Business Services Sector in Poland 2017





Report prepared by the Association of Business Service Leaders (ABSL)

in cooperation with: Baker & McKenzie, JLL, Randstad



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FOREWORD

The ABSL conference, combined with the publication of this industry report, is a symbolic culmination of the Association's efforts in the past year. The last few months were a time of incredible interest in investing in Poland, largely inspired by ABSL's successful London meeting with investors. The second edition of the ABSL Diamonds, which are an industry award, demonstrated that the skills and talents of the people employed in the sector have a tangible effect on the ideas and innovations that boost the competitive edge of the companies that invest in Poland. There is no question that the industry is facing a set of compelling and difficult challenges: the battle for talent, increased automation and artificial intelligence, with the thrill of Brexit in the background.

We will leave these topics to be tackled by the guests at our conference. Meanwhile, as we encourage you to take a look at this brand new ABSL report, we would like to thank all the companies who participated in our annual industry-wide survey. Every year, you put immense confidence in us by sharing information that enables us to put together what is probably the most reliable publication of its format in Poland.

I hope you enjoy this report. As always, please feel free to contact ABSL's research team with any questions and comments.



WOJCIECH POPŁAWSKI VICE PRESIDENT, ABSL; MANAGING DIRECTOR, ACCENTURE OPERATIONS

1 OVERVIEW OF THE BUSINESS SERVICES SECTOR

The scale of employment and consistent growth in the number of jobs and the broadening of the scope of business of companies with BPO, SSC, IT and R&D centers in Poland help strengthen the country's position among major business services destinations worldwide. The numerous investment success stories lead us to conclude that having a presence in Poland offers a competitive advantage and boosts companies' growth potential. In this chapter, we present some of the key characteristics of the business services sector in Poland. They provide insight into the scale and range of activities of the companies in an industry that is one of the leading sectors of Poland's economy in terms of significance for the labor market.

In the past 12 months (Q1 2016 – Q1 2017), the number of jobs in the business services sector in Poland increased by 32,000 (i.e. by 15%), ¾ of which were created by foreign centers. Thus, 748 business services centers owned by 524 foreign companies now employ as many as 198,000 people in Poland. In Q1 2017, Poland was home to a total of 1,078 (Polish and foreign) business services centers employing 244,000 people. Given the industry's growth in recent years, it may be assumed that by 2020, business services centers will be employing more than 300,000 people. Out of the 724 companies with business services centers in Poland, 80 are investors featured on the Fortune Global 500 (2016) list, with 67,000 employees at 134 business services centers (27% of the jobs in the industry).



Chapter content provider: ABSL

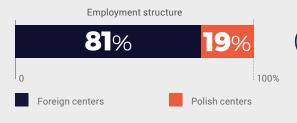
FIGURE 1

BUSINESS SERVICES SECTOR IN POLAND IN NUMBERS



<u> 244,000</u>

Total number of jobs at business services centers, of which 198,000 are at foreign centers and 46,000 are at Polish centers.





1,078

Total number of business services centers in Poland, of which 748 are foreign centers. In the period from Q1 2016 to Q1 2017, 92 new centers began their operations.



Number of business services centers with at least 1,000 employees.



>300,000

Number of jobs in the sector in 2020 as forecast by ABSL.



Number of investor companies with business services centers in Poland (including 524 foreign and 200 Polish investors).

80

Number of Fortune Global 500 investors with business services centers in Poland. Combined, the companies that form part thereof have created 27% of the jobs in the industry.

Number of business services locations with business services centers hiring more than 10,000 employees.

9%

Share of foreigners employed at business services centers in Poland (approximately 22,000 people).

15%

> Growth in the number of jobs at business services centers in Poland in the last year (Q1 2016 – Q1 2017)

Source: ABSL own study, Q1 2017 data

REPORT CONCEPT AND METHODOLOGY

The main purpose of this "Business Services Sector in Poland" report is to provide a comprehensive overview of the current state of affairs in the industry and to discuss selected aspects of the labor market, the office market and the investment incentive system. This edition of our report includes additional content intended to make the study more informative.

We adopted a broad definition of the sector to include the activities of business processes outsourcing centers (BPO), shared services centers (SSC), IT centers, and research & development centers (R&D). The basis for the report was information about the functioning of these entities obtained directly from their representatives. To this end, we carried out a nationwide online survey in Q1 2017. This year, we surveyed 220 companies with a total of 142,000 employees in their business services centers in Poland, which represents 58% of all people employed in the sector.

^{هر ۲} 220

Companies that took part in this year's ABSL survey.



142,000

People employed by ABSL survey respondents at BPO, SSC, IT and R&D business services centers in Poland. The results of the studies concern the activities of business services centers whose parent companies have headquarters in Poland (Polish centers) and abroad (foreign centers). Each entity was assigned to one of the primary types (BPO, SSC, IT, R&D), taking into account the dominant profile of its operations. Contact centers providing services to external customers were classified as BPOs. IT centers are entities that outsource IT solution services (e.g. system, application or infrastructure maintenance, and technical support) and/or develop and sell (implement) software for external customers. It is worth noting that the studies do not include companies that only provide services in Polish for customers in Poland. This restriction does not apply to IT and R&D centers that offer software development, which, as a rule, requires the "product" to be developed in English. Each business services center is treated as a separate unit for analysis if it is located in a different town/conurbation (geographic criterion). The report takes into account BPO and SSC centers with a headcount of over 25. This does not include companies in the process of creating jobs with an anticipated target headcount of over 25. The minimum headcount criterion did not apply to IT and R&D centers.

