



A thoroughbred racer

Global standard driving take-up

The “thoroughbred” status of the CEE-6 markets in the global BPO (“business process outsourcing”) and SSC (“shared service centre”, together “BPO/SSC”), arena is well-documented, award-winning and ongoing. We assess in this report important questions surrounding labour cost, labour availability and quality in over 20 key CEE-6 cities, as well as the demand effect on office take-up in 12 city markets. The BPO/SSC take-up is over 60% of total office take-up in 4 of those cities in H1 2017. Vacant stock is diminishing, due also to strong general economic conditions and developers are only just beginning to react to the phenomenon.

Will salary rises threaten demand?

Labour costs rising is a *topic du jour* in the CEE-6 economies presently. We assess, with the help of both the experts and the reports and data of the ABSL (based in Poland, covering CEE-5) and the BOA (Bulgaria), that this factor is present but not seen as a large risk presently. It is precisely the characteristic of the sector, the climb up the “technology complexity chain” that is in part driving wage increases. Graduates and employees are acquiring new skills and thus productivity and value-add to their clients.

The wage problem may surface in those cities where GDP per capita levels are higher, such as in Bratislava and Prague: BPO/SSC operators may well struggle to fill entry-level jobs due to competition from other industries.

Labour availability trained well?

We argue also that other factors, aside from the cost of labour, are at play in the capacity for growth of BPO/SSC operators in the region. “Quality of life” in the cities where employees are located is becoming more important. Related infrastructure developments and government incentive and taxation initiatives remain in place. The business environment remains generally supportive, though more can always be done on the regulatory side. We assess the presence and human capital output of tertiary education institutions in the key cities. We see BPO/SSC’s demand for jobs as the equivalent of 20% of total graduate supply in Wroclaw, Bucharest and Krakow. Labour availability and the acquisition of technical knowledge through education and training looks critical to the continuation of the BPO/SSC racing in the CEE-6 countries.

Labour factors

How important are wage costs?

The costs of locating in the thoroughbred CEE-6 stable have definitely risen in recent years. Referencing operating cost data for 2013 from our 2014 Colliers “Outsourcing & Offshoring in CEE” white paper, the inflation of costs to 2017 is quite evident. And what is also clear to us is that the vast majority of these cost increases are labour-related. So, in the context of rampant wage inflation in the CEE economies in 2017, is there a problem for CEE BPO/SSC operators?

There are certainly pockets of fast wage growth, with data from Randstad contained in the ABSL Poland reports confirming this: it suggested significant pay rises in some spheres, over 40% in banking in Warsaw and double-digit rises elsewhere. It should however be pointed out that the biggest rises were seen for specialist roles.

We asked the experts and in replies to questions we recently posed, both Stanimir Nikolov, Chairman of the Board of the Bulgarian Outsourcing Association (“BOA”) and Jacek Levernes, President of the Management Board of the Association of Business Service Leaders (“ABSL”) see the wage growth factor as somewhat important but not a big risk for CEE-6 BPO/SSC operators. Mr. Nikolov suggests:

“Wage inflation over the past years has been in alignment with other European countries with the same service scope provided. Bulgaria is no exception if we compare the salary change in relation to economic growth. Since this has been a stable figure for the past years, the risk is to be considered moderate. For the companies, it is important to be able to achieve certain metrics in terms of resource availability and management, however the figures themselves are not exceptional. Bulgaria is still one of the most attractive locations for BPO/SSC services in terms of cost.”

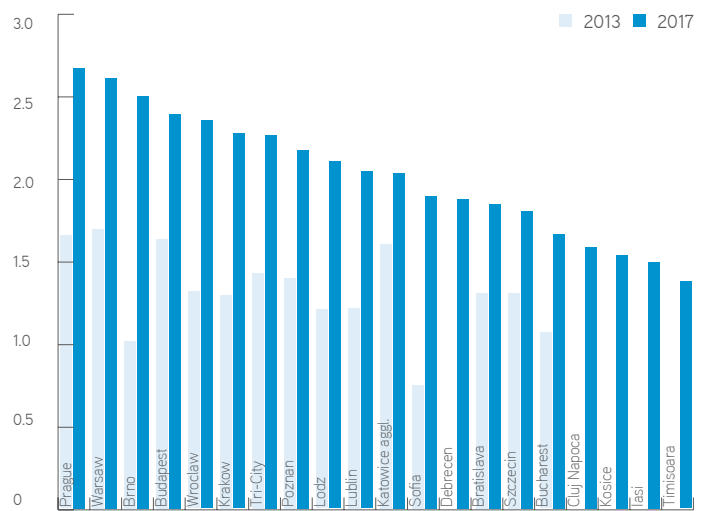
Mr. Levernes concurs:

“I would not call it a “big risk”, but obviously it is a significant factor. Investors who are developing their business in Central Europe are very aware that the employees in the region are by this stage very well-qualified and are continually working on ever-more professional processes. Thus, the wage costs should reflect that progression and is part of the story of any emerging economy. This availability of human resources and experienced staff is exactly the factor which attracts BPO/SSC providers to open operations in Poland.”

