Ideamotive

The State of CEE IT Outsourcing and Offshoring Report 2021

Belarus - Poland - Romania - Ukraine

The State of CEE IT Outsourcing and Offshoring Report 2021

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The CEO Perspective:

Why Did We Create This IT Outsourcing Report?

Hello! Dzień dobry, salut, and Добридень!

"We've seen two years' worth of digital transformation in two months," that's how Microsoft's CEO, Satya Nadella, has encapsulated the COVID impact on technology, business, work, and our lives. As the Chief Executive of a company that helps businesses worldwide find hand-selected remote talent, I couldn't agree more.

The new reality is forcing the pace of business change, spurring digital adoption even among laggards. A staggering 95% of IT professionals see their organizations alter their technology priorities following the pandemic. At the same time, 63% of Fortune 500 CEOs have declared that the 2020 crisis would accelerate the technological transformation to outpace the competition. By hiring offshore specialists, they hope to fill the skills gap, balance the shortfall of qualified workers, speed up time to market, and yes, boost profitability

SMBs are also poised to rely more on outsourcing in the coming months and years, albeit for different reasons. Cost-cutting remains the main driver for delegating work to third-parties for 59% of small and medium businesses, followed by the ability to focus on core business and capacity issues.

The demand for external IT and applications development services has been steadily rising over the last few years. And now, the COVID-19 pandemic has made software development outsourcing even more relevant. According to IDC, over the next two years, the ICT spending will be growing at a steady pace of 5% annually, with the largest share expected from new technologies, such as AI, robotic automation, IoT, and AR/VR.

The new workplace paradigm works in favor of outsourcing arrangements for many reasons:

- **The massive shift to remote work has mandated increased reliance on technology, creating a surge in demand for online tools.** The software industry is one of the big beneficiaries of the COVID crisis. As the world is slowly getting used to "the new normal," tech companies are rolling out digital solutions supporting flexible working, social distancing, and automation. Market entrants are grasping the opportunities brought by the pandemic, and well-established tech businesses are expanding and enhancing their solutions. If you want a slice of a $5.6-trillion ICT revenue pie, you need to ship products to market fast. Delegating work to a trusted external partner will get you there.

- **The past few months have proven that distributed teams can deliver on time, on budget, and to specification, eliminating the main advantages of on-site IT operations.** The mass adoption of secure, compliant, and collaborative online solutions, facilitated by the pandemic, also removed major holdbacks to hiring offshore teams, such as (unfounded) security concerns or perceived lack of control.

- **When every penny counts, outsourcing and offshoring become more appealing than ever.** Cost savings are intrinsic to both engagement models. But their cost advantage doesn't only stem from lower rates in low-cost outsourcing and offshoring destinations. IT offshoring and outsourcing remove training, upskilling, and onboarding expenditures, reduce spending on office space and infrastructure and take away the massive costs of hiring and managing a specialist in-house (think insurance, benefits, vacation, and sick pay). By minimizing overhead costs, they are a viable option for businesses to remain operational during the recession and gain a precious advantage once the economy rebounds.

While we are yet to understand and embrace the pandemic's full impact, businesses are already reshaping their strategies to bounce back and better position themselves for the future. **In anticipation of this shift, I'd like to present our latest report on the best outsource and offshore software development countries in Central and Eastern Europe.**

The State of CEE IT Outsourcing and Offshoring Report 2021 identifies four CEE countries that have emerged as the new IT hubs for outsourcing, threatening well-established IT outsourcing behemoths like India and China. This comprehensive overview of the leading destinations for software development outsourcing spells out each country's main strengths and weaknesses. It also shows how you can benefit from hiring offshore developers from the region.
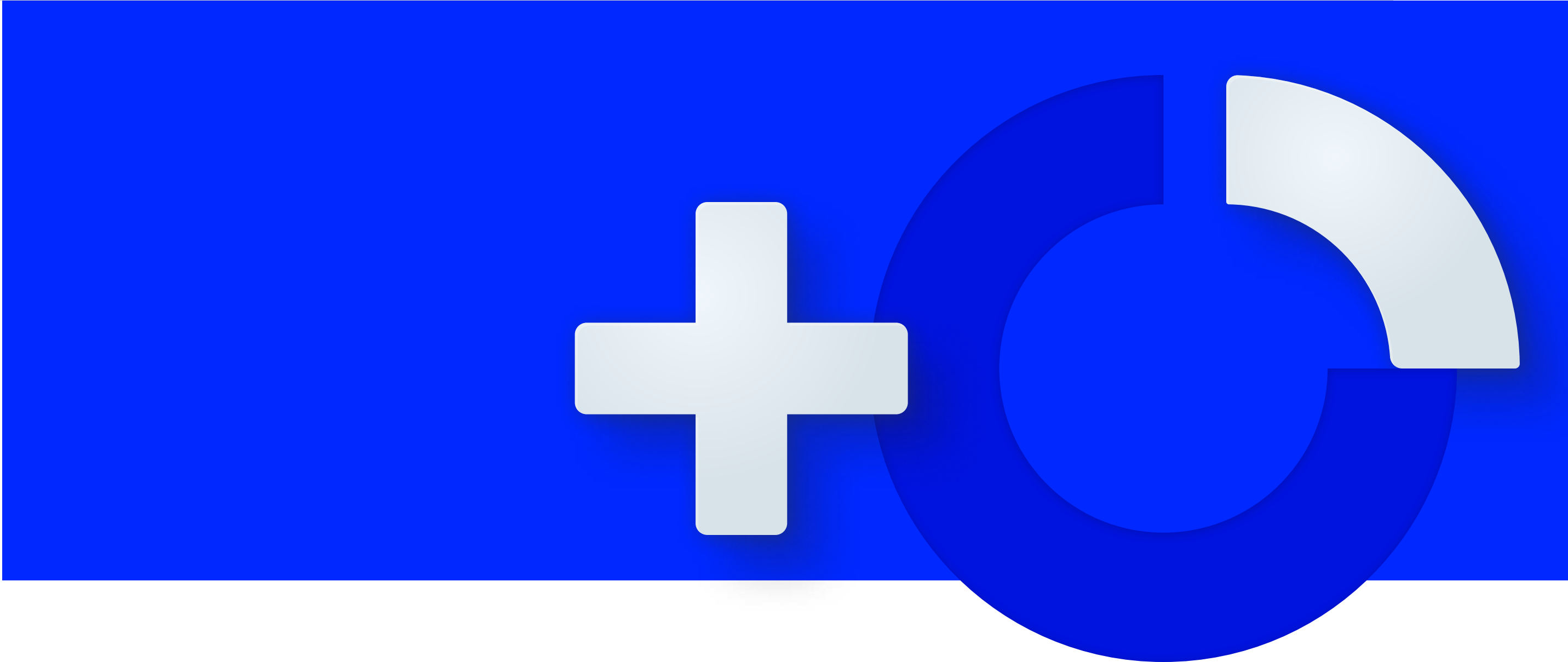
Robert Krajewski
CEO of Ideamotive

The CEE IT Outsourcing and Offshoring Report:
Key Findings

- Central and Eastern Europe has emerged as the next IT outsourcing hub, threatening traditional go-to markets for software services, such as India or the Philippines.

- The IT Service and Software R&D market in the four countries featured in the report grows x4-5 faster than the global average.

- The region's sizable STEM and ICT talent base is growing in skillset and number, providing high-value software development services to global customers.

- Strong technical expertise, good command of English, cultural proximity, and an innovation mindset are the most significant pull factors for foreign investors.

- CEE countries also offer high-quality digital infrastructure with ultra-fast broadband and excellent coverage rates.

- Poland has the largest pool of IT workers (430,000), followed by Ukraine (200,000) and Romania (100,000).

- Software developers in Ukraine and Belarus tend to charge the lowest rates; Poland provides the easiest access to specialists, including niche experts, and offers optimal price/quality ratio; Romania boasts an abundance of multilingual talent.

- All the featured countries occupy top positions in global rankings and indexes for the best outsourcing destinations and highest-quality programming skills.

IT Outsourcing and Offshoring: Challenges and Opportunities

Digital transformation has become a strategic change agent for businesses across all industries. Organizations seek the opportunity to overhaul their processes, operations, and relationships with modern technology to improve efficiency and enhance profitability. As most of them lack in-house capabilities to drive innovation from within, it's only logical that their executives seek external assistance to integrate digital technology into all areas of their businesses.

Here's where IT outsourcing and offshoring step in. Business decision-makers seek trustworthy global partners to help them embrace and ride the digital wave and keep up with the rapid pace of change.

"The other part of outsourcing is this: it simply says, where the work can be done outside better than it can be done inside, we should do it."

Alphonso R. Jackson
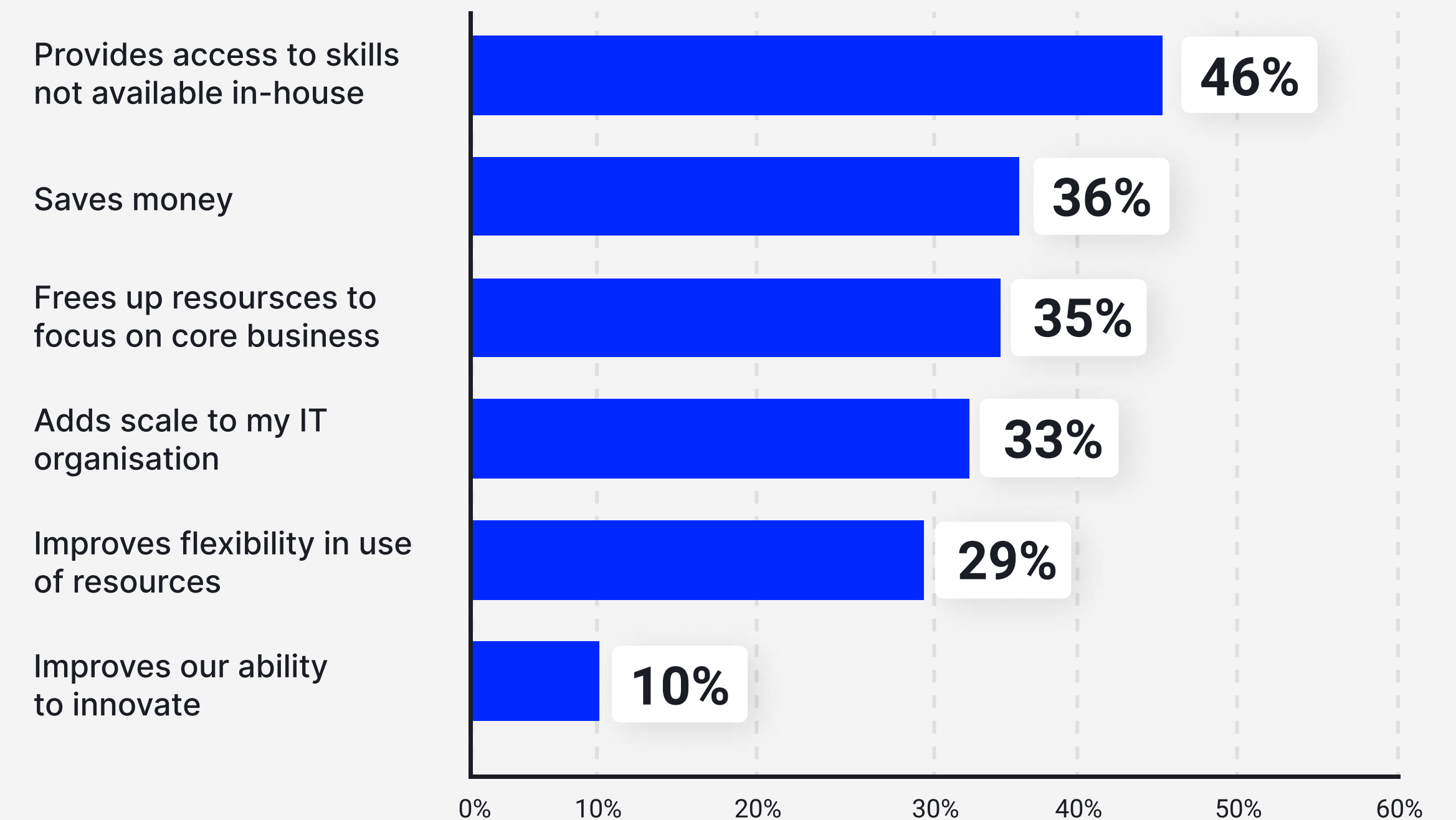**3th US Secretary of Housing and Urban Development**
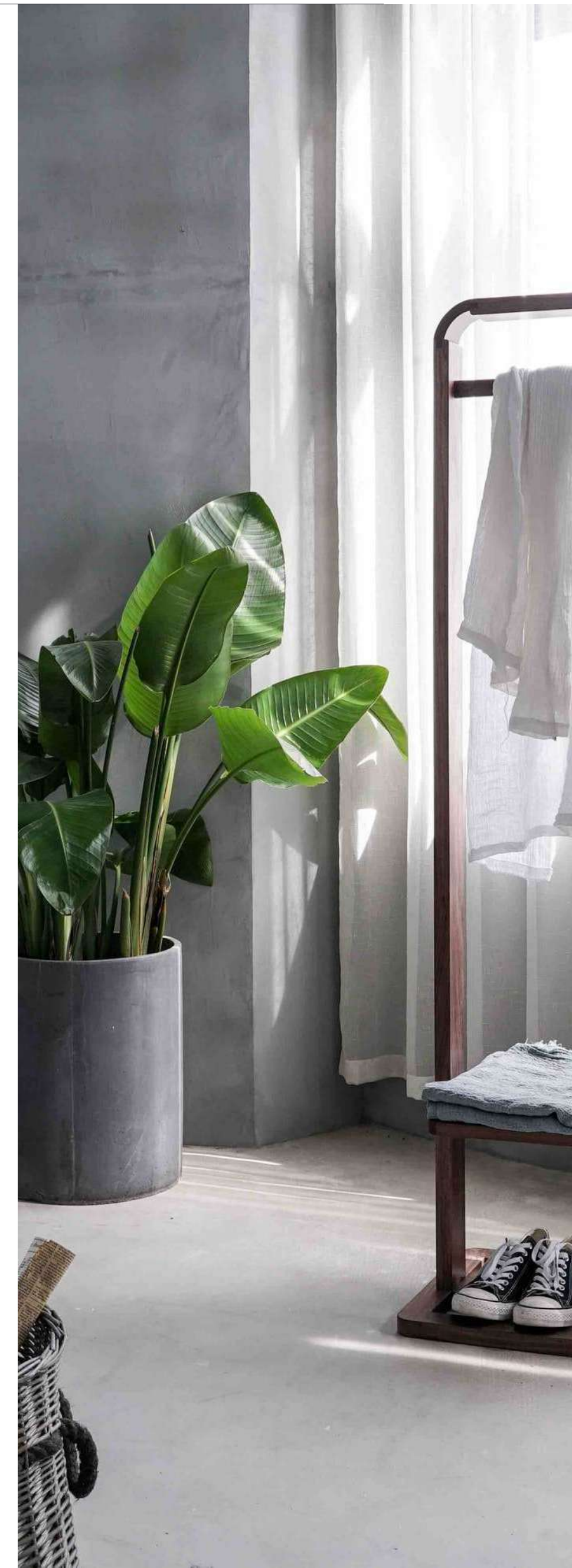
We are witnessing a sharp increase in IT outsourcing contracts. Last year, global IT outsourcing was valued at $333.7 billion. It is expected to reach $397.6 billion throughout the next five years, growing at a CAGR of 4.5% during the forecasted period.

There are many reasons why companies relocate their IT services and operations abroad. The cost-cutting opportunities and access to expert skills prevail, but more motivations come into play, especially as we speak of outsourcing.

Besides increasing business efficiency, outsourcing and offshoring enable organizations to enhance their business performance, build market differentiation, expand agility, and steer business growth through access to new skills and technologies.

Top business reasons for outsourcing IT services

Reason	%
Provides access to skills not available in-house	46%
Saves money	36%
Frees up resoursces to focus on core business	35%
Adds scale to my IT organisation	33%
Improves flexibility in use of resources	29%
Improves our ability to innovate	10%

0%   10%   20%   30%   40%   50%   60%

[Source: Statista 2021]

Usually, the decision to retain external team results from one of the following factors:

Insufficient workforce

When the IT department is overloaded, and a company cannot expand the internal team (due to financial or other considerations).

Temporary workflow increases

for example, at peak season. Staff augmentation through outsourcing is an affordable solution to offload the core team members as they face periodic labor increases.

Missing expertise

Outsourcing provides companies with access to virtually any skills that in-house employees cannot deliver.

High IT costs
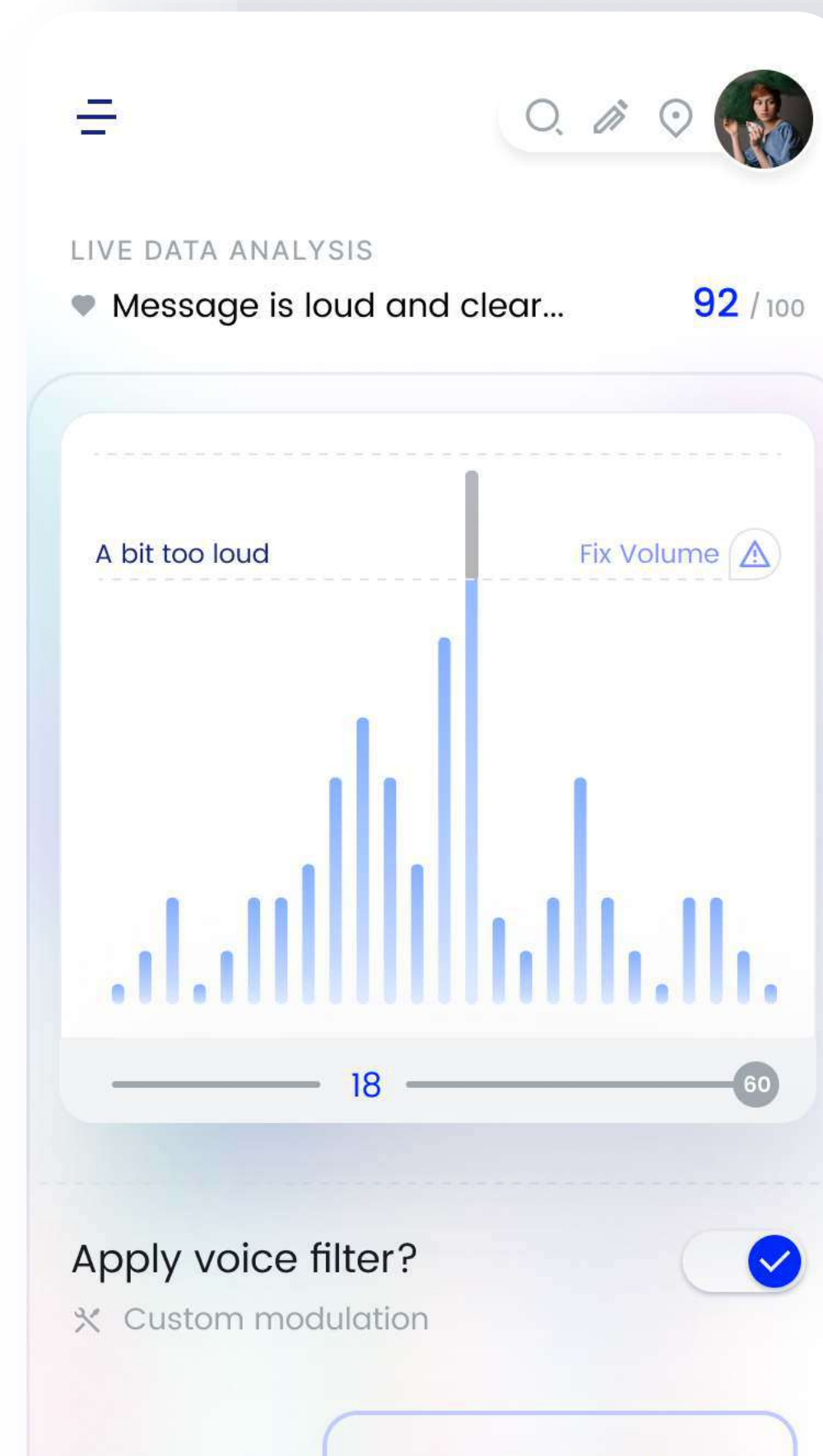
Relying on third-party suppliers is a viable way to reduce technology infrastructure and support costs.

