

# Offshore Insights

## Market Report Series

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### RESEARCH SUMMARY:

## South Eastern Europe: Services Globalization's New Frontier

The newest frontier on the supply-side of services globalization is the South Eastern European region, including Slovenia, Romania, Bulgaria, and Croatia. This white paper analyzes each of those four emerging destinations as potentially attractive offshore nations, ranking each on a number of offshore readiness factors.

Slovenia is the most offshore ready nation in the SEE region, with an excellent ICT infrastructure and a supportive business environment. But the small size of the country's labor pool and high wage rates suggest that it may be difficult for the Slovenian outsourcing industry to scale up. Romania has several advantages, including a skilled, cost-competitive labor pool, and low cost of setting up and running a business. But the country's infrastructure and business environment need improvement. Bulgaria has the lowest wage rates in the SEE region and a fairly large labor pool, making the country attractive for volume-driven offshoring jobs. But supplier maturity in Bulgaria is relatively low, and the infrastructure and business environment also need improvement. Croatia is the least offshore ready nation in the region, with a small labor pool and relatively high wage rates. Additionally, supplier maturity in Croatia is low and the business environment is not as favorable.

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How ready are the SEE countries to become attractive Services Globalization destinations?

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INTELLIGENT  
TRANSFORMATION

## Introduction

Services globalization is entering a new phase of evolution. A greater number of organizations in developed countries look to services globalization as a strategic endeavor. Client organizations are increasingly more comfortable with services globalization, and many pioneers are exploring newer destinations in search of resources that will optimize their investment in services globalization.

Those pioneers have so far concentrated their search for untapped resources on countries such as those in the Central and Eastern European (CEE) region – including Poland, the Czech Republic and Hungary.

The CEE region has not only benefited from the growth of services globalization but from improving geopolitics (including EU integration) as well. Poland, the Czech Republic, and Hungary have been able to leverage their advantages – including skilled, cost-competitive labor to effectively market to emerging Western European outsourcing clients in addition to traditional outsourcing clients such as the U.S. and the UK.

Now that the CEE region – formerly the frontier of services globalization – appeals to a wide range of outsourcing clients, the frontier is moving eastward, toward countries in the South Eastern European (SEE) region.

Recognizing that they have untapped potential as nearshore and offshore services destinations, these countries, including Romania, Bulgaria, Slovenia and Croatia, have begun to seek out and develop their outsourcing industries' unique advantages, though those industries are still, for the most part, quite underdeveloped.

In contrast to neoIT's September 2005 "Mapping Offshore Markets Update 2005," the aim of this white paper is not to evaluate the attractiveness of the four SEE countries as offshore destination, but rather to explore the intrinsic ability of four SEE countries to emerge as viable offshore destinations.

To do that, neoIT has evaluated four SEE countries - Romania, Bulgaria, Slovenia and Croatia - on a number of parameters that determine a country's ability to develop a successful outsourcing industry. This white paper provides the results of that evaluation.

## Methodology

The SEE countries are in the initial stages of their offshore outsourcing lifecycle, yet to attract significant consideration from clients looking to offshore their IT and business processes. Thus these countries are primarily focusing on the development of their offshore outsourcing industries. To help clients understand the readiness of these four SEE nations to build an offshore ecosystem, neoIT has designed the Offshore Readiness Index.

In order to evaluate the four SEE countries, neoIT developed a set of parameters, critical to the successful development of a country's offshore outsourcing industry, which could be universally measured across the countries. The weighted aggregation of each country's ratings on each of the five factors is the basis of the neoIT Offshore Readiness Index.

Specifically, the process for generating the Index is as follows:

- We selected four SEE countries – Romania, Bulgaria, Slovenia and Croatia – for analysis of their offshore readiness.
- Tapping our extensive global sourcing experience and knowledge base as well as secondary sources, we identified five factors that most influence the readiness of offshoring arrangements in a given location. These five factors (Level 1 factors) are:
  - Financial benefit
  - Business maturity
  - People
  - Infrastructure
  - Catalyst
- Each Level 1 factor is comprised on a set of sub-factors (Level 2 factors), which are described in detail in Appendix 2. Each country's rating on the sub-factors is weighted to reflect its relative influence on the corresponding Level 1 factor.
- We conducted comprehensive secondary research on each of the countries analyzed in this report, diligently capturing information on each sub-factor in order to accurately measure the Index for each unique location.
- Using that country-specific data, we assessed the relative position of each country in terms of the Level 2 sub-factors.
- Based on this assessment we rated each country on each of the Level 2 sub-factors on a scale of 1 (low) to 5 (high).
- We then multiplied these sub-factor ratings by their respective weights to arrive at a final weighted rating for each Level 2 sub-factor.
- We then added together the weighted Level 2 sub-factor ratings for each corresponding Level 1 factor to generate a cumulative Level 1 factor rating for each country.
- Finally, we added together each country's five weighted Level 1 factor ratings for a cumulative rating for each country that represents that country's overall readiness for ITO and BPO.

The Level 1 factors and Level 2 sub-factors that we have used to create the Index are listed in the table below along with the weights we've assigned to each Level 1 factor.

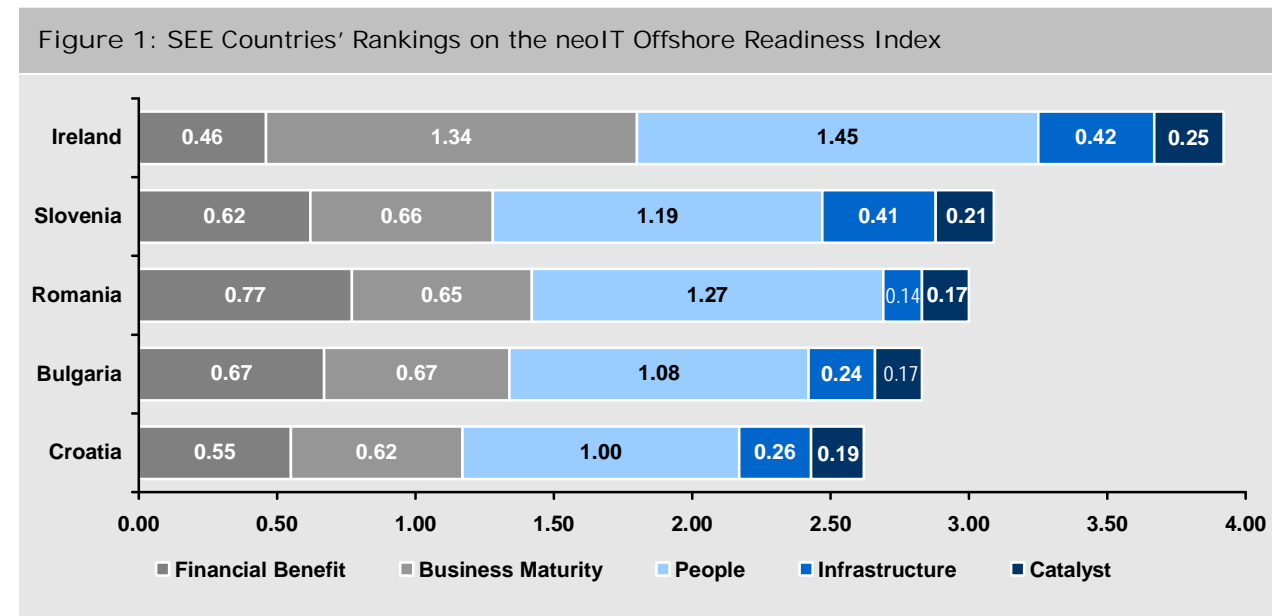
Table 1: Components of the neoIT Offshore Readiness Index

Level 1 Factor	Weight	Level 2 Factor
Financial benefit	18%	<ul style="list-style-type: none"> <li>• Cost of setting up a business</li> <li>• Cost of operation</li> </ul>
Business maturity	28%	<ul style="list-style-type: none"> <li>• Ease of setting up a business</li> <li>• Ease of operation</li> <li>• Maturity of business environment</li> <li>• Flexibility to employers</li> </ul>
People	38%	<ul style="list-style-type: none"> <li>• Labor pool</li> <li>• Language capability</li> </ul>
Infrastructure	11%	<ul style="list-style-type: none"> <li>• ICT infrastructure</li> <li>• Physical infrastructure</li> </ul>
Catalyst	5%	<ul style="list-style-type: none"> <li>• Catalyst</li> </ul>

Ireland is included in the analysis as a benchmark for complete offshore readiness (Ireland is the most mature outsourcing destination in the European region).

### Offshore Readiness of SEE Countries

The following diagram reveals each country’s overall Offshore Readiness Index rating.



Source: neoIT

## Slovenia

With highly developed information and communications technology (ICT) and physical infrastructures, and a sound, entrepreneur-friendly business environment, Slovenia is the most offshore ready destination in the SEE region.

The country's ICT network is strong and reliable, with a communications penetration rate that's the highest in the region. Slovenia's physical infrastructure and transportation network is also excellent. In fact, Slovenia's physical and ICT infrastructures are on par with those in many developed nations.

Another of Slovenia's advantages is its European Union membership. Not only does EU membership offer Slovenia a level of credibility many non-members lack, but it also reflects a commitment to economic and political progress that other countries may not be able to easily demonstrate. Slovenia's EU membership will continue to be a strong asset.

But Slovenia is not strong on the people factor. Its labor pool is the smallest in the region, and the percentage of students graduating with computing and engineering degrees (often foundations for ITO careers) is also relatively low. On the other hand, the country's education system is the best in the region and is overall well-suited to producing high-quality employees.

Slovenia also ranks lower on the financial benefit factor: the average gross monthly wage is much higher in Slovenia than in the other SEE countries.