Please note that the report may be downloaded at any time, free of charge, as an ePUB file at **www.absl.pl/publications**. In Q4 2017, some contents of the study will be updated to ensure that the report continues to meet the information requirements of its audience.

We would like to thank all those who contributed to this year's report and, in particular:

- the ABSL survey respondents who took time out of their busy schedule to complete the survey;
- representatives of local governments and institutions that support investors;
- · the co-authors of the study.

We welcome any and all feedback about the contents of the report that may help improve and expand the study as a useful source of information for our readers.

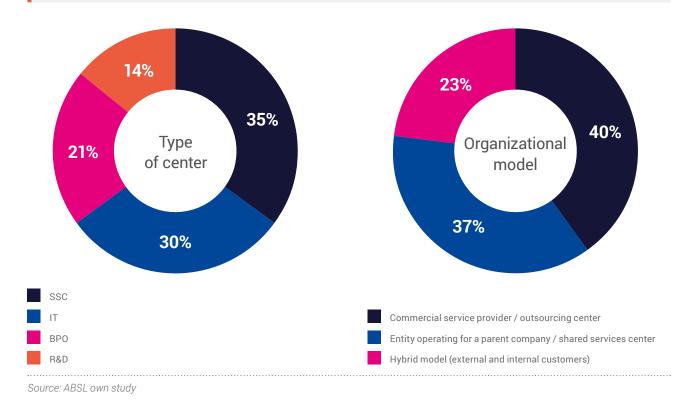
> Janusz Górecki Head of Research, ABSL

INTRODUCTION

The largest share of jobs in the sector (35%) is generated by shared services centers (SSC)¹, followed by IT centers (30%), outsourcing centers (21%) and R&D centers (14%). In the case of employment structure by organizational model, we also do not identify a single type of entity as being dominant. The largest number of jobs (40%) was created by commercial service providers/ outsourcing centers. Entities operating on behalf of parent companies/shared services centers generated a 37% share in employment structure, while hybrid model companies had a 23% share. There are, however, significant differences between foreign and Polish companies when it comes to the structure of employment according to the organizational model. It is worth pointing out the much higher share of employment at foreign entities operating for the benefit of parent companies (43%) than is the case for Polish entities (6%). In general, the structure of employment at foreign centers is much more even, whereas Polish companies are dominated by commercial service providers/outsourcing centers (90% share).

FIGURE 2

EMPLOYMENT STRUCTURE OF BUSINESS SERVICES CENTERS IN POLAND BY TYPE OF CENTER (ACCORDING TO THE DOMINANT PROFILE OF THEIR OPERATIONS) AND ORGANIZATIONAL MODEL



¹ Please note that ABSL studies pertain only to entities that offer at least some of their services in foreign languages. Thus, numerous shared services centers operating only in Polish for their parent companies in Poland have been excluded. These often include units of major Polish companies such as: Tauron, Poczta Polska, PZU, Enea, Grupa Azoty, Energa, PKO etc. It is estimated that more than ten thousand people are employed by these entities. Therefore, the share of shared services centers in the employment structure pertains mainly to headcounts at foreign SSCs (predominantly) and at Polish centers providing services for foreign branches of parent companies.

Poland has 47 business services centers with a headcount of at least 1,000 per center. This means that there are now 10 more entities of this size than in 2016. Combined, they employ 86,000 people (which represents 35% of the jobs in the sector). Almost all of the largest centers are owned by foreign entities (44 out of 47)². The average headcount at business services centers in Poland is 226 (the median is 90 people³). The highest average headcount is found at shared services centers (318 people), with the lowest at IT centers (161 people). On average, BPO centers have 281 employees, while R&D centers have 201 employees. The latter figure is largely due to the high headcounts at entities such as: Nokia, Intel, GE, Samsung and Motorola, which, combined, account for 1/3 of the jobs at R&D service centers in Poland. When we look at average headcounts at Polish and foreign centers, we note that they are much higher in the latter (264). The noticeable lower average headcounts at Polish centers (139) are due to, among other things, the large number of small IT companies in the pool of entities in question.

The top six investors in the business services sector in Poland are: IBM, Capgemini, Credit Suisse, Atos, Nokia, and Citibank. Each of these companies has over 4,000 employees at their business services centers in Poland. It is worth noting that other major investors include Polish companies such as Comarch, Asseco and the OEX Group.

BUSINESS SERVICES LOCATIONS IN POLAND

Companies looking to open their first business services center in Poland (or expand their operations, if they already have a presence) will be able to carry out projects in various cities, which represents a competitive advantage over other countries in the region.