To discover the core benefits of outsourcing IT work specifically, jump to The Advantages of Outsourcing and Offshoring IT Services ⤵

Which IT Services Can Be Outsourced?

There are no limits in terms of the services that can be outsourced to an external IT provider. Any task or process can be carried out externally, including but not limited to:
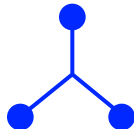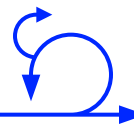
- Software design and development
- Technology recommendations
- Quality assurance
- Hardware setup and installation
- Network management and operations
- IT project management
- Root cause investigation
- IT security and threat protection
- 24/7 end-user support (remote and onsite)
- Infrastructure migration and maintenance
- User and employee training

LIVE DATA ANALYSIS

♥ Message is loud and clear...   92 / 100

A bit too loud   Fix Volume ⚠

18   60

Apply voice filter?   ✓

✕ Custom modulation

Up next:

The Differences Between Outsourcing and Offshoring

Outsourcing and offshoring have become an integral part of the global supply chain. Still, the difference between the two notions remains unclear for many. While both models share certain characteristics, they are distinct concepts that differ in several important respects.

Outsourcing

Outsourcing is hiring external organizations to take charge of specific tasks, processes, and operations on behalf of the client.

Offshoring

Offshoring, on the other hand, is tightly coupled with the efficiencies and labor cost. It describes the relocation of specific jobs to foreign countries to take advantage of more affordable labor pools.

Outsourcing	Offshoring
Outsourcing can be carried out internationally or locally, within the same area, country, or city.	Offshoring is always a geographic activity, which means services are obtained internationally or overseas, outside the company's home country.
The main goal is to gain a competitive advantage by delegating non-core functions and building the capacity to focus on one's primary area of expertise.	The cost benefit of labor arbitrage is the main driver behind this model. By offshoring, companies can acquire specific goods or services at lower prices than locally.
In this model, businesses often outsource partners to access advanced skills and specialist knowledge not available in-house.	Typically, companies offshore basic, low-skilled work that could be performed locally but at a much greater cost.
Typically, companies relinquish some involvement in the outsourced tasks and processes to the supplier, relying on their experience and expertise.	Offshoring offers full control over processes; offshore IT developers and other specialists become company employees.

NOTE

You may also have come across the concepts of nearshoring, farshoring, and onshoring. These notions all refer to the various geographical contexts of offshoring, where:
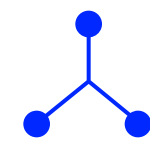
Nearshoring involves moving activities to a neighboring country or a country within the same geopolitical region.
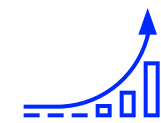
Farshoring involves moving activities over a long distance, especially overseas.
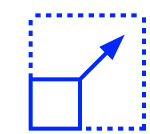
Onshoring (also known as reshoring) involves moving activities that used to be transferred overseas back within the country's borders.

The Advantages of Outsourcing and Offshoring IT Services

		Outsourcing	Offshoring
Convenience	Hiring an experienced software services provider is a convenient way to streamline IT functions without the effort of hiring, onboarding, managing, and sustaining internal teams	✓	✕
Rapid scalability	Outsourcing provides the ability to ramp up and down the IT team at your discretion and as quickly as needed, depending on the current project demand, any arising issues, and the size and complexity of your technology infrastructure. This way, you can embrace business opportunities when they arrive, even if your regular staff is engaged in other projects.	✓	✕
Fast time to market	A dedicated outsourced team takes away major staffing issues. It allows you to obtain all the required technical resources from day one, significantly speeding up the delivery of your product or service to market.	✓	✕
Access to expert skills	The lack of relevant or sufficient in-house skills is the number one reason why companies outsource IT services (Statista). Outsourcing offers unlimited access to a global talent poo,l so you can find specialists with the exact skills and expertise your project requires (and at an acceptable rate).	✓	✕

		Outsourcing	Offshoring
Innovation-driven advantage	Many outsourcing companies have built up a wealth of knowledge and experience in niche technologies, such as AI-enabled mobile apps or analytics-based web design. By tapping into their deep talent base, you can gain a competitive advantage by rolling out pioneering products and solutions.	✓	✓
Time savings	The long-term commitment to in-house IT staff involves a significant and continued HR effort. You can save time invested in setting up and maintaining your own IT team by letting an experienced software services provider handle complex IT work.	✓	✓
Cost-efficiency	Outsourcing removes the exorbitant costs of hiring, training, and maintaining in-house IT employees, including holiday pay, sick pay, and insurance. You also don't have to bear any of the associated costs related to office space, equipment, and IT infrastructure. Hiring offshore developers also involves lower labor costs and possible tax incentives.	✓	✓
Focus on core competency	IT development/services cover a broad spectrum of roles and skills, which are extremely difficult to fulfill by a single business. Delegating IT functions to a third-party (outsourcing) or commissioning the entire IT-related work to a remote partner (offshoring) allows you to focus on core business to enhance the strategic advantage.	✓	✓

Up next:

The Disadvantages of IT Outsourcing and Offshoring

The Disadvantages of IT Outsourcing and Offshoring

		Outsourcing	Offshoring
Lack of internal knowledge	It might take longer for external IT services providers to grasp processes, tools, and objectives specific to your business. To ensure the right alignment with your goals and vision, look for outsourcing teams with proven industry expertise and experience in delivering projects for companies in your sector and niche.	✓	✕
Diminished control	Outsourcing provides the ability to ramp up and down the IT team at your discretion and as quickly as needed, depending on the current project demand, any arising issues, and the size and complexity of your technology infrastructure. This way, you can embrace business opportunities when they arrive, even if your regular staff is engaged in other projects.	✓	✕
Security concerns	Sharing confidential information carries a risk of data loss, leakage, or corruption, regardless if a third-party or an in-house employee is involved. There are various ways to mitigate it and keep your data safe. These include signing an NDA, specifying privacy, data sharing, and intellectual property policies, conducting regular security audits, applying the rule of least privilege, and partnering with reliable offshore software teams that have efficient security strategies in place.	✓	✕
Remote communication	The lack of relevant or sufficient in-house skills is the number one reason why companies outsource IT services (Statista). Outsourcing offers unlimited access to a global talent poo,l so you can find specialists with the exact skills and expertise your project requires (and at an acceptable rate).	✓	✕
Cultural differences	All companies working with globally-distributed partners and suppliers must be prepared to manage cultural diversity and accommodate different languages, customs, and practices. Still, as our world is becoming increasingly connected, these issues are no longer limited to outsourcing and offshoring. Multi-cultural internal teams have become a norm, and most businesses leverage diversity and turn it to their advantage.	✓	✕

Pros and Cons of IT Outsourcing

Keeping developers is not your concern

Access to a large talent pool with high quality and lower costs

More varied developer portfolio for the same price

Reduced risk of unexpected quits in your projects

Risks based on sharing company data

Code ownership issues

Building expertise outside of your company

"We are certainly more open to hiring more remote contractors than before. Although there was an adjustment period, my team is now very comfortable and productive while working remotely. We also now have a better understanding of what is needed to onboard new hires remotely and are confident that we can integrate them onto our team despite our physical distance. It's no longer necessary to have physical face-to-face meetings with candidates to make a hiring decision thanks to video conferencing. That way of thinking will follow us into 2021 and beyond."

Derin Oyekan
Co-founder & CMO of Reel Paper
Los Angeles
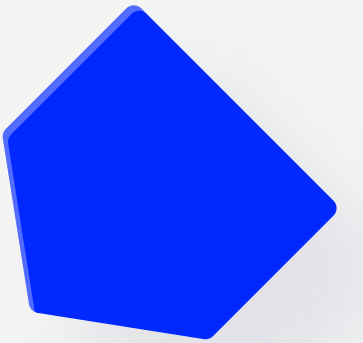
An Overview of Global IT Outsourcing and Offshoring Market

Before 2020, prospects couldn't have been brighter for the global IT outsourcing market. Ongoing digitization was propelling the strategic use of external IT resources. The rise in cloud adoption created new opportunities for IT services providers and outsourcing partners. Furthermore, the increasing emphasis on infrastructure efficiency generated a surge in demand for IT offshoring and outsourcing services.

And then, one chilly day in 2019, a cunning coronavirus chose to mutate and wreak havoc across the planet. The COVID-19 outbreak has inflicted lasting damage on the global economy, and its outcomes are yet to be seen. While travel, leisure, hospitality, and fitness were among the hardest-hit industries, no sector remained unaffected, IT outsourcing and offshoring included.

As outsourcing clients were grappling with the crisis, their contractors suffered collateral damage. The Information Service Group reported a 5% decline in the total value of IT and BPO outsourcing contracts in the second quarter of 2020. In the EMEA region, traditional IT outsourcing deals reduced in value by 21%.

IDC COVID-19 Tech Index - Worldwide

Legend: ● Buyer Internet ● Market Indicators ● Total
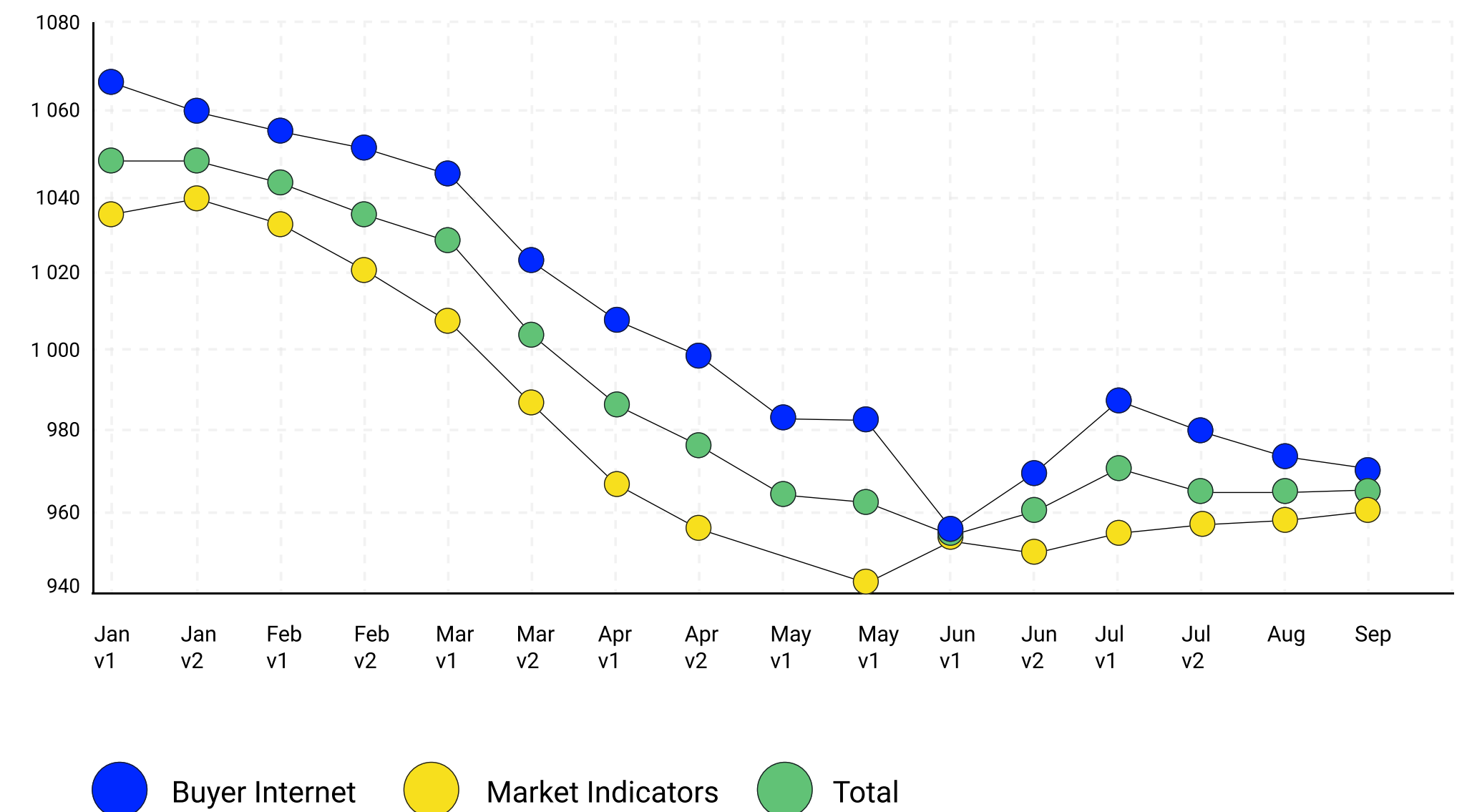
[Source: Idc.com]

"Coronavirus cruelly exposed the fragility of the IT industry, and there is a dire need to re-skilled employees. In such a situation, working with offshore partners is certainly going to be new normal and the ratio of outsourcing work will be an all-time high."

Caroline Lee
Co-Founder at CocoFax
London

The short-term impact of the crisis on outsourced arrangements was indeed devastating.

However, market analysts were quick to spot a silver lining. Unique opportunities started emerging for the software development outsourcing and offshoring sector, and the pandemic has given a fresh impetus for tech innovation.

- Analysts expect **greater business readiness to accept more broad-based remote work delivery**. Companies will be much more willing to flex their workforce to address future black swan events and disruptions. And contracting work to external suppliers will make it easier for them to do so.

- As businesses will seek solutions to embrace remote collaboration, **the demand for enabling technologies will intensify**. It will stimulate growth in the procurement of custom software development, software integration, and cloud adoption services.

- **Companies will seek support from technology innovation providers to apply their skills and talents to updating and replacing legacy systems.** New agile infrastructures will make it possible for organizations to enhance their processes and make them more transparent.

- **Higher investments in automation (to reduce the dependence on human labor) will fuel the demand for outsourcing companies** providing specialized software automation skills to deliver custom solutions.

"*Over the next five years, all growth in traditional tech spending will be driven by just four platforms: cloud, mobile, social, and big data/analytics.*"

[Source: Idc.com]

By exposing flaws and inadequacies in many outsourcing arrangements, the global crisis has paradoxically provided an impulse for the IT outsourcing industry to reinvent services and emerge post-pandemic even stronger. Corroborating these predictions is IDC COVID-19 Tech Index, the leading indicator for IT spending.

The report suggests that tech spending in 2020 has outperformed buyer predictions, demonstrating surprising resilience to the crisis. What's interesting, business confidence is the weakest and most volatile in the US, while the strongest - in Asia. Forecasts by Gartner are on the prudent side, expecting to see IT spending to decline by 8% in 2020 as compared to the previous year.

However, when we look at the following couple of years, the prospects look much more promising; Gartner analysts expect the overall IT spending projected for 2023 and 2024 to be showing up early, in 2022. IDC experts agree with this prognosis, expecting worldwide IT spending to bounce back within the next two years.

78% Digital transformes

61% Transformation architects

59% Automation experts

47% Customer-centricity managers

41% Operatins strategists

39% Design thinkers
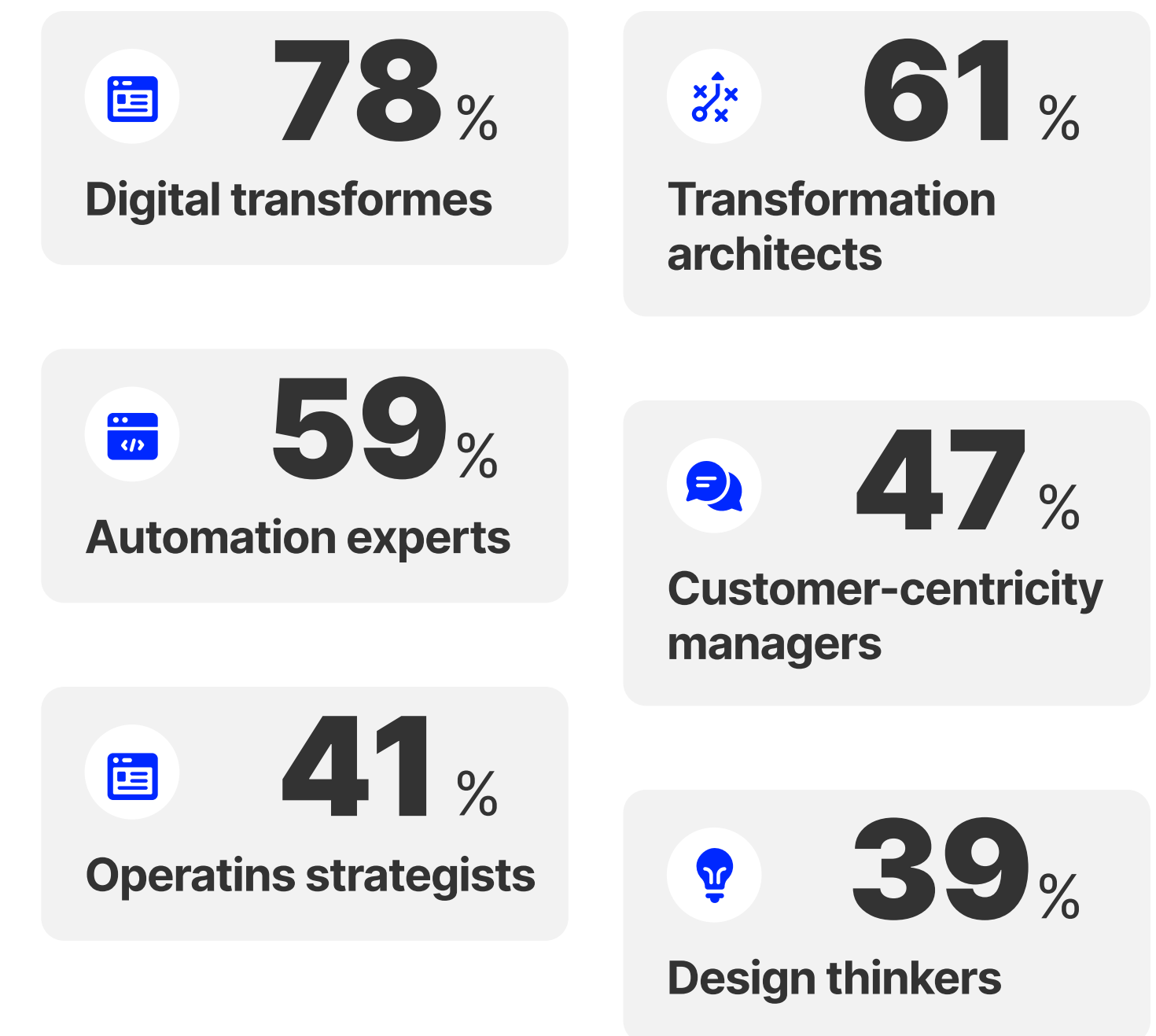
↱ Outsourcing Skills Needed For 2021

"If nothing else, the pandemic has taught business leaders that the importance of location is overstated. Companies can thrive even when employees are not operating from the same location, and similarly, successful partnerships can grow even when the members are on different continents."