And while Slovenia's business environment is strong in many respects, the cost of setting up a business is relatively high (and the ease of setting up a business relatively low) due to a

greater number of procedures required to start a business and a lengthier property-registration process.

Slovenia's unique advantages and disadvantages suggest that the country may be able to service the market for high-end, complex projects. The country's business climate may be better suited to third-party arrangements rather than captive centers.

To broaden its services potential, Slovenia should reform its business set-up and property registration processes to minimize the number of procedures required as well as the time-intensiveness of the processes.

## Romania

Romania is the second most ready offshore destination in the SEE region, based on the Offshore Readiness Index.

Romania's advantages include business set-up and operations cost-competitiveness as well as an entrepreneur-friendly business environment. Business operations costs, including telecommunications and office rental rates, are among the lowest in the region. In addition, setting up and running a business is relatively procedurally simple in Romania.

Romania also ranks highly on the catalyst factor, with governmental policies that promote business growth. Though the country's corporate tax rates are the highest in the SEE region (at 25%), the Romanian government offers exemption from profit and value-added taxes in the country's free trade zones. The country encourages foreign investment, allowing unrestricted repatriation of profits, dividends, and proceeds from the sale of bonds, shares, and other securities in hard currency. Nor are there limits on the outflow or inflow of funds for remittances of

profits, debt service, capital gains, returns on intellectual property, or imported inputs. Finally, the government treats domestic and foreign companies equally.

The Romanian labor pool is good due to a strong education system that heavily emphasizes math and science; and English- and French-language proficiencies are high.

Already a fairly active offshore destination with more than 8,000 people employed in the outsourcing industry, Romania's unique advantages suggest that the country's potential lies in high-end, complex ITO projects as well as BPO work. Romania is equally hospitable for third-party arrangements and captive operations.

To develop the country's offshore attractiveness, Romania should allow employers more flexibility to hire and fire employees in accordance with market demand. Physical and ICT infrastructure improvements will be a critical part of Romania's development, as will be the reduction of corruption.

## Bulgaria

Bulgaria is the third most offshore ready nation in the SEE region. Bulgaria's advantages include easier business set-up and operations as well as cost competitiveness. Salary levels in Bulgaria are the lowest on average in the SEE region. The country's tax rates, business set-up costs, and office rental rates are also among the lowest in the region.

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office rental rates are also among the lowest in the region.

In addition to the advantageous cost-saving factors, Bulgaria scores well on other business environment factors, too. The country offers the highest rate of flexibility to employers, allowing them to manage their workforce (hire and fire employees) according to market demand.

Bulgaria also has advantages on labor pool factors: the country has the second-largest labor pool in the region, and the number of students graduating from Bulgarian institutions of higher education is greater than in Croatia or Slovenia, as is the percentage of students graduating with computing and engineering degrees.

Despite a large labor pool and high number of qualified graduates, language proficiency in Bulgaria is lower than in other SEE countries.

Other disadvantages include a relatively small, immature domestic IT industry, within which very few companies have experience providing offshore services. In addition, IP protection is limited and software piracy rates are very high. The country's geopolitical climate seems riskier than other SEE countries'; and its ICT and physical infrastructures are lacking.

Due to a relatively business-friendly environment, Bulgaria may be an attractive location for captive operations.

Within BPO, the country may be able to provide volume-driven, non-voice-based services; within ITO, Bulgarian suppliers are best-suited to low-level, volume-driven work. Overall, Bulgarian suppliers are far better suited for ITO than BPO.

To successfully develop its attractiveness as a nearshore or offshore outsourcing destination, Bulgaria must improve its ICT and physical infrastructure, strengthen its IP protection policies and reduce software piracy, and prove that its geopolitical climate is stable.

## Croatia

Croatia is the least offshore ready of the four SEE countries. Croatia's disadvantages include a higher level of difficulty and costliness to start a business, though ease and cost of operating a business are good, suggesting that the country is relatively better suited to third-party arrangements than captive operations.

The country's education system is good, and its labor pool is skilled and particularly proficient in the German language. But a relatively small labor pool may make scaling up difficult as the demand for knowledge workers increases. The average salaries are also one of the highest in the region.

To successfully develop its offshore readiness, Croatia should look to high end niche strategy to do justice to its skilled but relatively expensive labor pool. In the BPO industry, it can leverage its superior German-language proficiency.

In addition to developing its advantages, the country will have to work to minimize its disadvantages. Simplifying business start-up and property registration procedures would be a positive start. In addition, allowing employees greater flexibility to hire and fire employees according to market demand would

encourage the development of the knowledge industry in Croatia.

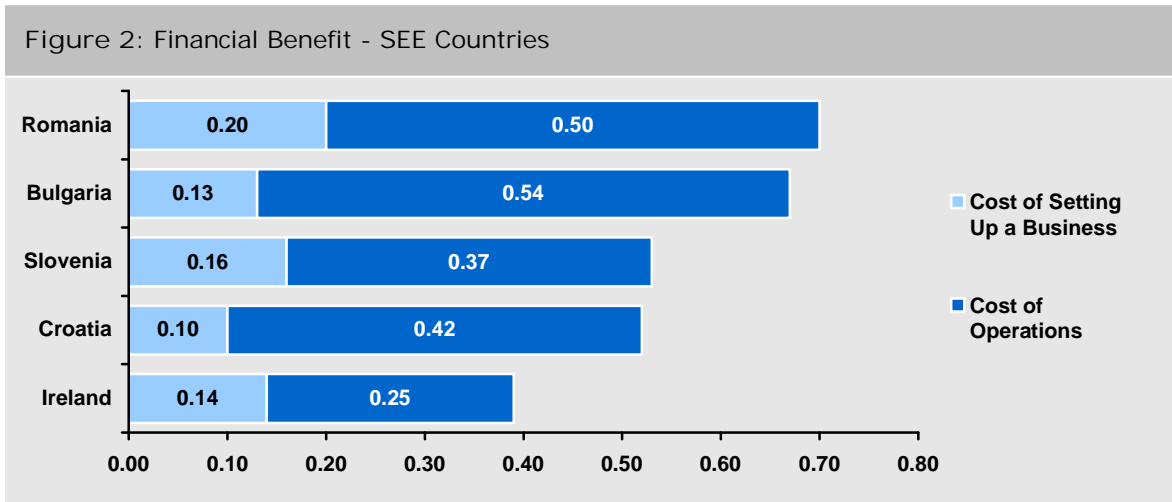
## The Bottom Line

Though all four of the SEE countries we've analyzed are actively working to improve their offshore attractiveness, they lag far behind developed offshore destinations such as Ireland, Europe's current offshore leader and the benchmark for offshoring. Though Ireland's attractiveness is diminishing, the country still enjoys the benefits of an early mover, excellent business conditions and a highly developed nearshore/offshore ecosystem. Ireland's labor pool is highly skilled and its suppliers are among the most mature in the industry. But the country is increasingly negatively impacted by an inability to meet rising employment demand, which has not only negatively affected scalability, but has also led to an increase in salary levels far beyond cost competitiveness. In that way, Ireland can be a lesson that emerging SEE destinations can use to manage their country's attractiveness as an offshore destination. Sustainability will come from positioning each destination country in the right spot and developing the right ecosystem to support it.

To catch up with Ireland, the four SEE countries we've analyzed must significantly improve their supplier maturity levels and streamline government policies to enable development of the offshore outsourcing industry. Nurturing and sustaining their labor pools will also be a critical long-term success factor for the emerging SEE countries.

## DETAILED LEVEL 1 FACTOR RANKINGS

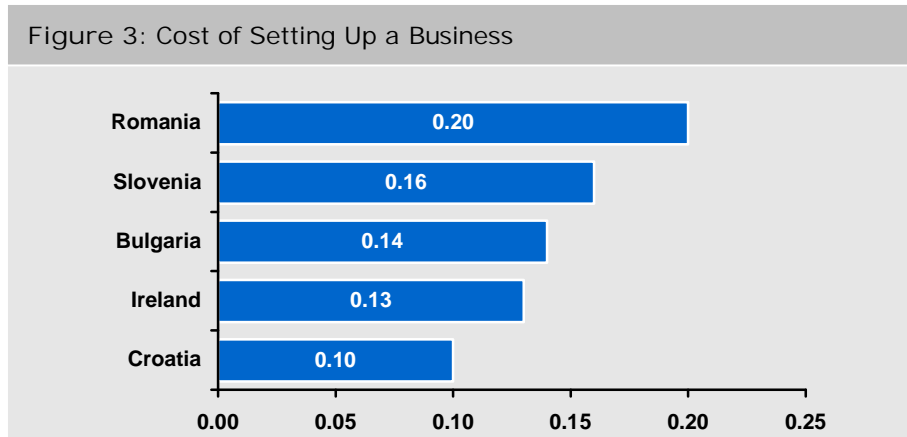
## Financial Benefit



Source: neoIT

Cost advantage remains one of the key criteria for sourcing IT and business processes offshore. Most often a destination's cost advantage has two fundamental elements: the cost of setting up a business; and the cost of running a business (operations). Favorable cost differentials on either one or both of those elements are often important benefits of an offshoring engagement.

## 1. Cost of Setting up a Business



Source: neoIT

Table 2: Cost of Setting Up a Business

	Ireland	Romania	Bulgaria	Croatia	Slovenia
Minimum capital required (percent of GNI per capita)	0.0	0.0	104.2	22.7	17.0
Cost to start a business (percent of GNI per capita)	5.3	5.3	9.6	13.4	10.1
Cost of purchasing property (percent of property value)	10.3	2.0	2.3	5.0	2.0
Cost to create collateral agreement (percent of GNI per capita)	3.2	1.1	1.0	6.1	3.2

Source: *Doing Business in 2006 Report, World Bank*

Among the four SEE countries, Romania is the least expensive country for starting a business. As in Ireland, an entrepreneur in Romania does not need to pay any official fees or deposits to start a business. The total cost to start a business (as a percent of GNI per capita) in Romania decreased from 11.7% in 2003 to 5.3% in 2005 and is the lowest among all of the SEE countries.