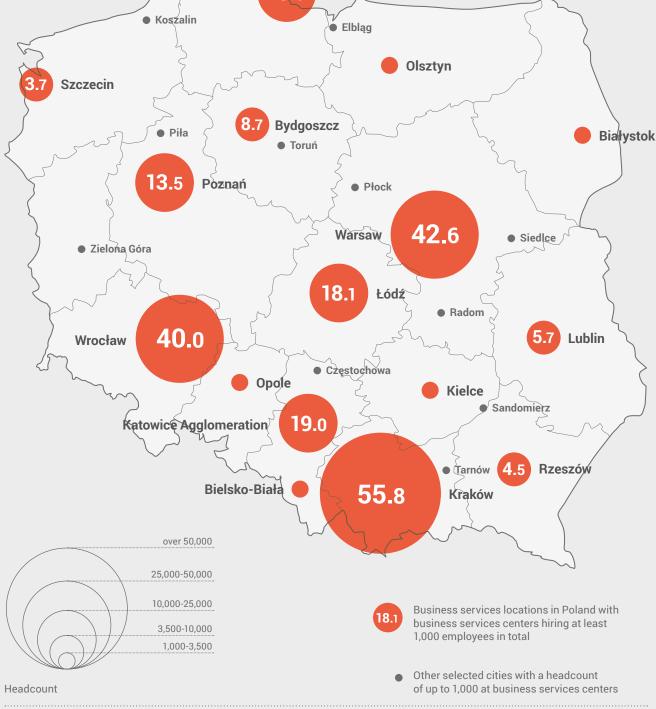
Looking at Poland's business services sector map, we note that in seven locations, the employment level at BPO, SSC, IT and R&D centers exceeds 10,000 people. Such major business service locations are: Kraków, Warsaw, Wrocław, Tri-City, Katowice Agglomeration, Łódź and Poznań (Figure 3), which collectively account for 85% of all jobs in the sector (of which 89% are at foreign centers and 72% are at Polish centers). In nine other locations, service centers employ between 1,000 and 10,000 people. Generally speaking, jobs in the sector were created at 39 locations, of which 15 have at least ten service centers.

Kraków, whose business services centers now have as many as 55,800 employees, remains the clear leader in the number of jobs in the sector. This means that the city has a 23% share in the structure of employment in the sector by business services location. At least 40,000 jobs were created in Warsaw and in Wrocław. Locations with over ten thousand jobs in the sector are: the Tri-City, the Katowice Agglomeration, Łódź and Poznań.

² Please note that this refers to individual business services centers rather than specific investors' overall headcounts.

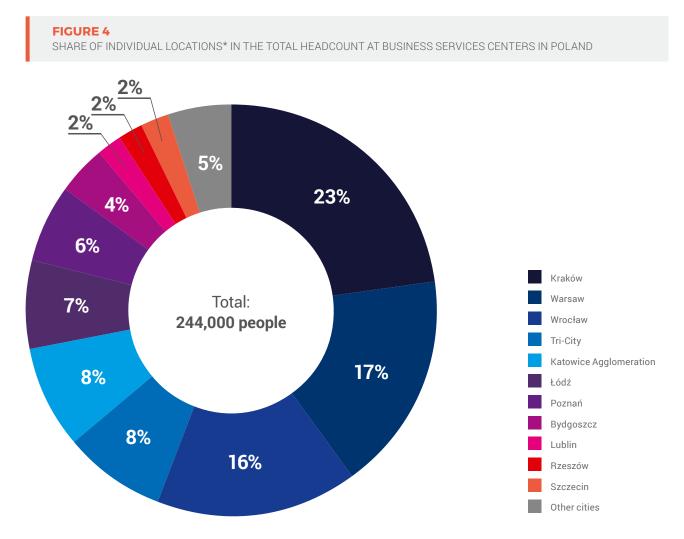
³ The median value indicates that half of the business services centers in Poland have more than 90 employees, while the other half have fewer than 90 employees.





Source: ABSL own study

Overview of the business services sector



* It should be noted that the unit of analysis in the report is an agglomeration. For instance: Kraków is analyzed together with the suburban area of Zabierzów, and the Tri-City is deemed to comprise Gdańsk, Gdynia and Sopot. Katowice Agglomeration's ranking on each list is the result of collating data from the business services centers operating in Katowice, Gliwice, Dąbrowa Górnicza, Sosnowiec, Ruda Śląska, Tychy, Chorzów and Bytom.

Source: ABSL own study

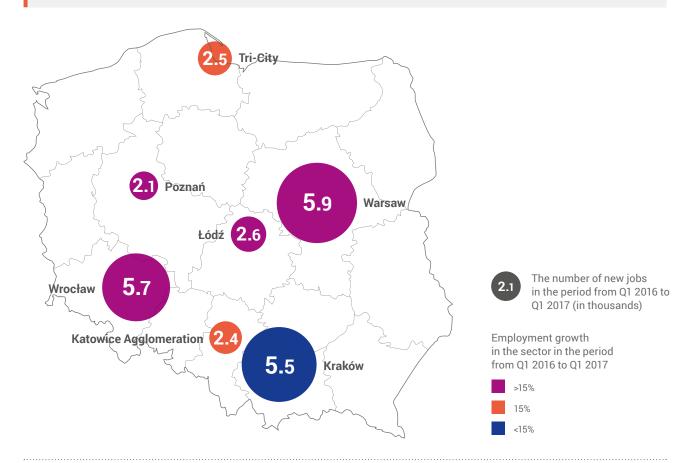
Among major business services locations⁴, the largest percentage of employment growth in the period from Q1 2016 to Q1 2017 was reported in Poznań, where the number of jobs increased by 19%. The other top three cities in terms of growth were Wrocław (17%) and Łódź (16%). Lublin and Rzeszów reported the fastest growth in the period in question among smaller business services locations⁵. In terms of absolute value of employment growth, the largest number of new jobs in the sector was created in Warsaw (5,900), Wrocław (5,700) and Kraków (5,500). Combined, the three cities account for 54% of new jobs in Poland created in the period under analysis (Figure 5).

⁴ Included here are locations where the headcount in the sector exceeds 10,000 (Kraków, Warsaw, Wrocław, the Tri-City, the Katowice Agglomeration, Łódź and Poznań).

 $^{^{\}scriptscriptstyle 5}$ In this case, the study covered a range of 3,500-10,000 jobs.

