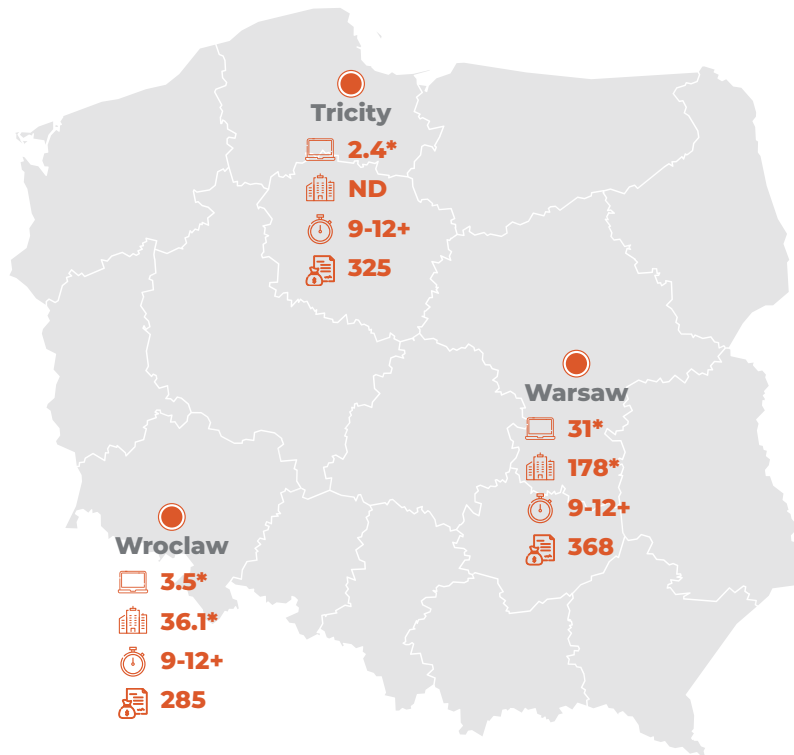





COWORKING

SPACES

FLEX OFFICES IN POLAND



COWORKING OFFICE SPACE IN POLAND IN 2023

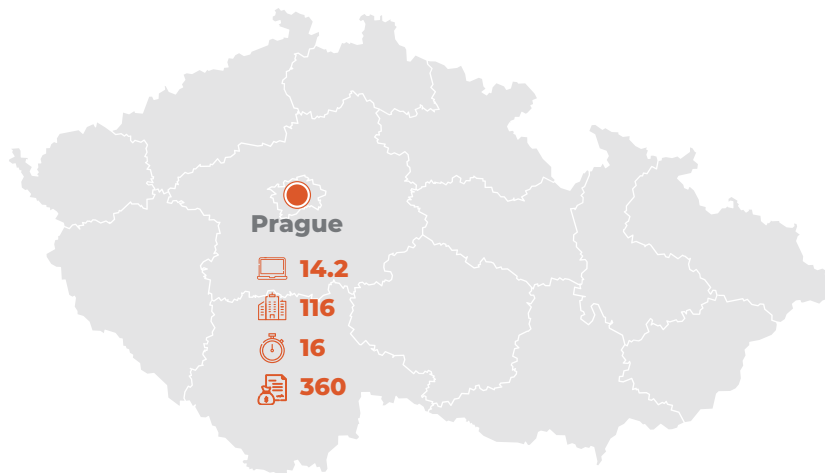
-  **Workstations - Over 50,000***
-  **Flex office space - 368,000**
-  **Average rent time - 9+ months**
-  **Average rent rate (m²/month) - 325-560 EUR**

In 2023, Poland's coworking office market evolved significantly, with the **tech sector driving 17% of the demand**. Warsaw experienced a supply shortage, boosting interest in these short-term, eco-friendly spaces despite their high costs. The market grew, supported by the shift to hybrid work and downsizing trends, with **flexible offices making up 4% of Warsaw's office uptake**, surpassing 2020-2021 levels.