Reuben Yonatan
Founder & CEO GetVoIP
New York

Global IT Outsourcing Market: Facts and Stats

70% of companies interviewed by the **Global Sourcing Association** plan to increase their outsourcing, with 35% planning to do it significantly.

Last year, the global IT outsourcing market was estimated at **$333.7 billion**, and it remains one of the most rapidly growing outsourcing sectors.

When it comes to outsourcing and offshoring destinations, newer entrants such as Poland, Ukraine, Romania, and Belarus continue to threaten traditional outsourcing hotspots such as India, the Philippines, and China.

Industries that hold significant market share in IT outsourcing include the banking and financial sector, automotive, healthcare, telecommunication, manufacturing, and consumer products.

The most sought-after IT outsourcing services in 2020 and beyond include digital transformation, automation, and UX and UI design.

Country-wise, the IT outsourcing market in the US is currently **estimated at $92.7 billion**, and in China at $82.3 billion. In 2018, the market value for entire Europe stood at **$94 billion**.

Other noteworthy geographic markets for IT outsourcing besides the USA and China include Japan, Canada, Germany, UK, and France.

Other noteworthy geographic markets for IT outsourcing besides the USA and China include Japan, Canada, Germany, UK, and France.

Outsourced technologies that are likely to experience a sharp increase in popularity include AR/VR, RPA, and AI automation, and, of course, the cloud.

IT outsourcing by industries in Europe

Industry	Percentage
Automotive	42%
Telecoms	35%
Consumer product sector	31%
Oil and gas	13%
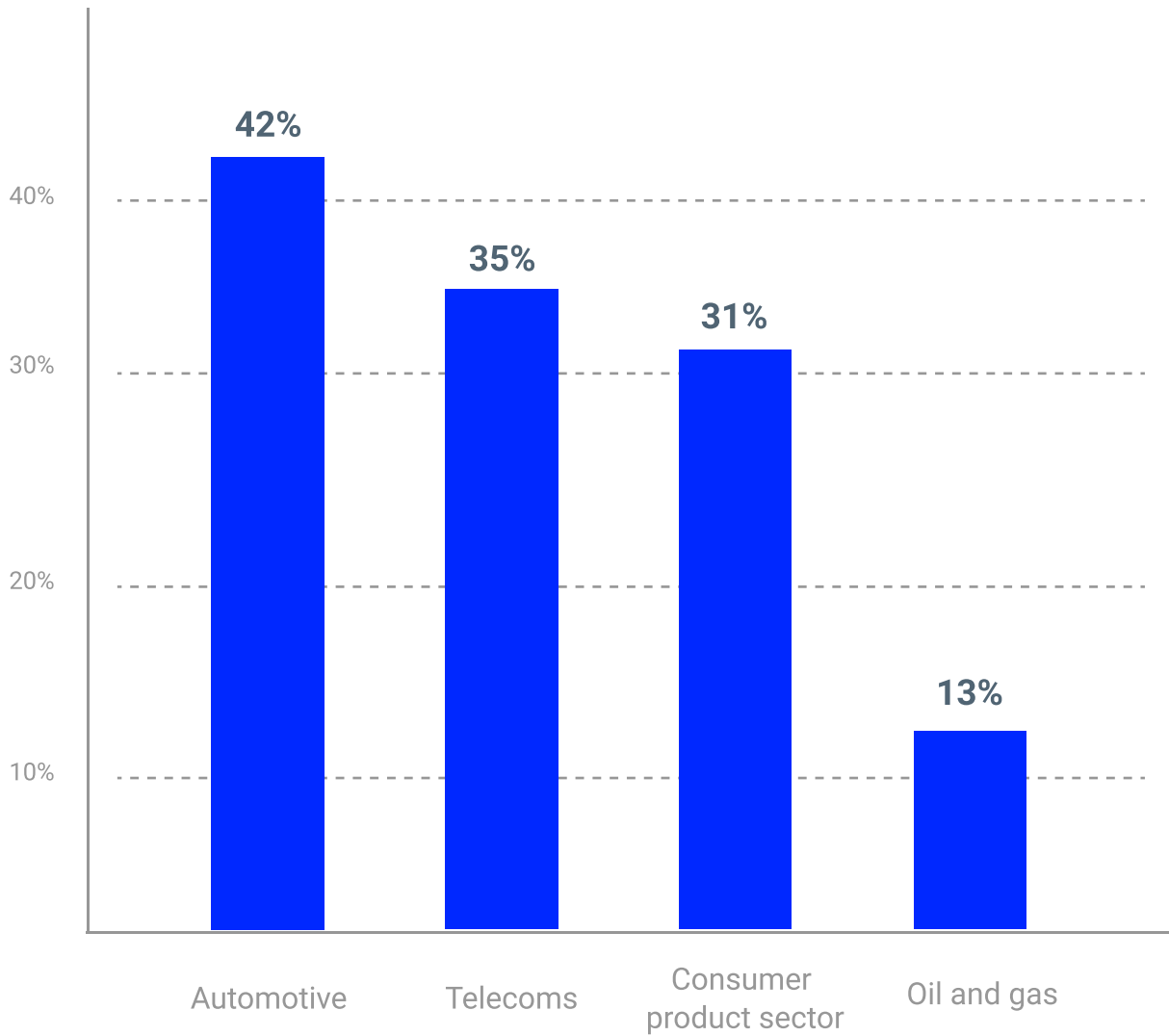
Automotive companies in Europe outsource 42% of their processes. European telecoms - approximately 35%. The average IT outsourcing rate in the European consumer product sector is 31%. Oil and gas companies in Europe outsource about 13% of IT processes.

[source: cbi.eu]

The CEE Difference.
A Spotlight on Central and Eastern Europe

In recent years, Central and Eastern Europe has emerged as one of the most attractive IT outsourcing and offshoring destinations for the US and Western European companies.

Thanks to a robust infrastructure, low operational costs, and extensive talent pools, the region's countries can compete on equal terms with traditional front-runners in the IT offshoring and outsourcing hubs, like India or China. While cost-wise, Asia remains a leading software outsourcing destination, Poland, Ukraine, or Romania outshine Asian counterparts in other key factors, such as quality workforce, service reliability, or cultural affinity. Vibrant tech ecosystems, strong technical education, and governments' support for technology entrepreneurship further contribute to the consolidation of the CEE's position as a go-to-market for a skilled IT and tech workforce.

However, despite the region's unquestionable attractiveness for outsourcing, it's essential to highlight the profound differences between particular countries. For example, while Poland excels in English proficiency ranks and exhibits the lowest corruption level in CEE, Ukraine lags in global and digital competitiveness and is marred by massive corruption. Therefore, the final decision of where to hire software development teams must account for each market's characteristics and include project-specific considerations.

CEE — Which Countries?

Most sources define CEE as an area encompassing countries in Central Europe, the Baltics, and, partly, the Balkans, all of which used to belong to the former Eastern communist bloc. Thus, by talking about Central and Eastern Europe, we refer to Czechia, Slovakia, Poland, Hungary, Bulgaria, Romania, Latvia, Lithuania, Estonia, Ukraine, Belarus, Slovenia, and Albania.
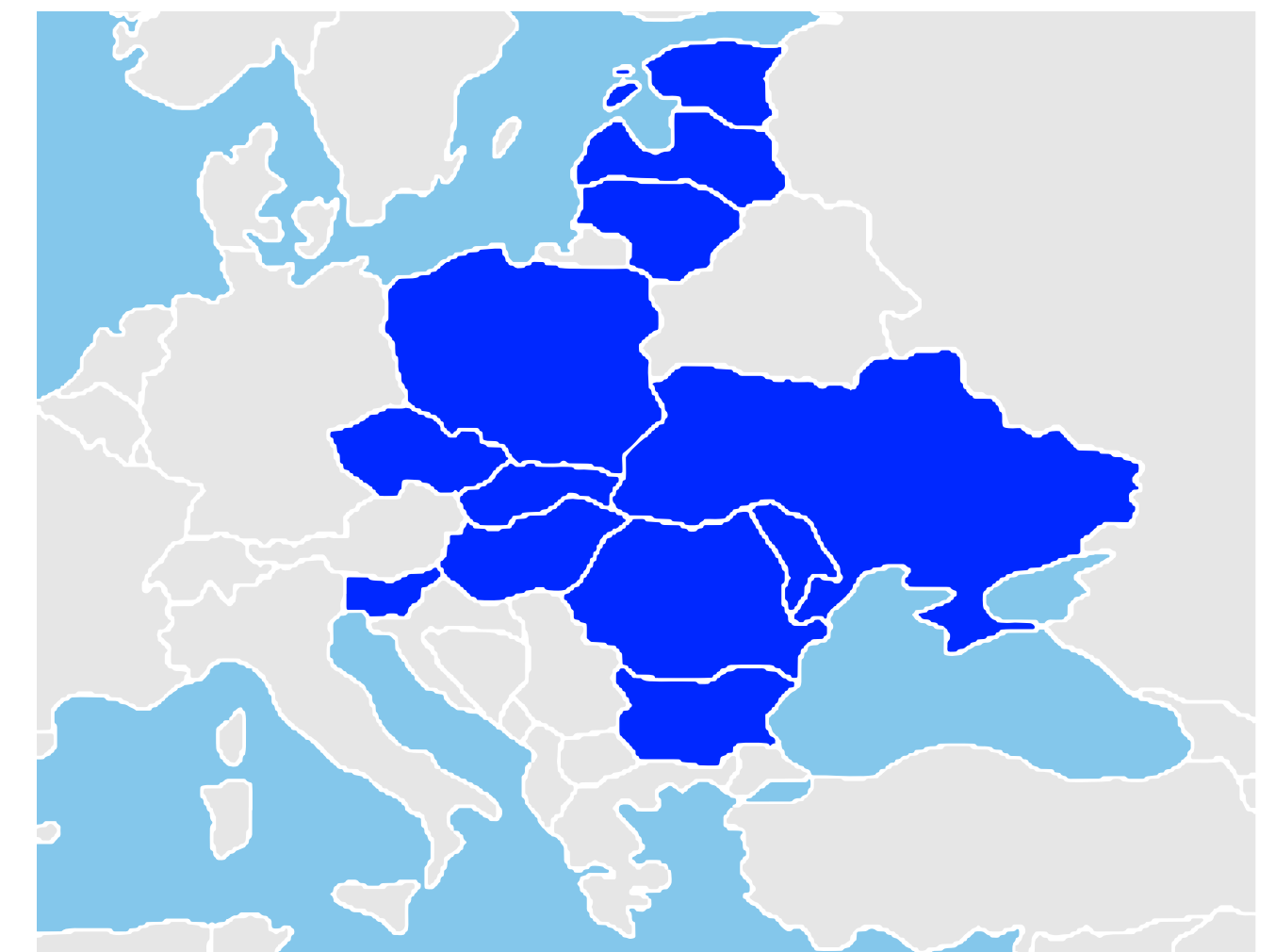
Up next →

Economic outlook into best offshore software development countries in Asia and Central and Eastern Europe

Economic outlook into best offshore software development countries in Asia and Central and Eastern Europe

The leading Central and Eastern European software development outsourcing countries overshadow many Asian counterparts in several aspects—these include low corruption rates, ease of doing business, and high English proficiency

Let's compare 12 countries in the CEE and Asia regions and see how they score on major economy indicators:

Country	Ease of doing business 2020	Corruption perceptions index 2019	Global competitiveness index 2019	Digital competitiveness index 2019	English proficiency index 2019
Belarus	#49 | 74.3 | High	#66 | 45	Not classified	Not classified	#47 | 52.39 | Low proficiency
China	#31 | 77.9 | High	#88 | 41	#28 | 73.9 ↑	#22 out of 63 | #18 Knowledge #26 Technology #21 Future readiness	#40 | 53.44 | Moderate proficiency
Hungary	#52 | 73.4 | High	#70 | 44	#47 | 65.1 ↑	#43 out of 63 | #44 Knowledge #36 Technology #57 Future readiness	#15 | 61.86 | High proficiency
India	#63 | 71.0 | High	#80 | 41	#68 | 61.4 ↓	#44 out of 63 | #38 Knowledge #49 Technology #46 Future readiness	#34 | 55.49 | Moderate proficiency
Indonesia	#73 | 69.6 | Medium	#85 | 40	#50 | 64.6 ↓	#56 out of 63 | #56 Knowledge #47 Technology #58 Future readiness	#61 | 50.06 | Low proficiency
Malaysia	#12 | 81.5 | High	#51 | 53	#27 | 74.6 ↑	#26 out of 63 | #19 Knowledge #19 Technology #28 Future readiness	#26 | 58.55 | High proficiency
Philippines	#95 | 62.8 | Medium	#113 | 34	#64 | 61.9 ↓	#55 out of 63 | #51 Knowledge #55 Technology #54 Future readiness	#20 | 60.14 | High
Poland	#40 | 76.4 | High	#41 | 58	#37 | 69.9 ↑	#33 out of 63 | #33 Knowledge #37 Technology #33 Future readiness	#11 | 63.76 | Very high proficiency
Romania	#55 | 73.3 | High	#70 | 44	#59 | 64.4 ↑	#46 out of 63 | #347 Knowledge #45 Technology #51 Future readiness	#16 | 61.36 | High proficiency
Slovak Republic	#45 | 75.6 | High	#59 | 50	#42 | 66.8 ↓	#47 out of 63 | #48 Knowledge #44 Technology #47 Future readiness	#25 | 58.82 | High proficiency
Ukraine	#64 | 70.2 | High	#126 | 30	#85 | 57.0 ↓	#60 out of 63 | #40 Knowledge #61 Technology #62 Future readiness	#49 | 52.13 | Low proficiency
Vietnam	#70 | 69.8 | Medium	#96 | 37	Not classified	Not classified	#52 | 51.57 | Low proficiency

IT Outsourcing and Offshoring:
What Makes Central and Eastern Europe Unique?
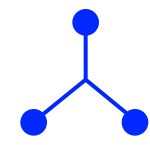
Convenient location

A trade gateway into the European Union, CEE countries hold an important advantage over many other locations because they are 'close enough, yet far enough.'

Poland, Ukraine, or Belarus are lower-cost economies, providing West-based outsourcers with significant cost benefits. At the same time, their geographical proximity to Western European countries facilitates project management, enables instant collaboration, and makes for fast and convenient travel (without visas, in most cases).

As a centralized hub within the Eurasia area, the CEE region can cover any market in the world. Warsaw, Minsk, or Kyiv are maximum two hours ahead of their Europe-based clients, and six-seven hours ahead of the East Coast. That is still manageable when compared to India - 10 hours ahead of New York.

West Coast
9-10 hours

UK
1-2 hours

East Coast
6-7 hours

Singapore
6-7 hours

Sidney
9-10 hours
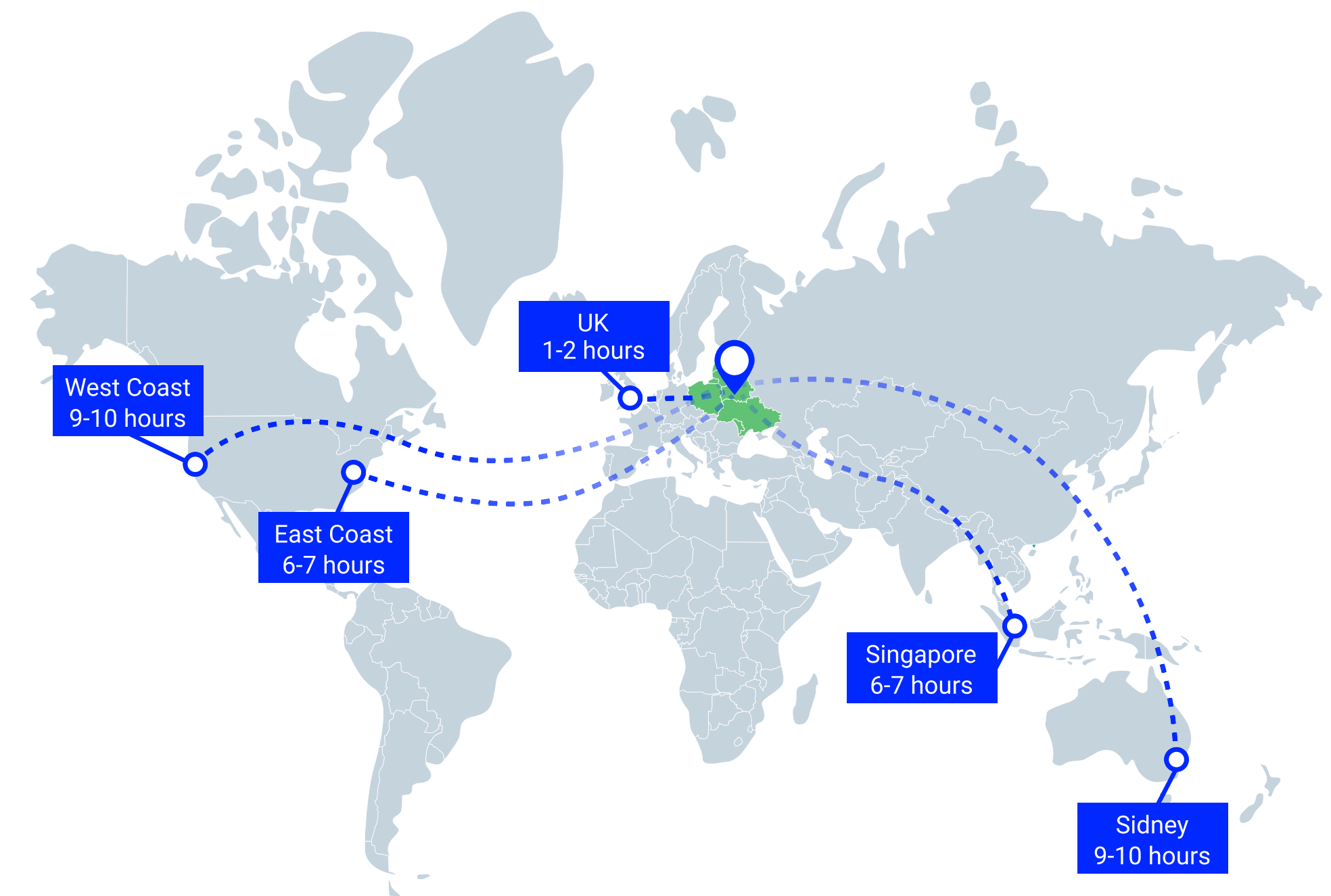
CEE Region - Time Zones Differences

The location of CEE-based software development companies becomes strategic when we consider another crucial consideration – **cybersecurity**.

Companies seeking to hire offshore developers should pay close attention to the cyber risk profile of the outsourcing/offshoring countries. According to the Global Cybersecurity Exposure Index, Europe has the lowest exposure score per state, and 70.73% of European countries are classified as a low and very low exposure risk.