FIGURE 5

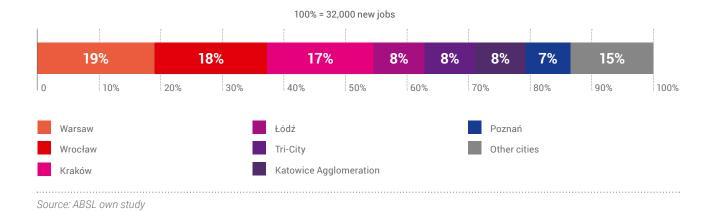
THE NUMBER OF NEW JOBS AT BPO, SSC, IT AND R&D CENTERS AND GROWTH OF EMPLOYMENT IN THE LARGEST BUSINESS SERVICES LOCATIONS IN POLAND (Q1 2016 – Q1 2017)



Source: ABSL own study

FIGURE 6

STRUCTURE OF NEW JOBS AT BPO, SSC, IT AND R&D CENTERS BY BUSINESS SERVICES LOCATION (Q1 2016 - Q1 2017)



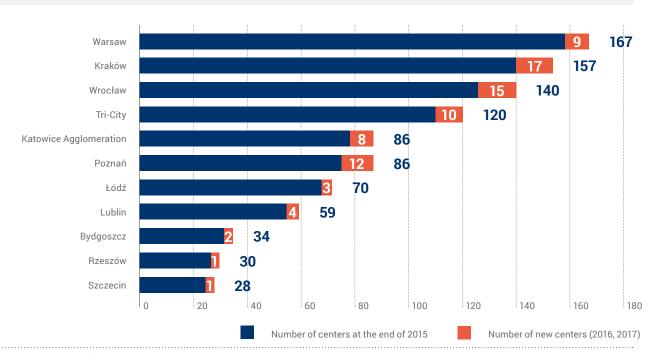
Warsaw has the largest number of business services centers in Poland (167). Locations with at least 120 centers also include Kraków (157), Wrocław (140) and the Tri-City (120). In the period from Q1 2016 to Q1 2017, the largest number of new entities were established in Kraków (17), Wrocław (15), Poznań (12) and the Tri-City (10). These locations account for 59% of the total number of new investments into service centers in Poland. It is worth noting that among smaller business services locations, Opole (with 5 new centers) and Lublin (with 4 new centers) have delivered a strong performance in terms of the number of new investments.

US investments (with 21) represent the highest share in the new center category. In the period in question, Polish companies established 16 entities, while UK companies established 8. Also reported was an influx of investments from Germany, Sweden (with seven new centers each) and Switzerland (five new centers). Other countries account for 28 new centers, which also include a handful of investments from Ukraine and Asia. In the period from Q1 2016 to Q1 2017, the majority of new investments were IT centers (48% of all investments). The second-largest category of new entities was shared services centers (27%), followed by R&D centers (14%) and BPO centers (11%). Since their inception, the new centers have already generated 7,300 jobs, accounting for 23% of new jobs in the sector.

It is worth pointing out that over ten new business services centers that opened in the period from Q1 2016 to Q1 2017 (or that are scheduled to open later in 2017) represent reinvestments by companies successfully operating in other Polish cities. Examples may exclude the following new centers: Credit Suisse, GFT and Luxoft in Warsaw, arvato Polska and Groupon in Katowice, Transcom WorldWide in Białystok, Diebold Nixdorf in Szczecin and Atos, JCommerce and PwC in Opole. A large number of reinvestments carry on a trend that clearly enriches the business service landscape in Poland.

FIGURE 7





Source: ABSL own study

TABLE 1

SELECTED EXAMPLES OF NEW INVESTMENTS AT BUSINESS SERVICES LOCATIONS IN POLAND (Q1 2016 - Q1 2017)

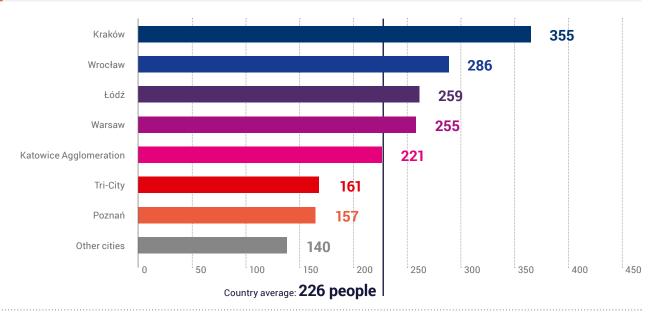
Kraków	Cathay Pacific, QVC, Red Flag Group, Symphony, Syntel, Uber, WilsonHCG, Zurich Insurance Group
Warsaw	Credit Suisse, Dentons, DHL Parcel, Elekta, Elopak, GFT, Luxoft, Nielsen, Sarens
Wrocław	Droplr, Epiq Systems, Infor, Mahle, Red Embedded, Sigma AB, SmartStream, Travel Labs (Ryanair), Xylem Shared Services
Tri-City	Ciklum, DGC One, Eltel Networks, Eurofins Digital Testing, Federal Mogul, FujiFilm, Quad/Graphics, Riks TV, Swarovski
Katowice Agglomeration	Altium, arvato Polska, EPAM, Eurofins, Groupon, JAMF Software, Sapiens International Corporation, VEO Worldwide Services
Łódź	Lumileds, STX Next, ZF TRW
Poznań	AutoVision, Etteplan, Huawei, Mobica, Nordcloud, Paymentwall, Rockwool, SoftServe
Other cities	Qumak (Płock), SoftServe, Transcom WorldWide (Białystok), Atos, Axxiome, JCommerce, PwC (Opole), Eltel Networks (Olsztyn), Codete, PhlexGlobal, Team International (Lublin), Cybercom (Bydgoszcz), Diebold Nixdorf (Szczecin), Jeppesen (Rzeszów)

Source: ABSL own study

Kraków has the highest average headcount at services centers among the seven major business services locations (Figure 8). This is due to the fact that Kraków is home to the largest number of entities with a headcount of over 1,000 – there are 19 of them there, which represents 40% of all such entities in Poland. Large-scale operations are also a characteristic of the largest centers in Wrocław (with seven entities employing over 1,000 people), which helps explain the city's number-two ranking on the above list.