 Workstations (thousand)  Flex office space (thousand)  Average rent time (months)  Average rent rate (Eur/m²/month)

Source: CBRE, "CEE Flexible Office Market", 2021; CBRE, "European Flex Office Market Update", 2024

COWORKING OFFICES IN CZECHIA



COWORKING OFFICE SPACE IN CZECHIA IN 2023



Workstations - Over 15,000*



Flex office space - 133,000



Average rent time - 16 months



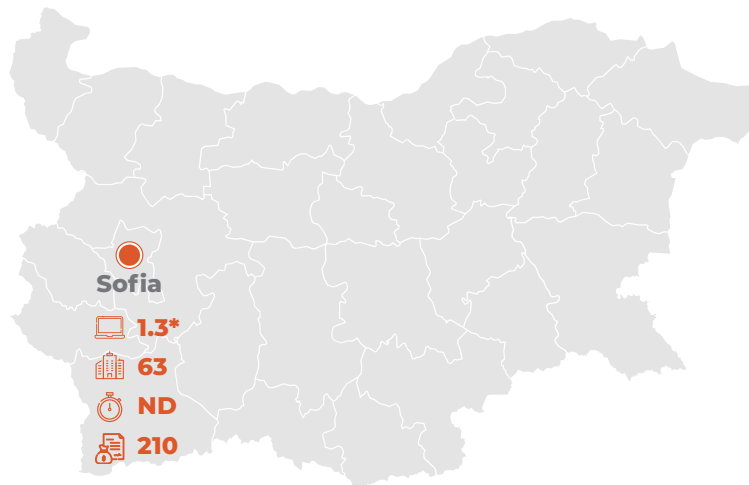
Average rent rate (m²/month) - 180-400 EUR

In 2023, Prague's flexible office market surged, led by the **tech and finance sectors, which formed 51% of the demand**. The **market's supply exceeded 133 thousand m²**, indicating growth across the Czech Republic. Flexible offices, known for their **short leases and adaptability**, are becoming popular, driven by the shift towards hybrid work and companies seeking efficiency. This sector's growth is set to continue, with flexible spaces expanding and **reaching over 133 thousand m²**, a **15% increase from the previous year**. **Occupancy rates are on the level of 75%**, with **prime locations in Prague achieving 85% to 100%**.

Workstations (thousand) Flex office space (thousand) Average rent time (months) Average rent rate (Eur/m²/month)

Source: CBRE, "CEE Flexible Office Market", 2021; CBRE, "European Flex Office Market Update", 2024

COWORKING OFFICES IN BULGARIA



COWORKING OFFICE SPACE IN BULGARIA IN 2023

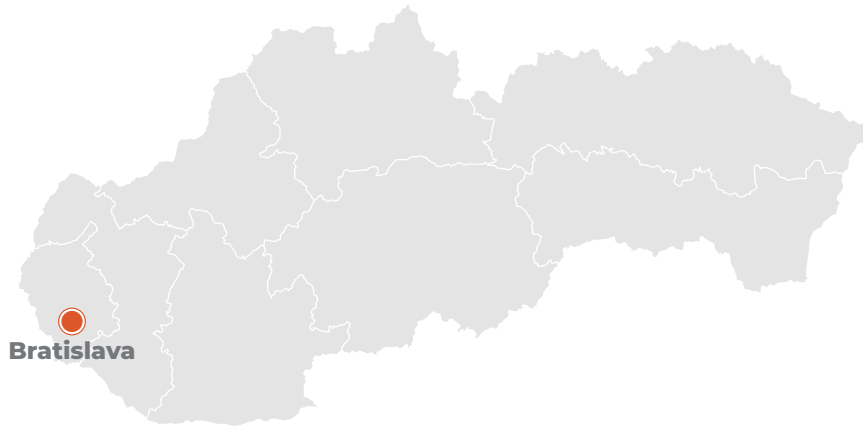
-  **Workstations - Over 1,300***
-  **Flex office space - 63,000**
-  **Average rent time - Not disclosed**
-  **Average rent rate (m²/month) - 210 EUR**

In 2023, Bulgaria's coworking office sector, especially in Sofia, experienced notable expansion, with a **rising demand for coworking spaces**. International operators predominantly manage the Bulgarian flex office market. Sofia's coworking spaces **exceeded 63 thousand m²**, with an **additional 10 thousand m² under development**. The demand was notably segmented, comprising of **21% of IT companies** and **14% of startups**, totaling **17% of the overall market interest**.