- Poland ranks the highest out of the CEE countries featured in our report (16th place in Europe, 22nd globally)

- Belarus lags behind other countries (33rd in Europe, 58th globally)

- India ranks 55th globally, sitting in the middle of the exposure index and slightly leaning towards high exposure.

- The Philippines and Indonesia are considered at high-risk of data exposure (60th and 59th places)

- Ranked 41st, China shows moderate exposure to cyberthreats

Finally, it's worth mentioning that in the case of Poland and Romania, their EU membership delivers an additional layer of protection to outsourcers, one that cannot be provided by other outsourcing destinations.

The EU has standardized Intellectual Property laws to make them more effective in reinforcing the protection of intangible assets. Under the European Union legislation, computer programs are legally protected against unauthorized reproduction. Furthermore, the European authorities have established several directives for personal and general data protection to reduce data breaches and guarantee appropriate protection of individuals.

Apart from these overarching laws, the EU has several sector-specific and industry-specific standards in place that need to be met by service providers and outsourcers to ensure the highest standard of services. These include, e.g., the quality management standard ISO 9001:2015, the corporate social responsibility standard (which particularly pertains to the IT and IT-enabled services), or the ETSI ITS 103 645 standard for IoT-related services.

To find out more about the market regulations in the EU market check this link.

All of these standards and provisions are meant to ensure the high quality of services. They also play a significant role in protecting your company, assets, and intellectual property from fraud and theft.

"*CEE cities are attractively positioned in a world of heightened global uncertainty. Cities like Prague and Budapest are well-positioned to support the growth of the new economy, given the entrepreneurial environment, top research universities, and a highly-skilled workforce.*"

Andrew C. Angeli
Head of EMEA Strategy & Research, CBRE Global Investors

[Source]
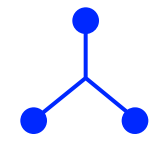
Competitive rates

Without any doubt, IT outsourcing in Central and Eastern Europe costs more than hiring offshore developers from the Philippines or Indonesia. Even though the cost of living in Ukraine, Poland, Belarus, or Romania is much below the Western average, they are still higher than those in most Asian IT offshoring destinations.

According to CEIC data, the average Polish annual household income per capita reached **$5,685** in December last year. For Belarus, it was significantly lower at **$4,145**. Still, it's almost double the Vietnam rate (**$2,235**) and triple the India rate (**$1,670**).

When we look at the pay scale, a Polish senior software developer's average monthly salary stands at ca. **$3,600**. For Software Architect, the rate would be similar. A Network Admin gets **$1,900** per month on average, while an SAP Consultant - **$3,000**. Experienced iOS Developers earn slightly less – **$2,800** on average, the same as Certified Scrum Masters. Full-time Software Testers typically get around **$1,650** (all data based on a Pracuj.pl survey).

Let's compare that with average US salaries for the same positions (source: PayScale):

- Senior Software Developer: **$9,810** (over 2.7 times more than in Poland)
- Software Architect: **$10,409** (nearly 3 times more)
- Network Admin: **$4,999** (2.6 times more)
- SAP Consultant: **$7,080** (2.3 times more)
- iOS Developer: **$7,277** (2.6 times more)
- Certified Scrum Master: **$7,612** (2.7 times more)
- Software Tester: **$4,716** (2.9 times more)

In this context, it's fair to say that by outsourcing IT-related work to CEE-based software teams, a US or UK company can save up to 200% on each payroll.

Note that when we consider the entire CEE region, the Polish rates belong to the top tier. If a client prioritizes cost-cutting over other benefits, procuring Ukrainian or Romanian developers will usually generate even more savings (see individual countries' profiles for more details on salaries in IT).

"My experience of doing business and investing in the CEE region has been hugely positive. A major draw to the region is the language capabilities that workers there offer. Industry's close connection with many third-level institutions also makes talent acquisition a lot less of a challenge than in other regions."

Dan Kiely
Founder & CEO at Voxpro
[Source]

CEE

Av. monthly salary

Certified Scrum Master	iOS Developer	SAP Consultant	Network Admin	Software Architect	Senior Software Developer
$2,800	$2,800	$3,080	$1,920	$3,600	$3,630

Freelance hourly rate

Certified Scrum Master	iOS Developer	SAP Consultant	Network Admin	Software Architect	Senior Software Developer
$30	$40	$45	$30	$65	$60

US

Av. monthly salary

Certified Scrum Master	iOS Developer	SAP Consultant	Network Admin	Software Architect	Senior Software Developer
$7,655	$7,277	$7,050	$5,000	$10,450	$9,810

Freelance hourly rate

Certified Scrum Master	iOS Developer	SAP Consultant	Network Admin	Software Architect	Senior Software Developer
$100	$130	$110	$100	$150	$140

UK

Av. monthly salary

Certified Scrum Master	iOS Developer	SAP Consultant	Network Admin	Software Architect	Senior Software Developer
$5,150	$4,000	$5,200	$3,000	$6,900	$6,000

Freelance hourly rate

Certified Scrum Master	iOS Developer	SAP Consultant	Network Admin	Software Architect	Senior Software Developer
$90	$80	$100	$60	$120	$110

[Sources: Talent Salary Guide, Payscale & Pracuj.pl]

Cultural affinity

[When cultural differences show up](#), they affect every aspect of the collaboration between the outsourcer and provider, from ambiguous communication to conflicts in behavior. That's why, while often underestimated, **cultural compatibility is fundamental for the smooth delivery of outsourcing services.**

Let's take a typical example of high context vs. low context cultures. Providers from high-context cultures, such as China, Mexico, or Russia, tend to rely more on less verbal, nuanced, and implicit information based on a shared context and common background. They will be more likely to assume that the speaker knows the context and make decisions based on their relationship with others.

On the other end of the spectrum are low-context cultures, the representatives of which tend to be rule-oriented, task-centered, and relying on codified, explicit, and public knowledge, which is eagerly shared. When the two worlds collide, this may lead to disagreement and confusion. And this is just one of many layers of cultural differences that may impact international business.

Other culturally-determined areas that may cause friction include: individualist v. collectivist culture, high v. low power distance, the perception of time (critical when it comes to establishing deadlines!), or level of assertiveness.

Power Distance

Individualism

Masculinity

Uncertainty Avoidance

Long Term Orientation

Indulgence
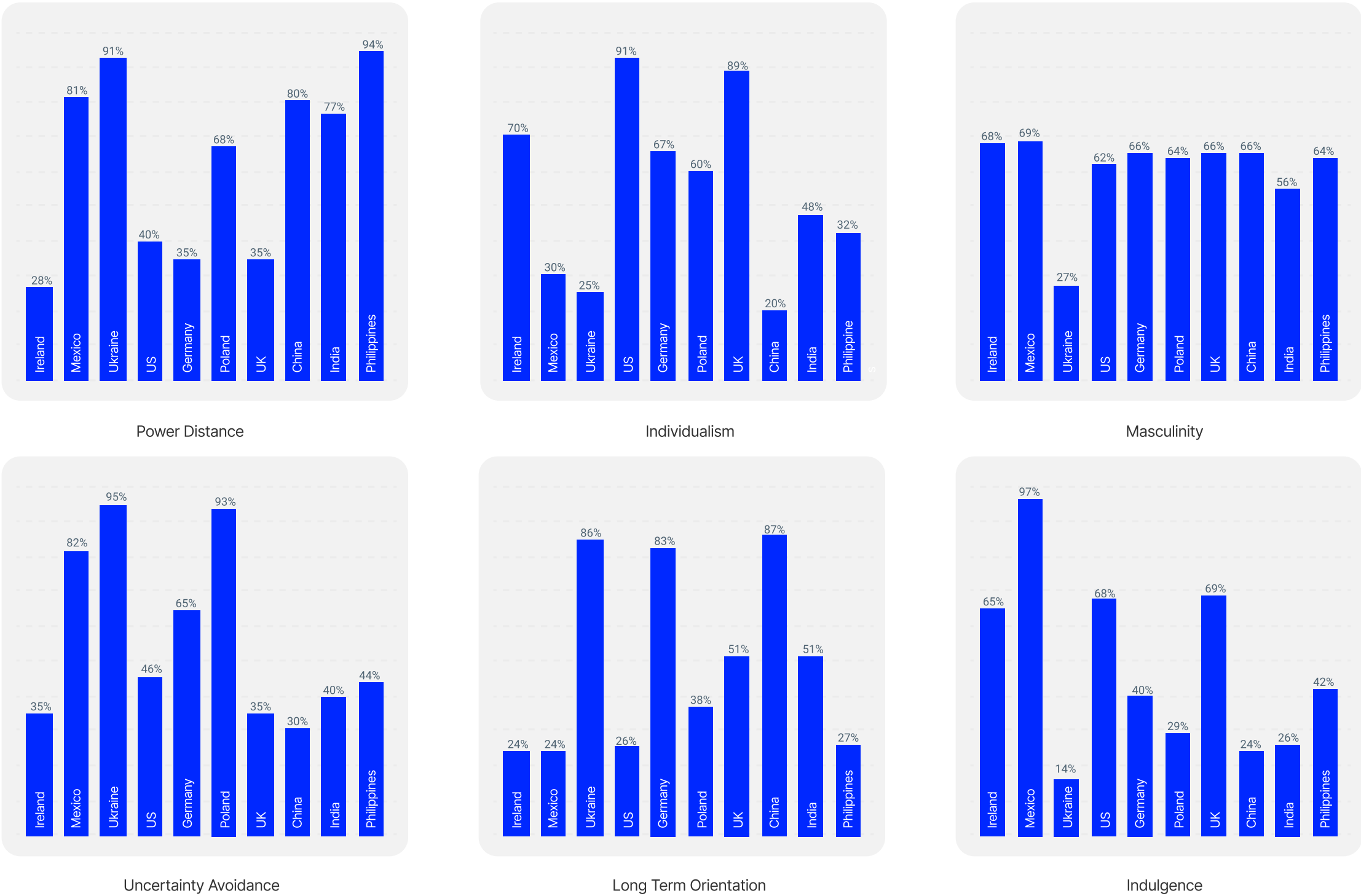
[Source: Hofstede Insights]

The cultural gap between outsourcers and providers can narrow if enough conscious effort and time are spent addressing the critical differences. However, the higher the cultural compatibility in outsourcing, the less friction in the process.

Overall, CEE countries share a majority of business cultural norms with the so-called 'Western world.' This pertains to time-keeping, business etiquette, work ethics, the hierarchical system, or detail orientation, among other factors. Of course, country-specific variations occur. Some of the CEE nations may be more outspoken and straightforward, while others – less direct. However, all things considered, **because of contiguous histories and shared heritage, Ukraine, Poland, or Belarus remain highly culturally compatible with outsourcing and offshoring countries.**

English proficiency

Since we're at culture, as its integral component, language underpins an effective working relationship. As things get lost in translation, delays, errors, and missed deadlines occur. Frequent misunderstandings substantially affect the time, cost, and quality of project delivery.

That's why language proficiency plays a key role when hiring offshore developers. **Working with IT services providers who are well-versed in English removes barriers in understanding and allows a fluid workflow.**

Let's review some hard facts and look at the leading outsourcing destinations' results in the English Proficiency Index.

"Unlike other outsourcing destinations, Eastern Europe is associated with top quality services backed by highly experienced technical people at a reasonable cost."

Fatmir Hyseni
CMO at Kosbit
[Source]

Country	Rank	Score	Proficiency Band
Poland	11	63.76	Very High Proficiency
Hungary	15	61.86	High Proficiency
Romania	16	61.36	High Proficiency
Philippines	20	60.14	High Proficiency
Czech Republic	23	59.30	High Proficiency
Slovakia	25	58.82	High Proficiency
Malaysia	26	58.55	High Proficiency
India	34	55.49	Moderate Proficiency
China	40	53.44	Moderate Proficiency
Belarus	48	52.23	Low Proficiency
Ukraine	49	52.13	Low Proficiency
Vietnam	52	51.57	Low Proficiency
Indonesia	61	50.06	Low Proficiency
Mexico	67	48.99	Low Proficiency

A constant supply of tech talent

The demand curve for software development-related talent is continuously sloping upwards, despite the tough times on the job market. In the USA, employment in the IT sector is predicted to grow by 22% by 2029, considerably faster than in other occupations.

The economic slowdown brought about by the COVID-19 pandemic has forced many companies to accelerate their digital transformation efforts. Data and software development roles saw an increase in volume, even though layoffs have impacted other professions.

The ICT sector emerges as a job market haven. Roles such as data analyst, software engineer, or web developer remain in high demand. CEE region provides a still largely untapped source of highly-skilled professionals who can help companies fill in the recruitment void.

In the UK, the demand for software developers rose by 8% post-COVID-19 outbreak.

[Source: Randstad UK]

The reason why CEE countries can boast a steady supply of technical talent stems from the region's strong technical education and a robust knowledge transfer infrastructure:

Drawing on these strengths, CEE countries have developed a vibrant digital ecosystem for tech talent and entrepreneurship, becoming a birthplace of numerous technology startups and innovative software development companies.

- **Many universities in the region are among the oldest in Europe,** running continuously since the Middle Ages. Examples: Charles University in Prague, founded in 1348, or the Jagiellonian University in Krakow, set up in 1364.

- In some CEE countries, including Poland or Hungary, **public universities do not charge tuition. This helps ensure equal access to tertiary education.** The most talented students qualify for grants and scholarships so they can support themselves as they study.

- The education system in the CEE region has been historically marked by a **pronounced emphasis on science, technology, mathematics, and ICT.** Before the transformation, technical education was regarded as an essential basis for reinforcing the communist ideology, underlying the rapid development of new industries. The Soviet times are fortunately gone, but a strong focus on technologically orientated education still prevails, reflected in the vast number of technical universities in these countries.

- Policymakers are actively searching for new ways to promote the understanding of programming and robotics in little children. This effort pays off; **Poland ranks 4th in the world for [the highest share of developers who started coding at the age of 5](#)** (!). **Romania and Ukraine are listed in the top 10.** Young Romanians, Poles, and Ukrainians excel in international mathematics and programming competitions such as International Olympiad in Informatics.

- **CEE countries stand out for strong network and mobile coverage and upgraded digital infrastructure.** As [McKinsey's report](#) points out, the fact that technology lock-in in these countries is much milder than in Northern and Western Europe allows companies in the region to be more agile, efficient, and innovative.

"*Today, global sourcing has achieved a great range of outsourcing services from EE countries, especially in or based on IT, with reasonable pricing, great expertise, cultural proximity, etc.*"

Sergei Makendonski
Regional Director at Forrester Research

[**Source**]

IT Outsourcing and Offshoring:

Belarus

Key Facts

- **Size:** 207,600 sq km, ranked 87th in the world by area (comparable to Kansas)

- **Population:** 9.48 million, ranked 94th in the world by population

- **Time zone:** (GMT+3)

- **Government:** unitary presidential republic, although considered a dictatorship by many states; the US and EU do not recognize the current president as legitimate

- **Official languages:** Belarusian, Russian

- **GDP per capita, PPP:** $19,943 (2019 est.) [3]

- **Human Development Index:** 0.817 (ranked 50th | very high) [4]

- **Currency:** the new Belarusian ruble (BYN)

- **Economy:** market socialism

- **Main industries:** metallurgy, mechanical engineering, chemical and petrochemical, light industry, food industry

- **Major urban areas (over 500K people):** Minsk, Gomel

- **Ease of doing business:** ranked 49th, DB score - 74.3 [5]

- **Digital competitiveness index:** [6] Not classified

- **Corruption perception index:** [7] #66 out of 198, with signs of improvement

- **The WE Forum Global Competitiveness Report:** [8] Not classified

- **A.T. Kearney Global Services Location Index:** [9] not included

- **Universities:** 42 universities, two listed by QS World University Rankings® 2020 (ranked 351 and >800)

- **The largest IT companies:** Itransition, Iflexion, ScienceSoft, N-iX, Wargaming.net

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[2] All geopolitical data taken from the CIA's World Factbook | Belarus's page last updated on October 1st, 2020 | Poland's page last updated on September 24th, 2020 | Romania's page last updated on October 5th, 2020 | Ukraine's page last updated on September 25th, 2020

[3] All GDP data taken from the World Development Indicators database, World Bank: https://data.worldbank.org/country/

[4] According to the United Nations' 2019 Human Development Index Ranking: http://hdr.undp.org/en/content/2019-human-development-index-ranking

[5] Doing Business Report 2020 by World Bank: http://documents1.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf

[6] The IMD World Digital Competitiveness Ranking 2019: https://www.imd.org/wcc/world-competitiveness-center-rankings/world-digital-competitiveness-rankings-2019/

[7] Transparency International: https://www.transparency.org/en/cpi/2019/results/table

[8] 2019 Global Competitiveness Report by WEF: http://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf

[9] https://www.kearney.com/documents/20152/4977724/Digital+resonance+the+new+factor+influencing+location+attractiveness.pdf/7a39643a-dc22-87f5-936b-5e734999f57d?t=1581025251793

IT outsourcing in Belarus at a glance

Considering that 60% of its IT market is external or outsourced, Belarus has a strong reputation as a reliable IT outsourcing destination. Belarus's robust IT sector is believed to be growing four to five times faster than in other countries. Government-led initiatives such as public subsidies, tax incentives, and free economic zones for IT & tech companies encourage establishing private sector enterprises (see Deloitte report on Belarus for more details on this).

However, the domination of outsourcing in the IT services delivery is both boon and bane for the local IT market (and outsourcers). On the one hand, outsourcing skills in Belarus are readily available, allowing outsourcers for fast rollout and scaling of their software design, development, and testing teams. On the other, the overwhelming volume of outsourcing work may be at the expense of innovation. After all, most engineers in Belarus contribute to a third party's intellectual property.

Moreover, due to its compact size, Belarus may offer limited choice regarding experts well-versed in niche technologies (such as Go, TypeScript, or Rust) or combining varied skills (e.g., data analytics + programming). Instead, it has a vast pool of experienced, affordable IT professionals covering more popular languages and services.

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[10] https://minskdialogue.by/en/research/memorable-notes/how-can-belarus-s-it-sector-impact-its-international-standing#

[11] According to the EF English Proficiency Index: https://www.ef.com/wwen/epi/regions/europe/

[11] https://stats.ioinformatics.org/countries/

IT outsourcing Belarus:
average rates

- **A Junior Software Developer earns ca. $900/month (gross) on average**

- **A Senior Software Developer typically gets $2,600+/month (gross)**

- **An average salary of a Development Lead is about $3,600+/month**

- **The rates in Belarus sit in the mid-range compared to other CEE countries**

- **They are slightly above the Ukrainian and draw nearer the Polish rates**

[Source: IT Outsourcing Review]

IT outsourcing Belarus:
average rates

The high level of entrepreneurship in Belarus and its remarkable success in IT offshoring may be somewhat surprising, considering its political unrest. Belarusian authorities take definite actions to stimulate market growth in the IT sector. Yet, the widespread control over entrepreneurs comes with its share of risks, especially if we consider Lukashenko's inclinations towards dictatorship and his close ties with Moscow.

Belarusians are pursuing the opening towards the West. However, it seems unlikely that Russia will let go of its influences any time soon. After the heavily disputed results of the presidential election in 2020 (which haven't been recognized by most global leaders, including the European Parliament), mass protests erupted throughout the country. Since then, government-imposed connectivity and cellular service outages have been periodically disrupting work for thousands of digital workers, affecting their workflows and impacting service delivery.