Mr. Nikolov continues:

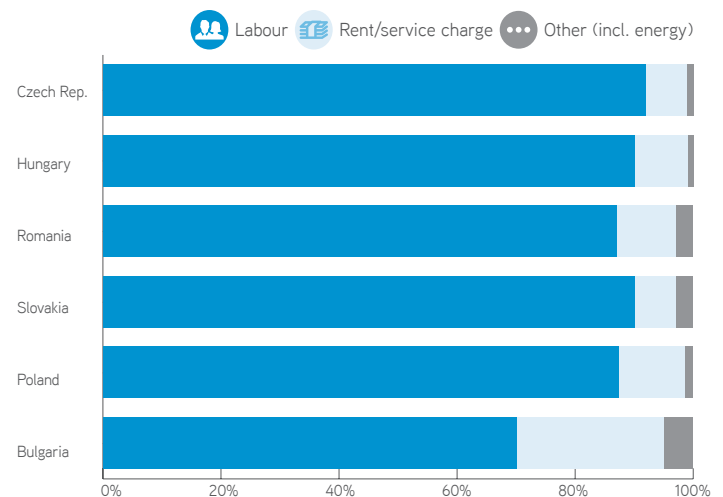
“The key factor will be the availability of the labour force. This will define the growth potential of the established companies as well as the new opportunities. From a logistical point of view, location is very important- accessibility, public transport, amenities. The space should be aligned with the needs of the BPO/SSC industry to be able to manage a high quantity workflow to generate an environment of well-being and positive perception.”

Fig. 1: Operating cost in EUR million of office with 100 employees & 1,000 sqm [2013* vs 2017]



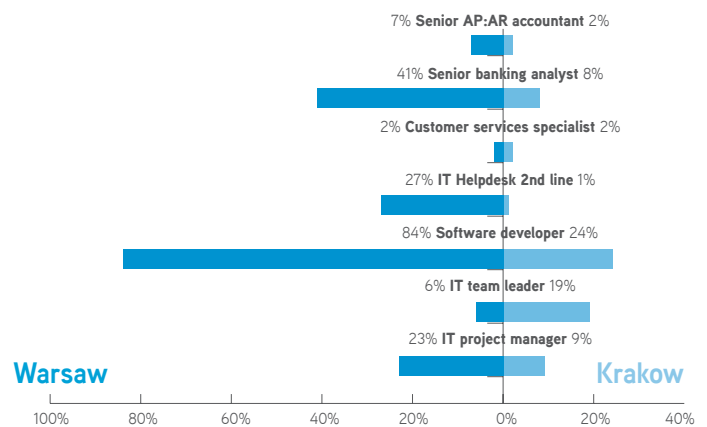
*2013 data not available for Debrecen, Cluj, Kosice, Iasi and Timisoara.
Source: Colliers International

Fig. 2: Typical split of costs of BPO/SSC operations in CEE-6



Source: Colliers International

Fig. 3: Growth of gross salaries Q1 2016-Q1 2017 in BPO/SSC roles in Warsaw and Krakow



Source: Randstad, ABSL, Colliers International

Benchmarking salaries and technological complexity

As Mr. Levernes points out, the level of technological sophistication of the BPO/SSC operations in the region has risen and goes some way to explaining why costs have risen and wages have too. In 2013, only 2 of the surveyed CEE cities ranked in the top "high complexity" category 6 referencing Accenture's "Next Generation BPO" work. This number has risen to 9 cities, out of the 21 assessed on the map below, in the opinion of Colliers' experts. Only 3 of the 21 cities are in the "mid-complexity" category 4; 9 are thus in category 5. Several cities were in categories 3 and 4 four years ago.

The map's salary levels are an unweighted average of 5 BPO/SSC segments' optimal salary levels, sourced from Randstad (PL) and Hays Specialist Recruitment (CZ, SVK, HU and RO). The overall averages shown here are comparable city-to-city for identical jobs. No city-by city data was available for Bulgaria, with the BOA stating the national BPO/SSC salary at EUR 13,844 at the end of 2016. We estimate that actual salary costs are 25%-30% lower in Bulgaria's regional cities than in Sofia.