FIGURE 8

AVERAGE HEADCOUNT AT BUSINESS SERVICES CENTERS IN MAJOR BUSINESS SERVICES LOCATIONS IN POLAND



Source: ABSL own study

Business Services Sector in Poland 2017

Overview of the business services sector

Alexander Mann Solutions Arla Global Financial Services Centre

arvato Polska **Convergys International** Diebold Nixdorf GlobalLogic

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OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS	Wrocław	Future Pro ista Share opta data PwC Servi Delivery C	ccessing d Services cce enter ZF TRW	
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS Viessmann R&D	Wrocław	Future Pro ista Share opta data PwC Servi Delivery C	ccessing d Services cce enter ZF TRW	
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS	Wrocław	Future Pro ista Share opta data PwC Servi Delivery C	ceessing d Services ice enter ZF TRW C Kato	owi
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS Viessmann R&D	Wrocław	Future Pro ista Share opta data PwC Servi Delivery C	ceessing d Services ice enter ZF TRW C Kato	owi
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS Viessmann R&D	Wrocław	Future Pro ista Share opta data PwC Servi Delivery C	ceessing d Services ice enter ZF TRW C Kato	
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS Viessmann R&D XL Catlin		Future Pro ista Share opta data PwC Servi Delivery C	ceessing d Services ice enter ZF TRW C Kato	owi
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS Viessmann R&D XL Catlin Saint-Gobain		Future Pro ista Share opta data PwC Servi Delivery C	ceessing d Services ice enter ZF TRW C Kato	owi
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS Viessmann R&D XL Catlin Saint-Gobain Sii		Future Pro ista Share opta data PwC Servi Delivery C	ceessing d Services ice enter ZF TRW C Kato	owi
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS Viessmann R&D XL Catlin Saint-Gobain Sii SMS Metallurgy		Future Pro ista Share opta data PwC Servi Delivery C	ceessing d Services ice enter ZF TRW C Kato	owi
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS Viessmann R&D XL Catlin Saint-Gobain Sii		Future Pro ista Share opta data PwC Servi Delivery C	ceessing d Services ice enter ZF TRW C Kato	owi
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS Viessmann R&D XL Catlin Saint-Gobain Sii SMS Metallurgy		Future Pro ista Share opta data PwC Servi Delivery C	ceessing d Services ice enter ZF TRW C Kato	owi
OEX Group Parker Hannifin QIAGEN Sii SoftServe SSAB Tieto Unit4 UPS GBS Viessmann R&D XL Catlin Saint-Gobain Sii SMS Metallurgy Sopra Steria	Katowice Wrocław Agglomeration	Future Pro ista Share opta data PwC Servi Delivery C	ceessing d Services ice enter ZF TRW C Kato	owi

INTITEK	Alexander Mann Solutions
Jeppesen	Financial Services Centre
Kemira	Asseco
Luxoft	Bayer
Metsä Group Services	Coleman Research
Nordea Bank	Competence Call Center
Quad/Graphics	DNV GL
Seargin	Geoban
Sii	HK Finance

	intive
	METRO SERVICES
	Tieto
UniCredit Busines	ss Integrated Solutions

	ADM
	arvato Polska
	AutoVision
	BAE Systems
	Banach Outsourcing
	Bridgestone
	Capgemini
M	Carl Zeiss
I	CenturyLink
	Ciber
	Cleeng
	DFDS
O-I Bu	Duni
	Egnyte
Roc	Exide Technologies
	Franklin Templeton Investments
	GFT
	Grant Thornton Frąckowiak
	GSK Services (GSK IT)
	llieven

Hicron

Fresenius Medical Care
getsix
GlobalLogic
Hicron
HP GBC / HP Inc.
IBM Global Services Delivery Centre
Impel Business Solutions
Infor
intive
Luxoft
Merck
Nokia Solutions and Networks

3M
Atos
BD
BNY Mellon
Capgemini
Cogniance
CORE Services
Credit Suisse
CRISIL Irevna
DeLaval Operations
Etteplan
EY Global Delivery Services

IBM Global Services Delivery Centre
ING Services Polska
ista Shared Services
Kroll Ontrack
OEX Group
PwC Service Delivery Center
Rockwell Automation

Ettep	lan
EY Global Delivery Services	
ArcelorMit	ttal
Asse	900
Capger	nini
Diebold Nixd	orf
DisplayL	ink
Future Process	ing