 Workstations (thousand)  Flex office space (thousand)  Average rent time (months)  Average rent rate (Eur/m²/month)

Source: CBRE, "CEE Flexible Office Market", 2021; CBRE, "European Flex Office Market Update", 2024; Colliers, "FLEX OFFICES in Sofia", 2023

COWORKING OFFICES IN SLOVAKIA



COWORKING OFFICE SPACE IN SLOVAKIA IN 2023



Workstations - Over 5,000*



Flex office space - 35,200



Avarage rent time - 16 months



Avarage rent rate (m²/month) - 430 EUR

In 2022, the coworking office market in Slovakia, particularly in Bratislava, showed significant development, with **local operators dominating over 80% of the market** and the remaining **20% being international companies** with CEE scope. Bratislava stands out with coworking spaces averaging **180 workstations**, the largest being **Nivy Tower**.

 Workstations (thousand)  Flex office space (thousand)  Avarage rent time (months)  Avarage rent rate (Eur/m²/month)

Source: CBRE, "CEE Flexible Office Market", 2021; CBRE, "European Flex Office Market Update", 2024

CEE REGION OCCUPIERS FAVOR FLEXIBILITY OVER LONG-TERM LEASE COMMITMENTS

FLEX OFFICE SPACE IN CENTRAL AND EASTERN EUROPE IN 2023

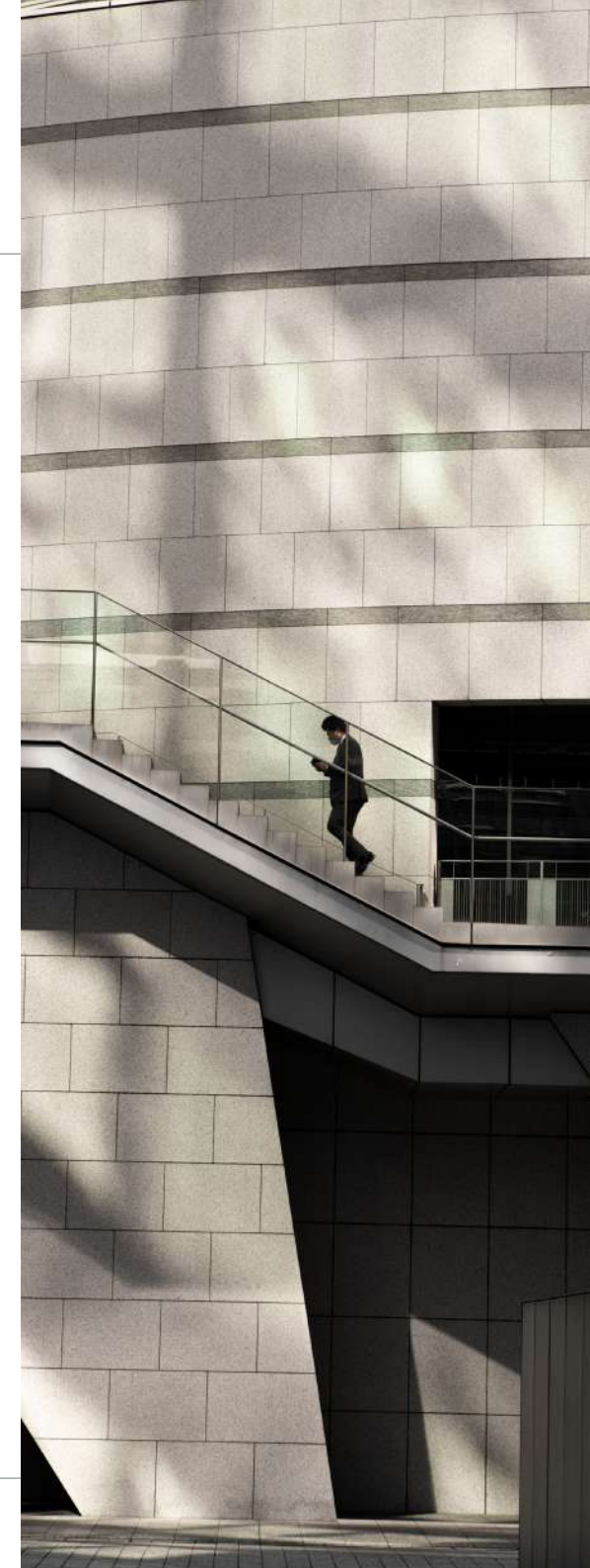
In 2023, the Central and Eastern European flexible office market experienced a **21% year-on-year increase**, showcasing resilience and growth, while **Western Europe saw a 46% decrease**. The CEE region's flexible office space reached **728 thousand m²**, up from 643 thousand in 2021. **Poland, Czechia, and Hungary** are the major players, representing about **75% of the total market**.