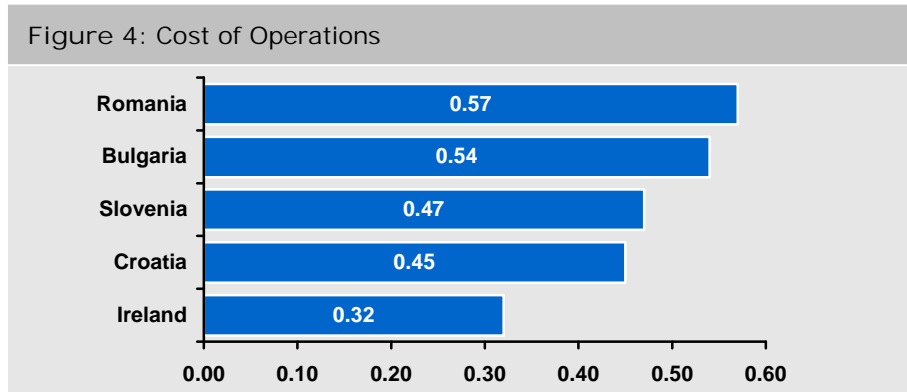
Slovenia is also a cost competitive country to set up a business. Like Romania, the cost of purchasing property as a percentage of the property value is low. The minimum capital required to set up a business (as a percentage of GNI per capita) is the second lowest in the region.

In Bulgaria, an entrepreneur must deposit a large amount of money (approximately 104%

of GNI per capita) before starting a business. That deposit requirement is the highest among all of the countries in the SEE region, though it has declined from 134% in 2003. On the positive side, the cost to create collateral as a percent of per capita income is the lowest in the region.

As the most expensive country for starting a business, Croatia is the least prepared to encourage entrepreneurship to set up businesses. In Croatia, the total cost of starting a business (as a percent of per capita income), the cost of purchasing a property (as a percent of the total value of the property) and the cost to create a collateral agreement (as a percent of per capita income) is the highest among the four SEE countries.

## 2. Cost of Operations



Source: neoIT

Table 3: Cost of Operations

	Ireland	Romania	Bulgaria	Croatia	Slovenia
Corporate tax rate (percent)	12.5	25.0	19.5	20.0	25.0
VAT/import tax (percent)	21.0	19.0	20.0	22.0	20.0
Prime office rent in capital city (\$ per square feet per annum)	596	252	261	261	268
Telecommunications rate (\$ per minute)	0.20	0.29	0.46	0.56	0.18
Shipping rate (\$ per lb)	2.84	1.64	N/A	5.96	3.99
Cost to enforce a contract (percent of debt amount)	21.1	12.4	14.0	10.0	15.2
Average gross monthly wages (\$)	N/A	247	186	953	1,369

Source: *Doing Business in 2006 Report*, National Investment Agencies, CBRE, National Telecoms, National Airlines

As the least expensive country for starting a business, Romania also offers the least expensive environment for running a business. The average gross monthly salary is very low in Romania compared to other countries in the region, second only to Bulgaria. The cost of renting office space in a prime location in the capital city is also the lowest in the region. Romania also fares consistently well in other cost of operations parameters compared to other SEE countries.

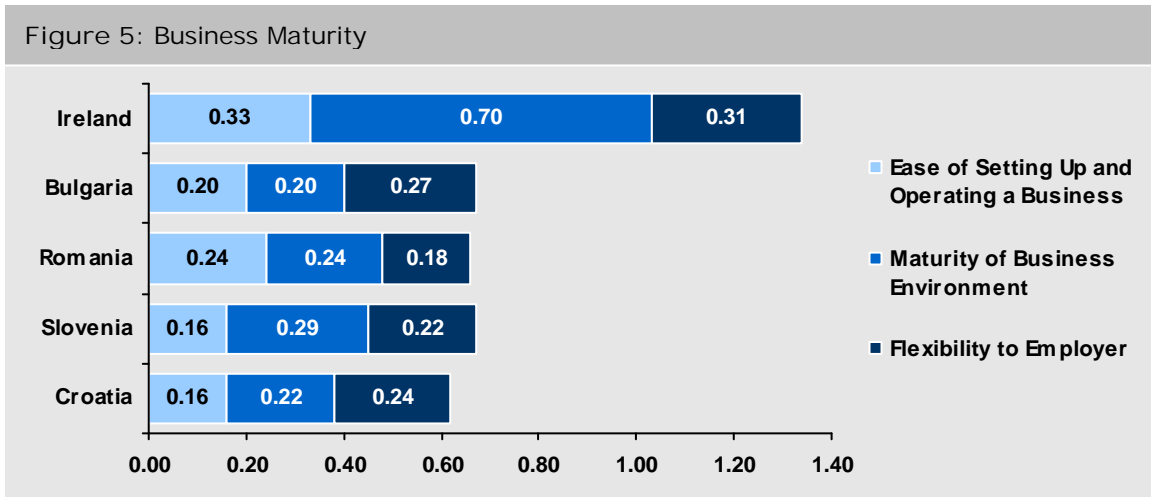
Bulgaria also offers attractive cost benefits, with the lowest average gross monthly wage in

the region. The corporate tax rate in Bulgaria, at 19.5%, is also the lowest in the region.

In Slovenia, the average gross monthly salary is the highest in the SEE region. The corporate tax rate is also highest in the region. But Slovenia scores well in telecommunications costs compared to other SEE countries.

The average gross monthly wage in Croatia is very high compared to Romania and Bulgaria. Shipping rates and telecommunications rates are also high - the highest in the region. But at 20%, the corporate tax rate is the second lowest in the region.

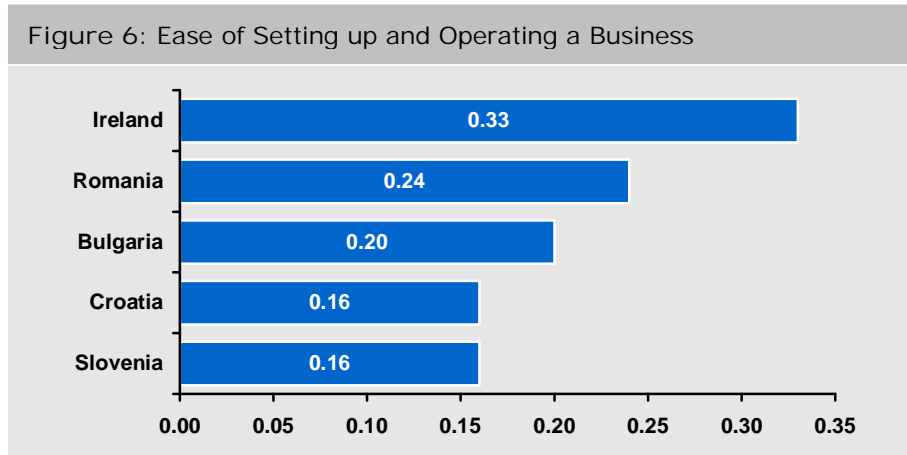
### Business Maturity



Source: neoIT

The business maturity of an offshore destination is essential from a serviceability point of view. A more mature destination provides better service quality as well as superior execution and delivery and should be able to foster entrepreneurship. A mature business environment is tuned in to the typical requirements of offshore outsourcing and key client concerns. Business maturity can be measured, in part, by the flexibilities provided to entrepreneurs and employers to run their business.

## 1. Ease of Setting Up and Operating a Business



Source: neoIT

Table 4: Ease of Setting up and Operating a Business

	Ireland	Romania	Bulgaria	Croatia	Slovenia
Number of procedures required to start a business	4	5	11	12	9
Time required to start a business (in days)	24	11	32	49	60
Number of procedures required to register property	5	8	9	5	6
Time required to register property (in days)	38	170	19	956	391
Facility space available to lease in the capital city (in sq feet)	4,653,095	893,429	667,919	322,926	96,878
Number of procedures required to enforce a contract	16	43	34	22	25
Time required to enforce a contract (in days)	217	335	440	415	1,003

Source: *Doing Business in 2006 Report*, World Bank, CBRE

Of the four SEE countries, Romania provides the most conducive conditions for an entrepreneur to start a business. The country has introduced the single-point clearance facility which requires only 5 visits and 11 days to complete the procedures to start a new business. Romania has also eliminated the mandatory use of both a notary and a judge for business registration. And Romania's capital city has more office space available for lease than the other countries' capital cities.

In Bulgaria, an entrepreneur engages in 11 procedures and spends 32 days starting a business. Those figures represent a less

flexible environment than in 2003, when business registration required 10 procedures and 30 days. On the positive side, Bulgaria recently introduced a case-tracking system for staff planning in the judiciary, which sped up the enforcement of contracts.