General Motors **FIGURE 9**

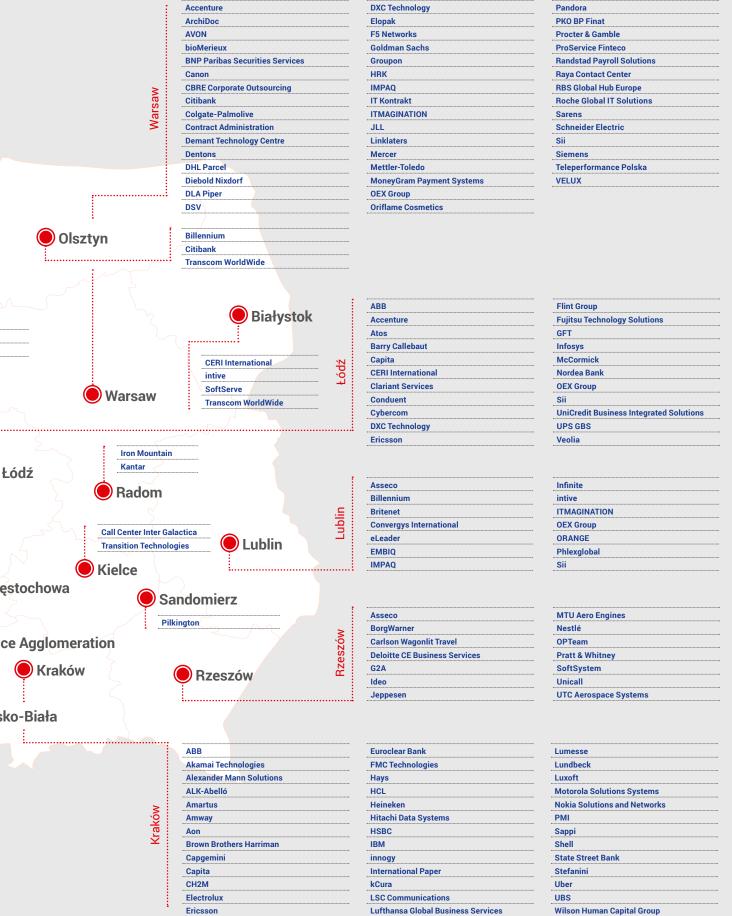
LIST OF SELECTED BUSINESS SERVICES CENTERS IN POLAND

Source: ABSL own study

T

Business Services Sector in Poland 2017

Overview of the business services sector



Wilson Human Capital Group

17

ASSESSMENT OF THE LOCATION AS A PLACE TO DO BUSINESS

One element of this year's ABSL study was a question about the services center's view of individual factors that affect business in Poland's cities. The respondents' assessments were generally favorable. It is worth clarifying that for companies with centers in more than one city, the assessment concerned the market where the company has the highest headcount. The highest scores were given to: availability of modern office space (an average of 3.8 on a scale of 1 to 5, where 5 is the highest possible score), availability of transportation (also 3.8) and quality of public transportation (3.6). It is worth pointing out that respondents outside the seven major business services locations (i.e. outside Kraków, Warsaw, Wrocław, Tri-City, Katowice, Łódź and Poznań) gave much lower scores to their locations' availability of modern office space and availability of transportation.

FIGURE 10

ASSESSMENT OF THE LOCATION AS A PLACE TO DO BUSINESS (AVERAGE SCORE FOR ALL LOCATIONS ASSESSED BY RESPONDENTS)

Scale of 1 to 5, where 5 is the highest possible score



Source: ABSL's own study based on the results of a survey addressed to business services centers (N=215 companies)

The respondents rated their overall satisfaction with the location as a place to do business at 7.4 on a scale of 1 to 10, 10 being the highest possible score. It is interesting to note that companies whose centers in Poland employ over 1,000 people had a slightly lower level of satisfaction than smaller companies. The highest-rated cities in terms of business services centers' overall satisfaction with the location as a place to do business were: Warsaw (an average of 8.0 on a scale of 1 to 10), Wrocław (7.8) and Katowice (7.5). In terms of assessments of individual factors, the top scores went to the locations shown in Table 2.

TABLE 2

RANKING OF BUSINESS SERVICES LOCATIONS IN TERMS OF THE LOCATION'S ASSESSMENT AS A PLACE TO DO BUSINESS BY BPO, SSC, IT AND R&D* CENTERS

Factor		2	3
Availability of modern office space	Warsaw	Wrocław	Tri-City
Availability of transportation (airports, trains)	Warsaw	Katowice	Tri-City
Quality of public transportation	Tri-City	Warsaw	Katowice
Collaboration with local authorities	Łódź	Wrocław	Tri-City
Collaboration with local universities	Warsaw	Łódź	Poznań
Availability of talent / highly-skilled workers	Warsaw	Kraków	Wrocław

* Because the study had to be based on a sufficiently large number of respondents, it only analyzes the scores for: Kraków, Warsaw, Wrocław, Tri-City, Katowice, Łódź and Poznań.

Source: ABSL's own study based on the results of a survey addressed to business services centers (N=195 companies)

The highest scores for each location were awarded for: availability of modern office space (in Wrocław, Kraków and Poznań), availability of transportation (in Warsaw, Katowice and the Tri-City) and collaboration with local authorities (for Łódź). The highest-rated factor for most of the cities in question was the availability of talent/ highly-skilled workers (in Łódź, Poznań, Katowice, Tri-City and Wrocław). For Kraków and Warsaw, the factor with the lowest score from the respondents was collaboration with local authorities.

