



# **GLOBAL SOFTWARE MARKETPLACE INSIGHTS: EASTERN EUROPE**

Introduction .....	2
About Eastern Europe .....	2
Team Composition .....	3
Technical Specializations .....	6
Industry Specializations .....	8
Pricing .....	11
Education .....	14
Government & Economy .....	16
IT Ecosystem .....	21
Culture .....	23
Language .....	24
Grit & Problem Solving .....	24
Communication Style .....	24
Work Habits .....	25
Logistics .....	28
Transportation & Travel .....	28
Internet & Utilities .....	28
SourceSeek Capabilities & Value Index .....	30
Conclusion .....	34





## INTRODUCTION

The global marketplace for software services is growing rapidly, highly dynamic, and subject to the influence of a wide variety of outside forces. Such forces include political events, macroeconomic changes, culture, and conflict.

In order to keep pace with this rapid rate of change, SourceSeek constantly monitors the marketplace. We collect data from thousands of software vendors worldwide to identify and report on market conditions and trends. We use that data to produce reports tailored to the savvy software-buying decision maker who seeks to make informed decisions about which country or region to choose, how much to pay, and how to ensure a good cultural and logistical fit between themselves and their remote team.

This report focuses exclusively on one of the world's most mature and successful regions—Eastern Europe. The following sections will provide a more detailed view of Eastern Europe based on SourceSeek's core criteria:

- Technical Specialization
- Industry Experience
- Price
- Education
- Government & Economy
- IT Ecosystem
- Culture
- Logistics

Below you will get an in-depth analysis of how Eastern Europe compares to other software outsourcing regions, as well as how individual countries within Eastern Europe compare to one another. Our goal is to provide you with a full picture of Eastern Europe's software development ecosystem, so you can decide if working with a remote team in the region is the right choice for your business.



## ABOUT EASTERN EUROPE

There is no specific definition for the term 'Eastern Europe.' So, for the purposes of this document, we'll define it as the area encompassing the following countries:

*Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Moldova, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, and Ukraine.*

Eastern Europe is a large and varied region that has emerged as a software development powerhouse over the last 15 years. The most notable factors contributing to the success of the region in the IT world include:

- Proximity to Western Europe
- Good cultural alignment with Western Europe and North America
- High value due to currency/labor arbitrage
- Strong educational system
- Widespread cultural support of sciences, math, and IT studies

Avg. Hourly Rate	Avg. Project Value	Avg. Project Length	Avg. Number of Developers	Avg. Years of Experience
\$39	\$140,000	9 Months	30	8

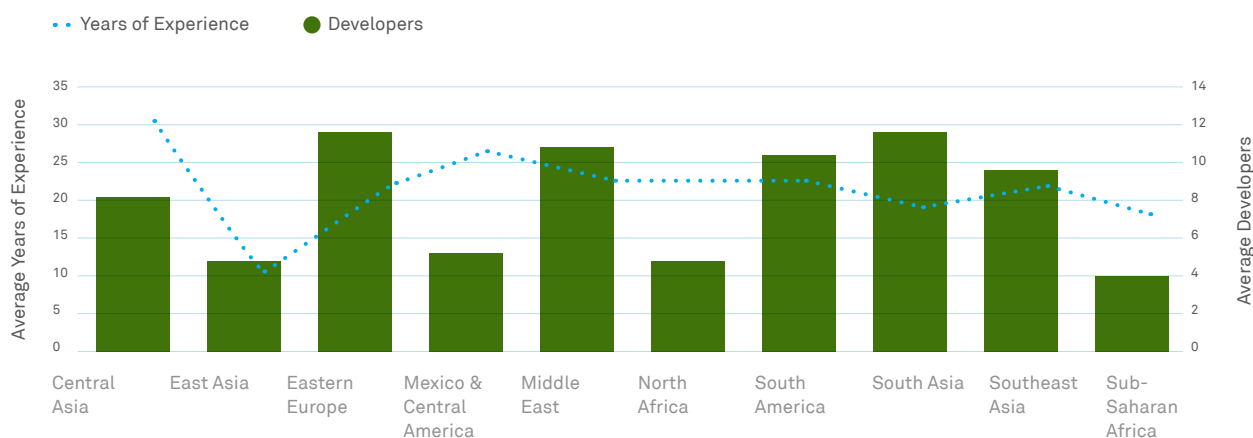
Looking at the region as a whole, it's clear that while Eastern European developers tend to be experienced and work with larger projects than most other outsourcing regions, they are also more expensive.



## TEAM COMPOSITION

In terms of years of experience and number of developers, Eastern Europe has but one rival—South Asia. It's no surprise that Eastern Europe and South Asia lead the pack. These regions were first movers in the industry and have the critical mass and ecosystem required to stay out front.

### TEAM COMPOSITION



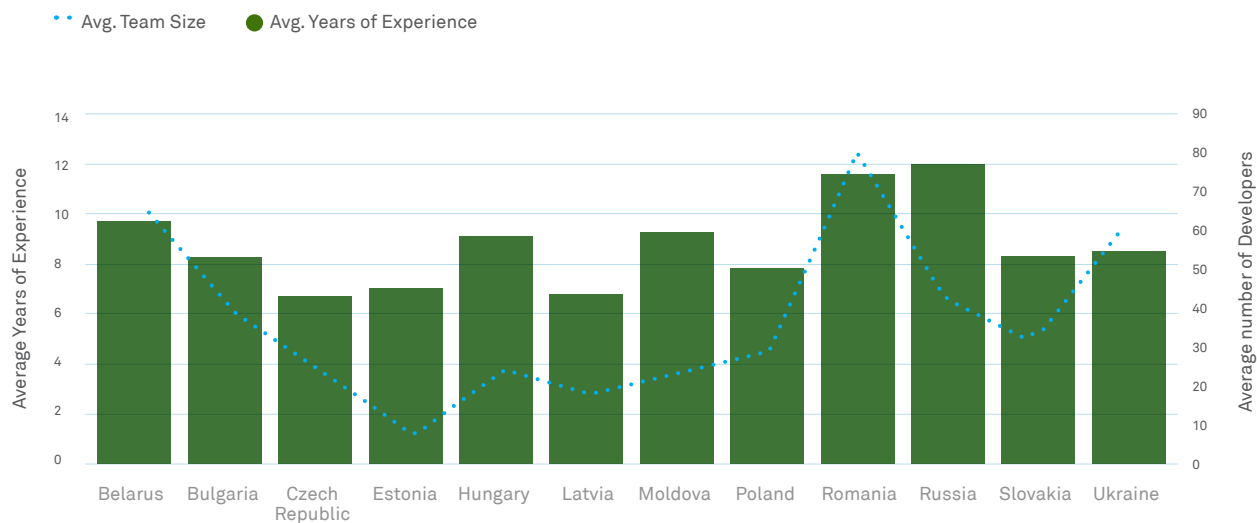
Average years of experience is a very informative metric when assessing the maturity of a region as a whole. It takes many years for developers to gain experience and move into management and leadership, making truly senior software engineers difficult to find. This is exacerbated by brain drain in many countries since many of the most experienced engineers may move on to other more promising regions.

Eastern Europe suffered from a bit of brain drain in years past, but for the most part there are adequate opportunities available for software professionals and no need to leave to find work. The presence of so many seasoned professionals also feeds the IT ecosystem, which we'll look into later in the report.





## TEAM COMPOSITION BY COUNTRY



Russia has the highest experience per team, with an average of about 12 years. This is not surprising as Russia is large enough to have supported substantial domestic demand for many years. In previous decades, Russian software teams also handled a considerable amount of work for other regions of the former Soviet Union while those regions were still maturing their IT industries. These days we usually observe the reverse as Russian clients have begun outsourcing software development work to nearby countries such as Ukraine and Romania.

The chart above showcases why Romania is a top choice for large companies looking for offshore engineering talent. Their average team has been working together for nearly 12 years and possesses nearly 80 developers, a sure sign of a mature and stable IT marketplace. This combination of scale and experience is why Romania is great for large enterprise clients. Romania, Hungary, and Bulgaria have become enterprise-focused as a result of many large international companies setting up shop there years ago. This employment market prevents brain drain and has resulted in a good ratio of junior to senior developers.



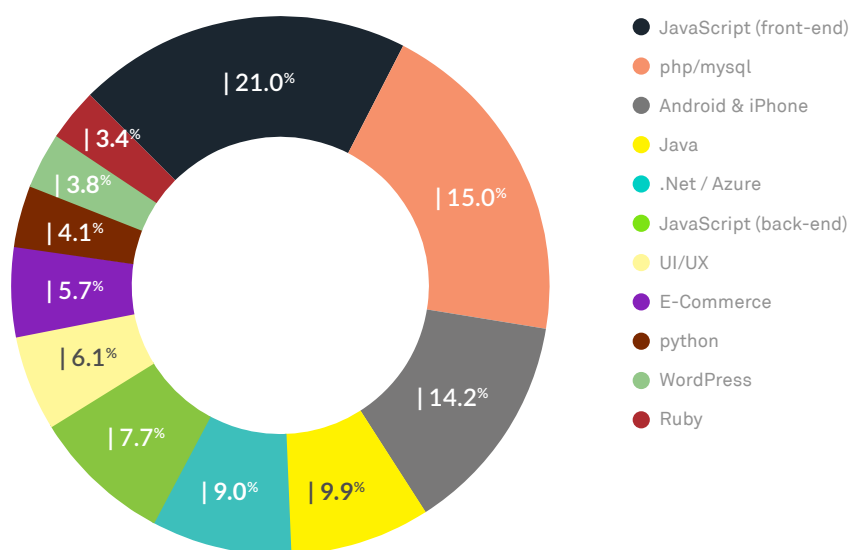
Long-standing teams are attractive but there can be disadvantages for many clients including startups and SaaS companies. A more attractive region may have a lower level of average experience, but the range of industries and technologies will be dramatically broader. In Ukraine, for example, the average team age is much lower, but startups can find engineers skilled with the newer technologies much more easily.