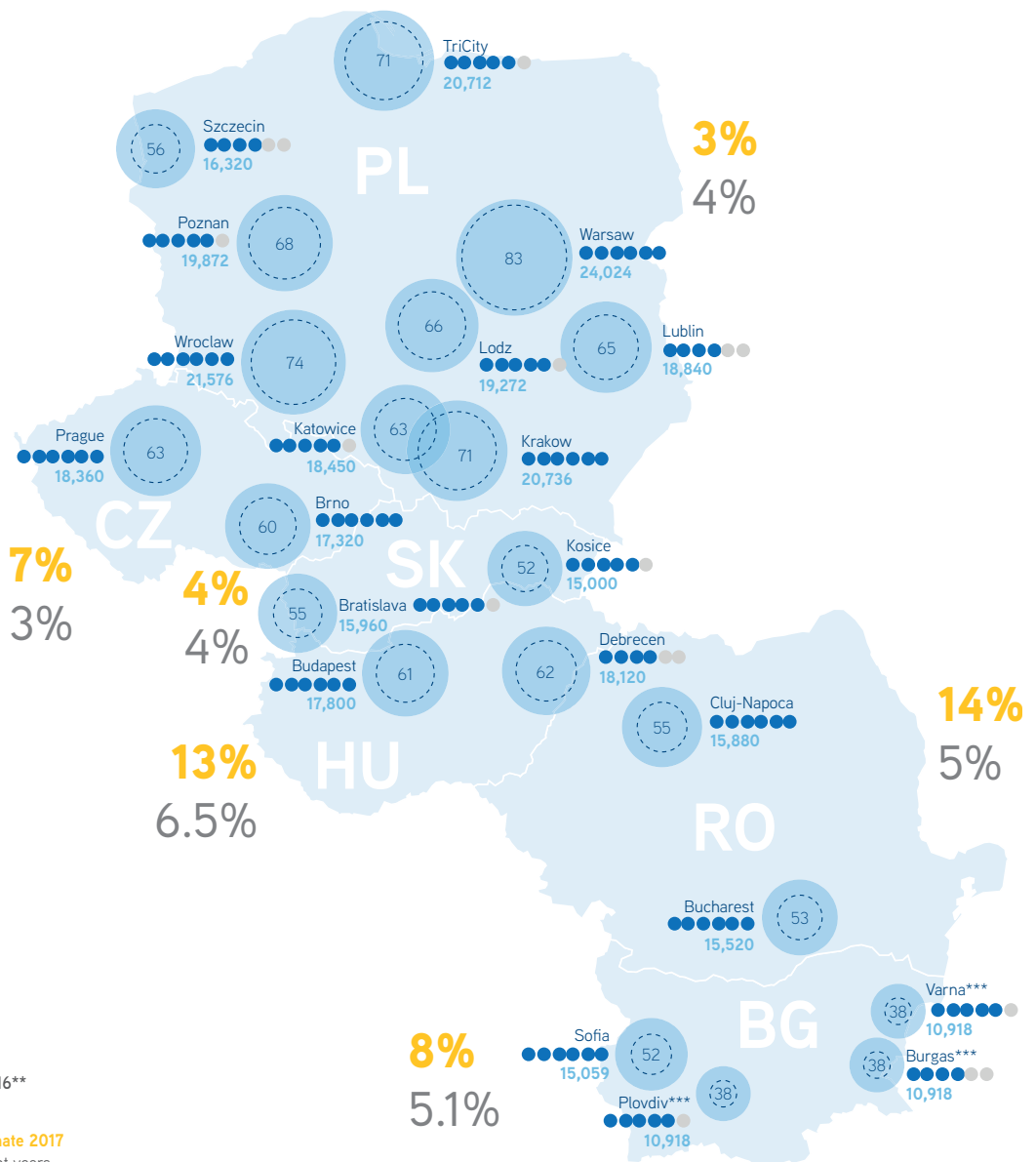
The calculated averages are 17%-44% below the EU end-2016 general all-sector GDP per capita of EUR 29,100 in Poland, 37-48% below in Slovakia, Hungary and Czech Rep and 45%-62% below in Romania and Bulgaria. The region is still very competitive in a European context. There is some logic, if the quality of labour is similar everywhere, in BPO/SSC operators seeking out the cities with the lowest absolute wage costs.

General national wage levels are rising fast though, as we have documented on the map (3%-14% across the region in 2017E) and in other recent research pieces. They may have to rise at the entry level especially, in order to compete with other industries: we found that in 13 out of the 18 cities with 1-year experience customer service salary data available that those salary levels are below estimated GDP per capita levels in the city. This problem appears most acute in Bratislava, Prague and Bucharest and may discourage new entrants. In each of those cities, the overall average salary data shown below is less than GDP per capita levels for the city. Budapest is about equal. Elsewhere, BPO/SSC is a very attractive sector to work in.

Fig. 4: Wages and operational complexity in CEE-6

Note: The unweighted salary levels on the map do not reflect the actual BPO/SSC employee cost mix in each city. Thus, taking the example of Debrecen, the average of the 5 BPO/SSC roles used for the calculation suggest a higher salary level in Debrecen than Budapest. The ABSL state in a recent report that the average annual wage in the business services sector is EUR 12,400 in Debrecen, around 20% lower than in Budapest. The difference is due to a much higher mix of lower-paid roles in Debrecen than Budapest.