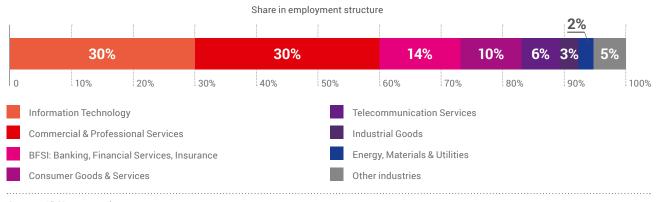
BPO, SSC, IT, R&D business services centers assess the level of competition on local labor markets as 3.5 out of 10 on average, where 1.0 means very strong competition between the centers. This means that while competition among the centers is clearly noticeable, there can be no talk of "drain" of available talent at most locations. The cities identified by respondents as having by far the highest pressure on the labor market were Kraków and Wrocław (2.9/10 points). Among major business services locations in Poland, the lowest pressure on entities currently operating in the sector is found in Poznań (3.7/10 points) and Warsaw (3.5/10 points). It is worth noting that locations where the pressure on the labor market is much less noticeable for the service centers include Rzeszów, Bydgoszcz, Lublin, Szczecin and Opole, i.e. cities outside the group of seven largest business services locations in Poland. Respondents noted that these locations' potential allows them to continue to invest in business services centers without noticeably affecting the existing entities in the sector.

EMPLOYMENT STRUCTURE IN THE SECTOR BY PARENT COMPANY INDUSTRY

An analysis of the employment structure in the sector in terms of industry of the parent company of each business services center demonstrates that the majority of jobs were created by the IT industry (30%) and the commercial and professional services sector (also 30%). The third industry in terms of share in the employment structure of the business services sector in Poland is BFSI (Banking, Financial Services & Insurance). This means that banks, financial institutions and insurance companies created 14% of the jobs in the sector. All other sectors combined represent a 26% share of the employment structure.

FIGURE 11

EMPLOYMENT STRUCTURE OF BUSINESS SERVICES CENTERS BY PARENT COMPANY INDUSTRY

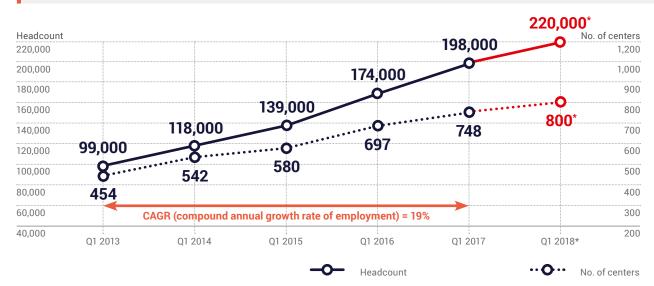


Source: ABSL own study

FOREIGN INVESTMENTS

The 748 foreign centers in Poland employ 198,000 people (Q1 2017). This means that foreign investors account for 81% of the jobs in the sector, managing the vast majority (69%) of the business services centers. In the period from Q1 2016 to Q1 2017, foreign companies created 24,000 new jobs in the sector (14% employment growth). Since early 2013, yearly average employment growth at foreign centers has been 19%. Based on job growth to date, we can conservatively estimate that in 2018, foreign service centers in Poland will be employing 220,000 people. Foreign service centers located in Poland employ an average of 264 people (i.e. significantly more than Polish companies, where the average is 139). The figure continues to grow every year (up by a total of 47 since 2013). The average stated target headcount of newly-established centers (Q1 2016 – Q1 2017) is lower and amounts to 134 people. However, it is worth specifying that in a vast majority of cases, the number of jobs tends to subsequently grow compared to the investors' assumptions. EMPLOYMENT LEVELS AT FOREIGN SERVICE CENTERS IN POLAND

FIGURE 12



* Forecast

Please note: previous years' figures concerning headcounts and the number of centers were verified in accordance with ABSL's current best knowledge. As part of updating the data, we also took into account differences resulting from changes in ownership and several investors terminating their operations in Poland.

Source: ABSL own study





TO FDI MAGAZINE BY FINANCIAL TIMES

BUSINESS-FRIENDLY CITY ACCORDING



DIRECT FLIGHTS TO EUROPEAN HUBS



MODERN OFFICE STOCK



EXCELLENT ACCOMMODATION FACILITIES



ABOUT 120 000 STUDENTS AT 25 UNIVERSITIES



DIVERSIFIED ECONOMY



INVESTOR RELATIONS DEPARTMENT e-mail: inwestor@um.poznan.pl www.poznan.pl



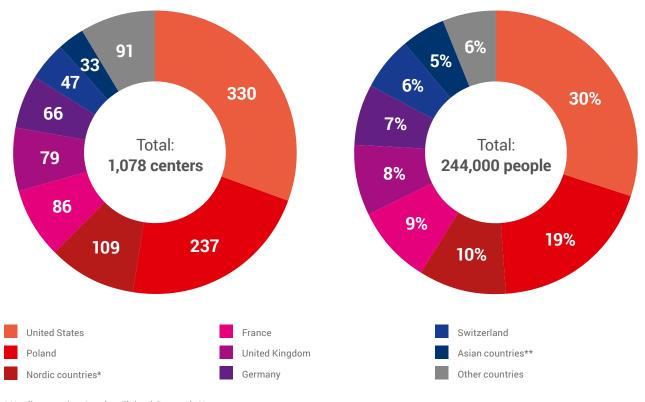
21

COUNTRIES OF ORIGIN OF BUSINESS SERVICES CENTERS

Polish business services centers (330) are the largest group of entities in the structure of business services centers. American centers dominate (with 237) among the 748 foreign centers. In third place in terms of center structure is a group of entities whose parent companies have their headquarters in the Nordic countries (109). It is worth clarifying that Poland is home to business services centers of companies from 36 countries (and entities for which no parent company headquarters location can be attributed). US centers have the largest share (30%) in the centers' employment structure. Polish entities account for 19% of jobs, while centers from Nordic countries account for 10%.