Another notable finding is in Belarus where there are highly experienced senior professionals available throughout a wide range of services, technologies, and industries. This could be due to the high stability of employees in that country. Belarus has low attrition, limited brain drain, and a strong and diverse IT ecosystem.

## TECHNICAL SPECIALIZATIONS

After nearly two decades as a leading software outsourcing destination, Eastern Europe offers an extremely wide variety of skills and specializations. Growing startup and investment activity in that region has rocketed Eastern Europe to become a true center of excellence for emerging technologies such as IoT, blockchain AI, and more. Like in most regions, technologies such as JavaScript and LAMP are the most popular. More than most other regions, however, Eastern Europe continues to embrace newer technologies such as back-end JavaScript, which is handled by nearly 8% of teams (and rising).

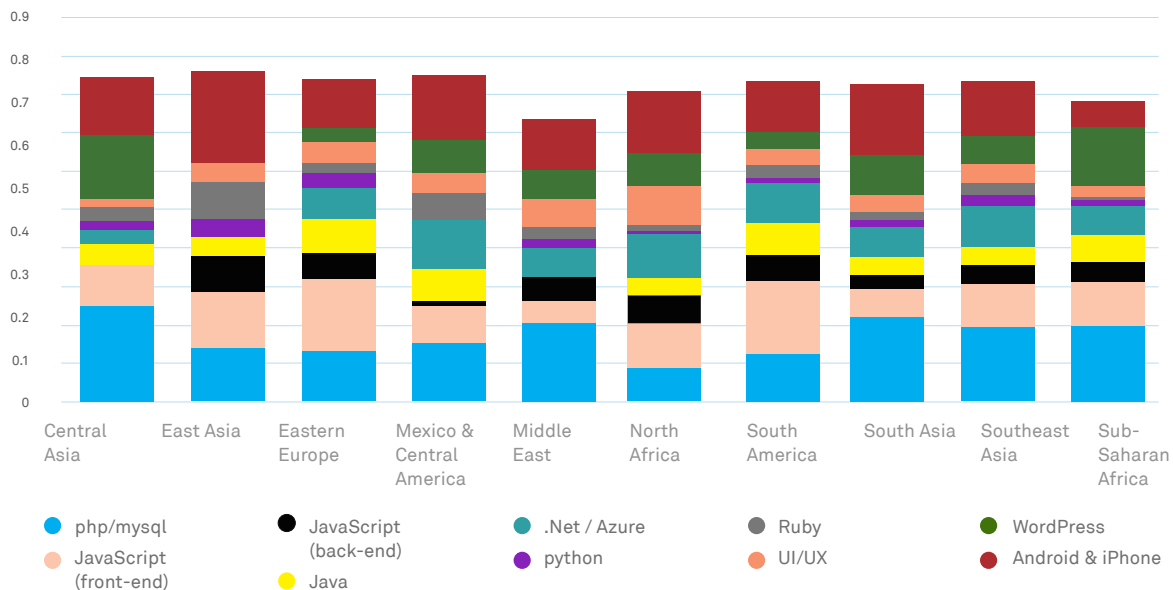
### TECHNICAL SPECIALIZATIONS IN EASTERN EUROPE





When we look at technologies offered in Eastern Europe compared to the rest of the world, we see more evidence that the region is gravitating toward newer technologies as opposed to focusing on cash cows like PHP/MySQL or Java.

## TECH SPECIALIZATIONS BY REGION



For example, South Asia offers a wide variety of skills, but continues to accept huge amounts of PHP/MySQL and WordPress work. While this may pay the bills, these aren't regarded as cutting-edge skills that developers will gravitate toward.

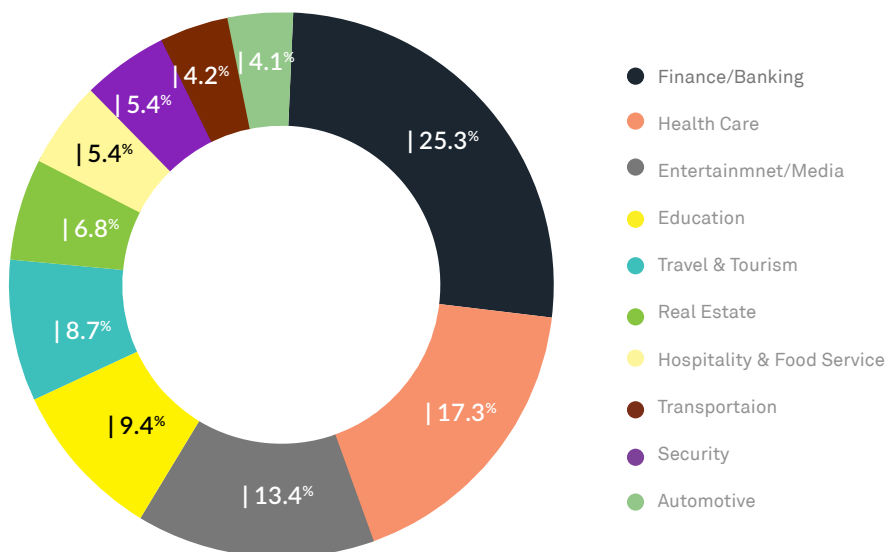
Conversely, Eastern Europe continues to lean toward JavaScript, Ruby on Rails, and Python which creates more compelling opportunities for developers and further feeds the IT ecosystem. However, this observation doesn't necessarily make Eastern Europe the better choice for clients. In fact, large clients who need a team to handle a long, protracted, complex project using Java or .Net may find more expertise and enthusiasm for that kind of work in other regions.





# INDUSTRY SPECIALIZATIONS

## INDUSTRY SPECIALIZATIONS IN EASTERN EUROPE

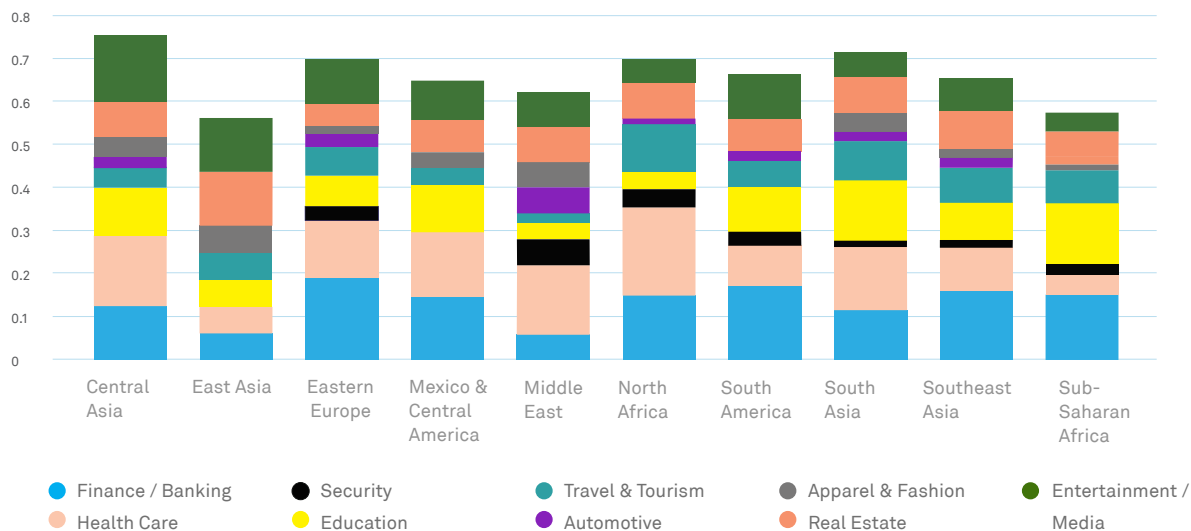


Clients from the financial/banking industry are the top IT services buyers in Eastern Europe with over a quarter of respondents reporting a specialization in finance/banking. This is common in many regions for two reasons. First, fintech work is best done locally for logistics, regulatory, and security reasons. This is especially true for local brick and mortar banks and companies that provide domestic merchant services. Because of this, there tends to be a lot of domestic work in this field. Second, fintech projects tend to be big, long, and complex so it doesn't take a huge volume of clients to have a big presence in the local IT industry.

Health care, the second most prominent industry, also represents a portion of domestic work but isn't strictly limited to that. Huge amounts of health-related startups and products are appearing worldwide, most of which are able to easily outsource their development. A similar dynamic occurs in the entertainment industry where we see some domestic demand along with ever-increasing demand from outsourcing clients. Eastern Europe continues to win a large share of the business in both of these competitive industries.