** after Accenture: "Next generation BPO". Our "low complexity" is equivalent to Accenture's 1-3 generation levels, containing typically Call centre, payroll processing, transaction processing, application maintenance, application development; "Mid-complexity" (generation 4) typically contains CRM, ERP, tax services, financial reporting, hosting services; "Mid-high complexity" typically contains HR, risk analysis, digital learning, product training, integrated services; "High complexity" typically contains On-demand services, flexible software platforms, cloud-based solutions, social networking, integrated online communities.*



Degree of complexity of BPO/SSC operations*

● 1 ● 2
● 3 ● 4
● 5 ● 6

Wages

● Average benchmark gross salary in BPO/SSC, 2016**
○ BPO/SSC salary vs GDP per capita, 2016

Colliers' whole economy nominal wage growth estimate 2017

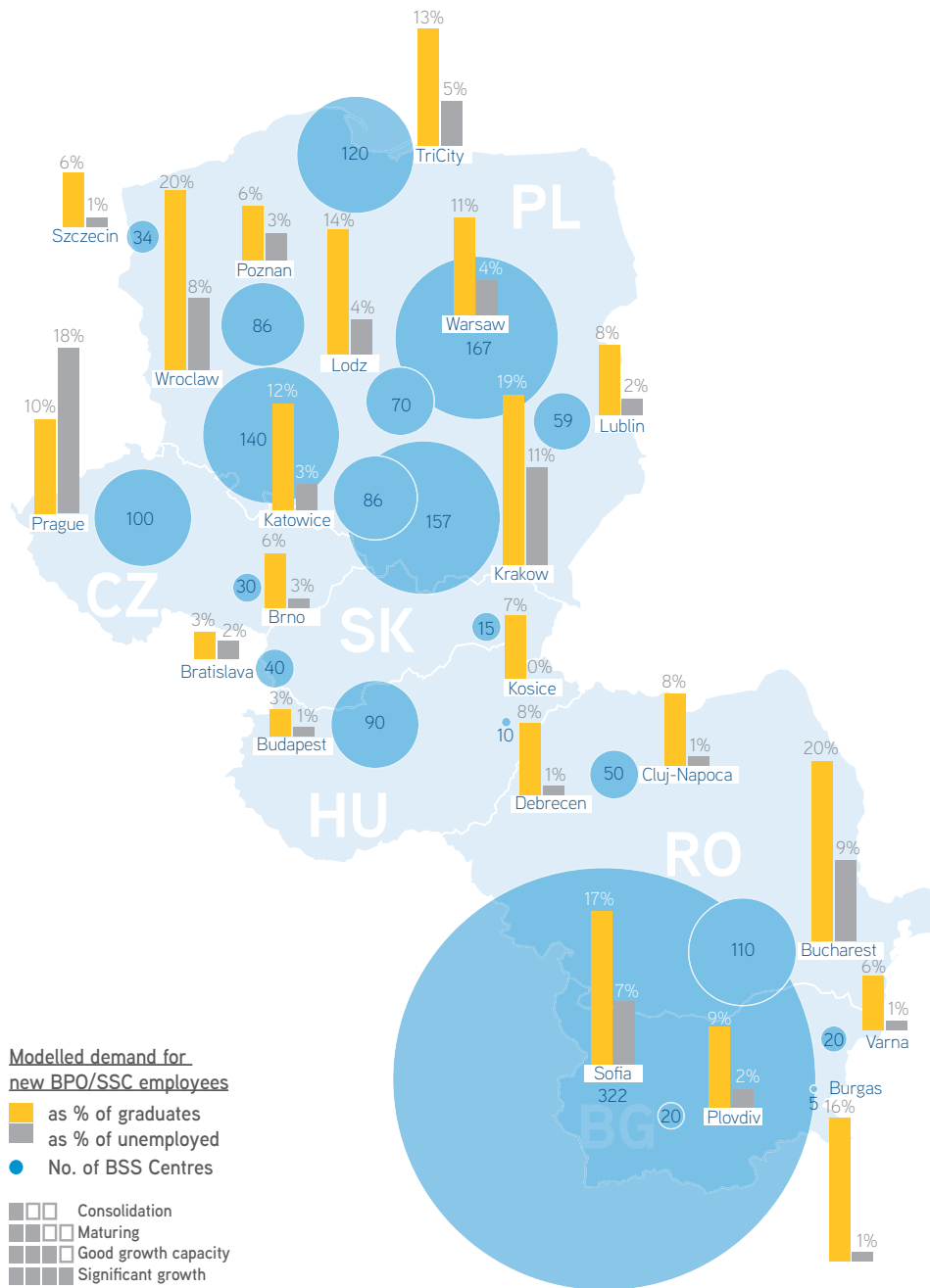
Average wage inflation in the BPO/SSC sector in recent years

** Source: Hays Recruitment, Randstad, SARIO, BOA. Polish salary data is for Q1 2017

***No data differentiating the Bulgarian regional cities is available. Data is calculated from the national average BPO/SSC salary (source BOA) and a 27.5% reduction from Sofia's level.

Source: ABSL, BOA, SARIO, Colliers International.