Reacting to these events, IT specialists joined grassroots movements, and thousands of them have even signed an open letter calling for re-elections. Following the country's alarming situation and a shattered business climate, analysts anticipate a mass exodus of Belarusian IT workers abroad unless anything changes in the next few months.

The transition is already happening, with a growing number of dev shops and tech enterprises threatening to halt their investment plans and move to other countries. In August 2020, the dev.by website informed about 12 IT companies transferring employees abroad, 59 pursuing partial relocation, and 112 considering their options.

Investing in the Belarusian IT market

Software is the number one Belarusian export to the USA, comprising over one-third of its total exports. Its value in 2019 was estimated at ca. $2 billion.

According to the Ministry of Economy, about 15,000 Belarusian IT specialists are permanently involved in software export, carrying out projects for an international client base.

About 30% of Fortune Global companies have outsourced IT work to specialists located in the famous Hi-Tech Park, one of Europe's largest business incubators for IT and home to nearly 500 software & tech companies.
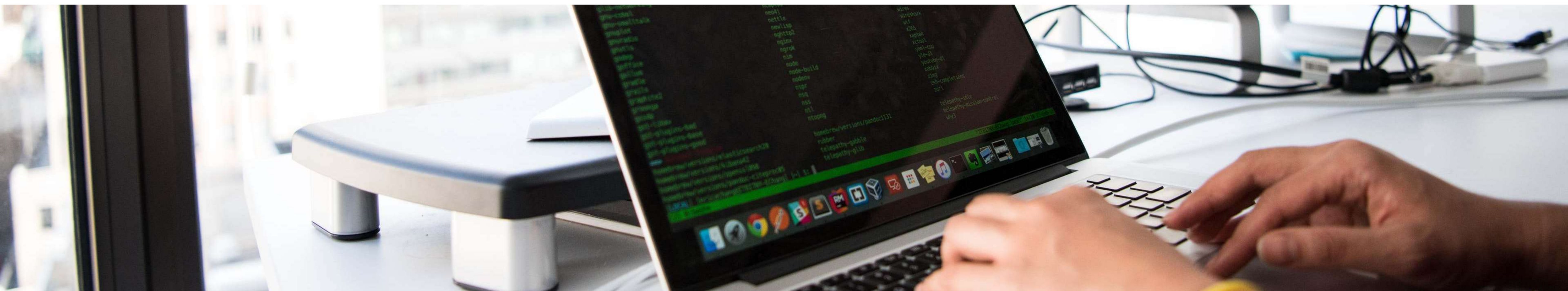
Major foreign investors

The diverse range of globally-recognized consumers of Belarusian software services includes Samsung, Whirlpool, British Telecom, T-Mobile Deutsche Bank, London Stock Exchange, and Deloitte PepsiCo, or Procter & Gamble, among other household names.

The local service companies are also quite successful in raising foreign investment and pursuing acquisitions, especially on the booming game development and mobile apps market:

- In 2016, Facebook bought a Belarusian startup Masquerade, which developed a once-popular face-swapping app MSQRD.

- In 2017, Google acquired a Belarusian AI startup, AI Matter, standing behind a selfie editor app.

- The same year saw Microsoft's investment in a document automation startup, PandaDoc (in 2020, Belarusian authorities raided the company's Minsk office, detaining its head and several employees, after the founders joined the protests against Lukashenko's regime).

However, when we look at foreign companies that decided to open their in-house centers in the country (some examples include Fitbit, Yandex, Netcracker, Viber, and Luware), the list gets remarkably shorter. The business is there, and the capital is flowing, but the country still struggles to convince global tech champions to roll out their local centers despite numerous tax incentives (see on next the page).

Incentives to invest

The reasons may include the Belarusian IT outsourcing market's very nature, heavily prioritizing services export rather than attracting investors to launch regional offices. The state's excessive (and unpredictable) interference with business, high level of corruption, and an ineffective judiciary don't help, either.

However, many of these incentives are only available to Belarusian legal entities and don't apply to a representative office. Therefore, the subsidiary is the most widespread legal form for foreign investors in Belarus.

→ More information about tax incentives and exemptions in Belarus and the legal requirements for setting up a business in the country is available in the official state information resources, Pravo.by and Belarus.by.

- Six economic zones with a special legal regime facilitating carrying out economic activity across specified industries, including tech:
  - 0% corporate income tax for 5 years[13];
  - 10% VAT;
- Additionally, IT and tech companies can optimize costs and tax payments by setting up offices in the Hi-Tech Park, where preferential tax treatment also applies to the residents:
  - 0% corporate income tax for 15 years;
  - 0% VAT;
- To attract capital to disadvantaged locations, the authorities have also introduced generous tax benefits for organizations operating in small cities and rural areas: 0% corporate income tax for 7 years and 0% VAT for 5 years.
- The Belarusian government has also adopted a series of international agreements and state laws to regulate and secure foreign investors' rights in the country. These include, e.g., the freedom to repatriate profits outside of Belarus[14].

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[13] All tax information taken from https://zubrcapital.com/blog/investicii-v-belarusi

[14] According to https://www.bnt.eu/en/news/legal-news/3126-how-can-a-foreign-it-company-get-into-the-high-tech-park-htp-in-belarus?layout=bnt:news.

Higher education in Belarus

According to the State University website, the Belarusian higher education (HE) system currently comprises 42 state and 15 non-state HE institutions. Most of them are located in the capital, Minsk, with several Grodno, Brest, Vitebsk, Gomel, and Mogilev facilities.

- With nearly 250,000 students, the country has one of the highest student-to-population ratios in Europe.
- Belarus also claims one of the world's highest literacy levels, at the rate of 99.8% among the youngest generations (91% is the global average for this age group).
- Public higher education is free for Belarusians, with grants and scholarships available for underprivileged and gifted students.
- The courses usually take 4-6 years, with a breakdown into Bachelor's and Master's degrees. Third-level education is also available.
- The country's first and most prominent university, Belarusian State University, was established in 1919 and opened two years later. It offers various subjects, including Computer Science, Mathematics & Statistics, and Electrical & Electronic Engineering.
- Six Belarusian public universities are specifically dedicated to technical and technological subjects, including Belarusian National Technical University, Belarusian State Technological University, and Belarusian State University of Informatics and Radioelectronics.

Until recently, private HE institutions mainly offered education in humanitarian, social, and economic fields. This primarily resulted from the lack of sufficient budget to invest in adequate research facilities and equipment. Following the increasing demand for science and technology courses, they began expanding their curricula to account for the new trend and ensure a greater alignment between graduates' skills and job market needs.

- Only two Belarusian universities made it to the QS World University Rankings® 2020 (ranked 351 and >800).
- International students are allowed to study in Belarus, contingent on obtaining a student visa and paying the tuition fee, typically ranging between $1,000–3,500/year.
- The majority of courses are taught in Russian and Belarusian, with rare English-taught courses, which are usually more expensive.

Belarus' startup ecosystem

The Belarusian startup scene has been showing remarkable growth in recent years, largely spurred by the 2017 Decree on developing the digital economy. The document created advantageous conditions for product-based companies. It also provided for the further development of the famous Hi-Tech Park. The technology hub was established in 2005 to nurture the growth of local tech enterprises and woo foreign investors with tax exemptions and incentives.

The strategy has pulled off. Since the law's establishment, entrepreneurial projects have been booming in the country, with brand new startups launching every minute. It's estimated that over the last five years, Belarusian startups raised nearly $250 billion from venture deals, with a record of $77 billion raised in 2018 alone.

However, following the stormy events of 2020, the local startup scene has been losing its momentum lately. Currently, Belarus ranks 63rd in 2020 Startup Blink's Global Startup Ecosystem Report, down by eight spots compared to 2019. Minsk occupies 63rd position in the cities ranking – a fall by 16 locations from 2019.

Key startup cities

→ Minsk, Brest, Gomel-Raton, Vitebsk, Mogilev

Startup ecosystem in numbers

- 178 startups
- Hi-Tech Park, ca. 10 Special Economic Zones/Special Technology Parks
- Probably no more than ten local VCs, including Angels Band, Hackspace Capital, Quattro Capital, Zubr Capital, Haxus, and Bulba Ventures
- Just a few incubator and accelerator programs
- 50,000-100,000 IT specialists (data varies across resources)

Focus industries

→ AI/ML, AR/VR, Medtech, IoT, SaaS
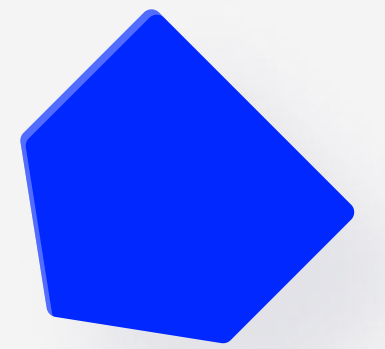
Success stories

- **Wargaming** – the world-renowned game developer behind "The World of Tanks" was born in Minsk in 1998. By now, it has exploded into a global enterprise with nearly 1,800 employees located in over 20 offices worldwide. Over the years, the company has completed four acquisitions, undergone ten rounds of investments, and moved its headquarters to Cyprus. The current valuation of the business stands at $1.5 billion.

- **FriendlyData** – a natural language search interface for business databases. After securing a series of funding from local investors, the startup was bought in 2018 by an American software vendor ServiceNow for an undisclosed amount.

- **Kino-mo (now HYPERVSN)** – a breakthrough hardware-enabled technology platform enabling 3D holographic content creation obtained the total funding of $11.5 million in three rounds.

- **Flo** – founded in 2015 in Belarus, Flo Health is a smart period tracker that became the most frequently downloaded female health app globally. The ingenious product brought its creators $25.5 million in four funding rounds.

- **Banuba** – the company behind AR mobile experiences, raised $12 million from local and Russian investors reaching the valuation of $100 million after the second round.

Challenges

- Immature startup ecosystem (nearly 60% of startups "aged" 1-3 years)

- A low number of acceleration programs and limited access to mentoring

- Unfavorable legal environment hindering cooperation with foreign investors
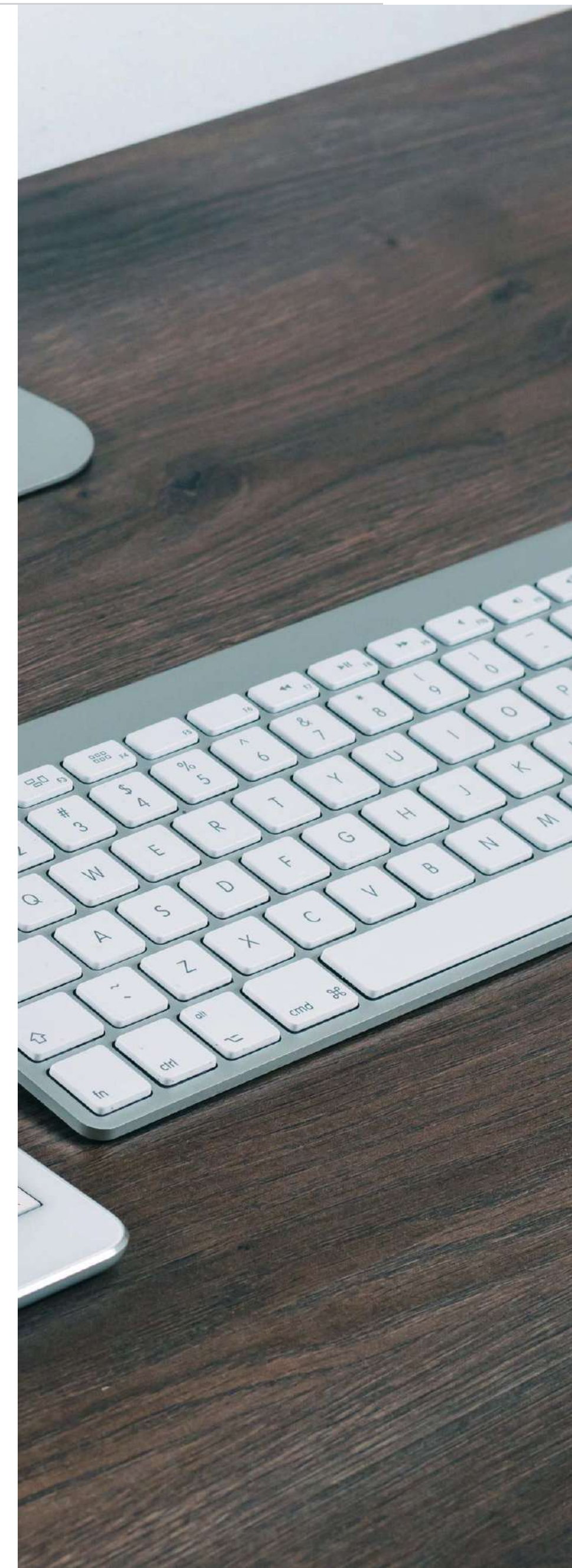
Pros of software development outsourcing in Belarus

+ [Over 60% of Belarusian IT professionals](#) involved in outsourcing

+ One of the top 30 IT outsourcing destinations in the world

+ Government support for IT businesses and the private sector

+ A large presence of multinational IT companies

+ The extraordinary growth of the IT services market

+ Plenty of special zones offering tremendous tax incentives for investors

+ Competitive rates between $20-40/h, which is on the CEE's low end

Cons of software development outsourcing in Belarus

- Unstable political situation threatening international relations

- Low English proficiency index core

- Monopolist control of the state over the economy (**75% of property owned by the state**)

- A relatively low number of IT specialists with niche and complex skills

- Reoccurring (and random) internet and cellular communication shutdowns

- Strong dependence on the Russian government

- Intricate and less common legislative

- Visas apply for business and leisure travel

IT Outsourcing and Offshoring:

Poland

Key Facts

- **Size:** 312,685 sq km, ranked 69th in the world by area (comparable to New Mexico)
- **Population:** 38.28 million, ranked 37th in the world by population
- **Time zone:** (GMT+2)
- **Government:** parliamentary republic
- **Official languages:** Polish
- **GDP per capita, PPP:** $34,217 (2019 est.)
- **Human Development Index:** 0.872 (ranked 32nd | very high)
- **Currency:** Polish złoty (PLN)
- **Economy:** mixed economy, one of the fastest-growing economy in Europe
- **Main industries:** agriculture, iron and steel, coal mining, automotive, shipbuilding, metallurgy, food production and processing, tourism
- **Major urban areas (over 500K people):** Warsaw, Krakow, Lodz, Wroclaw, Poznan

- **Ease of doing business:** ranked 40th, DB score - 76.4
- **Digital competitiveness index:** #33 out of 63 | #33 Knowledge #37 Technology #33 Future readiness
- **Corruption perception index:** 41/198 (up by 5 positions since 2018)
- **The WE Forum Global Competitiveness Report:** #37, with a year to ear improvement in score
- **A.T. Kearney Global Services Location Index:** 24th
- **Universities:** 500 universities, sixteen listed by QS World University Rankings® 2020 (two ranked 338 and 349, the rest >500)
- **The largest IT companies:** Asseco, Comarch, Integrated Solutions, NTT System, Ericpol, CD Projekt, Sygnity, Transition Technologies, J-Labs
- **IT industry market share:** 8% of GDP, 2.7% share in employment, 60,000 IT companies, ca. 430,000 IT specialists - incl. 250,000 programmers [15]

- **EF English Proficiency Index:** 63.76 *(above average)
- **International Olympiad in Informatics:** 116 medals, 40 gold, 44 silver, 32 bronze

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[15] https://ict.trade.gov.pl/pl/polski-sektor-ict/305563,raport-nt-sektora-it-ict-w-polsce.html

IT outsourcing in Poland at a glance

Poland's central location on the European map makes it a strategic gateway between East and West, always within easy reach. The country serves as a role model for successful transformation, evolving from a communist state into one of Europe's largest economies in the span of merely three decades. Since joining the EU in 2004, it has experienced unprecedented economic growth, becoming the first former Soviet bloc country to reach a developed market.

The Polish software development services market is also thriving, representing about 8% of the country's GDP. Poland has the largest IT specialists pool in the entire CEE region. Its broad ecosystem of innovative startups, entrepreneurs, and enterprises, combined with robust digital infrastructure, encouraged numerous global corporations to move their operations to Warsaw, Krakow, Katowice, Wroclaw, and other outsourcing hubs.
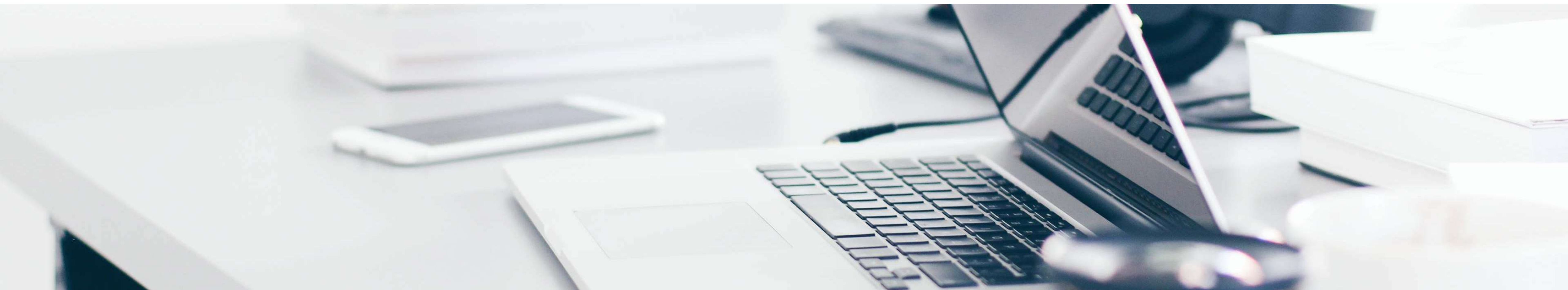
The Polish IT sector orientates strongly towards international projects.

[34% of half a million IT experts](#) work for companies with the Polish capital, while foreign organizations employ the remaining 66%. IT services account for one-third of all Polish services exports to the USA

These numbers shouldn't be surprising considering the high profitability of foreign investments. According to [a joint report by KPMG and the American Chamber of Commerce](#), "every dollar invested in Poland by American companies creates 50% more value than other foreign investments."

Every dollar invested in Poland by American companies creates 50% more value than other foreign investments.

The interest of multinational tech corporations in the Polish IT market is evident.

And it is easy to account for. Poland consistently ranks as one of the **top three countries with the world's best programmers**. Polish software developers top the charts in Java development and score second to fifth in Python, Ruby, Shell, and algorithms (source: HackerRank).

If we look at the 2017 Digital Evolution Index (the latest available), we can see Poland among digital innovation leaders. In 2018, the analysts estimated the Polish IT market's turnover to be $11.5 billion. The IT market is expected to amount to approximately $12.4 billion by 2021. The category includes the segments of IT equipment, software, and IT services.

The most sought after software languages on the Polish market include Javascript (28%), Java (20%), Python (16%), TypeScript (8%), PHP (8%), and C# (7%), followed by Kotlin, Swift, Scala, and Ruby (Statista).

Plotting the Digital Evolution Index: where the digital economy is moving the fastest, and where it's in trouble.