## INDUSTRY SPECIALIZATIONS BY REGION

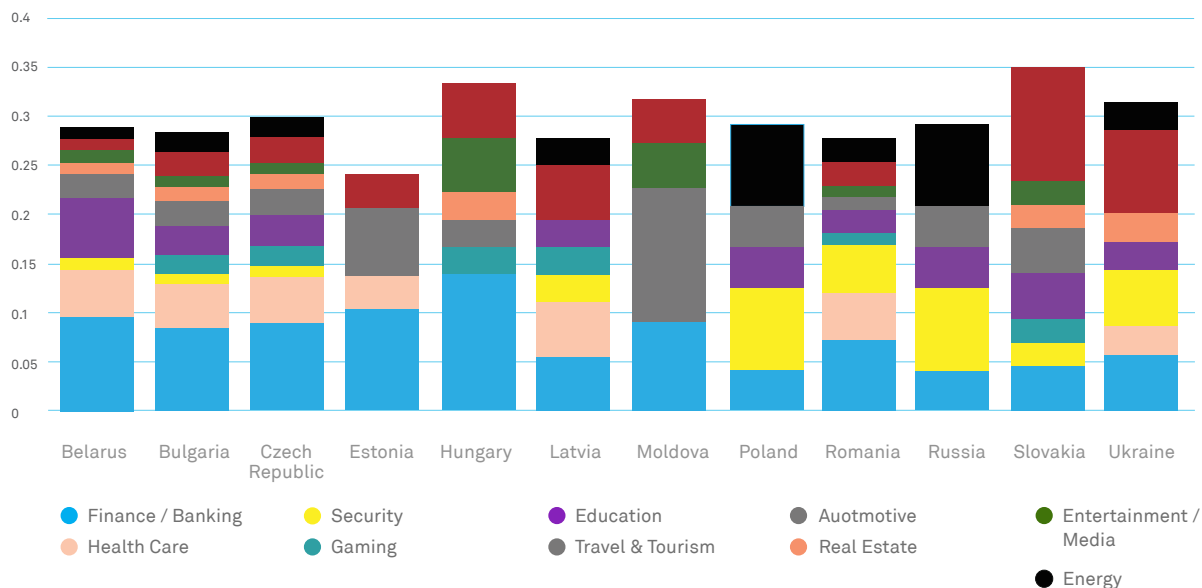


When compared to other regions, it's clear that Eastern Europe has a deep talent pool for finance with strong skills in health care, education, and entertainment. At first glance, other regions seem to be on par with Eastern Europe. For example, the Middle East has a large amount of health care work. The smaller size of those markets, however, means that domestic demand may be a much larger percentage of the workload. In this situation, a smaller amount of people is getting experience with domestic clients. This doesn't feed the IT ecosystem nearly as much as being an integral part of the worldwide market.





## INDUSTRY SPECIALIZATIONS BY COUNTRY



As expected, fintech and health care comprise a large percentage of the technical specialties claimed by software teams in Eastern Europe. A much wider variety of industry experience is on display in countries with a mature IT ecosystem such as Russia, Ukraine, Poland, and Belarus. Meanwhile, smaller countries like Estonia and Latvia put a greater focus on the big enterprise industries with less attention on entertainment, travel, and education.

One notable observation is that both Romania and Bulgaria, countries historically dominated by large multinationals outsourcing enterprise work, are beginning to exhibit a much more diverse set of industry specialties. This validates our practice of using the strength of the country's IT ecosystem to determine the extent to which the country's IT market can maintain high quality, diverse technical specialties, and sustainable success. Both Bulgaria and Romania have had a recent explosion in boutique firms, startups, meetups, and investments in IT, resulting in a quickly maturing IT ecosystem and a healthier IT industry overall.



## PRICING

While it's unwise to select a vendor solely based on price, there is no doubt that cost savings is the primary reason why clients hire remote teams. Here we see Eastern Europe at a relative disadvantage compared to other outsourcing regions with an average hourly rate of \$39.00/hour—about 18% higher than the average across all other regions. Of course, this is still dramatically lower than domestic pricing in Western Europe, North America, or Oceania.

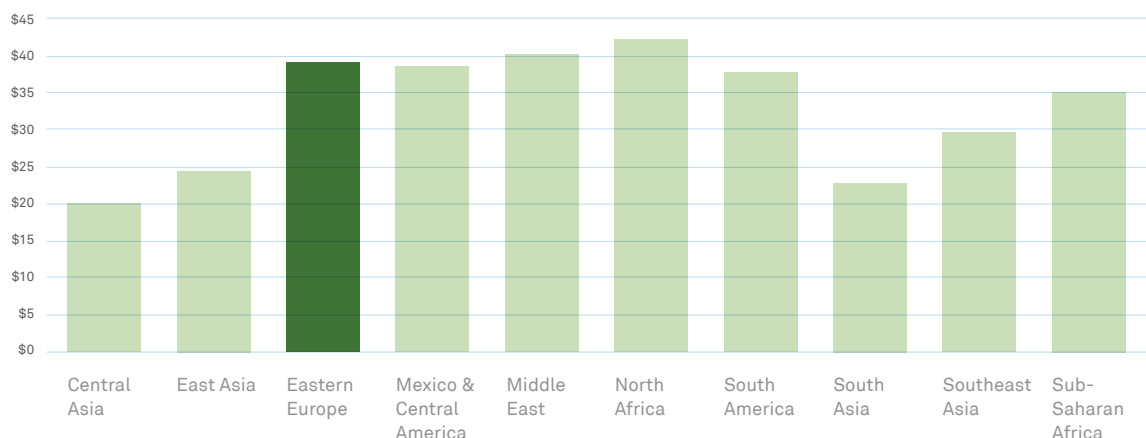
Eastern Europe is able to command a premium price because of their reputation for quality services, and there is barely enough supply of developers to keep up with demand. As a result, employers struggle to hire and retain quality developers as competition increases in the region. This keeps prices slowly rising in the region and gives South Asia (and everywhere else) the advantage when it comes to cost.

The common rebuttal to the high cost of services in Eastern Europe is to state that their developers are so good that clients wind up getting a better ROI, even at higher rates. This is true in some cases. However, it still makes it harder and harder for Eastern Europe to compete with lower-cost regions. There seems to be no shortage of clients hiring Eastern European teams for now, but high prices can slowly erode the region's reputation for value.

Based on client feedback, price is the primary reason for clients in the U.S. and EU to hire Asian teams. Nearly all clients also expressed concern over both time zone and culture issues. Still, for many clients it's worth investing in the overhead required to make it work with an Asian team.



## AVERAGE HOURLY RATES



As seen in the chart above, remote team pricing is broken out into two tiers: Asia and everywhere else. In Asia, the average hourly rate is \$24.62/hour, whereas the rest of the world commands higher prices averaged out around \$38.67/hour.

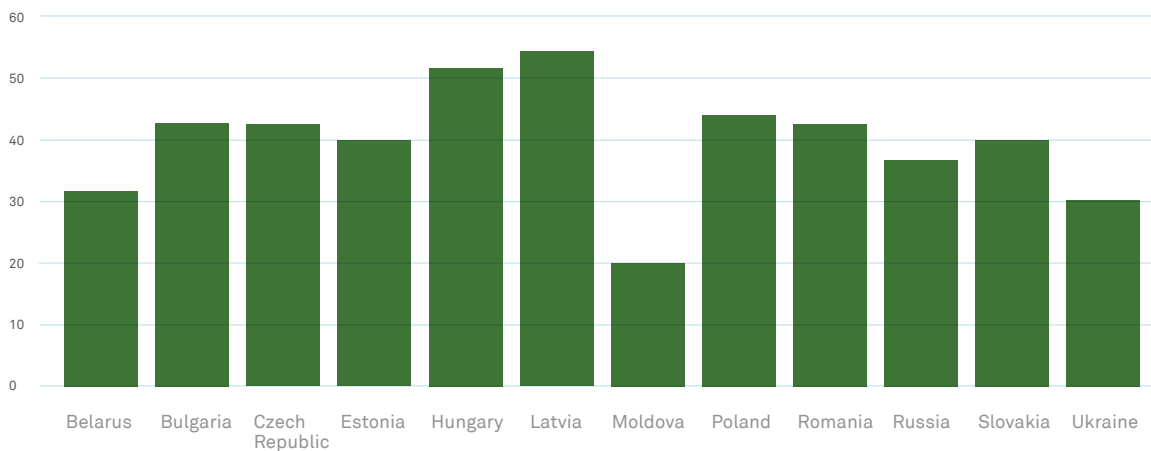
A decade ago, there was a 400% difference in pricing from the lowest-priced region to the highest-priced region. Now the range has been cut in half.

This ever-narrowing range of prices supports SourceSeek's guiding principle that the global software market is an efficient one with enough demand to bring consistent pricing that is affected by a small set of characteristics such as location, language skill, proximity, etc. Outliers are rare.

As teams in Eastern Europe slowly set their rates higher and higher, there is enough demand to raise rates in less competitive regions accordingly and still remain competitive. The notable exception is India, where pricing trails the worldwide market due to the sheer volume of supply combined with ongoing reputation issues. There is increasing evidence that China is also beginning to see a similar trend, and will continue to have difficulty entering the global software market.



## AVERAGE HOURLY RATE BY COUNTRY



Latvia is a very small country with high rates, but the cause is neither sample error or the dynamics of being a small market. Instead, Latvia (and to some degree neighboring Estonia) has developed an excellent IT ecosystem and a strong reputation for quality. This, combined with proximity to Scandinavia and the UK, has allowed Latvia to charge premium rates and attract top clients. In these regions, the small size of the developer pool combined with the strong reputation for quality keeps hourly rates on the high end of the scale.