Fig. 5a: BPO/ SSC Employment vs Growth in CEE-6



Benchmarking labour availability

Can CEE cities satisfy the demand for BPO/SSC workers from the sector? We estimated the number of new BPO/SSC workers likely to be employed annually if growth rates we assumed do occur. Those growth rates are our own assessment, with take-up as a % of stock as a guide. On the map, we express the new workers total compared to the number of graduates theoretically appearing on the job market each year and the general unemployed population. It goes without saying, especially these times of very low national unemployment levels in the region, that graduates are more likely fertile recruiting ground for BPO/SSC players than the general jobless population.

In cities such as Bucharest, Wroclaw (both 20%), Krakow (19%) and Sofia (17%), the ratio of implied BPO/SSC demand versus graduate supply looks most severe. The BPO/SSC industry is a significant recruiter where it is taking on more than 5% of the graduate population and that is the case in every city in the region we surveyed except for Budapest and Bratislava.

Will a “labour force boomerang” of workers returning from Western Europe potentially help alleviate the availability situation?

[See our Colliers report issued in July.](#)

Figure 5b: Unemployment* vs growth phase

City	Brno	Prague	Budapest	Debrecen	Bucharest	Cluj Napoca	Bratislava	Kosice	Sofia	Plovdiv	Varna	Burgas	Warsaw	Krakow	Wroclaw	Tri-City	Katowice	Poznan	Lodz	Lublin	Szczecin	
BPO/SSC employees ('000)	15.0	40.0	40.0	2.7	70.0	10.0	18.5	6.0	25.0	5.0	1.8	1.1	42.6	55.8	40.0	19.3	19.0	13.5	18.1	5.7	3.7	
Unemployed, end 2016* ('000)	31.2	15.2	55.8	62.6	55.0	51.2	17.9	101.4	57.2	45.1	43.2	36.6	143.6	77.4	71.5	59.8	107.3	78.6	64.8	75.2	50.2	
Graduates in 2016 ('000)	17.7	28.6	32.0	5.0	24.5	9.0	13.8	5.7	22.0	8.4	7.3	1.6	58.3	44.1	30.1	21.6	24.7	32.1	19.8	18.0	9.0	
Employees / BSS centre ratio	500	400	444	270	636	200	463	200	78	250	90	210	255	355	286	161	221	157	259	97	132	
Growth phase	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■
BPO/SSC take-up as % of BPO/SSC stock 2016 full year	15%	17%	16%	n.a	11%	n.a	n.a	n.a	35%	n.a	n.a	n.a	14%	26%	21%	33%	11%	18%	27%	n.a	n.a	
BPO/SSC take-up in H1 2017 annualised as % of BPO/SSC stock	1%	6%	11%	n.a	13%	n.a	n.a	n.a	48%	n.a	n.a	n.a	23%	27%	30%	39%	8%	8%	30%	n.a	n.a	

*Eurostat: data is for NUTS 2 regions

Source: ABSL, BOA, Eurostat, national education statistical agencies, Colliers International.