How countries scored across four drivers of the digital revolution index: supply conditions, demand conditions, institutional environment and innovation & change.
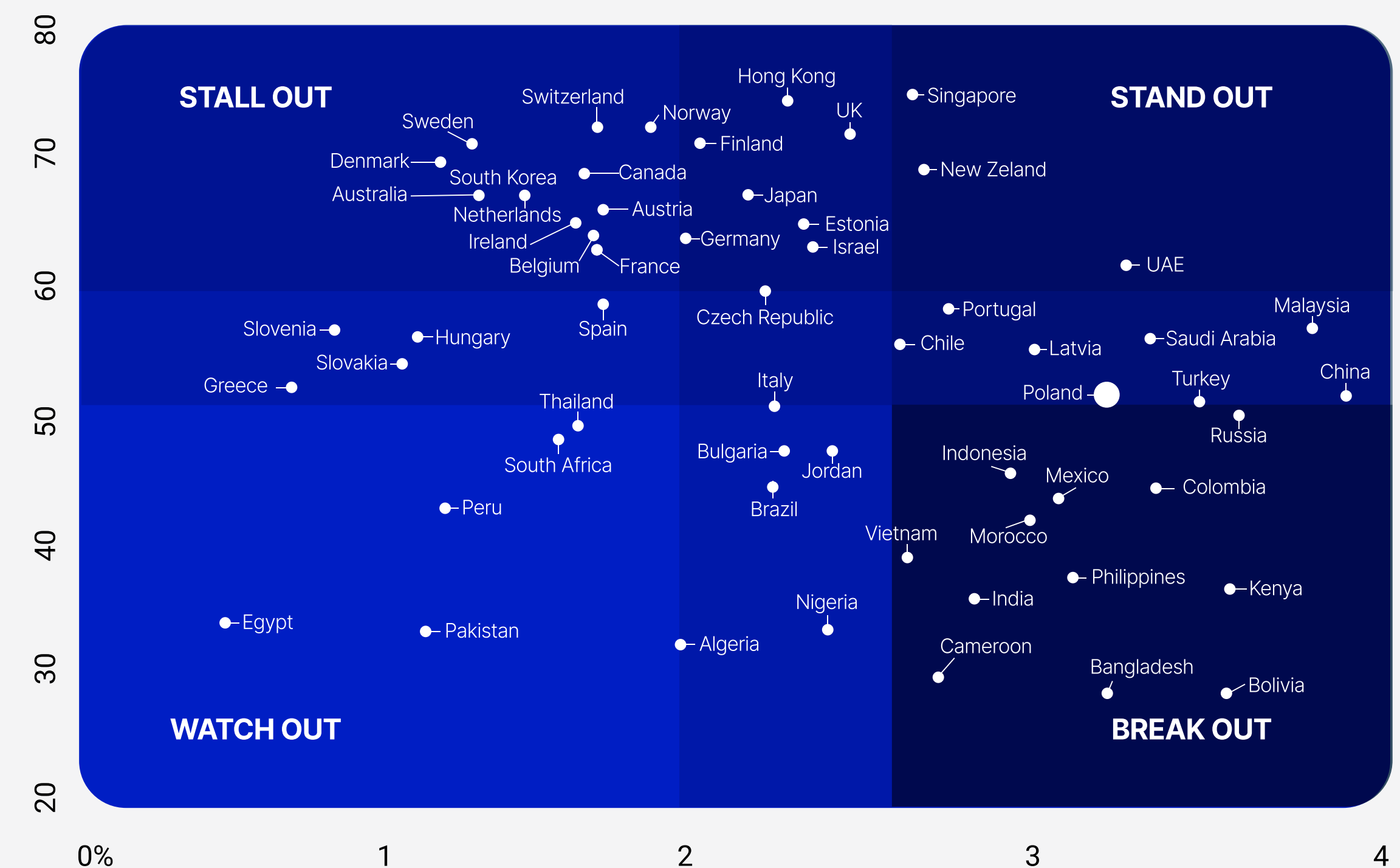
[source: Digital Planet Report]

Labor cost is likely the main concern for companies considering hiring offshore software developers from Poland. With quality comes the price. And obtaining services in a country that offers the largest and most diverse talent pool,

the most reliable infrastructure, adherence to EU standards in IP protection and data security, and the greatest ease and transparency of doing business, cannot be cheap.

According to annual compensation research by NoFluffJobs, Polish Junior Software Developers earn between $1,000-$1,800 per month, depending on their skills, location, and type of contract. Mid-level experts get between $2,400-$3,700 per month, while seasoned experts earn from $4,200-$5,300. The fields of expertise that offer the best-paid jobs include BI and Big Data Analytics, while those with the lowest pay are UX and Support.

When we compare these rates to the ones in Ukraine or Belarus, it becomes obvious that Polish IT companies compete in outsourcing on expert skills, impeccable work ethic, service reliability, and ease of communication, rather than extremely low prices.
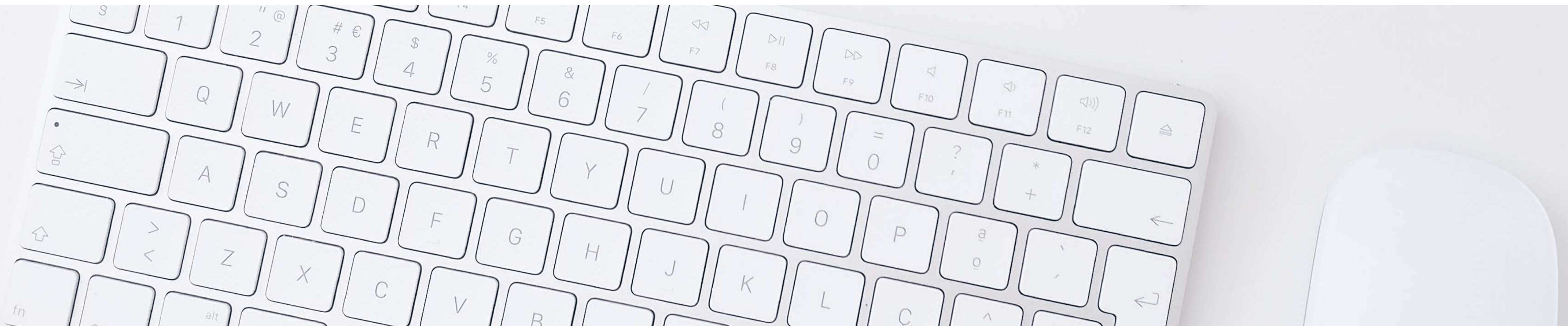
Investing in the Polish IT market

Broadly recognized for modern IT infrastructure, high economic potential, and a well-educated, highly-qualified workforce, Poland is currently the European leader in terms of the size of foreign direct investment, with the IT and tech market largely contributing to its success.

The subsequent years indicate an apparent shift away from outsourcing basic, low-skill installation and support IT tasks to the Polish workforce in favor of delegating entire projects and services to Poland-based outsourced teams. This trend also shows in some of the most recent (and noteworthy) examples of global IT and tech investments.

Major foreign investors

The largest international IT companies operating in the country (by revenue) include Dell EMC, HP Inc, Lenovo, Microsoft, and IBM Polska, followed by other prominent names such as Intel, Apple, Cisco, Oracle, Xerox, Sabre, or Google.

- January 2019 – Uber expanded its operations in Krakow, Poland, to add $3 million to its initial $10.5 million investment in the Polish center of excellence.

- November 2019 – Amazon opened two massive fulfillment centers in Poland, equipped with AI technology. Together, they created over 1,000 new jobs in the roles, including software engineers, IT specialists, and operations managers.

- May 2020 – WordPress confirmed the plans to open a global innovation hub for its WP Engine in Krakow as a part of its international expansion.

- May 2020 – Microsoft announced a huge investment of $1 billion to speed up innovation in the "Polish Digital Valley." The plan envisages opening a new datacenter region in Poland to provide the local companies and government with access to cloud-based services.

- June 2020 – Google followed, confirming even a more impressive investment of $2 billion in its Polish datacenter.

now
500
engineers
6,000 partner companies
Moved to Poland in 1992

now
2000
engineers
800 partner companies
Moved to Poland in 1995

now
9000
engineers
Moved to Poland in 1991

now
2000
engineers
Moved to Poland in 1991

now
2200
engineers
Moved to Poland in 1998

now
300
engineers
Moved to Poland in 2005

now
500
engineers
Moved to Poland in 2012

500
engineers
Moved to Poland in 2016

Incentives to invest

Before 2018, Special Economic Zones (SEZ) were operating in Poland, offering various tax exemptions to attract foreign investors. The 2018 amendment to the fiscal law replaced SEZs, turning the entire country into a special economic zone and making tax incentives available across Poland's territory on publicly and privately owned land[16].

Nearly 100 industrial parks are spread across the country (about two-thirds of them fully operational), offering local and foreign residents exemptions on land, building, and urban planning tax, as well as an exemption for taxes charged for changing land destination.

The new regulations mean that the availability of tax reliefs no longer depends on the location, but it's calculated based on a variety of factors that include:

- The costs of the investment.
- The size of the enterprise.
- The permissible level of the state aid per region.

The period of tax exemption varies from 10-15 years across regions.

[16] Source: https://www.paih.gov.pl/why_poland/Polish_Investment_Zone

Additionally, the Polish regulations provide tax deductions for R&D activities, the scope of which is contingent on the company size and the type of eligible costs. These may fall into one of six categories, including employees' wages and social contributions, expertise, research and insights from scientific units, the costs of obtaining IP protection, etc[17].

Apart from these incentives, in 2019, the Polish government established the Innovation Box scheme. It applies a preferential, 5% tax rate applicable to income derived from IP rights (i.e., among others, author's rights to a computer program or a patent).

More details about Poland's broad range of investment incentives can be found on the Polish Investment & Trade Agency's website and in PWC's Worldwide Tax Summaries.

[17] Based on https://taxsummaries.pwc.com/poland/corporate/tax-credits-and-incentives
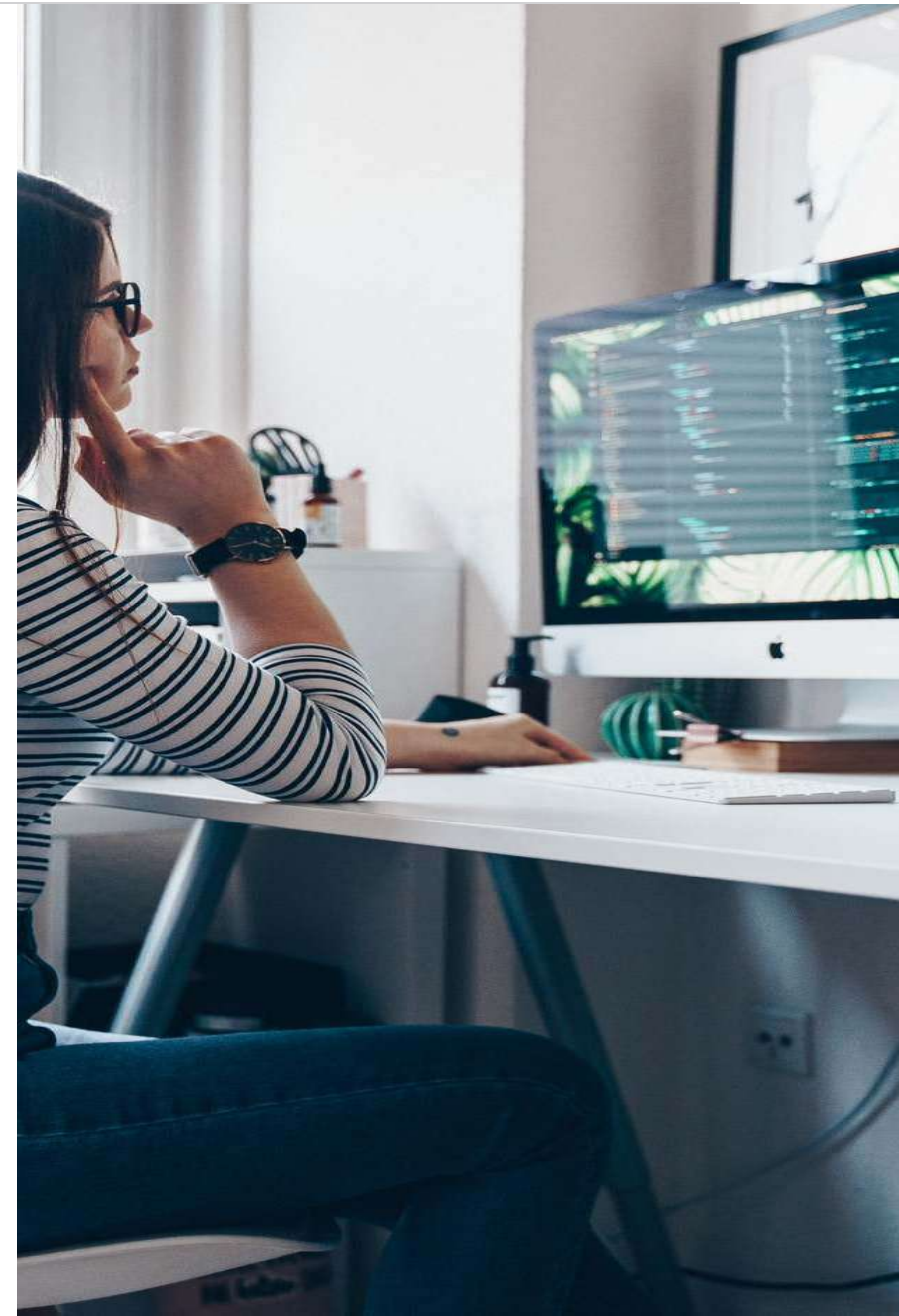
Higher education in Poland

Poland boasts over 400 higher education institutions, including over 40 state-owned universities and nearly 20 public Institutes of Technology (Politechnika).

- The number of students exceeds 1.2 million, i.e., every 30th Pole is currently studying.
- Just as in Belarus's case, the literacy rate in Poland is among the world's highest.
- Similarly, public higher education is free, with a range of university scholarships and grants available.
- The first study cycle comprises three or four years, and upon its completion, the graduate is conferred the Bachelor's Degree (either in Arts or Science). A Master's degree program typically lasts 1.5 to 2 years. Certain fields of studies such as Law, Medicine, Psychology, Acting, or Canon law, offer long-cycle programs, lasting up to 6 years.

- Information technology has been consistently the most popular field of study in the last few years (over 33,000 applicants in 2020), followed by psychology, medicine, and management.
- The history of higher education institutions in the country goes back to the Middle Ages. The Jagiellonian University in Krakow, the first Polish HE institution, was set up as early as 1364, earlier than the University of Vienna, University of Glasgow, or Munich. The oldest technical HE institution in continuous operation is The Warsaw University of Technology, established in 1826.
- Sixteen Polish HE institutions are included on the [QS World University Rankings® 2020](#) list, with the Jagiellonian University occupying the highest position (#338 in the world).
- Poland has become one of the most popular higher education destinations for international students in Europe in recent years. In 2020, [over 85,000 foreigners were studying in Poland](#), and the number is steadily growing.
- The tuition fees for international students are higher than in other countries in the CEE region, ranging from $2,200 up to $6,700 per year, depending on the institution, faculty, and study program. However, EU/EEA students are not required to pay tuition fees for the courses taught in Polish.
- The majority of leading institutions offer courses in English.

Poland's startup ecosystem

In the last few years, Poland has joined the most startup-friendly countries in Europe and beyond. The Polish startup ecosystem ranks 27th in the Global Startup Ecosystem Report 2020 (a fall by seven spots compared to the previous year; still much higher than Romania – 45th, Belarus – 63rd, and above Ukraine – 29th). Several Polish cities such as Warsaw, Krakow, and Wroclaw boast a remarkable concentration of coworking spaces, accelerators, and incubators.

In 2019, the VC funding for Polish startups increased by 800% compared to the previous year, a clear sign of the industry's vigorous growth dynamics. However, several challenges pose a serious threat to this positive trend, which shows the country's notable fall out of the top 20 global startup ecosystems list.

One culprit may be over-involvement in the public sector – bringing about red tape increases and thwarting innovation. Another issue stems from the relative immaturity of the Polish startup scene and its contributors, who often lack entrepreneurial skills and experience and focus solely on technology.

Key startup cities

→ Warsaw, Wroclaw, Krakow, Gdansk, Poznan

Startup ecosystem in numbers

- +3,000 startups
- +130 VC firms (with Smok Ventures, Market One Capital, Innovation NEST, Giza Polish Ventures, Innovation Nest, and Next Road Ventures leading the way)
- +100 incubators and accelerators
- +100 coworking places in Warsaw alone
- + 255,000 software developers

Focus industries

→ Fintech, food tech, AI and RPA, data analytics, SaaS platforms

Success stories

- **DocPlanner** – the leading healthcare booking platform, founded in 2011 in Warsaw. After accumulating $140.5 million in seven funding rounds, today, it's valued between $300-500 million.

- **Brainly** – another massively popular software platform from Poland, Brainly, is the world's largest peer-to-peer learning community. Set up in Krakow in 2009, and valued at $100-200 million, it is now available in nearly 40 countries.

- **Booksy** – now based in San Francisco, Booksy is a Poland-based booking application for the beauty business. It secured $92.2 million of funding across seven rounds from several international investors. Currently, the platform processes over 3.5 million bookings per month, and it's valued at $100-200 million.

- **Kontakt.io** – this Polish startup set up in Krakow is a leading vendor of smart beacons, gateways, and other IoT devices. The volume of VC funding obtained in five rounds is much more modest than in other top Polish startups ($8.3 million). Still, the company delivers some of the most innovative solutions in the indoor navigation space.

- **SALESmanago** – this Krakow-based company offers an AI-based marketing automation platform, competing in over 40 countries with HubSpot, Marketo, or GetResponse. The startup collected $7.7 million over four funding rounds.

- **Synerise** – another startup from Krakow, Synerise, was set up in 2013 to provide clients with data analytics and AI solutions. Since its foundation, the company has raised $19.2 million over nine rounds, achieving the valuation of $85 million and tripling its customer portfolio in 2018.