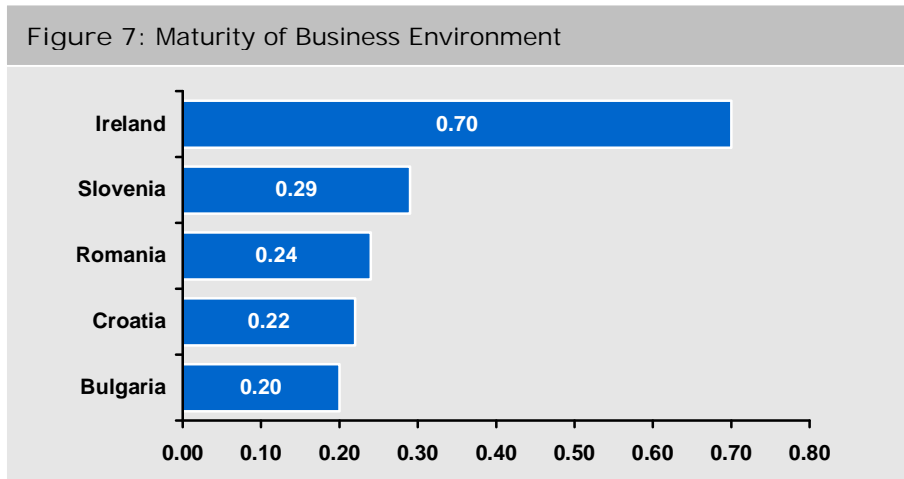
The procedure to start a business in Croatia requires the greatest number of days of all four SEE countries. Court backlogs can stretch the time required to register a property to 965 days (the highest in the world). Croatia's contract enforcement system is also among the slowest in the world. The number of

procedures required to start a business is also the highest among the four SEE countries.

But it is in Slovenia that setting up a business is the most difficult. It takes 391 days, on average, for an entrepreneur to register a property (making Slovenia’s property registration process the second slowest, behind

Croatia’s). That time delay is due primarily to court backlogs. The average time to enforce a contract in Slovenia is the highest among the SEE countries. And compared to the capital cities of other countries in the region, Slovenia offers the lowest number of real estate facilities for lease.

## 2. Maturity of Business Environment



Source: neoIT

Table 5: Maturity of Business Environment

	Ireland	Romania	Bulgaria	Croatia	Slovenia
Country quality of life index	1	58	57	49	27
Number of foreign workers	114,200	65,199	N/A	3,240	39,018
Software piracy rates (%)	41	73	71	59	52
Country risk rating	86.4	72.1	71.0	73.2	79.4
Size of domestic IT services industry in 2005 (\$ M)	995	160	70	170	175
Quality adherence of service – BS 7799	11	1	N/A	2	1
Corruption perception index	7.5	2.9	4.1	3.5	6.0

Source: The Economist, Mercer, USTR, Transparency International, neoIT estimates

Among the SEE countries discussed in this report, Slovenia's is the most mature business environment. Slovenia has the unique distinction of being the only European Union (EU) member country in the region. The country provides a transparent and hassle-free business environment relatively free of bureaucracy. The country's geopolitical situation is also favorable for the outsourcing industry. And with its historical ties to Western Europe, Slovenia enjoys a per-capita GDP that's substantially higher than other transitioning SEE economies'; in March 2004, Slovenia became the first transition country to graduate from borrower status to donor partner at the World Bank. In terms of process maturity, however, only one Slovenian service provider is BS 7799 compliant.

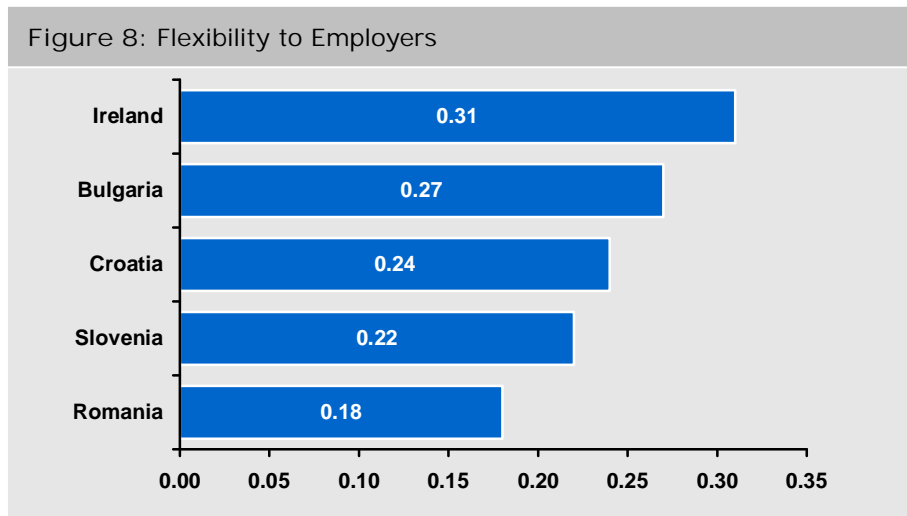
The Romanian economy has integrated with the world economy and now boasts the largest number of foreign workers among the four SEE countries. And economic conditions are improving; an IMF standby agreement, signed in 2001, has led to slow but palpable gains in privatization, deficit reduction, and the curbing of inflation. But bureaucratic hassles and corruption are prevalent and the country's geopolitical environment is risky because of its disputes with the Ukraine for the Black Sea

maritime boundary. However, Romania's domestic IT industry is vibrant; there are more than 2,000 software development companies, many of which export their services to the EU and North American markets. In addition, more than 30 IT services providers operated in Romania in 2003.

The Croatian economy has emerged from a mild recession in 2000 and has since averaged a growth rate of about 4%. While macroeconomic stabilization has largely been achieved, structural reforms lag because of deep public resistance and a lack of strong political support. But the country's EU accession process is expected to expedite fiscal and structural reforms.

Bulgaria has the smallest domestic IT industry; about 1,000 small- and medium-sized IT companies operate in Bulgaria, The economy is showing steady progress after an economic downturn in 1996. Low inflation and structural changes have effected a better business environment and the economy has grown at a steady rate of about 4% since 2000. But corruption in the public administration, a weak judiciary, and the presence of organized crime remain challenges for Bulgaria.

### 3. Flexibility to Employers



Source: neoIT

Table 6: Flexibility to Employers

	Ireland	Romania	Bulgaria	Croatia	Slovenia
Average hours worked per week (per employee)	37.2	39.9	40.7	40	40.2
Difficulty in hiring index	28	67	61	61	61
Difficulty in firing index	30	50	10	50	50
Hiring cost (as a percent of salary)	10.8	34.0	32.2	17.2	16.6
Firing cost (in weeks of pay)	52.1	98.0	29.8	37.8	43.0
Rigidity of hours index	40	60	60	60	80
Rigidity of employment index	33	59	44	57	64

Source: *Doing Business in 2006 Report*, World Bank

Bulgaria is one of the least restrictive countries in the world for employers, offering employers a lot of flexibility for hiring and firing. Bulgarian employers face the least procedural hassle to terminate an employee in cases of redundancy. Country regulations don't mandate training or replacement of employees prior to dismissal, and employers don't have to seek permission from labor unions or a labor ministry to terminate redundant employees. Employers also have a lot of flexibility in hiring employees

on an as-needed basis in Bulgaria. But the cost to hire an employee is among the highest in the region.

Croatia also provides employers with hiring flexibility, but employers do not have much firing flexibility. Thus employers take a cautious approach in hiring workers even in case of increased requirement as firing the same worker in case of redundancy will be difficult. But Croatia is gradually adopting

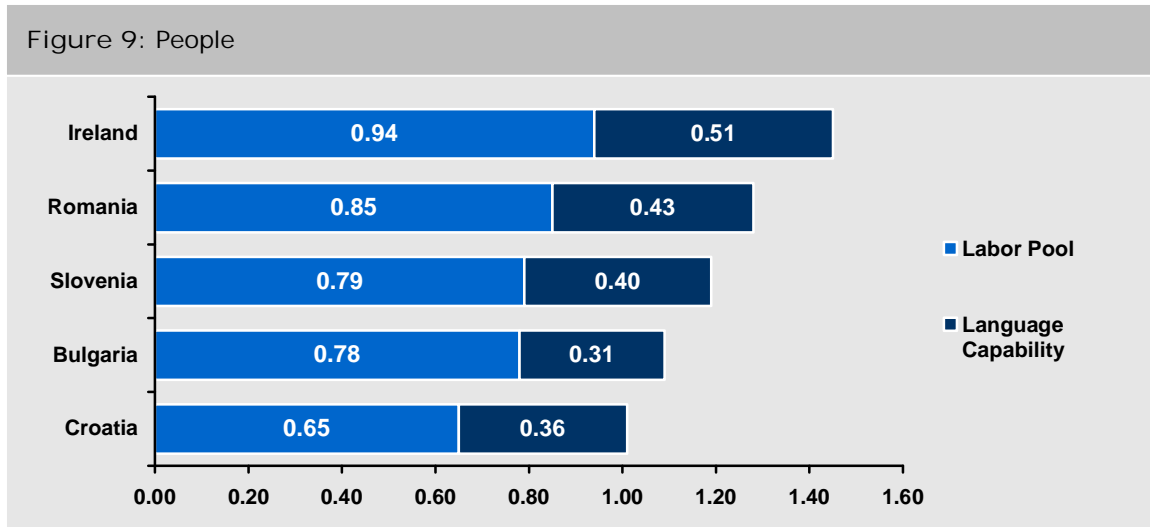
business-friendlier norms that may improve firing flexibility: the country increased the duration of term contracts and expanded their applicability, making it easier to employ contract workers and retain them for longer periods. Hiring costs in Croatia are the second lowest in the SEE region, and firing costs have declined significantly from 55 weeks of pay in 2004 to 37.8 weeks pay in 2005.

Slovenia's hiring and firing regulations are similar to Croatia's. Because employers take a cautious approach to hiring new employees, scaling up to meet new demands could be difficult. The average severance package is

also high at 43 weeks of pay, though that's a slight improvement over 2004, when Slovenia's cost to fire was equivalent to 47 weeks of pay. Positively, hiring costs are the lowest in the region.

Romania is yet to fully dispense with the old way of managing employees, a remnant of its Communist days. The country has recently passed more restrictive regulations to make hiring and firing more difficult for employers. Those regulations increased the premium for overtime work from 50% to 75% and made term contracts possible only exceptional situations (meaning that their use will be rare).