Additional location factors

Fig. 6a: Top BPO/SSC Cities in CEE-6

WROCLAW

6.3% % of population in BPO/SSC jobs

25 No of Unis | 64 % EU GDP*

Airlines: 21 | Culture Index: 25 | Pollution Index: █

BRNO

4.0% % of population in BPO/SSC jobs

12 No of Unis | 53 % EU GDP*

Airlines: 6 | Culture Index: 17 | Pollution Index: █

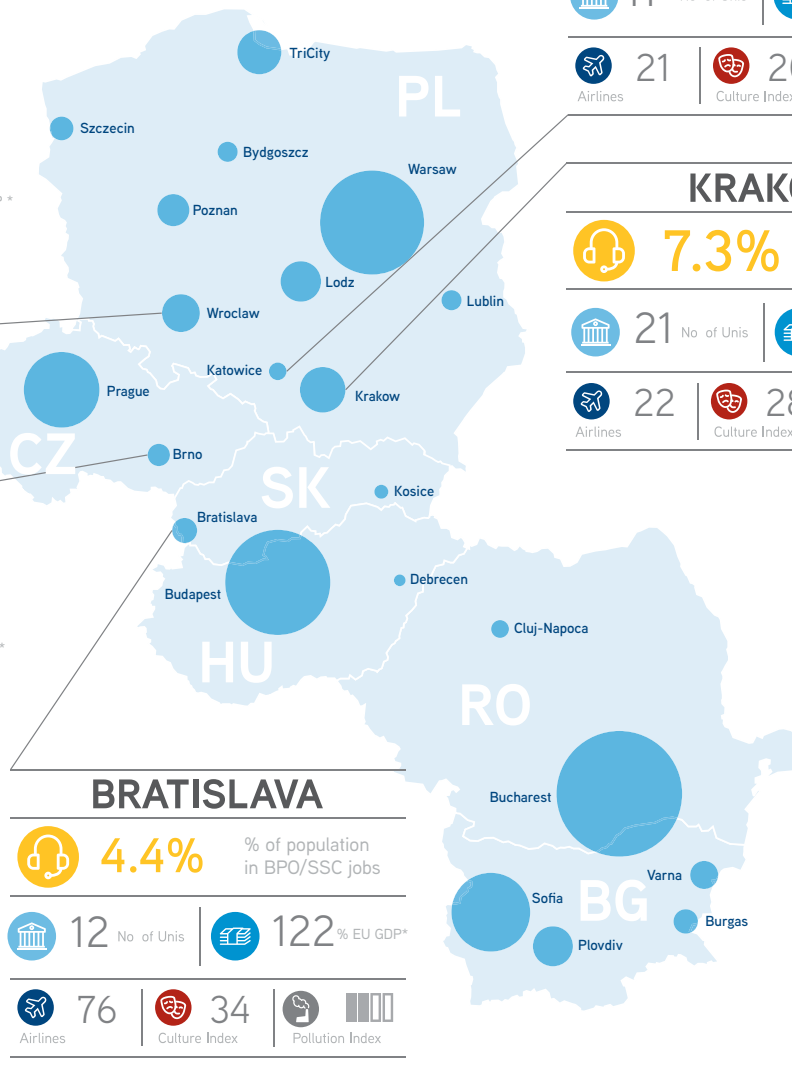


Fig. 6b: Cities 6-25 ranked by BPO/SSC employees/population

	Cluj Napoca	Prague	Lodz	Tri-City	Kosice	Poznan	Rzeszow	Bydgoszcz	Warsaw	Bucharest	Budapest	Sofia	Lublin	Debrecen	Szczecin	Plovdiv	Varna	Burgas
	RO	CZ	PL	PL	SK	PL	PL	PL	PL	RO	HU	BG	PL	HU	PL	BG	BG	BG
% of population in BPO/SSC jobs	3.3%	3.2%	2.6%	2.6%	2.5%	2.5%	2.5%	2.4%	2.4%	2.4%	2.3%	1.9%	1.7%	1.3%	0.9%	0.7%	0.4%	0.3%
Airline connectivity - no. of countries served	11	55	3	21	2	15	n.a	n.a	52	22	49	27	9	4	4	4	63	75
Number of universities	10	33	20	13	6	23	4	7	70	33	19	24	9	2	12	9	6	2
Latest* Eurostat GDP per capita [% of EU average]	35	79	43	43	40	61	34	40	79	64	59	41	37	28	46	22	22	18
Cultural & creative cities monitor C3 index	26	38	15	17	14	28	n.a	n.a	27	28	30	21	14	n.a	n.a.	13	17	n.a
Pollution Index	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█

*Eurostat (EUR basis): 2014 data for Poland/Romania/Czech Rep, 2015 data for other countries.

Source: Eurostat, Numbeo, ABSL, BOA, Colliers International.

Quality of life and infrastructure

As outlined in our recent “Labour Force Boomerang” report, an improving quality of life will help attract workers back to the region from Western Europe and also entice more skilled migrants from the east, such as from Ukraine. On figure 6, we map some of the factors that employers and employees might consider attractive or less attractive in locating in our key BPO/SSC cities. Relative GDP per capita, the number of universities, a Eurostat index measuring the degree of cultural and creative activity, the number of countries an employee could fly to and on the negative side, the Numbeo Pollution Index. Even improvements to infrastructure by municipal authorities and national governments will help.

In today’s world, companies are additionally taking things into their own hands and seeking better workspace solutions, creating a better internal environment for their employees.

Business environment

As featured in recent reports, a friendly business environment is a critical factor in the location of companies and indeed employees in the CEE. The region has maintained a globally-competitive position, thus justifying the thoroughbred status in the BPO/SSC sphere for some years now. In the latest World Bank Ease of Doing Business global ranking for 2018, published on 31 October, Poland came in at position 27, with Bulgaria ranked at 50 out of 190 countries.

The CEE-6’s rankings did slip across the board compared to 2017. This was due more to the observed improvement in other countries rather than an absolute deterioration in conditions in the region.

Nevertheless, it is worth pointing out that the ranking for benchmarking regulatory or legal interference/tardiness are not uniformly good when compared with the decent overall positions. There may be some work to do in the region to improve the operating environment for companies in the future.

Tech complexity

Not only is there an emphasis on IT & Communications companies specifically in the sector mix of BPO/SSC take-up, with the proportion in that sector ranging between 30%-60% of the total in several cities in H1 2017 but the region’s climb up the tech “complexity” scale referred to on figure 4 creates new challenges. The supply of IT graduates becomes more critical. Presently, the highest proportions of IT students in the total student populations according to the ABSL’s statistics are in Brno, Budapest (both 13%), Bratislava (12%) and Kosice (10%). Bulgaria has an oft-cited specialism in IT stemming from the Soviet era and a vast number of BPO/SSC centres opened.

The heterogeneity of jobs in BPO/SSC means that the “complexity” assessments we made for the cities are reflecting the “cutting edge” of companies rather than the mass. But such is the march of technology that the mass catches up fast. And salaries for the employees involved rise as they acquire skills.