Some regions have higher rates because of the type of outsourced IT work that dominates their IT ecosystem. For example, Czech Republic, Hungary, and Romania have long been a destination for large clients like Microsoft or Oracle. As a result, the ecosystem to lean heavily towards enterprise work and the creation of big development centers for enterprise companies. This contrasts with more startup and boutique-friendly regions where upstart companies are operating with profit shares, equity deals, stock options, and a focus on lowering market rates for all.

At the bottom, Moldova has the region's cheapest pricing with rates averaging just under \$20/hour. This is primarily due to Moldova's sluggish economy which has brought considerable brain drain to the country and prevented Moldova from claiming their place in the Eastern European software market. That said, there are many skilled developers in Moldova, and for the right clients, a savvy software buyer could find the best deals in Europe.





## EDUCATION

In general, Eastern Europe offers an extremely high-quality education because the culture puts a high value on learning from childhood through university. This is further enhanced by the legacy of the vigorous FSU (Former Soviet Union) educational system which persists today in the many excellent math and science programs available in the region. Overall, Eastern Europe has an ample supply of quality universities with a strong emphasis on sciences and has been producing well-trained IT graduates for many years.

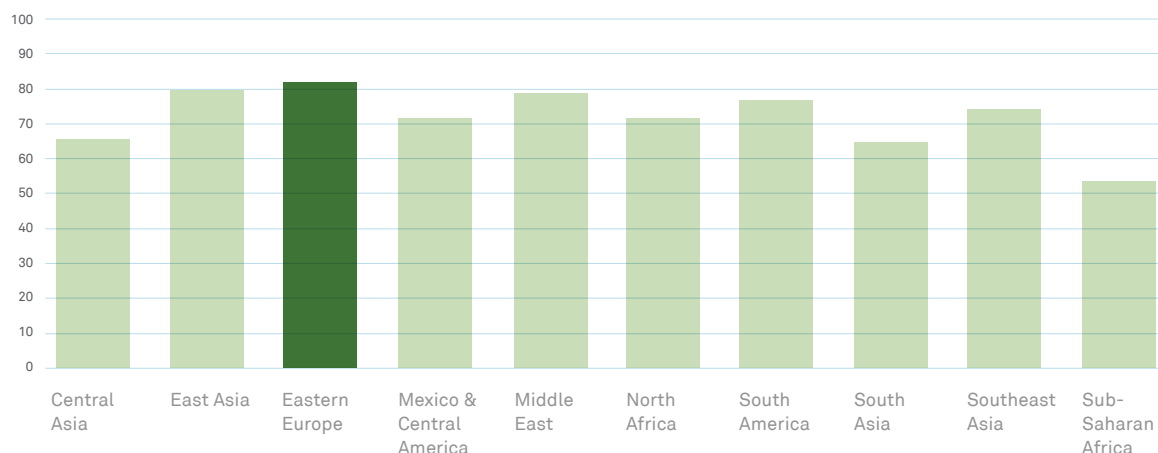
In addition, the FSU educational culture values challenging problem solving which translates nicely into the skills needed for software development. As a rule, Eastern European software developers will seek an elegant solution for a problem rather than using a cheap workaround (unless absolutely necessary). This devotion to doing things right, and leveraging all available technologies and intellectual prowess to the smallest of problems, has helped the region become the renowned software powerhouse it is today.

In addition to their software-friendly mindset, Eastern Europeans are increasingly proficient in English. In a 2017 report by EI, Poland ranked #11 out of 80 countries for English proficiency. Serbia, Romania, Hungary, and Czech Republic were close behind and ranked #16, #17, #19, and #20, respectively. While the IT powerhouse country of Ukraine scored a modest 47th place, English proficiency in the IT industry is relatively high, and most companies offer English classes for their employees.





## UNITED NATIONS EDUCATION RANKINGS



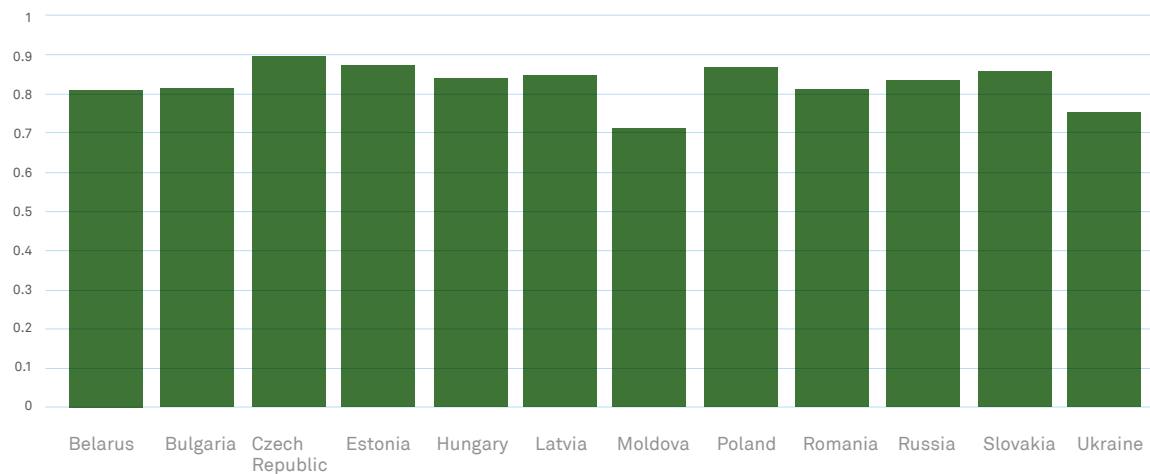
With a score of 82, Eastern European countries garnered the highest score of any region featured in this report and just edged out East Asia with a score of 80. Eastern Europe has an established reputation for having a mature and robust educational system, and many vendors in the region leverage that reputation to claim that the ‘best developers in the world’ come from Eastern Europe.

Eastern European educational excellence is focused primarily around math and science. The Organization for Economic Co-operation and Development (OECD), which measures 70 countries in reading, math, and science, found that Eastern European countries outperformed other countries featured in this report by an average of 11% in math and 10% in science. So, while the much-touted claim of ‘best developers in the world’ may be a bit strong, Eastern Europe’s reputation for strong education is well supported by data.

While a strong general education is certainly important for a successful IT education, a high score in the UN data doesn’t always result in top IT education, and vice versa.



## EDUCATIONAL INDEX BY COUNTRY



In Ukraine, for example, the UN data shows a comparatively poor score for education despite their reputation for strong IT education in Ukrainian universities. This reflects the fact that Ukraine remains a country with highly uneven wealth and education distribution. Much of the public receives a modest education, but residents of certain larger cities and regions have access to strong primary and secondary education and can compete for placement among Ukraine's many world-class universities.

Moldova has the reverse dynamic. The country provides fairly good primary and secondary education compared to Ukraine, but the limited number of good universities and ongoing brain drain seen in Moldova has weakened its institutions of higher education over time.



## GOVERNMENT AND ECONOMY

As recently as 2017, the biggest news story involving outsourcing in Eastern Europe was the annexation of Crimea from Ukraine, and the resulting civil unrest and military conflict. Early in the conflict, the Ukrainian IT industry was affected by apprehensive clients and the need for companies located near the conflict zones to relocate to the safer, western part of the country. Fortunately, as of 2019, these issues have mostly settled and the effect on the industry is negligible. Ukraine remains the region's largest and, by many measures, most successful IT outsourcing destinations.

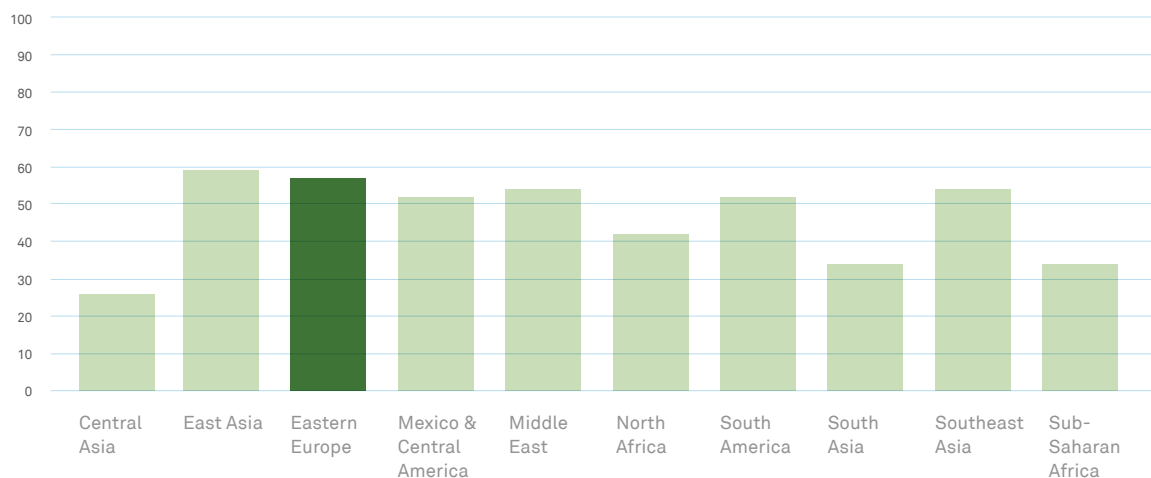
In 2019, Russia appears to be the Eastern European country with the most attention in the worldwide media, though not all of it is positive. The Russian IT industry appears to be hanging on, but SourceSeek is seeing a much-decreased demand for Russian developers from the U.S., Canada, and the UK. This is largely the result of strong competition from other countries in Eastern Europe and their relative proximity to the West, but strained political relations and declining confidence are also strong factors.