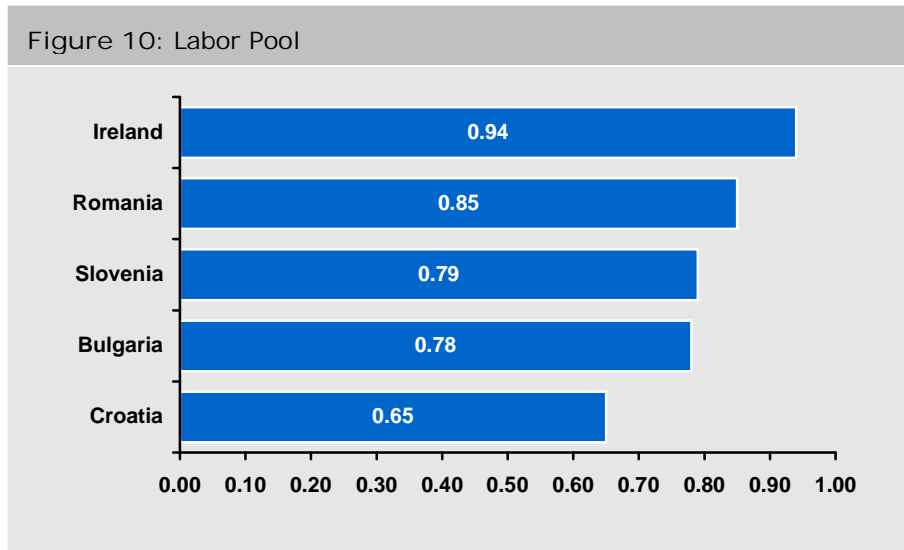
## People



Source: neoIT

The people factor is by far the most critical determinant of a country's offshore readiness. The sub-factors that make up the more general people factor include a country's labor pool (the availability of high-quality, skilled employees determines the long term sustainability of a country's offshore outsourcing industry); the country's investment in human resources; and language proficiency (which is much more important in the BPO industry than in the ITO industry).

## 1. Labor Pool



Source: neoIT

Table 7: Labor Pool

	Ireland	Romania	Bulgaria	Croatia	Slovenia
Size of labor pool (thousands)	1,920	9,957	3,322	1,836	1,007
Professionals and technicians as a percent of total labor pool	23.0	17.5	23.0	23.2	29.0
Percent of population completing tertiary education	1.3	0.6	0.6	0.4	0.7
Graduates in computing, engineering & mathematics (% of total)	22.8	20.1	17.9	16.5	16.6
Graduates in social science, life science and law (% of total)	34.9	16.2	48.1	31.2	45.6
Investment in education (% of fiscal budget)	16.0	11.6	1.4	8.4	16.2
Investment in R&D (% of fiscal budget)	1.4	0.5	0.4	2.7	1.7

Source: Eurostat, National Finance Departments, The Economist

Romania's relatively large labor pool will help the country immensely in the longer run when incremental manpower will be essential to scale up. The quality of education in Romania is excellent due to strong government investment in education. Because of its Communist roots, Romania heavily emphasizes science and engineering in education, a fact that favors the IT outsourcing industry. In fact,

Romania leads Europe, and ranks sixth in the world, in terms of the number of certified IT specialists – with density rates per 1,000 inhabitants greater than in the U.S. or Russia (Romania has about 64,000 specialists in the IT sector). Of the pool of 64,000 qualified IT specialists, more than 45,000 work with private companies and almost 19,000 are software engineers. Approximately 5,000 of

the 30,000 engineers graduating every year in Romania are trained in ICT. The number of IT graduates rose from 3,000 in 1986 to 5,500 in 2003 (the U.S., with a population of 290 million, has 23,000 IT graduates annually). There are 116 universities in Romania, 36 of which have IT facilities.

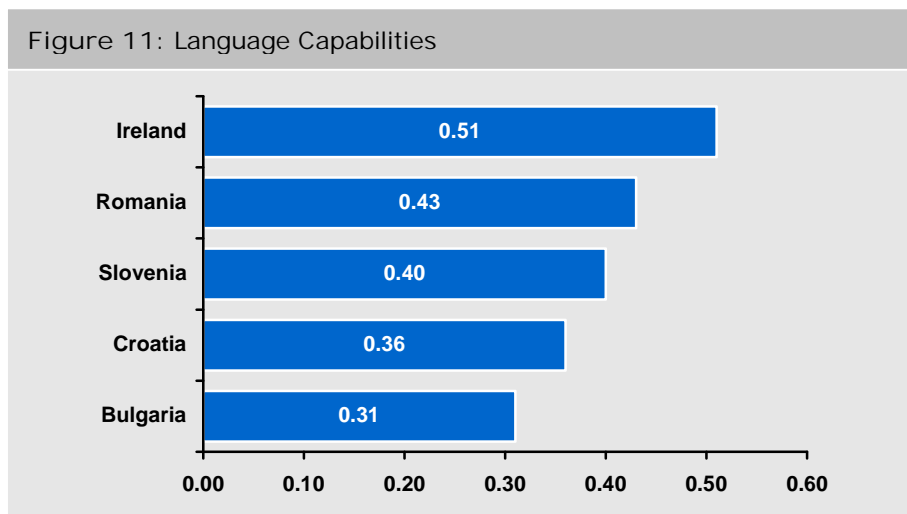
Slovenia has the smallest labor pool in the region – a potentially serious handicap for the future of the offshore outsourcing industry there. But the quality of education is on par with most developed nations and good amount of government investment goes toward education and R&D. A larger number of general graduates (versus IT specialists) make Slovenia relatively better suited to BPO work.

Bulgaria has the second largest labor pool in the SEE region and the highest percentage of

total graduates pursuing social science, life science and law courses - the likely labor pool for BPO. But the quality of education is hampered by inadequate investment in education and R&D. One of the first countries in the SEE region to engage in ITO and specialize in high technology, Bulgaria still has many talented and well-educated engineers, although emigration since 1990 has reduced their numbers.

Croatia has the second smallest labor pool in the region and the lowest percentage of population completing tertiary education. The country's higher education system is not aligned with the needs of the outsourcing industry. As a result, Croatia's level of preparedness for the manpower-intensive outsourcing industry is low.

## 2. Language Capabilities



Source: neoIT

	Ireland	Romania	Bulgaria	Croatia	Slovenia
English Language Education (percent)*	100	89.2	67.0	83.8	93.0
German Language Education (percent)*	22.0	11.3	22.2	36.3	37.8
French Language Education (percent)*	69.3	86.8	13.6	1.5	3.2
Spanish Language Education (percent)*	5.4	0.8	3.0	0.2	0.8

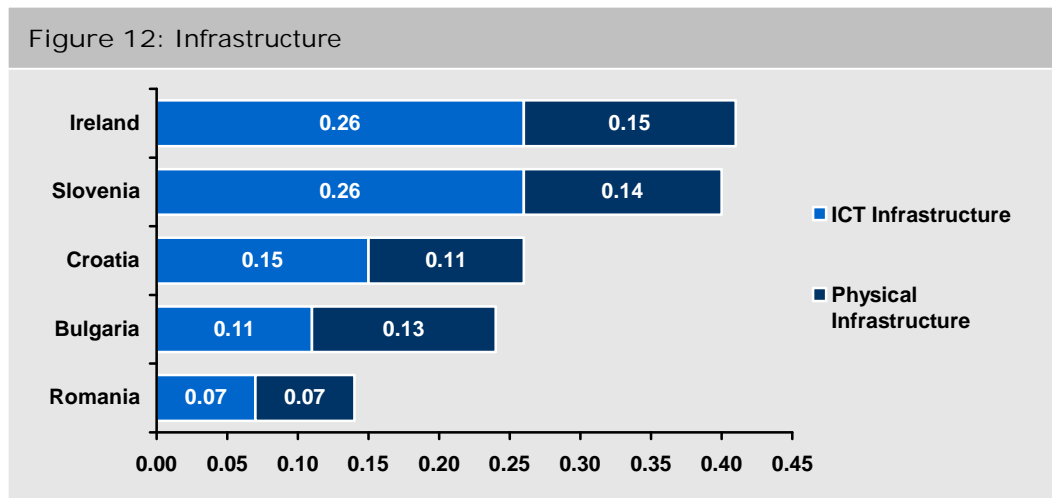
Source: Eurostat, Eurobarometer

\* The number of students learning the language at ISCED levels 2 and 3 as a percentage of the total number of pupils at those levels

All of the SEE countries have multiple language capabilities, with English being the most common in educational curricula. German and French are also widely pursued by students, though Spanish is yet to be widely acceptance into the curricula.

A large number of Romanian and Bulgarian students learn both English and French, giving those countries an advantage in outsourcing work that requires English or French language proficiency. Both Slovenia and Croatia are better suited to outsourcing jobs that require English or German language proficiency.

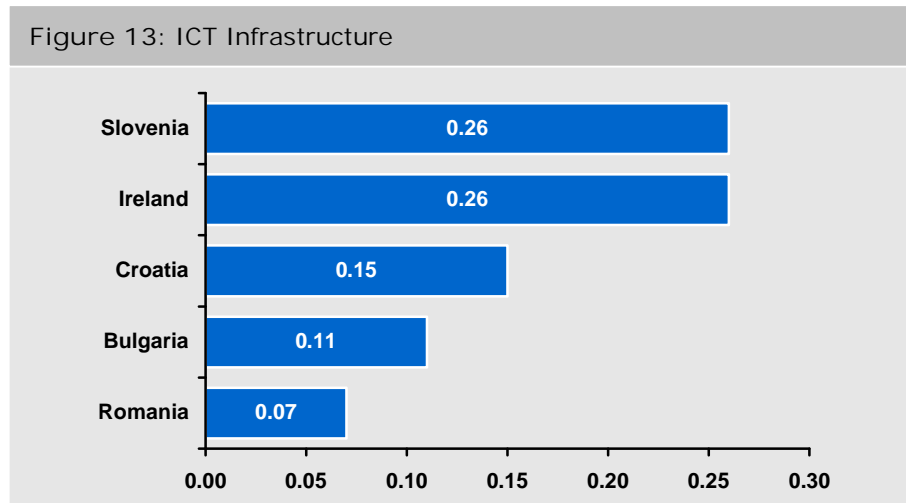
Infrastructure



Source: neoIT

Both the ITO and BPO industries require excellent ICT and physical infrastructures for successful operation and service delivery. A robust ICT infrastructure greatly enhances the offshore readiness of a nation and often improves the client's comfort level in sourcing work to that nation.