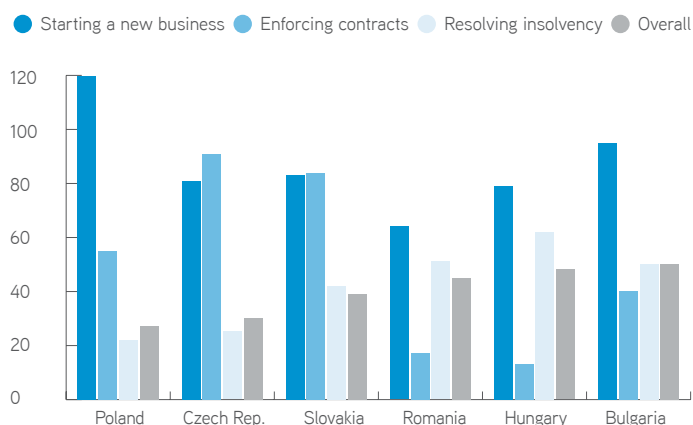
Government initiatives, both in terms of general tax incentives both for employers and employees, the creation of special “technology zones” and training programmes for students and employees encompassing technology and language proficiency are all being pursued across the region. Increasing language proficiency is certainly a priority in CEE-6 and results are already apparent.

Fig 7: World Bank Ease of Doing Business global rank (2018) and change since 2006 and 2017



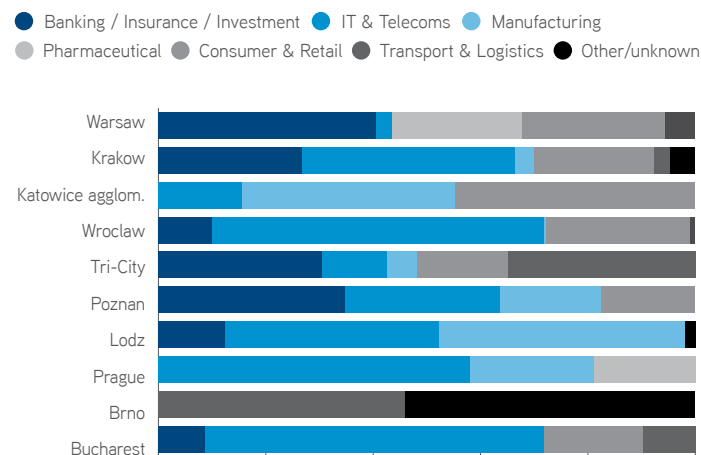
Source: World Bank, Colliers International.
See Appendix for definition/explanation.

Fig 8: Ranks of CEE-6 in business life categories in Ease of Doing Business 2018 survey



Source: World Bank, Colliers International.

Fig 9: Sector split of BPO/SSC take-up in H1 2017



Source: Colliers International.

Effect on demand

BPO/SSC's influence on demand for office space

We monitored the BPO/SSC take-up levels within the office sector in our key cities in the last 18 months. Krakow, Sofia and Wroclaw saw the largest demand in absolute terms in the first half of this year. Relative to total office take-up, some of the proportions range recently above a very significant 60%, in Sofia, Lodz, Tri-City, Krakow and Wroclaw. Only in Warsaw, Brno, Prague and perhaps Bucharest are the percentages noticeably lower. And in the case of three of those four, the absolute sub-market sizes are still large.

The hungry BPO/SSC thoroughbreds have the potential to absorb stock and force cyclically-low vacancy rates even lower. Average half-yearly demand over the last 18 months could absorb up to over half of all the currently vacant stock in Krakow, Wroclaw, Tri-City and a dominant 86% in Lodz.

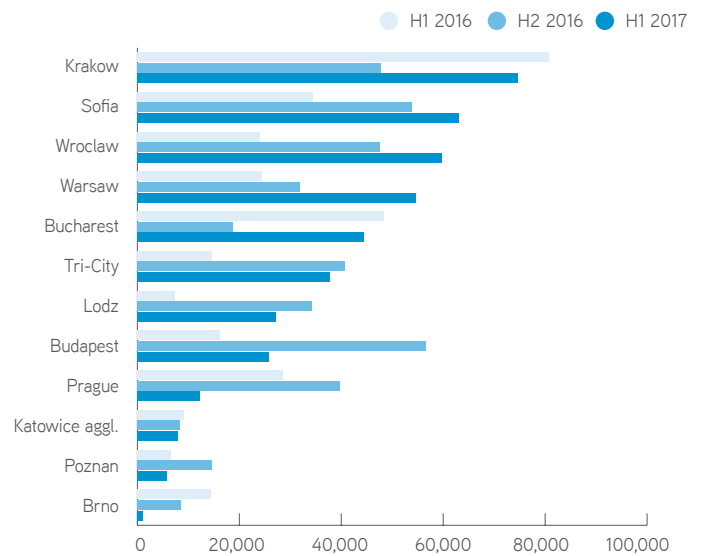
Is the supply-side reacting? It can react in 2 ways: first, BPO/SSC operators are assessing new cities in all of the CEE-6 countries and even outside their borders. We profiled several of the most promising of these locations in Poland in our Sept. 2016 report "12 Rising Stars of Business"; secondly, through the supply of new space. But since the beginning of 2016, the average half-yearly BPO/SSC take-up exceeded the half-yearly average total office development completions in Prague, Sofia and Tri-City. And nearly matched it in Budapest, Lodz and Krakow. The office supply-side did not then really react to the BPO/SSC boom in 2014-16. Looking ahead, the size of the development pipeline has swelled in the latest available quarterly data sets by a range of 19%-121% versus the quarterly average back to Q1 2016 in all 15 cities we track except for Prague, Warsaw, Lublin, Katowice and Szczecin. So, the supply side is finally reacting.