Challenges

- Still a low share of foreign investors (ca. 4%)

- The gap in leadership and business management experience

- Inward-oriented market with deficient global connections

Pros of software development outsourcing in Poland

+ Over 400,000 IT professionals available on the market

+ Easy access to a versatile set of skills matching specific sectors or projects

+ Robust AI and data science ecosystem to support state-of-the-art technologies

+ IT services are one of the pillars of the robust Polish economy

+ A shared legislative and regulatory framework (EU membership)

+ The highest English proficiency competencies out of all CEE countries

+ Ranked among the world's top 5 countries for software skills

+ Maintains the lowest level of corruption in business among CEE countries

+ Ranks high on the ease of doing business and competitiveness

+ Ease of travel: central location; Ryanair hub, Schengen zone

+ Considerable foreign investment, especially in the IT/tech sector

Cons of software development outsourcing in Poland

— Fierce competition may lead to high turnover in projects

— Potentially higher salaries as compared to other CEE countries
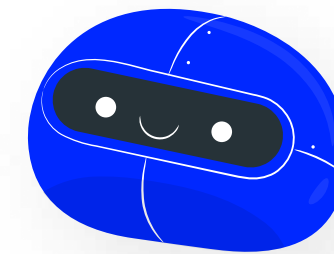
IT Outsourcing and Offshoring:

Romania

Key Facts

- **Size:** 238,391 sq km, ranked 81st in the world by area (comparable to Oregon)
- **Population:** 21.30 million, ranked 59th in the world by population
- **Time zone:** (GMT+3)
- **Government:** unitary semi-presidential republic
- **Official languages:** Romanian
- **GDP per capita, PPP:** $32,297 (2019 est.)
- **Human Development Index:** 0.816 (ranked 52nd | very high)
- **Currency:** Romanian leu (RON)
- **Economy:** mixed economy, fast-growing
- **Main industries:** automobile, petrochemicals, cement and construction, aircraft, textiles, food, mining, metallurgy, arms
- **Major urban areas (over 500K people):** Bucharest

- **Ease of doing business:** ranked 55th, DB score - 73.3
- **Digital competitiveness index:** #46 out of 63 | #34 Knowledge #45 Technology #51 Future readiness
- **Corruption perception index:** 70/198 (-9 places since 2018)
- **The WE Forum Global Competitiveness Report:** #59, with a year to ear improvement in score
- **A.T. Kearney Global Services Location Index:** 28th
- **Universities:** nearly 100 HE institutions (both state-owned and private), with two universities listed on QS World University Rankings® 2020 (>800)
- **The largest IT companies:** Bitdefender, UiPath, SoftVision
- **IT industry market share:** 6% of GDP, 1.2% share in employment, 300 IT companies, ca. 100,000 IT specialists [18]

- **EF English Proficiency Index:** 61.36 *(above average)
- **International Olympiad in Informatics:** 115 medals, 31 gold, 52 silver, 32 bronze

[18] https://clujbusiness.ro/wp-content/uploads/2019/02/IT-Market-Study-in-Romania-by-ARIES-T.pdf

IT outsourcing in Romania at a glance

The least familiar of the featured countries, Romania is emerging as a hidden gem for technology outsourcing and offshoring. Several key factors contribute to this: high quality of education, strong communication skills, and blossoming innovation ecosystems.

These aspects stem from a long-term, concerted Romanian authorities' effort to increase the country's competitiveness, improve school instruction quality, and adopt higher study programs that support tech-oriented education.

The Romanian IT industry has flourished over the last 20 years, reaching $7 billion in 2019. Foreign capital is the major contributor to that growth, accounting for 73% of the market revenue. Romanian companies generate the remaining 27%. The expansion of tech companies on the moderately-sized Romanian market creates an urgent demand for IT professionals, which remains largely unmet in a country of 21 million people.

With the current workforce of 100,000-120,000 people, Romania needs at least 180,000 more qualified staff to fill all the open jobs on the ICT market. The skills shortage resulting from mass migrations and the aging society is so significant that it is estimated to generate total losses of over $8.3 billion to the Romanian economy across all sectors.

In the context of outsourcing IT skills, the country bears much resemblance to Poland. Both countries get high scores on the human development index, ease of doing business, and global competitiveness, and rank exceptionally high in the English proficiency index.

How much do Romanian IT specialists make?

When we consider the costs of retaining IT specialists in Romania, they are slightly over the Ukrainian rates and below the Polish average.

Typical hour rates range between $25-49/hour, with premium vendors charging over $50.

Average salaries for software developers, according to IT Outsourcing Review:

- Junior Developer in Romania makes **$1045/month**
- Mid-level specialists earn around **$1815/month**
- Seniors will earn app. **$2750/month**

However, extreme pay discrepancies occur between cities and regions, following the IT market's heavy concentration in the country's capital, Bucharest (it brings in 63% of IT market revenues).

As a NATO and EU member (like Poland), the country offers a favorable business environment for its western partners, which encouraged Oracle, Cisco, Huawei, and Ericsson to open their local branches. The outsourcing areas where Romanians excel include IT support, fintech, and web development, explaining why JavaScript, Java, and PHP are the most widespread languages.

While the Romanian IT outsourcing market cannot compete with Ukraine or Poland in size, it stays on a par with the two regional leaders regarding the quality of software skills. The country can also claim a strong advantage in the variety of foreign languages spoken by its citizens. 17% of Romanians speak English, about 10% French or Hungarian, nearly 5% know Italian, and over 3% - German. Romanians' multilingual talents underpin the country's attractiveness, especially in IT support and operations outsourcing.

Investing in the Romanian IT market

Before the pandemic, Romania experienced steady growth in FDIs, with over half of all investments made in the digital and business services sectors. COVID-19 has hit the country hard, but analysts give Romania high chances of recovery in the post-pandemic world, conditional upon its determination to improve safety and security, accelerate digital transformation, and modernize infrastructure.

Due to its cost-competitiveness combined with relative political stability, Romania emerges as a very attractive place for global IT giants to set up their regional offices. In fact, over the last decade, the volume of foreign investment and team sizes of tech giants in Romania have quadrupled.

Major foreign investors

The technology sector's contribution to the Romanian economy has grown impressively over the last ten years to become an essential pillar of its development. The country readily takes advantage of foreign capital flows. Still, the benefits are mutual: KeysFin's research suggests that the Romanian IT sector is the most profitable investment for US companies such as Amazon, Adobe, or Microsoft.

- Microsoft is one of the core investors in the Romanian IT market. Examples of its involvement include a 2003 acquisition of a Romania-based antivirus software vendor, the launch and subsequent expansion of a global technical support center in Bucharest, or a recent takeover of a Romanian software engineering services company, Movial. The software maker opened its first office in Romania in 1996, and now it employs ca. 1,700 people based in Bucharest and Timisoara.

- Similarly, Amazon has been expanding its presence in the country for years, starting from 2005, when the first office opened. Three years ago, the company launched a corporate office and R&D center in the capital.

- Another prominent global investor is Oracle. The software vendor was one of the first to open an office in the country, as early as 1995. Since then, its local branch has grown to over 5,000 people and a turnover of over €200 million. Positive news aside, in 2019, the regional manager of the company's department faced formal charges in a bribery investigation.

- For a decade, Google has been present in the country, with a first office set up in 2010. In 2019, the company expanded its local presence, opening a research center in Bucharest and taking over the existing R&D office from Fitbit, which Google acquired last year.
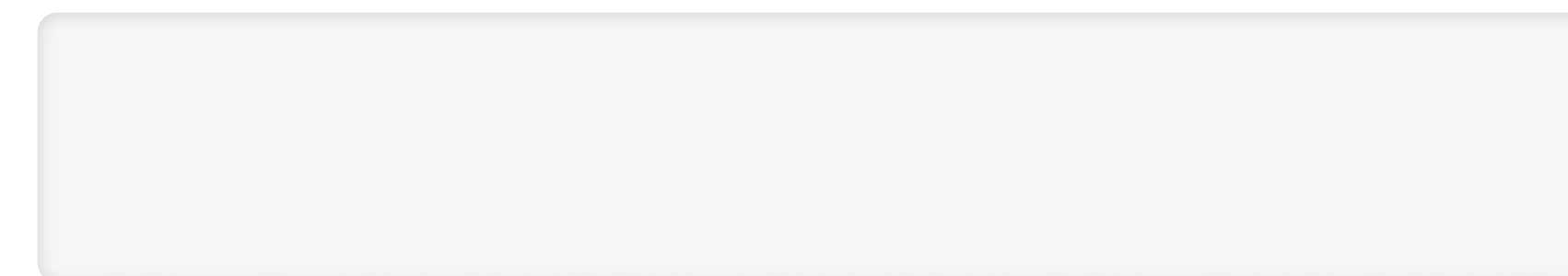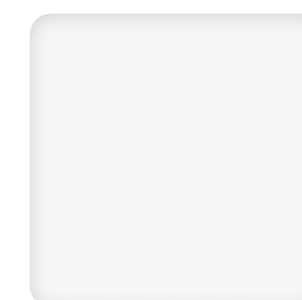
Incentives to invest

Entrepreneurship tops the lists of priorities for the Romanian authorities, which shows in various investment incentives available for eligible enterprises.

Nearly 100 industrial parks are spread across the country (about two-thirds of them fully operational), offering local and foreign residents exemptions on land, building, and urban planning tax, as well as an exemption for taxes charged for changing land destination.

Additionally, the following fiscal incentives are available for investors:

- 0% profit tax for reinvested profit in new technological equipment;
- 0% income tax for employees working as software developers and hired in R&D labs;
- 0% income tax for R&D companies for ten years;
- Additional deductions of R&D eligible expenses;

All the above information is based on the data provided on a state-owned website, investromania.gov.ro. Moreover, Deloitte's 2019 report Investing in Romania comprises a detailed analysis of fiscal incentives, corporate and business law, and Romania's labor market.

Higher education in Romania

There are nearly 50 public universities in Romania, with almost the same number of private HE institutions. Currently, [more than 500,000 students study there](#), as compared to over 700,000 a decade earlier.

This sharp decrease in students' numbers is largely attributed to the population decline resulting from mass migration throughout the last ten years. Transitioning to the Bologna system and restructuring schools and universities has also played its part.

- 98.80% of young Romanians can read and write, which is equivalent to Poland and Belarus, and above Israel's, Greece's, Mexico's, or Colombia's literacy rate.

- Access to public tertiary education is free and egalitarian.

- As mentioned, Romania follows the Bologna scheme. Therefore most of its programs are divided into a three-year Bachelor's degree, a two-year Master's, and a Doctoral degree (postgraduate).

- Surprisingly, only about 7% of students in the country study computer sciences, which exposes the Romanian education system as incapable of meeting the heightened demand for IT&C specialists. This inefficiency may potentially slow down the rollout for large IT outsourcing and offshoring projects, making it difficult for prospective investors or clients to secure adequate workforce.

- The University of Bucharest, set up in 1864, is the most prestigious and largest in the country. Other prominent state education institutions include the University of Iași (the oldest in Romania) and the West University of Timisoara. All three rank among the world's top 1,000 higher education institutions (places +800).

- Typical fees for international students range from $4,500-7,500 per year, equivalent to the Polish rates.

Despite certain inefficiencies of the Romanian tertiary education system, it's crucial to highlight the country authorities' efforts to improve the teaching quality. At present, the Romanian tertiary education system is undergoing a strategic transformation.

As part of the national reform, the country hopes to increase its competitiveness by ensuring equal access and participation of underrepresented groups and minorities in higher education. Projects are also being implemented to promote student entrepreneurship and furnish young Romanians with skills and knowledge well-aligned with the evolving labor market needs.

Romania's startup ecosystem

Listed 45th in the Global Startup Rankings (down by 7 spots since 2019), Romania has managed to build a name for its ecosystem, even though it's the youngest European nation for enterprises.

Investors flock to the country lured by its vibrant startup scene, a booming economy, decent price-to-quality ratio, and technical diversity. Remarkably, Romania's startups' funding is quite diverse, with a vast local and foreign investment pipeline.

The startup scene experienced a landmark moment in 2018 when UiPath became the first local startup to obtain the unicorn status. This success provided an incentive for many entrepreneurs to seek funding to support their innovation-driven businesses.

As a result, 2019 brought about a surge in investment rounds, with half of them between $100,000 and $2 million. It's important to note, though, that UiPath accounts for a massive 92.5% of the total funding volume that Romanian startups received that year. Unfortunately, this trend subsided in 2020, which saw a sharp decrease in the financing volume by 60%.

Key startup cities

→ Bucharest, Cluj-Napoca, Timișoara

Startup ecosystem in numbers

- +1,500 startups, scaleups, business angels, VCs, and PEs
- +100 active investors network
- +100 incubators and accelerators
- 100,000 IT specialists

Focus industries

→ HR/recruitment, fintech, marketing and analytics, enterprise software, security

Success stories

- **123FormBuilder** – a SaaS for creating web forms and surveys was set up in 2008 and rapidly evolved into a global product, sustained by $1 million in total investment over three funding rounds. Last year, following a noticeable increase in business during the pandemic, the company announced a stake acquisition by a VC 212.

- **FintechOS** – this open-source, out-of-the-box intelligent business automation platform is used by some of the top finance, tech, and consulting brands in the world. That's impressive, considering that the company was founded merely four years ago. Since then, it has accumulated $16 million in three funding rounds to continue expansion in the US, European, and SouthEast Asia markets.

- **Elrond** – another success story for a Romanian startup comes from a highly scalable blockchain platform for distributed apps, enterprises, and the new internet economy. Like FintechOS, Elrond came up in 2017, but it has already managed to shake up the tech world with its unique technology expected to bring a 1000x improvement in global payments speed. To this day, the startup has obtained $1.9 million in funding.

- **TypingDNA** – another successful (and relatively young) Romanian startup, TypingDNA has already raised $8.8 million to expand its biometrics authentication services and is now gearing up for a major expansion.

- **UiPath** – Romania's first unicorn provides cutting-edge robotic process automation technology. Founded in 2005, the startup has amassed a jaw-dropping $1.2 billion in funding from 25 investors. After the last funding round in 2020, the company is worth over $10 billion.

Challenges

- Missing experience in international business, leadership, and financial management

- Shortage of skilled, highly-qualified workforce to grow the startup

- Lack of business transparency and cumbersome bureaucratic procedures

Pros of software development outsourcing in Romania

+ Strong aptitude for multilingual skills

+ Leading network infrastructure

+ A promising and lively startup scene

+ EU membership eases foreign cooperation

+ Knowledgeable and versatile workforce

+ Attractive price-quality ratio

Cons of software development outsourcing in Romania

- A significant skills shortage in the IT sector

- Heavy concentration of the market in Bucharest

- Bureaucratic bottlenecks and obscure legal framework

- Corruption is still relatively widespread
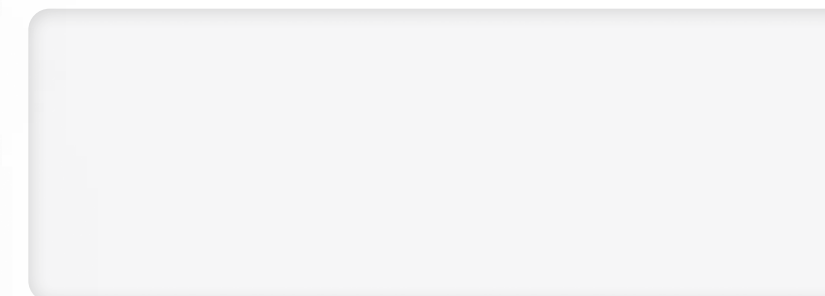
IT Outsourcing and Offshoring:

Ukraine

Key Facts

- **Size:** 603,550 sq km, ranked 47st in the world by area (comparable to Texas)
- **Population:** 43.92 million, ranked 33rd in the world by population
- **Time zone:** (GMT+3)
- **Government:** semi-presidential republic
- **Official languages:** Ukrainian
- **GDP per capita, PPP:** $13,341 (2019 est.)
- **Human Development Index:** 0.750 (ranked 88th | high)
- **Currency:** Ukrainian hryvnia (UAH)
- **Economy:** mixed economy, emerging
- **Main industries:** power generating, fuel, metallurgy, chemical and petrochemical, machine-building, forest and wood-working, construction materials, light, food
- **Major urban areas (over 500K people):** Kyiv, Kharkiv, Odessa, Dnipro, Donetsk, Zaporizhia, Lviv, Kryvyi Rih

- **Ease of doing business:** ranked 64th, DB score - 70.2
- **Digital competitiveness index:** #60 out of 63 | #40 Knowledge #61 Technology #62 Future readiness
- **Corruption perception index:** 126/198 (-6 places since 2018)
- **The WE Forum Global Competitiveness Report:** #85, with a downward trend
- **A.T. Kearney Global Services Location Index:** 20th
- **Universities:** est. 280-800 HE institutions – huge discrepancies in the number depending on the source; six universities listed by QS World University Rankings® 2020 (one ranked 491, the rest >500)
- **The largest IT companies:** SoftServe, InfoPulse, Intellias, N-iX, Sigma Software, Grammarly
- **IT industry market share:** 4% of GDP, 1.3% share in employment, 5,600 IT companies, ca. 200,000 IT specialists[19]
- **EF English Proficiency Index:** 52.13 *(below average)
- **International Olympiad in Informatics:** 88 medals, 10 gold, 32 silver, 46 bronze

[19] https://ain.ua/en/2019/08/30/ukrainian-it-industry-2019-2020/

IT outsourcing in
Ukraine at a glance

Ukraine is systematically gaining weight as a go-to CEE IT outsourcing destination, mainly due to two dominant factors – a vast tech talent pool combined with low labor costs. The largest by size and population of the four discussed countries, the country has a vibrant tech community actively engaged in regular meetups, seminars, and conferences.

The Ukrainian ICT market, comprising over 5,600 companies, is the third-largest exporter of services in the country. 60% out of 200,000 software specialists work in outsourcing businesses.

The gigantic pool of IT professionals is regularly expanding as, each year, about 20,000 tech students graduate from Ukrainian universities.

Renowned for its citizens' contribution to technological development, Ukraine regularly attracts foreign investment, hosting over 100 R&D centers of multinational tech giants like Microsoft, Ericsson, Siemens, and Oracle. It is also home to worldwide startups and organizations, such as GitLab, Grammarly or Template Monster.
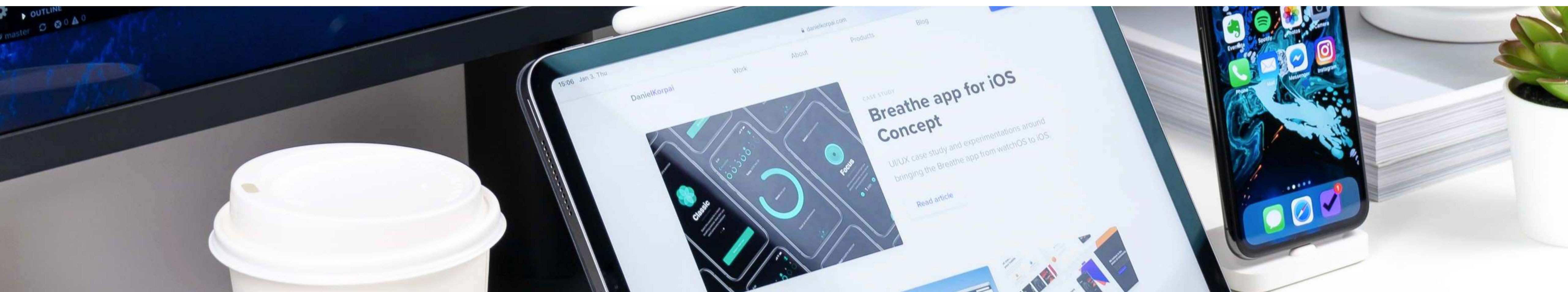
Development rates in Ukraine

Attractive development rates are the country's strongest outsourcing asset.

- A person working in the IT sector in Ukraine typically makes around **$800 per month.**

- Entry-level professionals get about **$500 per month.**

- IT&C managers earn ca. **$1,200 on average.**

- **Average hourly rates range from $20-$40/hour**, depending on experience and technology. Considering that Ukrainian developers score 8th in a global ranking of IT skills (Poland's 5th, Romania - 19th, and Belarus 21th), this is excellent value for the money.

While all these factors make Ukraine an increasingly popular outsourcing destination, the country struggles with several ongoing challenges that may hamper foreign engagement.

Despite gaining independence from the USSR in 1991, Ukrainians have been continuously fighting for survival as an autonomous nation. Ukraine remains in a de facto state of war with Russia over the status of Crimea and Donbas. About 7% of the country's internationally recognized territory has been annexed by Russia or is controlled by pro-Russian circles.

The political risk remains the most significant deterrent for foreign engagement with Ukrainian businesses and providers. Eight out of ten foreigners who have decided to pursue business opportunities admit that Ukraine is difficult to do business.