## 1. ICT Infrastructure



Source: neoIT

Table 9: ICT Infrastructure

	Ireland	Romania	Bulgaria	Croatia	Slovenia
Per capita technology consumption (\$)	1,085.5	59.0	70.5	239.6	540.7
Technology consumption as a percent of GDP (PPP)	0.86	0.03	0.11	0.48	1.37
Fixed line penetration (per 100 people)	50.0	19.9	37.9	41.5	49.3
Mobile penetration (per 100 people)	78.8	44.7	64.6	62.4	98.2
Internet penetration (per 100 people)	13.3	2.8	6.6	9.9	16.3
Broadband penetration (per 100 people)	3.3	0.3	0.2	0.3	5.0

Source: CIA World Fact Book

For its strong adoption of telecommunications and large investments in IT, Slovenia is the top-ranked SEE country on all of the ICT infrastructure sub-factors. Slovenia's communications system is 100% digital. The country's mobile telephony subscriber base surged from 1 million in 2000 to 1.8 million in 2003, but the fixed line subscriber base increased only moderately from 0.72 million in 1997 to 0.81 million in 2003.

Croatia is currently upgrading its telecommunications network; the plan calls for replacement of all analog circuits with digital and enlarging the network and backing up the main trunk. Croatia participates in the Trans-Asia-Europe (TEL) fiber-optic project, which consists of two fiber-optic trunk connections with Slovenia and a fiber-optic trunk line from Rijeka to Split and Dubrovnik; Croatia is also investing in ADRIA 1, a joint fiber-optic project with Germany, Albania, and Greece. Croatia's subscriber base of mobile telephony doubled

from 1.3 million in 2001 to 2.6 million in 2003, and the fixed line subscriber base surged from 1.7 million in 2000 to 1.8 million in 2002. The number of internet users has also grown, from 0.48 million in 2001 to 1.01 million in 2003.

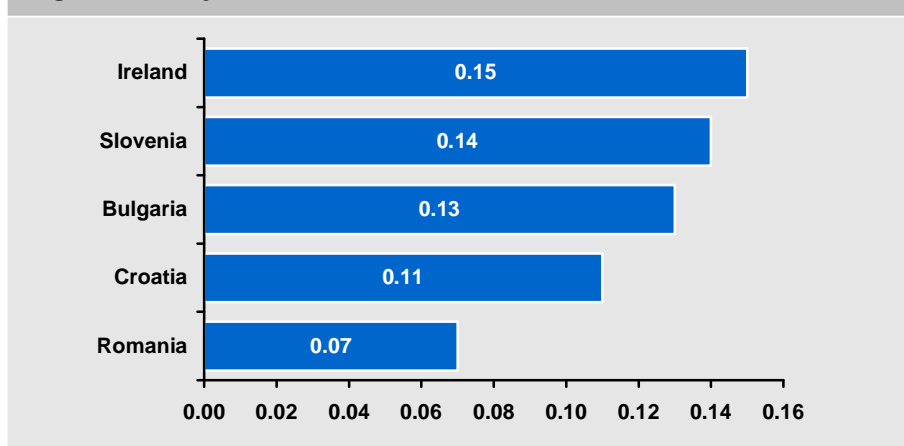
Bulgaria's telecommunications system can be best described as extensive but antiquated. The country had one of the most advanced telecommunication systems in the former Eastern bloc, though that advantage disappeared in the 1990s as difficult economic conditions and delays in liberalization and privatization of the national telecommunications operator slowed the pace of network modernization. More than two-thirds of Bulgaria's domestic lines are residential and telephone service is available in most villages. A fairly modern digital cable trunk line now connects switching centers in most of the regions; the others are connected by digital microwave radio relay. Bulgaria has two satellite earth stations for international connectivity and direct dialing facility to 58 countries. Nonetheless, Bulgaria has rapidly adopted mobile telephony: the subscriber base for mobile telephony has surged from 1.05 million in 2001 to 2.6 million in 2002. With an

internet subscriber base of 0.63 million in 2002 (up from 0.58 million in 2001), Bulgaria has the lowest internet penetration in the SEE region.

Romania has the least developed ICT infrastructure in the region. The country's telecommunications sector has been deregulated, expanded and modernized over the past 15 years, and though the sector remains underdeveloped by regional standards, progress has been particularly rapid over the past two years. Almost 90% of the telephone network in Romania is automatic, but roughly 3,300 villages have no telephone service. The trunk network is mostly microwave radio relay, with some fiber-optic cable. Only about one-third of exchange capacity is digital. Romania has one satellite earth station for international connectivity. Nevertheless, telecommunications adoption has been rapid: the mobile subscriber base increased from 0.65 million in 1999 to 6.9 million in 2003. Internet adoption has also been rapid: the subscriber base surged from 1 million in 2002 to 4 million in 2003. The fixed line subscriber base increased from 3.8 million in 1997 to 4.3 million in 2003.

## 2. Physical Infrastructure

Figure 14: Physical Infrastructure



Source: neoIT

Table 10: Physical Infrastructure

	Ireland	Romania	Bulgaria	Croatia	Slovenia
Expressways as a percent of total road network	0.13	0.06	0.88	1.61	2.25
Road network paved as a percent of total road network	100.0	50.4	92.0	84.0	100.0
Rail network electrified as a percent of total rail network	1.4	34.2	63.1	36.1	41.5
International passengers at airport	17,029,770	2,456,715	1,545,903	942,450	1,041,273
International aircraft movements	160,571	36,732	21,533	11,427	22,104

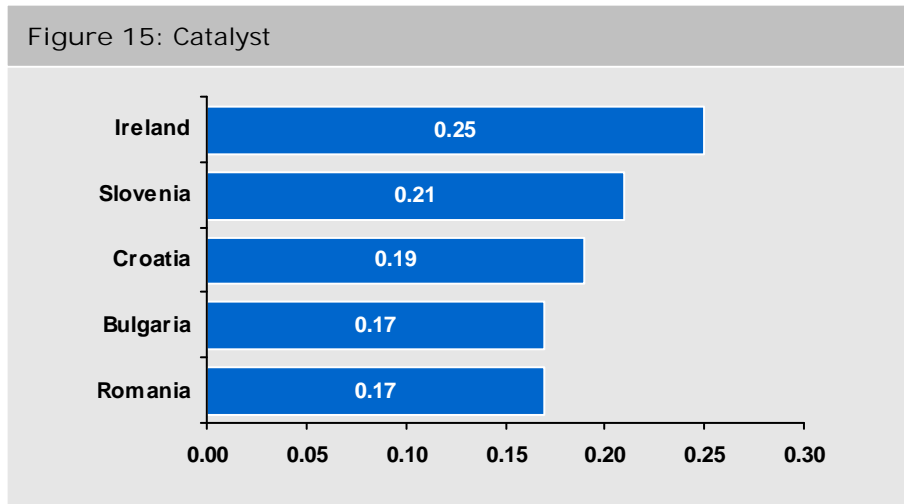
Source: CIA World Fact Book

Slovenia's general physical infrastructure is world-class, certainly the best among the SEE countries. Slovenia has a total of 12,581 miles of highways. The country's 14 airports handle more than 1 million international passengers each year. Bulgaria's well-developed transportation system consists of 23,036 miles of highways and 2,668 miles of railway track. Croatia also has decent transportation system

which consists of 17,610 miles of highways and 1,694 miles of railway track. Romania's physical infrastructure lags behind other countries in the region. Only 50% of its 123,486 miles long road network is paved, though it has a good railway network that is 7,074 miles long. The country's 61 airports handle more than 2.4 million international air travelers each year.

## Catalyst

Outsourcing (whether onshore, nearshore, or offshore) poses inherent risks for the client organization. Understandably, clients look for safe offshore destinations to source their processes. In many cases, the nature of the business process being outsourced requires a high degree of cultural compatibility or alignment on any number of other factors. The catalyst factors are those factors – including cultural compatibility, time zone displacement, and geopolitical environment, that can greatly affect the risk involved in sourcing to a given destination.



Source: neoIT

Table 11: Catalyst

	Ireland	Romania	Bulgaria	Croatia	Slovenia
Physical and time zone displacement	GMT	GMT+2	GMT+2	GMT+1	GMT+1
Cultural compatibility	High	Medium	High	High	High
Geopolitical environment (S&P ratings)	AAA	BB+	BB-	BBB	AA-

Source: S&P

Unlike other countries in the SEE region, Slovenia doesn't have a formal IPP and ICT policy in place. But Slovenia's business and economic conditions are excellent and its EU membership status offers significant additional credibility. With strong historical ties to Western Europe, Slovenia's cultural compatibility is high. Bulgaria has recently adopted a formal ICT policy, which should act

as a positive catalyst for the country's outsourcing industry. But the country's geopolitical situation remains slightly risky. Both Croatia and Romania have stable geopolitical situations that are conducive to outsourcing. Each of the four SEE countries falls within two hours of GMT – making them ideal nearshore destinations for Western European clients.