Appendix:

FIGURE 7: The change in ranking in the global World Bank Ease of Doing Business Index between the year 2006 and 2017 is shown. Taking the example of Romania, the country rank rose from 78th in the world in 2006 to 45th in the world in 2018. This was a rise of 33 places. The Ease of Doing Business Index is an index created by the World Bank Group. Higher rankings (a low numerical value) indicate better, usually simpler, regulations for businesses and stronger protections of property rights. The first survey was conducted in 2001 and is carried out annually. The report is above all, a benchmark study of regulation. The survey consists of a questionnaire designed by the Doing Business team with the assistance of academic advisers. The questionnaire centers on a simple business case that ensures comparability across economies and over time. Empirical research funded by the World Bank to justify their work show that the economic growth impact of improving these regulations is strong.

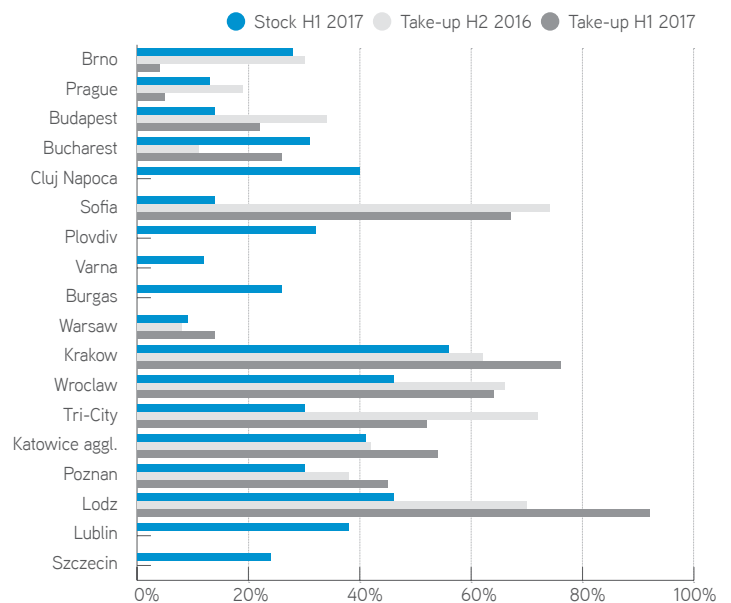
GENERAL NOTE: We collected data on a maximum of 23 cities. But more detailed information was often available on a smaller subset. The core take-up data for example was available for only 12 cities. Stock levels were in most cases estimated from employee levels, applying a multiple of 9x-10x-11x, at the discretion of our experts. For a more holistic, broad and general guide to the BPO/SSC topic, we recommend recent reports published by the likes of the ABSL, SARIO and the BOA. We would like to acknowledge the contribution to this report of specific quotes by the executive management of the ABSL and the BOA.

Fig 10: Net take-up of office space in surveyed CEE-6 cities in H1 2016-H1 2017 [sqm]



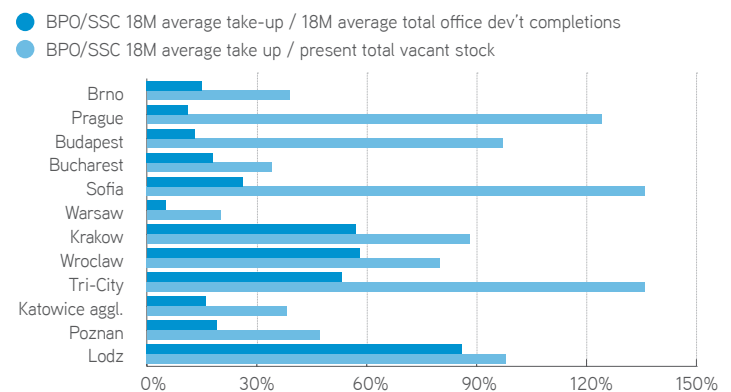
Source: Colliers International (ranked by H1 2017 size)

Fig 11: BPO/SSC: stock as a % of total office stock [H1 2017] + Take-up as a % of total office take-up [H2 2016, H1 2017]



Source: Colliers International

Fig. 12: Take-up vs vacant stock and development completions



Source: Colliers International

€2.3

billion in
annual revenue

170

million square meter
under management

15,000

professionals
and staff

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