One notable trend in the CEE flexible office market is the **growing importance of landlord-owned and operated flexible office space**. Alongside the continued expansion of third-party flex operators, landlords in the region are increasingly embracing the flexible office model, either by creating their own in-house brands or by partnering with established providers.

In the transaction landscape, the proportion of coworking office deals transacted in 2023 showed significant sectoral distribution, with **29% in Finances** and **36% in ICT**. This indicates a strong demand for flexible office spaces from these sectors, highlighting their impact on the market dynamics. Adding to this, there is an emerging trend of **managed office momentum**, where occupiers, particularly seeking capital-light solutions, partner with landlords or operators to provide managed turn-key solutions.

This approach bridges the gap between fully flexible serviced offices and long-term lease commitments, proving to be ideal for mid-sized, mid-term requirements. This trend reflects a shift in occupier preferences, with more organizations looking for **flexibility without the commitment of long-term leases**. Operators are also increasingly focusing on providing amenities similar to hotels to attract and retain tenants. The **importance of ESG factors** is also growing, with a preference for spaces in **environmentally certified buildings**, aligning corporate strategies to decarbonize operations.

Source: CBRE, "CEE Flexible Office Market", 2021; CBRE, "European Flex Office Market Update", 2024



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partnership

passion

international projects

accountability

06

ABOUT NATEK

expertise

WORK WITH US **IT**



ABOUT NATEK

NATEK is a leading provider of comprehensive IT outsourcing services in Central and Eastern Europe. Our mission is to **provide high-quality IT solutions and services to international companies** while **providing a working environment based on partnership for our employees**. Our diverse teams bring expertise from a variety of industries, enabling us to effectively anticipate and respond to our customers' needs.

NATEK has **helped over 60 companies build technical teams** in the CEE region, working with companies from EMEA and North America. Our portfolio includes cooperation with clients from the **Banking, Telecommunications, Technology, Automotive and other industries** who want to gain access to a dynamically developing talent pool in Poland, Czechia, Bulgaria and Slovakia. Thanks to our **experience in building and supervising high-performance IT teams**, NATEK provides specialized support to technology companies at various stages of development.

With **almost 1 thousand specialists on board** and **over 200 successfully implemented projects**, we have been **supporting Fortune 500 clients in nearshoring their operations throughout the CEE region** for almost 20 years.

This report reflects **NATEK commitment to the IT ecosystem in CEE** and aims to highlight its value and promote the benefits of investing in the region.

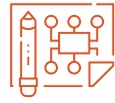
Source: CBRE, "CEE Flexible Office Market", 2021; CBRE, "European Flex Office Market Update", 2024



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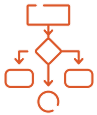
NETWORK



**MODERN
WORKPLACE**



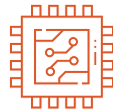
SERVICENOW



SAP



**SOFTWARE
DEVELOPMENT**



RPA



**SERVICE
DESK**



BPO



**ANALYTICS
SERVICES**



HOW WE CAN SUPPORT YOU?



MANAGED TEAM

Let us build the full team for you with proper ramp up plan, competences and project management. We will support your project and advise on project's improvements.



MANAGED SERVICE

We build our services around customers organisation and needs. You can leverage from our existing knowledge, quick ramp-up and full service management.