## Final Thoughts

Now widely accepted among clients in developed nations, services globalization is rapidly advancing, forging new frontiers on both the supply side and the demand side. New attractive destinations are emerging out of an ever-changing geopolitical environment as a greater number of countries integrate into the global economy. Though organizations today have a greater number of global destinations to choose from, the best fit destination should be determined with careful due diligence. Even more caution is warranted now that the strategic nature, criticality and complexity of the services globalization process are increasing.

While the information presented in this paper will help the client organization understand the current state and future potential of four SEE countries for services globalization, to be successful in services globalization, the client organization should also engage the following activities:

- Conduct a thorough business-need analysis. To optimally leverage the benefits of services globalization, organizations must clearly understand their business requirements. A detailed analysis of those business requirements will help the organization develop a best-fit country selection framework.
- Map country competency to business requirements. The benefits that an offshore location provides vary from destination to destination. Each upcoming offshore destination has some unique advantage – or unique combination of advantages, such as better proximity, greater cost competitiveness or new skill sets. Client organizations should conduct a requirement-competency analysis to find the best fit destination for them.
- Study the country specific risks. Along with understanding a country's capabilities, it is imperative that organizations study the potential risks associated with a given destination. IP protection, piracy and other security concerns have to be carefully evaluated. The government policies for IP protection and prevalent security practices must also be scrutinized as the offshored business processes and IT developments may be very sensitive in nature.
- Study the business culture. Alignment of business cultures is critical, as it has a substantial effect on the collaborative process of services globalization. Teams in one country will have to integrate themselves with teams in other countries. Cultural affinity and seamless communication often contribute significantly toward the success of a globalization endeavor. Organizations will have to study potential destinations for that cultural affinity and the ability to integrate with the organization's own way of conducting business, means of interaction, and communication styles.
- Choose the right location. After selecting a country, organizations should take care to choose the right location(s) within that country – the location(s) that will best meet their business needs. Conducting a thorough business-need analysis in the beginning will help the organization to fine tune its specific requirements and look for the right combination of talent pool, cost competitiveness, business environment and infrastructure. Apart from these factors, location(s) within the country should also be evaluated on future development plans and risk mitigation criteria.

## APPENDIX: COUNTRY SNAPSHOTS



## ROMANIA



<b>Type</b>	Republic
<b>Capital</b>	Bucharest
<b>Legal System</b>	The legal system is based on the constitution of France's Fifth Republic
<b>Executive Branch</b>	Chief of state: President Traian Basescu Prime Minister Calin Popescu-Tariceanu
<b>Cabinet</b>	Council of Ministers appointed by the prime minister
<b>Last Election</b>	November 28, 2004
<b>Next Election</b>	November, 2008

Source: CIA Fact Book, 2005

- § Romania borders the Black Sea between Bulgaria and the Ukraine
- § Industries: Textiles and footwear, light machinery and auto assembly, mining, timber, construction materials, metallurgy, chemicals, food processing, petroleum refining
- § Population: 22.3 million (July 2005 estimate)
- § Ethnic groups: Romanian 89.5%, Hungarian 6.6%, Roma 2.5%, Ukrainian 0.3%, German 0.3%, Russian 0.2%, Turkish 0.2%, other 0.4% (2002 census)
- § Religion: Eastern Orthodox 86.8%, Protestant 7.5%, Roman Catholic 4.7%, other (mostly Muslim) and unspecified 0.9%, none 0.1% (2002 census)
- § Literacy rate: 98.4%
- § Language: Romanian (official), Hungarian, German
- § Major business cities: Bucharest, Bacau, Cluj-Napoca, Craiova, Arad and Oradea

Table 12: Economy

	2002	2004
GDP (PPP)	\$169.3 billion	\$171.5 billion
GDP per capita (PPP)	\$7,600	\$7,700
Real GDP growth rate	4.9%	8.1%
Inflation rate	22.5%	9.6%
Unemployment rate	8.3%	6.3%
External debt	\$13.7 billion	\$24.59 billion
Current account balance	N/A	\$-3.63 billion
FDI	\$1,796 million****	\$4,347 million
Exchange rate	1 US\$ = 33,055 lei	1 US\$ = 32,637 lei
Distribution of income (Gini Index)	31.1*	28.8****
Population below poverty line	44.5%**	28.9%***

\* This data is for 1998

\*\* This data is for 2000

\*\*\* This data is for 2002

\*\*\*\* This data is for 2003

Source: CIA World Fact Book



## SLOVENIA



<b>Type</b>	Parliamentary democratic republic
<b>Capital</b>	Ljubljana
<b>Legal System</b>	Based on civil law system
<b>Executive Branch</b>	Chief of state: President Janez Drnovsek Head of state: Prime Minister Janez Jansa
<b>Cabinet</b>	Council of Ministers nominated by the prime minister and elected by the National Assembly
<b>Last Election</b>	November 10, 2002 & December 1, 2002
<b>Next Election</b>	Fall, 2007

Source: CIA Fact Book, 2005

- § Slovenia borders the Adriatic Sea between Austria and Croatia
- § Industries: Ferrous metallurgy and aluminum products, lead and zinc smelting, electronics (including military electronics), trucks, electric power equipment, wood products, textiles, chemicals, machine tools
- § Population: 2 million (July 2005 estimate)
- § Ethnic groups: Slovene 83.1%, Serb 2%, Croat 1.8%, Bosniak 1.1%, other or unspecified 12% (2002 census)
- § Religion: Catholic 57.8%, Orthodox 2.3%, other Christian 0.9%, Muslim 2.4%, unaffiliated 3.5%, other or unspecified 23%, none 10.1% (2002 census)
- § Literacy rate: 99.7%
- § Language: Slovenian 91.1%, Serbo-Croatian 4.5%, other or unspecified 4.4% (2002 census)

Table 13: Economy

	2002	2004
GDP at PPP	\$37.1 billion	\$39.4 billion
GDP per capita (PPP)	\$19,200	\$19,600
Real GDP growth rate	3.2%	3.9%
Inflation rate	7.4%	3.3%
Unemployment rate	11%	6.4%
External debt	\$7.9 billion	\$14.65 billion
Current account balance	N/A	\$-51.64 million
FDI	\$-130 million**	\$124 million
Exchange rate	1 US\$ = 240.25 tolar	1 US\$ = 192.38 tolar
Distribution of income (Gini Index)	28.4*	N/A
Population below poverty line	N/A	N/A

\* This data is for 1998 \*\* This data is for 2003

Source: CIA World Fact Book



## BULGARIA



<b>Type</b>	Parliamentary Democracy
<b>Capital</b>	Sofia
<b>Legal System</b>	Civil and criminal law based on Roman law; accepts compulsory ICJ jurisdiction
<b>Executive Branch</b>	President: Georgi Purvanov Head of government: Prime Minister Sergei Stanishev
<b>Cabinet</b>	Council of Ministers nominated by the prime minister and elected by the National Assembly
<b>Last Election</b>	November 11, 2001 and November 18, 2001
<b>Next Election</b>	2006

Source: CIA Fact Book, 2005

- § Bulgaria borders the Black Sea between Romania and Turkey
- § Industries: Electricity, gas and water, food, beverages and tobacco, machinery and equipment, base metals, chemical products, coke, refined petroleum, nuclear fuel
- § Population: 7.5 million (July 2005 Estimate)
- § Ethnic groups: Bulgarian 83.9%, Turk 9.4%, Roma 4.7%, other 2% (2001 census)
- § Religion: Bulgarian Orthodox 82.6%, Muslim 12.2%, other Christian 1.2%, other 4% (2001 census)
- § Literacy rate: 98.6%
- § Language: Bulgarian 84.5%, Turkish 9.6%, Roma 4.1%, other and unspecified 1.8% (2001 census)

Table 14: Economy

	2002	2004
GDP at PPP	\$49.23 billion	\$61.63 billion
GDP per capita (PPP)	\$6,500	\$8,200
Real GDP growth rate	4.8%	5.3%
Inflation rate	5.9%	6.1%
Unemployment rate	18%	12.7%
External debt	\$10.3 billion	\$16.1 billion
Current account balance	N/A	\$683 million
FDI	\$1,394 million**	\$1,863 million
Exchange rate	1 US\$=2.08 leva	1 US\$ = 1.58 leva
Distribution of income (Gini Index)	26.4*	N/A
Population below poverty line	12.6%	13.4%

\* This data is for 2001 \*\* This data is for 2003

Source: CIA World Fact Book



## CROATIA



Type	Presidential/Parliamentary democracy
Capital	Zagreb
Legal System	Based on civil law system
Executive Branch	Chief of state: President Stjepan (Stipe) Mesic Head of government: Prime Minister Ivo Sanader
Cabinet	Council of Ministers named by the prime minister and approved by the parliamentary Assembly
Last Election	January, 16 2005
Next Election	January, 2010

Source: CIA Fact Book, 2005

- § Croatia borders the Adriatic Sea between Bosnia and Herzegovina and Slovenia
- § Industries: Chemicals and plastics, machine tools, fabricated metal, electronics, pig iron and rolled steel products, aluminum, paper, wood products, construction materials, textiles, shipbuilding, petroleum and petroleum refining, food and beverages, tourism
- § Population: 4.5 million (July 2005 estimate)
- § Ethnic Groups: Croat 89.6%, Serb 4.5%, other 5.9% (including Bosniak, Hungarian, Slovene, Czech, and Roma) (2001 census)
- § Religion: Roman Catholic 87.8%, Orthodox 4.4%, other Christian 0.4%, Muslim 1.3%, other and unspecified 0.9%, none 5.2% (2001 census)
- § Literacy Rate: 98.5%
- § Language: Slovenian 91.1%, Serbo-Croatian 4.5%, other or unspecified 4.4% (2002 census)