The U.S.-Russia relations are highly strained by domestic politics and Russian meddling in U.S. elections. The UK's relations with Russia also continue to be complex and tense amid ongoing accusations of extrajudicial killings and illegal financial dealings. Other countries like Germany have a more pragmatic relationship with Russia, owing in large part to energy needs. Even so, we've seen hiring trending toward developers in other countries over the last few years.

Russian companies report that while overseas demand has been soft, domestic demand has allowed most Russian companies to survive, albeit without the rate increases we've seen in Poland and Ukraine. It's expected that the Russian IT sector will continue to grow and be profitable, but will not advance nearly as quickly as countries that are better integrated into the global IT marketplace.

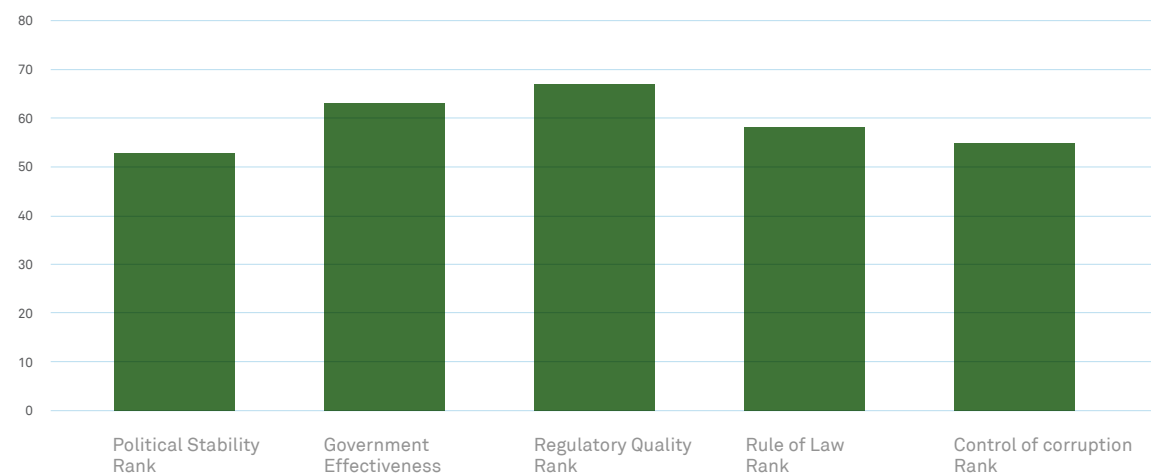


## GOVERNANCE RANKINGS



For regions featured in this report, Eastern Europe comes in at a close second to East Asia for best governance ranking. Despite this high rank, Eastern Europe continues to suffer from a damaged reputation in this regard due to a long series of events including hacking, fraud, and cybercrime in that region. This has improved in recent years, particularly in Ukraine which was previously associated with email scams, but clients still express IP and other legal concerns.

## EASTERN EUROPE- GOVERNANCE SCORE BREAKDOWN





Eastern European countries are bolstered by strong regulatory quality in which they average near the 70th percentile worldwide.

The weakest element of eastern European governance comes from the Political Stability Ranking, most notably brought down by the recent turmoil in Ukraine. Numerous other issues affect the region such as Russia's activities in Georgia and attempts to limit free internet. For the most part, these things don't affect day-to-day software development work, but there has definitely been an impact to the market in Russia which has increasingly turned to the domestic and regional marketplaces to fuel its IT industry.

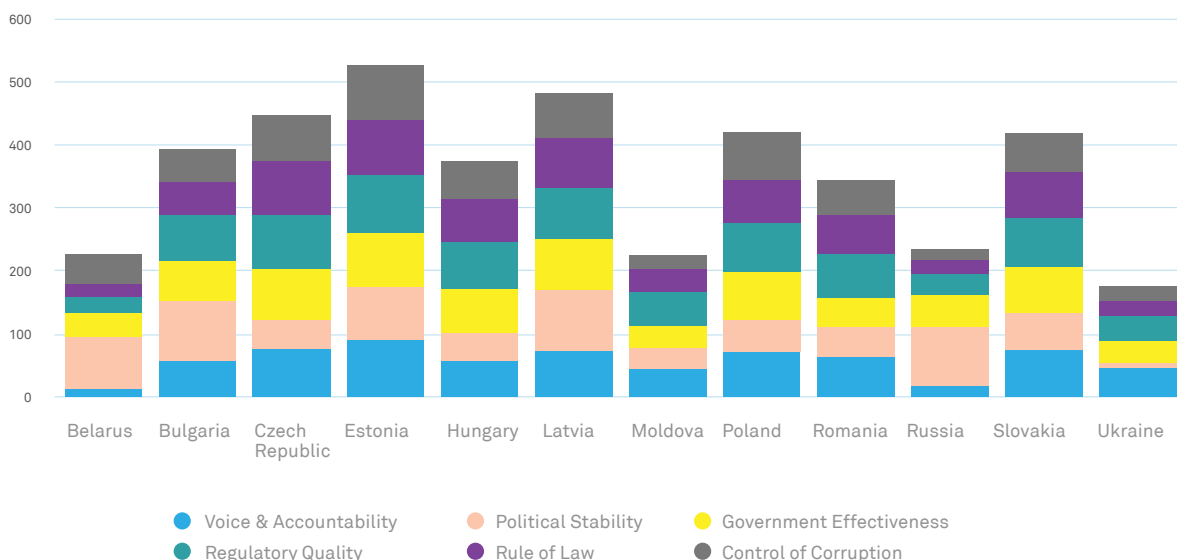
Interestingly, the software and IT industries are among the most resilient to political instability. IT tends to require very little travel, inventory, supplies, logistics, handling of cash, etc. Most companies can thrive with some office space, a bunch of computers, and an internet connection. The primary effect of political instability is in the form of a diminished reputation and desirability to the affected region. Short of an open war or infrastructure collapse, most companies can ensure continuous operation with adequate electricity and internet connectivity.

This was demonstrated after the Russian annexation of Crimea which caused tremendous concern among software clients but very little actual disruption to any companies that were outside of the immediate region. In fact, the primary interruptions came from companies located in that area that decided to relocate to the west. Yet, even those companies were quick to recover.





## GOVERNMENT EFFICACY SCORES BY COUNTRY



Estonia displayed a significant advantage over other countries in the region with a score of 88–67% higher than the regional average. Like Poland and Latvia who also scored high, these countries have benefitted from a long-standing effort to reduce corruption, promote good governance, and establish a reputation as a safe and well-regulated region. These three countries show that solid governance and EU membership can effectively position a country as a ‘safer’ region for outsourcing (with rates rising accordingly).

A reputation for poor governance can have a negative effect on IT outsourcing and bring down prices and overall market activity. However, the degree to which a negative reputation can hurt an IT industry is unpredictable. Given the dramatic political instability in Ukraine over the last several years, it is unsurprising that Ukraine comes in with the lowest score of 30–57% lower than the regional average of 52. That said, Ukraine continues to be among the top outsourcing destinations with a strong reputation for skilled engineers and top quality.



At SourceSeek, there is just one governance-related concern that we consistently hear from clients—IP protection. Clients continue to worry about their ideas or trade secrets being stolen by their Eastern European partners, especially when outsourcing to Ukraine.

In practice, these concerns seem unnecessary as there is little evidence to show that any of these countries have issues with IP security. For many clients, the concern is not that their IP is likely to be stolen, it's that the court system would be unreliable if it did happen. While that is a legitimate concern, most clients need not worry about IP security in any country in Eastern Europe.

## IT Ecosystem

A thriving IT ecosystem brings tremendous value to a region and is one of SourceSeek's key indicators used to assess the health and maturity of a region's IT industry. Our research reveals that Eastern Europe has the most robust and active community of all the regions we analyze, and will likely remain in the top spot for years to come.

What makes Eastern Europe's IT ecosystem so impressive? Here are some sure signs of a strong IT community, the benefits they bring to the region, and ultimately, to clients.

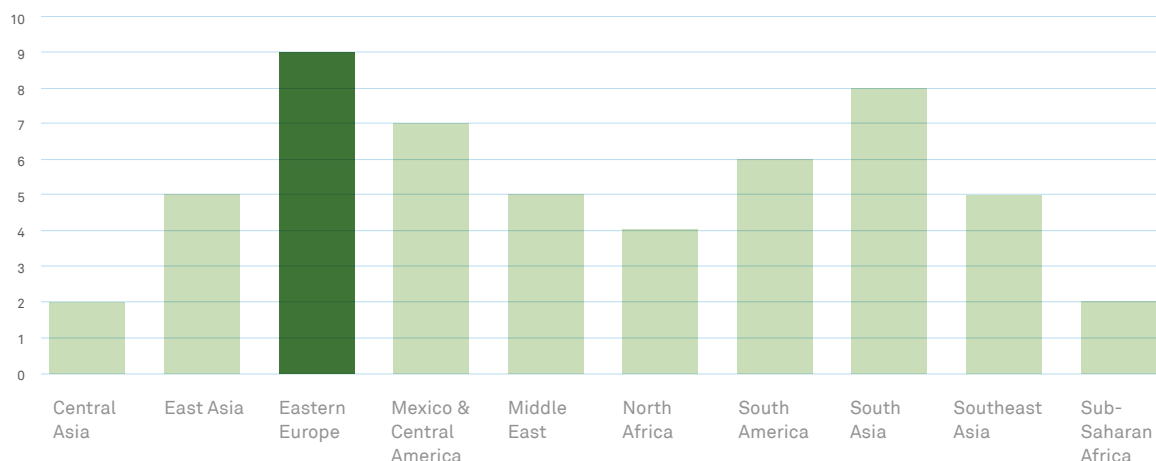
1. Excellent integration between IT companies and universities: Throughout the region, universities are involved in everything from graduate recruiting and job fairs to event sponsorship. This has a two-way result: IT companies benefit from access to new talent, while universities are able to stay current with market needs and the latest technologies.
2. Lots and of events and meetups: Every year a growing selection of conferences attract software professionals from around the region and the globe. These conferences have reached a world-class level and keep Eastern Europe in the middle of the conversation for investors, entrepreneurs, and software professionals.