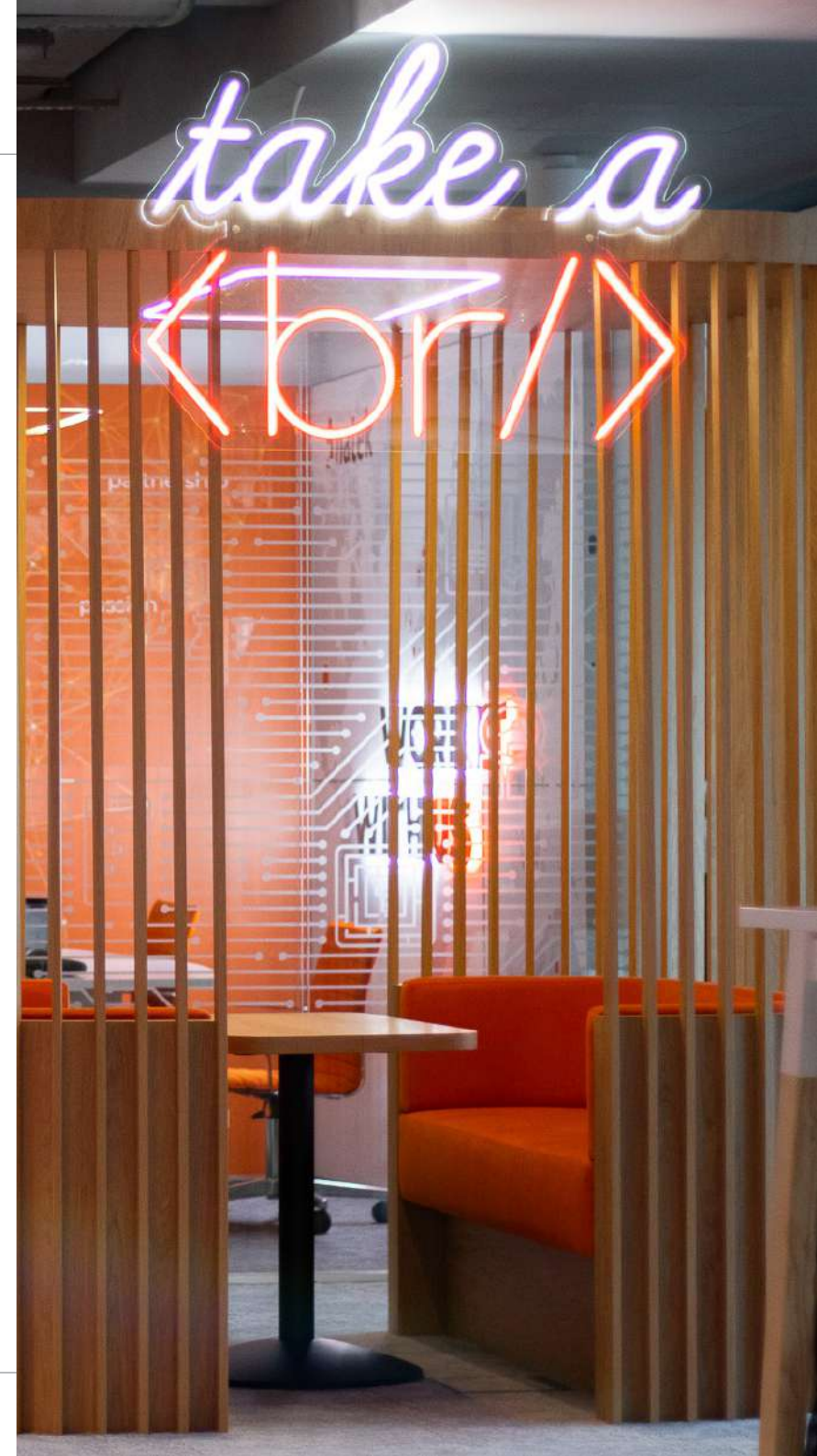


STAFF AUGMENTATION

We provide wide range of technical competencies of IT specialists based on defined requirements. Our clients enjoy the necessary competences for their project, while we take care of all the rest.



True to our values: **Expertise, Accountability** and **Partnership**, everything we do is orientated towards delivering the best service to our customers.



MARTIN ALBRECHT

BUSINESS ANALYTICS TEAM LEADER - BAUSPARKASSE SCHWÄBISCH HALL



NATEK has been instrumental in expanding our reach into the Eastern European IT market, enabling us to **discover and onboard highly skilled Data Analysts**. Their contribution has significantly bolstered our Data Quality and Data Management team, enhancing our capabilities in these crucial areas.

NATEK IT team **excels in a diverse range of fields**, including Data Warehousing, Accounting, Risk Management, Finance, and Controlling. Their expertise ensures **comprehensive coverage of our operational needs**. With their strategic position across CEE countries, NATEK offers us **access to a wealth of skilled professionals, supporting our operational efficiency and ongoing growth**.



REFERENCES

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