Table 15: Economy

	2002	2004
GDP at PPP	\$43.12 billion	\$50.33 billion
GDP per capita (PPP)	\$9,800	\$11,200
Real GDP growth rate	5.2%	3.7%
Inflation rate	2.2%	2.5%
Unemployment rate	21.7%	13.8%
External debt	\$16.5 billion	\$26.4 billion
Current account balance	N/A	-\$1.92 billion
FDI	\$1,951 million**	\$1,056 million
Exchange rate	1 US\$=7.87 kuna	1 US\$=6.04 kuna
Distribution of income (Gini Index)	29*	N/A
Population below poverty line	N/A	11%

\* This data is for 1998 \*\* This data is for 2003

Source: CIA World Fact Book

## APPENDIX 3: DESCRIPTION OF LEVEL 1 PARAMETERS

### Financial Benefits

#### Cost of Setting Up a Business

- **Minimum capital:** The total minimum capital required to start a new venture calculated as percent of GNI per capita. The minimum capital required to establish a limited liability company varies from country to country. For example, some countries require an upfront deposit of minimum capital into a frozen account while others countries require no upfront capital.
- **Cost to start a business:** Quicker response time and fewer of procedures don't always mean cost effectiveness of the entire process of setting up a business. Knowing the cost to start a business as a percent of GNI per capita is important.
- **Cost of purchasing a property:** The cost incurred during the purchase of a property, including taxes, registration and notary charges. This sub-factor is especially important for setting up captive operations.
- **Cost to create collateral agreement:** The total cost to create collateral agreement as a percentage of GNI per capita. A higher cost of creating collateral usually dampens the entrepreneurial spirit.

#### Cost of Operation

- **Corporate tax rates:** A lower corporate tax rate encourages both captive a third-party players.
- **VAT/import tax:** Demonstrate the level of indirect taxation applied to the industry.

- **Prime office rent in capital city:** An indicative figure of expenditures on office space rental, a large component of total operating expense.
- **Telecommunications rate (cost per minute):** The daytime cost per minute to call to the U.S. (excluding VAT). Telecommunication cost is a significant operating expense for the ITO and BPO industries.
- **Shipping rate:** The airport-to-airport cargo delivery cost in dollars per lb assuming a 100lb package from the country's capital city to New York, U.S. (excluding any handling and documentation fees). This measures acts as a proxy for the transportation cost of commuting between countries.
- **Cost to enforce a contract:** The total cost in legal proceedings and subsequent actions to enforce a contract, as a percent of the debt amount. A higher percentage indicates that businesses have little incentive to use the court system, suggesting an unfavorable business environment for contract enforcement.
- **Average gross monthly wages (\$):** The average gross monthly wage rate, in dollars, of the total labor pool indicates the average salary level of ITO and BPO employees. The wage rate is one of the most critical elements in the success of the outsourcing industry in a nation and unarguably the most critical element of the operating expense of an ITO or BPO set-up.

## Business Maturity

### Ease of Setting Up and Operating a Business

- Number of procedures to start a business: The number of procedures (including notification of existence and registration for taxes) that are required to start a business.
- Time required to start a business: The number of days required to start a business. Entrepreneurship is encouraged not only by the simplicity of procedures, but also by the government's willingness to carry out those procedures in a timely fashion.
- Number of procedures to register a property: The number of procedures (including getting approvals, notarization, documentation, inspection, clearance, and making payments) that are required to register a property.
- Time required for registering a property: The amount of time, in days, to register a property.
- Facility available to lease: The retail space available, in square feet, available for lease in the country's capital city.
- Number of procedures to enforce a contract: The ease of and cost to enforce a contract reveals the ease of dispute resolution in the country. Adequate mechanisms for dispute resolution provide a better environment for running a business; a fewer number of procedures required to enforce contracts provides a sense of security and comfort for businesses.
- Days to enforce a contract: A fewer number of procedures should go hand-in-hand with a quicker contract enforcement mechanism.

### Maturity of Business Environment

- Country quality of life index: The index ranks the attractiveness of 225 of the world's capital cities for residents. The index ranks from 1 (highest quality of life) to 225 (lowest quality of life).
- Number of foreign workers: This represents the number of foreigners who are legally entitled to work in a country – an indication of the country's integration with the global economy.
- Software piracy rates: Indicate a country's level of IP protection. IP protection and data security are increasingly areas of concern for client organizations.
- Country risk rating: This index provides an overall measure of the level of risk associated with sourcing to a given country. The index ranks risk from low (more country risk) to high (less country risk).
- Size of domestic IT services industry: The value, in millions of dollars, of the country's domestic IT services industry. A larger domestic IT market usually indicates a more mature domestic market and greater ICT penetration. The offshore outsourcing readiness of a mature domestic market is usually high as it has the necessary resources to quickly adapt to the outsourcing domain.
- Quality adherence of service – BS 7799: Represents the number of service providers adhering to BS 7799 norms.
- Corruption perception index: The perceived level of corruption prevailing in the country on a scale of 0 to 10 (a higher score indicates a lower level of perceived corruption).

### Flexibility to Employers

- Average hours worked per week: The average number of actual hours worked per week in a primary job.
- Difficulty in hiring index: Measures whether term contracts can be used only for temporary tasks; the maximum duration of term contracts; and the ratio of the mandated minimum wage (or apprentice wage, if available) to the average value-added per working population. A higher score indicates more rigid regulations regarding hiring a new employee.
- Difficulty in firing index: Measures whether redundancy is a fair grounds for dismissal; whether the employer needs to notify the labor union or the labor ministry to fire one redundant employee or a group of redundant employees; whether the employer needs approval from the labor union or the labor ministry for firing one redundant employee or a group of redundant employees; whether the law mandates training or replacement prior to dismissal; if priority rules apply for dismissals; and if priority rules apply for re-employment. A higher score indicates more rigid regulations.
- Hiring costs (percent of salary): The average amount, as a percentage of the employee's salary, spent by the employer to hire the employee
- Firing costs (weeks of pay): The amount required to be paid (in weeks of pay) to a terminated employee as part of a severance package.
- Rigidity of hours index: Measures whether night work is allowed; whether weekend work is allowed; whether the workweek consists of 5 1/2 days or more; whether the workday can extend to 12 hours or more (including overtime); and whether the number of annual paid vacation days are 21 or less. A higher number indicates greater rigidity in the hours of work.
- Rigidity of employment index: This index accounts for the difficulty in hiring, difficulty in firing and rigidity of hours index. Rankings vary between 0 and 100 (a higher number indicates more rigid regulations).

## People

### Labor Pool

- Total labor pool: The absolute size of the total labor pool (across all sectors). This is an important factor as both the ITO sectors and the BPO sectors are able to attract talent from other sectors as well.
- Professionals and technicians as a percent of total labor pool: This is an important factor as the ITO and BPO industries employ a greater number of white collar employees by the nature of the work required. This sub-factor offers a good indication of the available labor pool from which the industry can draw resources.
- Percent of population completing tertiary education
- Percent of total graduates in computing, engineering and mathematics: The percentage of the total number of graduates that have degrees in computing, engineering, or mathematics.
- Investment in education: The percentage of a country's total fiscal budget that's allocated to education.
- Investment in R&D: The percentage of a country's total fiscal budget that's allocated to R&D.

### Language Capabilities

- English language education: The number of students learning English at ISCED levels 2 and 3 as a percentage of the total number of students at those levels.
- German language education: The number of students learning German at ISCED levels 2 and 3 as a percentage of the total number of students at those levels.

- French language education: The number of students learning French at ISCED levels 2 and 3 as a percentage of the total number of students at those levels.
- Spanish language education: The number of students learning Spanish at ISCED levels 2 and 3 as a percentage of the total number of students at those levels.
- International aircraft movements: The number of international aircraft arrivals and departures and the readiness of the country to handle them.

## Infrastructure

### ICT Infrastructure

- Technology consumption per capita: Per capita spending (in dollars) on ICT indicates the level of proliferation of ICT among the population.
- Technology consumption as a percent of GDP (PPP): The percentage of income spent on ICT reveals the country's commitment to building and enhancing its ICT infrastructure.
- Fixed line penetration: The number of fixed line subscribers per 100 people.
- Mobile penetration: The number of mobile subscribers per 100 people.
- Internet penetration: The number of internet subscribers per 100 people.
- Broadband penetration: The number of broadband subscribers per 100 people.

### Physical Infrastructure

- Expressways as a percent of total road network: The percentage of the total road network that is an expressway.
- Percent of road network paved: The percentage of the total road network that is paved.
- Percent of rail network electrified: The percentage of the total rail network that is electrified.
- International passengers at airport: The number of international passenger movements (arrivals and departures) and the ability of the country to handle international travelers at the airports.

## Catalyst

- Physical and time zone displacement: Increased physical distance diminishes the opportunity for personal interaction, direct observation and service provider management, and direct contract enforcement. Often, physical distance corresponds to time zone displacement, so that as opportunities for management and control through direct observation diminish so do opportunities for real time collaboration by phone or video conferencing. Often, a nearshore destination offers additional comfort to the client organization.
- Cultural compatibility: Cultural affinity goes beyond language to enhance communications and facilitate the formation of strong personal relationships. For high risk, complex IT development projects where a high degree of trust is required between service provider and client, cultural compatibility can accelerate the trust building process. In voice-based BPO operations, cultural affinity is especially essential for unstructured, unscripted interactions that require information dissemination as well as empathetic responses in employee communications or rapid bonding to drive the trust that can benefit cross-selling interactions.
- Geopolitical environment: Measured by Standard & Poor (S&P) ratings. A country with a more favorable geopolitical environment gives less cause for concern about business continuity, especially as clients look to global locations for larger and longer-term engagements.

More information about the offshore outsourcing industry can be found within neoIT's research center at [www.neoOffshore.com](http://www.neoOffshore.com). For more details about neoIT's offshore advisory and management services, please contact:

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