Big conferences are generally held in the larger cities, but tech doesn't stop there. We see hackathons and meetups occurring just about everywhere.

3. Entrepreneurs, startups, and investments: A sure sign of a healthy IT ecosystem is the presence of capital investment and local startups. Venture capital is growing steadily in Eastern Europe and new startups are increasingly able to seek investment at home rather than going abroad to find funding. This means that the ecosystem has matured so much that entrepreneurs can launch a startup, get funding, exit, and start again without having to go abroad.

### IT ECOSYSTEM BY REGION

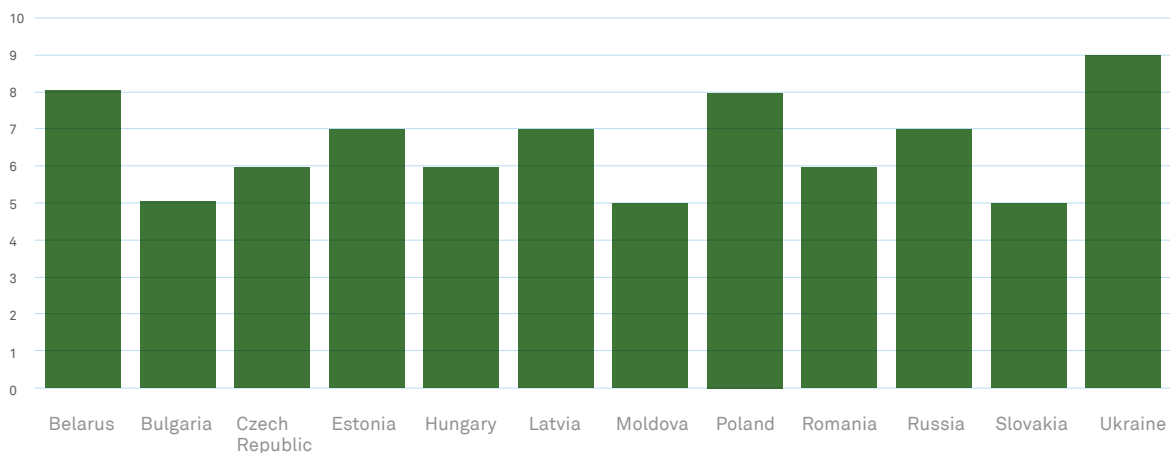


Ultimately, the reason the IT ecosystem is important is because software is a complex, difficult subject and all software professionals benefit from collaborating with others. Developers are more likely to reach a high level in their career if they are managed by, exposed to, mentored by, and in touch with a wide variety of people in the field.





## IT ECOSYSTEM BY COUNTRY



Not surprisingly, Ukraine, Poland, and Belarus have the strongest ecosystems which is the result of their hard work and years of effort to build a strong IT culture in those countries. Slovakia and Moldova still struggle to bring critical mass to their ecosystems. Russia has a fairly strong ecosystem with an abundance of professional, social, and other activities, and networking in multiple major cities. However, they've failed to attain the highest scores because of the somewhat insular nature of the IT culture there—with little international or global focus.





## CULTURE

While Eastern European countries each have their own distinct cultures, the overall culture in the region is well-suited to do effective business with clients in the U.S. and Western Europe. The cultural fit between a client and vendor is critical to success, and cultural issues are one of the top—if not the top—cause of project failure.

In many cases, a cultural misunderstanding will manifest itself as a quality issue. For example, communications issues between the client and the team may cause project fatigue, incorrect interpretation of requirements, or a lack of confidence among the developers. Regardless of the cause, the issue will usually go unnoticed until it manifests itself in the form of bugs and missed deadlines. Usually by that point, the relationship has soured and the project derailed.

### Language

The most obvious cultural barrier continues to be language ability, but clients can expect to find reasonably good English spoken at most outsourcing companies in Eastern Europe. Many people learn English in school, and larger companies routinely offer English classes to their developers. Accents can be difficult to understand sometimes, but in general, language skills will be a minor annoyance in this region.

### Grit & Problem Solving

Science and math are highly respected and important fields in Eastern Europe. University education tends to be rigorous and advanced. This provides university graduates with a strong knowledge of science and math—a perfect foundation for the complex problem-solving mentality needed to be a successful software engineer.



This is complemented by the ‘do it right’ approach to software engineering seen throughout the region. It’s generally held that investing the time to do things in the right way from the start will ultimately save time in the end—an attitude that is given lip service by many other cultures that give in to shortcutting and Band-Aid development.

This ‘do it right’ approach is almost universally effective on larger, complex projects and is one of the reasons that Eastern European developers have a strong reputation for quality. However, many clients may become frustrated when the developers seem to be spending too much time ‘getting ready’ with foundational work before jumping into actual feature releases or bug fixing.

In most cases, there will be real ROI in the end so it’s worth doing the upfront work, but don’t be surprised if your developers seem to spend much more time refactoring than expected—Eastern European developers tend to be highly averse to technical debt.

## Communication Style

For the most part, Eastern European developers have a refreshingly straightforward communication style, and are comfortable answering questions with accurate, unfiltered responses. In the decision-intensive world of software development, this clear communication style sets the region apart from other places where more nuanced and subtle communications are the norm.

While communications tend to be clear, there is one behavior that many clients are initially surprised and confused by (especially American clients). In keeping with their high level of respect for science and engineering, many Eastern Europeans will begin their communications with a client with a very serious affect, without much small talk or levity. Many clients see this as disinterest or unhappiness, but usually it’s just the developer demonstrating that they are paying attention, taking it seriously, and working hard to get things going and ‘do it right.’ Don’t worry, the developers will eventually loosen up and have some fun, but not until it’s evident that they are serious about your project!



## Work Habits

We define work habits as the way people behave in the workplace, rather than their skill set or experience. For example, we consider all of the following to be elements of work habits: workplace etiquette, organizational hierarchy and subservience, face-saving behavior, boldness in communication, approach to problem solving, ability to clearly say yes or no, and flexibility of process.

In this category, Eastern Europeans again compare well to many other regions, largely because of their proximity to Western Europe and the subsequent cultural alignment. That said, it could be argued that Eastern European work styles are incredibly well-suited for software development, and even more so in the context of outsourcing software.

For example, most experienced software developers agree that the software world is incredibly complex with nearly constant decisions and problem-solving challenges in every project. These decisions and problems can range from the choice of approach to fix a small bug, to huge technology decisions. When a group of people make decisions together, there is a great benefit to having frank, clear, honest, and bold communications from team members of all levels.

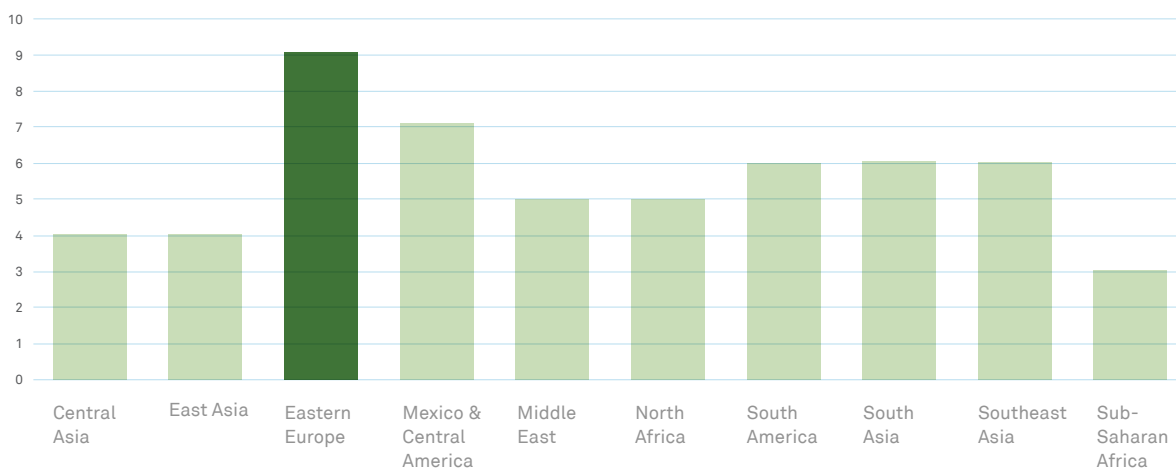
Eastern Europeans are notorious for having a strong, assertive communication style which favors open, honest communications without the need for face-saving or worrying about contradicting one's boss. In fact, many clients initially find their Eastern European teams a bit too negative because they are apprehensive to support a plan or deadline until all the potential risks and pitfalls have been explored.