Internally, complaints persist about widespread corruption, flawed judiciary, ineffective governance, and obscure legal system. Indeed, Ukraine ranks 126th out of 198 countries for corruption, down by six places since 2018. The country also has lowered its global competitiveness index score, and scores the lowest out of the featured countries in ease of doing business. The English proficiency index in Ukraine remains below average, even though most IT professionals probably speak the language at an intermediate level.

Many Ukrainians demonstrate pro-European sentiments, hoping for closer integration with the EU. They quickly adopt Western values and work ethic, seeing them as a chance to break free from the Russian sphere of influence. The country authorities are actively seeking reforms to crack down on informal business practices and stamp out corruption. However, as long as Ukraine remains entangled in a military deadlock and political unrest, significant obstacles to international business remain.

Investing in the Ukrainian IT market

Ukraine's huge software development market comprises over 100 R&D centers, a majority of which are owned by multinational businesses. The United States remains the country's leading partner for software consulting activities, followed by the EU and Israel.

As in Romania, in Ukraine, the export of IT services serves as an essential pillar of the country's development, contributing $4.17 billion to its economy in 2019 (a 30% growth compared to the previous year). The local IT&C outsourcing services mainly focus on finance, healthcare, eCommerce, and telecom, with the gaming industry playing an increasing role.
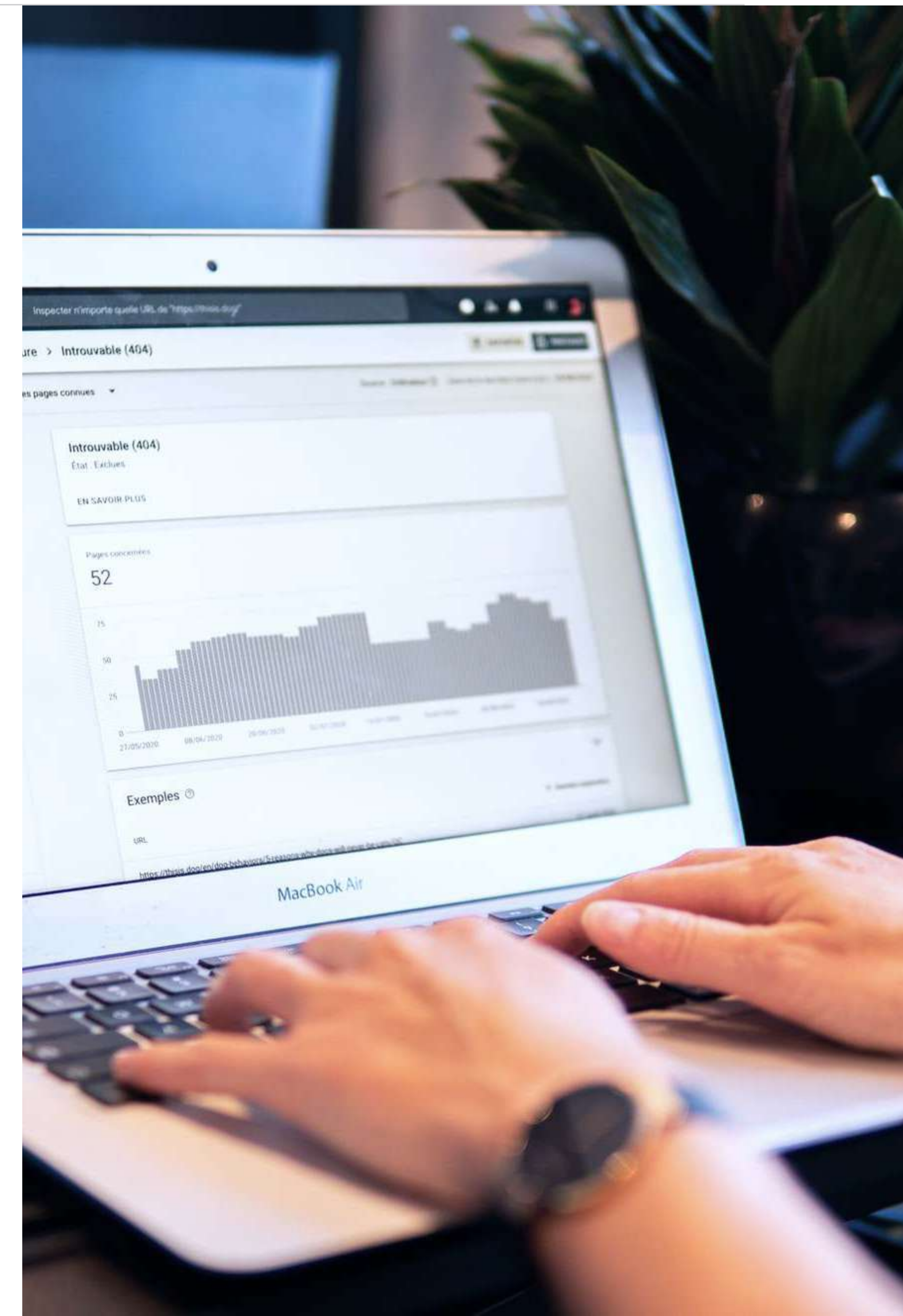
Major foreign investors

According to Hi-tech org, "a majority of foreign investors indirectly entered the Ukrainian market through M&As, joint R&D with an outsourcing component, or outstaffing service companies." Skype, eBay, Microsoft, Ericsson, IBM, PWC, Ubisoft, Upwork – they all chose Ukraine as one of their outsourcing destinations, either establishing regional branches or delegating projects to local outsourcing teams.

- In January 2020, Google opened an R&D office in Ukraine, following an earlier CloudSimple startup acquisition. In 2017, the Silicon Valley mammoth invested $20 million in GitLab, a Ukrainian dev collaboration platform.

- In 2017, the Chinese tech giant Huawei launched its R&D in Kyiv, a few months after establishing its service center in the capital.

- Ukraine is also a preferred choice for another hardware vendor, Samsung. The Korean company set up its research and development branch in Ukraine already in 2013.

- Another giant from Asia that decided to expand its IT operations is an online shopping platform, Rakuten. In 2020, the Japanese eCommerce company announced its move to set up an R&D lab in Kyiv.

Incentives to invest

The Ukrainian authorities are regularly revisiting the state's existing fiscal regime to attract foreign investors. The main tax reform was conducted in 2017 to simplify the administration of taxes and decrease their number. Still, the Ukrainian tax laws remain relatively complex and obscure.

- Legislative advantages for local and foreign investors include customs duty and import VAT reliefs, a feed-in tariff, and fiscal benefits for the IT sector.

- According to Moore Global, "the most widespread business model used by foreign businesses for outsourcing software development to Ukraine is the establishment of a local Ukrainian entity to retain and coordinate the work of local developers."

- Most Ukrainian software developers are self-employed. As such, they are eligible for reduced tax rates on income.

- Transactions in software supply and transactions with software not deemed under royalty are exempt from VAT. However, IT services, in general, are VAT-taxable. These provisions alone demonstrate the intricacy of the Ukrainian fiscal regulations.

- Last year, Ukraine launched its pioneering legal and economic model, _Diia City_, to support the IT industry through a series of legislative and fiscal benefits. These will include, among others, replacing corporate tax with dividends taxation at a 10% rate and introducing a 5% personal income tax rate for IT employees.

- In 2020, the President declared that Ukraine would ensure the support of multilingual, around-the-clock nannies for children of entrepreneurs contributing $100 million or more to the country's economy.

- In the same year, the country imposed a corporate tax on foreign investors selling out their Ukrainian businesses.

↳ Deloitte provides a comprehensive overview of Ukraine's taxation legislation.

Higher education
in Ukraine

This sharp decrease in students' numbers is largely attributed to the population decline resulting from mass migration throughout the last ten years. Transitioning to the Bologna system and restructuring schools and universities has also played its part.

As Сегодня portal reveals, in 2019, there were 1388 institutions entered in the country's Register of Higher Education Institutions. They included public and private universities, institutes, colleges, academies, vocational schools, and other facilities considered tertiary education institutions. Significantly, about 241 of these establishments existed on paper only, with not a single student enrolled.

The proliferation of fake or substandard HE schools that lack accreditation (often set up to extort tuition, exert political influence, and provide illegitimate degrees for money) is a broadly-discussed issue in Ukraine. Finding the way to consolidate and standardize tertiary education and make schools more transparent and accountable has been on the Education Ministry's plan for several years.
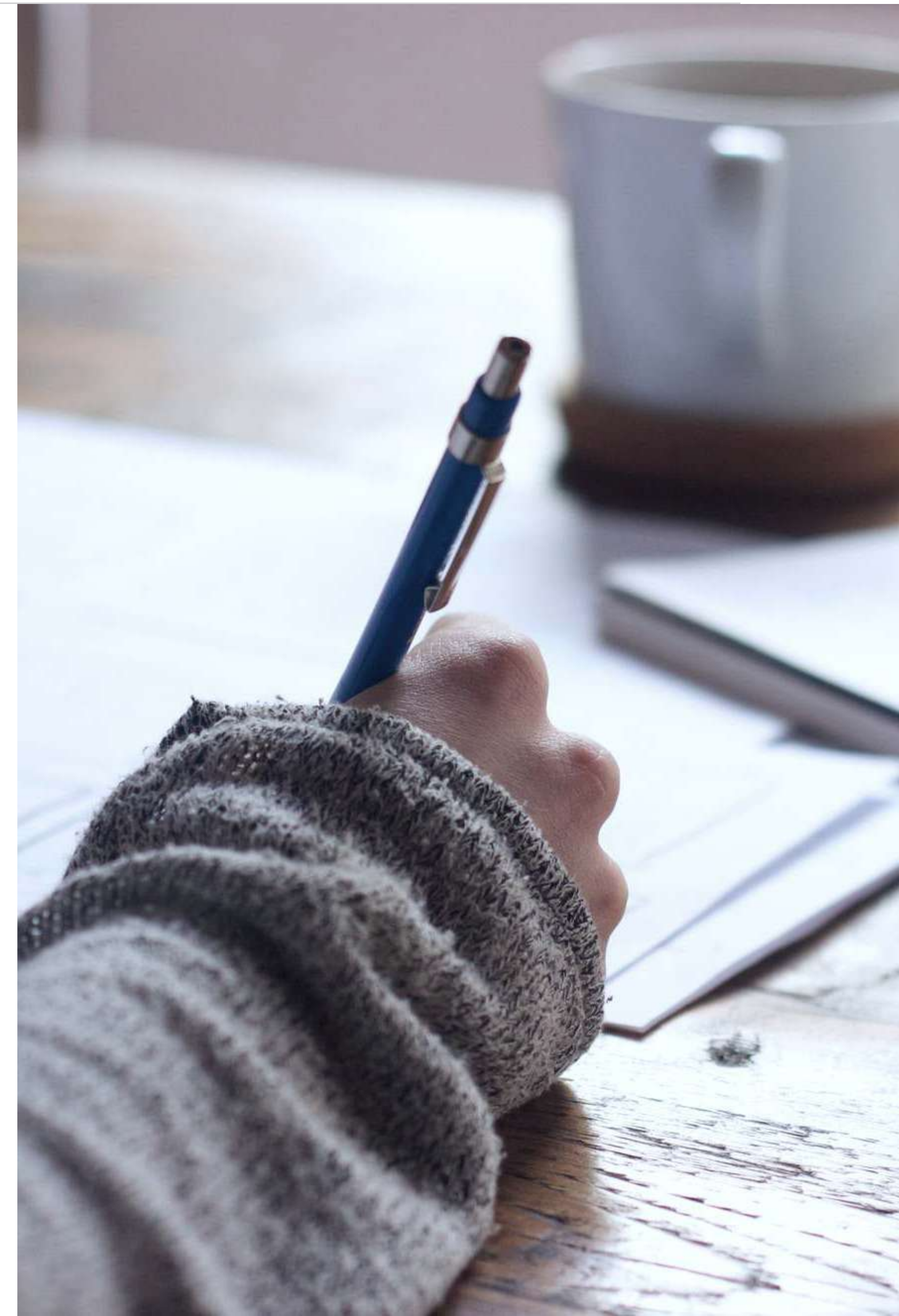
Academic corruption is a prevalent issue in tertiary education in the country, negatively affecting education quality in many Ukrainian schools. Other problems troubling Ukraine's HE sector aside from bribery in admissions and examination fraud include outdated curricula, inadequate facilities, and lack of research institutions' autonomy.

These issues negatively impact the perception of Ukrainian higher education and contribute to the mismatch between education and labor market demands.

All the same, Ukraine can boast some prominent universities that are listed on global school rankings. They include the National Technical University of Ukraine, Kharkiv National University of Radioelectronics, and the Ivan Franko National University of Lviv.

- At 99.97%, Ukraine has the highest literacy rate of all the featured countries.

- The number of students is estimated at between 1.3 and 1.5 million. Again, these figures are tentative, depending on what counts as a higher education institution.

- As opposed to other countries in the CEE region, in Ukraine, public universities charge tuition. About half of students are exempted from fees on account of excellent grades or tough financial situation. The rest have to pay for studying, albeit charges remain rather low (ca. $1,000/academic year on average).

- Next to Belarus, Ukraine is one of the countries with the highest tertiary school enrollment ratio (by far exceeding Poland and Romania) in the world. However, the quality of education in most establishments remains highly disputed.

- Kyiv Mohyla Academy is the country's oldest HE establishment. Founded in 1615, it has survived periods of glory and neglect, e.g., serving as a navy school during Soviet times.

- Ukrainian institutions provide the same degrees as Polish, Romanian, and Belarusian HE establishments, i.e., Bachelor (4 years), Master (1-2 years), and Ph.D. (3-6 years).

- Ukraine has one of the largest share of computer science and STEM graduates in Europe, nearly 10%.

- The fees for international students vary greatly, starting from $1,200/year up to $5,000, depending on the study program.

- Courses are taught in Ukrainian and Russian, with English-taught programs widely available.

Ukraine's **startup ecosystem**

Year by year, Kyiv is climbing up the Global Startup Ecosystem Ranking. In 2020, the Ukrainian capital ranked as the 32nd best city for startups, the highest of all CEE regions. Leveraging its large pools of highly capable tech talent, low service costs, and substantial market size, the Ukrainian metropolis has been developing an entrepreneurial spirit for at least a decade.

As opposed to the Polish or Belarusian counterparts, Ukrainian startups are heavily orientated towards foreign investment. "According to the Ukrainian VC Association, 90 percent of investment in Ukrainian startups comes from a foreign investor," says Dominique Piotet, the UNIT CEO.City Innovation Park in Kyiv (source: Emerging Europe).

In terms of the investment volume, it exceeded a half-billion mark for the first time in 2019, with an average deal size of $5.7 million, a 78% increase compared to 2018. 2020 was another record year, with VCs pouring over $1.5 billion in Ukrainian startups[JB1]. These numbers suggest that entrepreneurship develops vigorously despite the country's shaky economy.

Key startup cities

→ Kyiv, Lviv, Odessa, Kharkiv, Ternopil

Startup ecosystem in numbers

- Ca. 500 startups
- Ca. 35 VC firms
- +100 incubators and accelerators
- Estimated 200,000 software specialists

Focus industries

→ SaaS, eCommerce, security, ML/AI

Success stories

- **Grammarly** – one of Ukrainian unicorns, Grammarly's AI-based online writing assistant, first released in 2009. It gained international traction (and a $1 billion valuation) nearly a decade later, reeling in two funding rounds totaling $200 million.

- **GitLab** – founded in 2014, this web-based Git repository manager was an instant success among users. It didn't take long before the company obtained funding to develop the platform. Altogether, GitLab has raised $434.2 million over nine rounds, joining the unicorn club in 2018.

- **Preply** – Preply connects students with over 30,000 private tutors via online chat, using AI algorithms. Set up in 2012, it is funded by 25 investors who have jointly contributed $15.5 million to the platform's development and expansion.

- **People.ai** – another AI-focused Ukrainian startup that develops artificial intelligence. The company has already gathered over 50 globally-recognized brands in its customer portfolio (including Zoom, Zendesk, Lyft, Malwarebytes, and Randstad) and raised $100 million in funding over five rounds from a variety of private investors.

- **Ahrefs** – a popular toolkit for backlinks and SEO analysis, Ahrefs was founded in Ukraine ten years ago. Today, it generates $40 million annual recurring revenue. Interestingly, it is a self-funded venture that never obtained any external investment.

Challenges

- Unstable venture market, weak judiciary system, and high corruption risks

- Possible overreliance on foreign capital caused by limited local funding opportunities

- Mass exodus of founders looking to safeguard their investments abroad

Pros of software development outsourcing in Ukraine

+ Well-educated, talented workforce

+ Diverse tech skill set covering various technologies and languages

+ Innovation hub, and home to many prominent IT companies

+ Excellent quality-to-price ratio with low labor costs

+ Visa-free entry for the majority of countries

+ Well-established center for outsourcing services

+ High score on the Global Services Location Index

Cons of software development outsourcing in Ukraine

— **Below average score in English proficiency**

— **Low competitiveness and ease of doing business scores**

— **Endemic corruption with little signs of improvement**

— **Political instability and strong dependence on Russia**

— **High rates of inflation and fragile economy**

— **Complex regulatory environment and lack of transparency**

— **The abundance of red tape and administrative hassle**

Closing Thoughts

2020 was a turbulent year, and it imposed abrupt and irreversible changes on our professional and personal lives. The pandemic has forced countless organizations worldwide out of business, while many others had to enter survival mode to get their head above water.

To recover from the turmoil of 2020, businesses need to reinvent their goals, strategy, and vision and adapt to the modern way of working – hybrid, digital-based, and extremely agile. In an attempt to develop greater resilience, curb expenses, and minimize risk, companies will be facing increased pressure to optimize their business processes through tech.

The accelerating digital transformation will be the main driver for the continuing growth of the outsourced IT market. And in this context, the leading CEE countries are coming to the fore as the most attractive IT outsourcing destination for companies that want to survive now and thrive in the future.
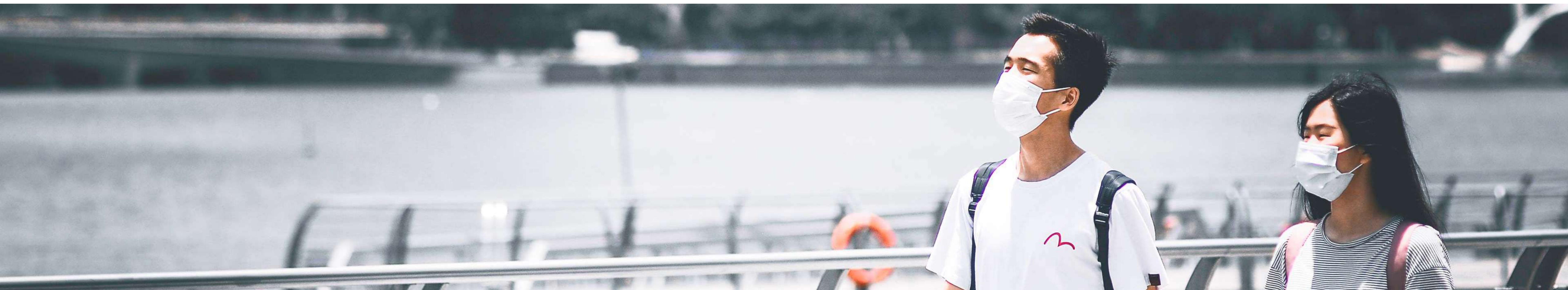
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