A savvy team leader knows that this tendency to bring issues out into the open without hesitation creates the perfect environment for agile development and improved quality across the board.



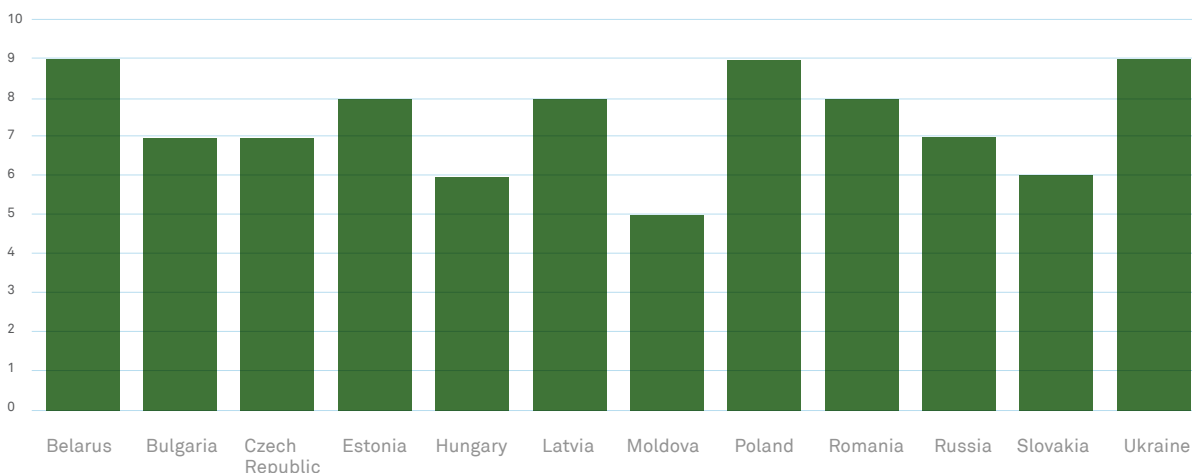


## CULTURE BY REGION



While it can be said that Eastern Europe as a whole has an excellent culture when it comes to IT outsourcing, each country has its own unique characteristics and some countries may be a better fit for some clients rather than others. For example, while Belarus, Ukraine, and Poland are again at the top of the scale, they each have different cultural strengths.

## CULTURE BY COUNTRY





Poland enjoys the highest degree of familiarity and proximity to Western Europe and a deep cultural connection with the U.S. This, combined with EU legal protection, makes Poland feel safer as a destination with less perceived risk. Ukraine is familiar to clients, but carries the stigma of political unrest and a reputation as a hotbed for fraud. However, Ukrainian developers are supremely assertive and arguably the very best at executing agile and other team-intensive and communication-intensive workflows. Meanwhile, Belarus is less familiar to most clients but has a strong mix of reliability, assertiveness, stability, and quality that's proven to be the ultimate mix for some clients.

In Moldova, the ordinary strengths of Eastern European culture are overshadowed by domestic cultural challenges. A sluggish economy and ongoing political cynicism make most IT vendors less energetic and dynamic despite substantial government efforts to prop up the IT industry. Regardless of Moldova's challenges, excellent teams with strong leadership can still be found and we expect the situation to improve over time.

## LOGISTICS

When your team is thousands of miles away, you may not think much about issues like roads and airport security in the city that your developers live in. However, these basic necessities have a substantial impact on the ability of remote teams to consistently deliver quality code. When assessing logistics as it pertains to outsourcing, we look at a variety of factors.

### Transportation & Travel

For the most part, Eastern Europe has an excellent network of roads, public transit, airports, and train systems. This facilitates good business practices (i.e., people arrive on time) and also makes it easier for clients to visit their teams onsite. Across the region as a whole, transportation quality varies from excellent to below average.



Major cities such as Kyiv, Warsaw, and Moscow will have modern, efficient transportation options, but getting around can prove more difficult in Moldova, Bulgaria, and Romania. When visiting your team in all but the most remote locations in Eastern Europe, you shouldn't expect to wind up stranded or hugely inconvenienced. As you move further out from major cities, train travel can become a bit less efficient and modern, and there are occasional annoyances such as the changing of the wheels to accommodate the different gauge between Poland and Ukraine. Overall, transportation issues shouldn't be a huge concern or barrier to productive business travel.

Sticking with the theme of travel, Eastern Europe is also attractive to clients because of the proximity to Western Europe and easy access from North America. Just about every significant outsourcing destination can be reached via a connection in Moscow, Kyiv, Frankfurt, or Vienna, and most countries in the region don't require a visa. Flights tend to be inexpensive and no-frills, but still reliable and usually the easiest way to get from city to city. Be sure to research the transportation options to your specific destination, sometimes a train is the faster option.

Hotels in the region are a mixed bag and quality vary widely. In some cities such as Moscow, staying at a business class hotel will be surprisingly expensive. In other cities, such as Kyiv and Bucharest, hotels are less expensive but may not offer quite the level of service you'd expect by Western standards. Making the wrong hotel choice in Chisinau or Minsk might land you in a depressing, Soviet-style hotel, so it's best to stick with business class hotel chains until you familiarize yourself with the area.

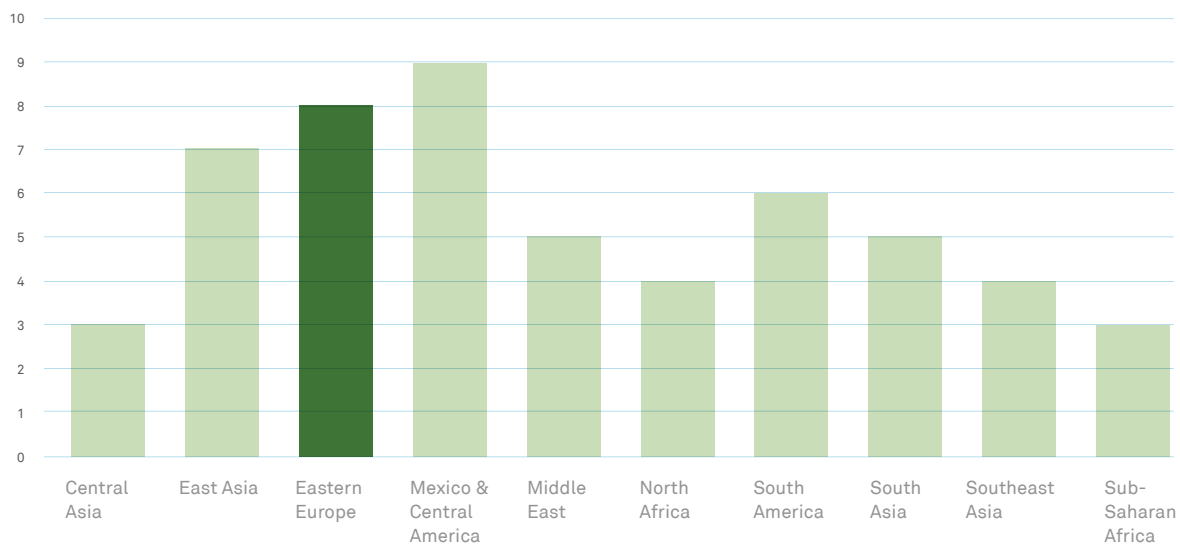




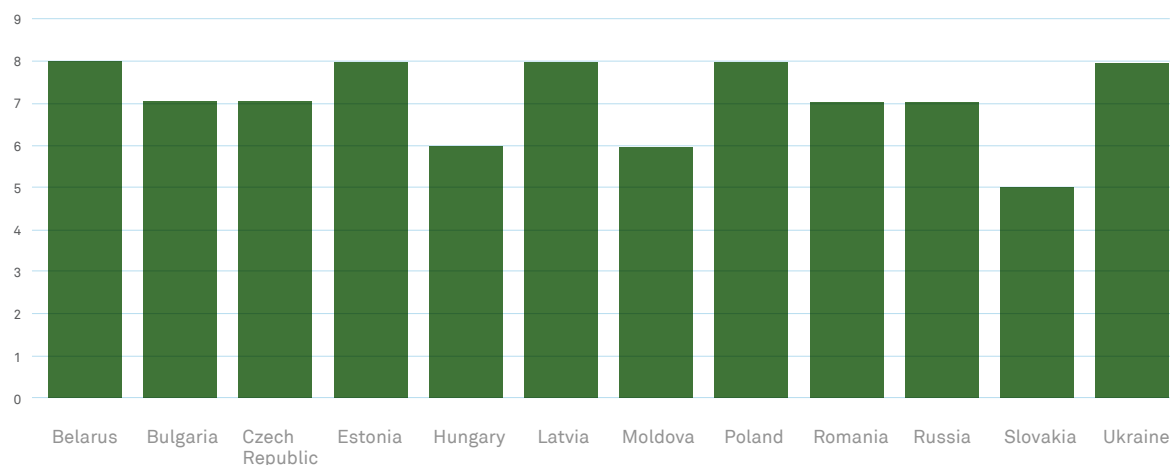
## Internet and Utilities

Reliable internet and electricity are probably taken for granted in your home country, but it's a real concern in many outsourcing destinations. Fortunately, Eastern Europe has extremely reliable internet in most areas and electrical outages are rare. In this category, Eastern Europe is on par with Western Europe and North America.

### LOGISTICS BY REGION



### LOGISTICS BY COUNTRY







## SOURCESEEK CAPABILITIES & VALUE INDEX (CVI)

SourceSeek's CVI (Capability & Value Index) is a composite of six measures that, when combined, give us a strong indication of the potential for a region or country to provide quality engineering services in a stable and efficient manner along with minimal operational overhead and optimal value.

METRIC	WHAT IS CONSIDERED
Education	The United Nations Education Index is an average of mean years of schooling (of adults) and expected years of schooling (of children), both expressed as an index obtained by scaling with the corresponding maxima.
Governance & Economy	The Worldwide Governance Indicators (WGI) are a research dataset summarizing the views on the quality of governance provided by a large number of enterprise, citizen, and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, international organizations, and private sector firms. The WGI do not reflect the official views of the World Bank, its Executive Directors, or the countries they represent. The WGI are not used by the World Bank Group to allocate resources.
Culture	<p>This metric looks at the local culture as it pertains to IT engineering, software delivery, and the ability to provide quality, professional services remotely. A few of the specific cultural issues we examined include:</p> <ul style="list-style-type: none"><li>■ General workplace communication style</li><li>■ Ability to transcend organization charts</li><li>■ Boldness in communication</li><li>■ Workplace hierarchy, subservience, face-saving behaviors</li><li>■ Problem-solving styles, flexibility of thought</li><li>■ English language skills</li><li>■ Directness of speech</li><li>■ Perceived and actual effort and productivity</li><li>■ Aggressiveness in solution implementation and overcoming obstacles</li></ul>



<b>Logistics</b>	<p>This metric looks at the physical, logistical, operational, and other basic elements involved in outsourcing to a region, such as:</p> <ul style="list-style-type: none"><li>▪ Ease of travel</li><li>▪ Climate</li><li>▪ Distance from major cities</li><li>▪ Roads, airports, and transit quality and ease</li><li>▪ Quality and price of hotel accommodations</li><li>▪ Internet reliability and quality</li><li>▪ Overall infrastructure and travel difficulty</li></ul>
<b>IT Ecosystem</b>	<p>Here we look at the size, breadth, depth, and robustness of the IT community in a country or region, including:</p> <ul style="list-style-type: none"><li>▪ Quantity of meetups and local events</li><li>▪ Presence of absence of brain drain</li><li>▪ Ratio of junior engineers to seasoned, senior professionals</li><li>▪ Level of startups and investment activity</li><li>▪ Integration of IT industry with universities</li></ul>
<b>Pricing</b>	<p>Pricing information is generated using SourceSeek's internal data which we generate through our contact with thousands of vendors around the world.</p>

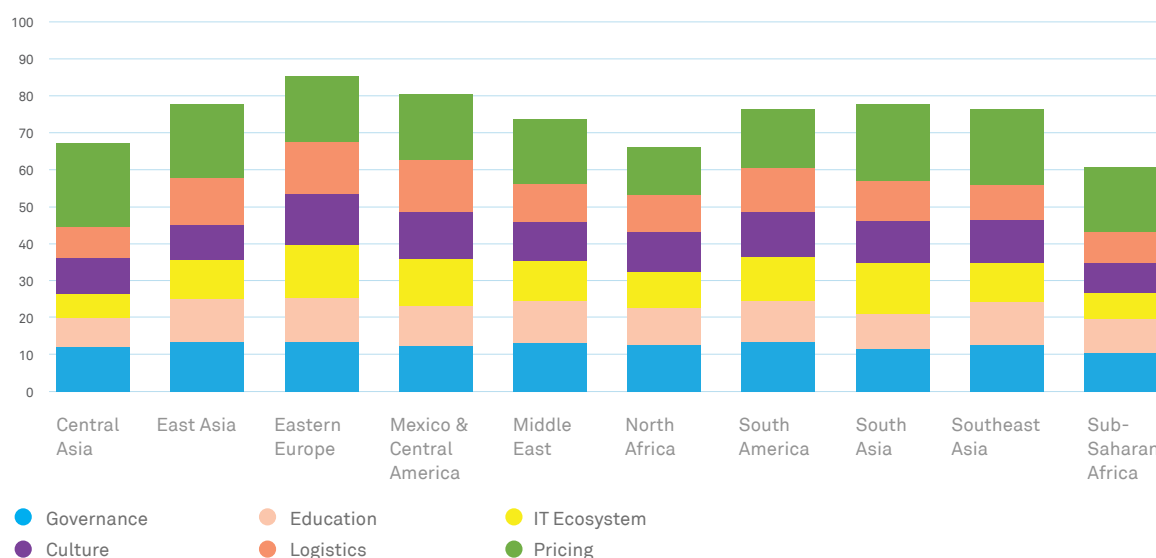




When looking at regional CVI, we see Eastern Europe at the top, demonstrating again that there is substantial room in the market for teams who provide high quality at relatively high prices. In fact, in the last two to three years we are seeing increased demand for top-quality developers from clients who are less price conscious than ever. Also notable is the increase in CVI for South East Asia, a broad and diverse region that has struggled to form strong IT ecosystems but is slowly emerging as an increasingly viable market.

The biggest regional change compared to just five years ago is the impressive rise of Mexico as a strong competitor in the global IT market. Owing mostly to its proximity to the U.S. and the relatively small number of well-trained developers, the IT job market has quickly become competitive and caused prices to rise accordingly. In less than ten years, Mexico went from being a nominal presence in the global IT marketplace to being among the highest prices in any of the regions we monitor. There is every reason to believe that the many high-quality universities in Mexico will steadily increase the developer pool, but it's unlikely that Mexico will ever be cost competitive in general.

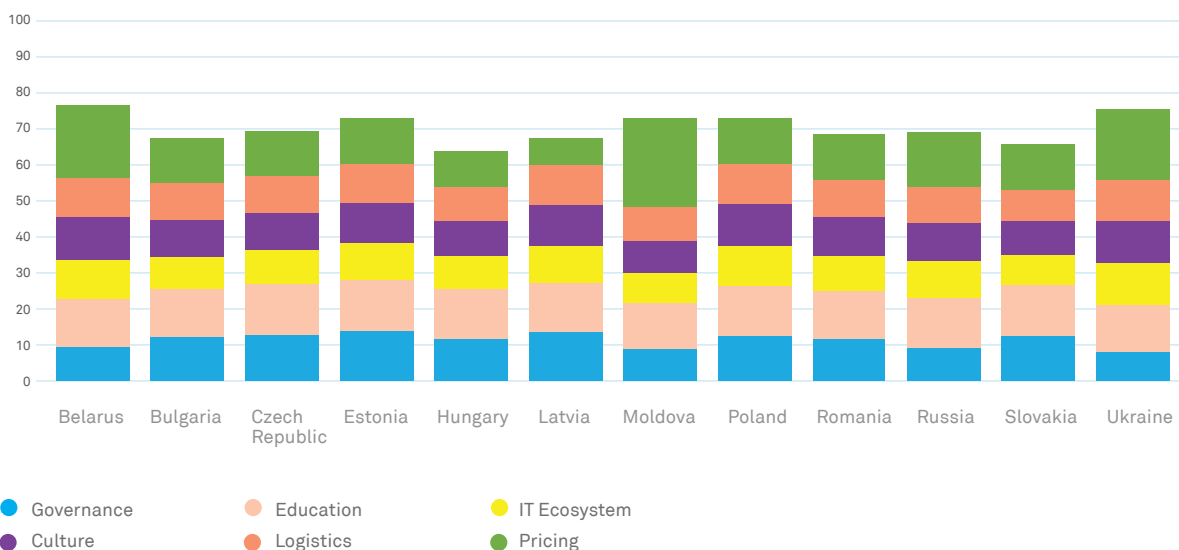
## SOURCESEEK CAPABILITIES & VALUE INDEX (CVI)





Again, Belarus, Poland, and Ukraine are the leaders with each featuring a culture that facilitates IT outsourcing, solid education, and excellent IT infrastructures. While none of those countries are highly price competitive for Eastern Europe, we do see Moldova near the top of the rankings due to its great price advantage. For the most part, the Eastern European marketplace consists of a tight cluster of competing countries where even the lowest-scoring countries are viable competitors on the global marketplace.

### CVI BY COUNTRY





## CONCLUSION

In the near term, there is no indication that Eastern Europe will lose its top position in the global IT outsourcing industry. Nevertheless, the dynamic and efficient IT market is unforgiving and with prices higher than ever, Eastern Europe is feeling pressure from a variety of sources:

- China lags far behind in nearly all categories that make up the CVI Score. However, due to the sheer volume of new engineers, government involvement and subsidization, and potential cost competitiveness, there is the possibility that China will become a player in the outsourcing industry—if they want to be one.
- There is currently no indication that Russia will rebound any time soon. Over the long term, the political pendulums may swing the other way and Russia may again look west to join the global IT marketplace. If so, they could potentially be a strong competitor with current leaders in the region.
- India continues to suffer from reputation issues and sky-high attrition. This will likely change over time as emerging client markets like Japan begin focusing more on India and helping move the industry into a new phase. With the sheer volume of Indian companies and the mature IT ecosystem there, India could easily regain their position as a top outsourcing destination.

We hope this information has been useful to you. If you're a software buyer or decision maker, and are interested in further insights or advice, please contact us at [www.sourceseek.com](http://www.sourceseek.com).