FIGURE 13

NUMERICAL STRUCTURE OF BUSINESS SERVICES CENTERS AND STRUCTURE OF EMPLOYMENT AT BUSINESS SERVICES CENTERS BY LOCATION OF PARENT COMPANY HEADQUARTERS



* Nordic countries: Sweden, Finland, Denmark, Norway

** Asian countries: India, Japan, South Korea, China, Israel, Qatar, Turkey, Singapore

Source: ABSL's own study based on the business services center database

The employment structure of business services centers in major business services locations by parent company headquarters location could be described as varied on an average basis. While similarities among the locations are dominant, there are also considerable differences. US centers have the largest share in the employment structure in five of the seven major business services locations (in Warsaw, Kraków, the Tri-City, Wrocław and Poznań). The highest share of US centers is reported in Warsaw, where they employ 47% of the sector's workforce. Polish companies are in first place in the employment structure in the Katowice Agglomeration (27%); Asian companies are in the lead in Łódź (25%). It is worth noting the significant share of centers from Nordic countries in the structure of employment in Łódź (17%), the Tri-City (15%) and Wrocław (15%), of Swiss centers in Wrocław (15%), and of German centers in Poznań (21%).

FIGURE 14

EMPLOYMENT STRUCTURE OF BUSINESS SERVICES CENTERS IN MAJOR BUSINESS SERVICES LOCATIONS BY LOCATION OF PARENT COMPANY HEADQUARTERS

Katowice Agglomeration			<u>2%</u>							<u>1%</u>						
21%		27%				15%		139	13%		11%		10%			
Kraków																
	35%			10%	% 6%	9 %	%	12%		4%	9	%	5%	10	0%	
_ódź								<u>2%</u>								
10%	17	%	17%		4%	4%	10%			25%		6		11%		
Poznań						<u>3%</u>							2	<u>% 3%</u>	6	
23	23%		21%		9%		14%				2	21%		Ì	4%	
Fri-City													<u>1%</u>			
	36%		•		20%			15%		5%	5%	8%	%	4%	6%	
Narsaw														<u>3%</u>	<u>1%</u>	
		47%	-	i		1	6%	6%	%	11	%	7%	, t	5%	4%	
Nrocław														<u>2</u> %	<u>% 3%</u>	
	35%	<u>;</u>		i	15%		15%	59	% 5	%	5%		15%)		
0 10	%	20%	30%		40%	50%		60%	70	%		80%		90%		1
United State	S			Fra	ince					Swi	tzerla	nd				
Poland				Uni	ited Kingdom							untries**				
Nordic coun	tries*			Gei	rmany					Oth	er cou	Intries				

* Nordic countries: Sweden, Finland, Denmark, Norway

** Asian countries: India, Japan, South Korea, China, Israel, Qatar, Turkey, Singapore

Source: ABSL's own study based on the business services center database

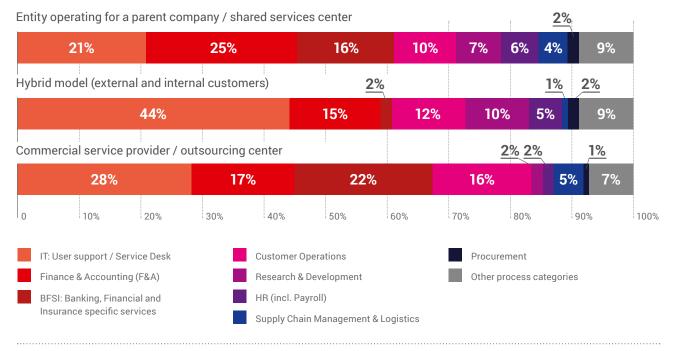
TYPES OF SERVICES DELIVERED BY BUSINESS SERVICES CENTERS

A characteristic feature of the structure of business services rendered at the centers in Poland is that it is highly varied. We can identify several dozen categories and subcategories of processes that are part of a wide range of business services. It is worth noting that a vast majority of entities offer services in more than one business process category.

Figure 15 illustrates the employment structure of business services centers by process category supported. The list is based on the responses from 218 companies employing a total of 135,000 people. We can conclude that IT and finance and accounting combined generate 50% of the jobs in the industry. In third place in terms of its share in the employment structure is BFSI (Banking, Financial Services & Insurance), which, combined, accounts for 14% of the jobs in the sector. An important role in the employment structure is also played by services involving customer interaction, with a 12% share. In total, the above four process categories create over 3⁄4 of the jobs in the sector.

FIGURE 15

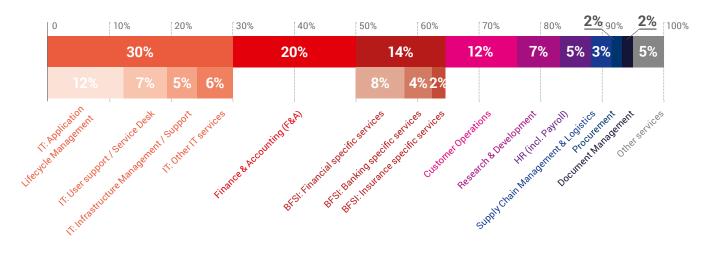
EMPLOYMENT STRUCTURE OF BUSINESS SERVICES CENTERS BY PROCESS CATEGORIES SUPPORTED AT CENTER ORGANIZATIONAL MODELS



Source: ABSL's own study based on the results of a survey addressed to business services centers (N=218 companies employing 135,000 people)



EMPLOYMENT STRUCTURE OF BUSINESS SERVICES CENTERS BY PROCESS CATEGORIES SUPPORTED



Source: ABSL's own study based on the results of a survey addressed to business services centers (N=218 companies employing 135,000 people)



Lublin - the most dynamic office space market in Eastern Poland

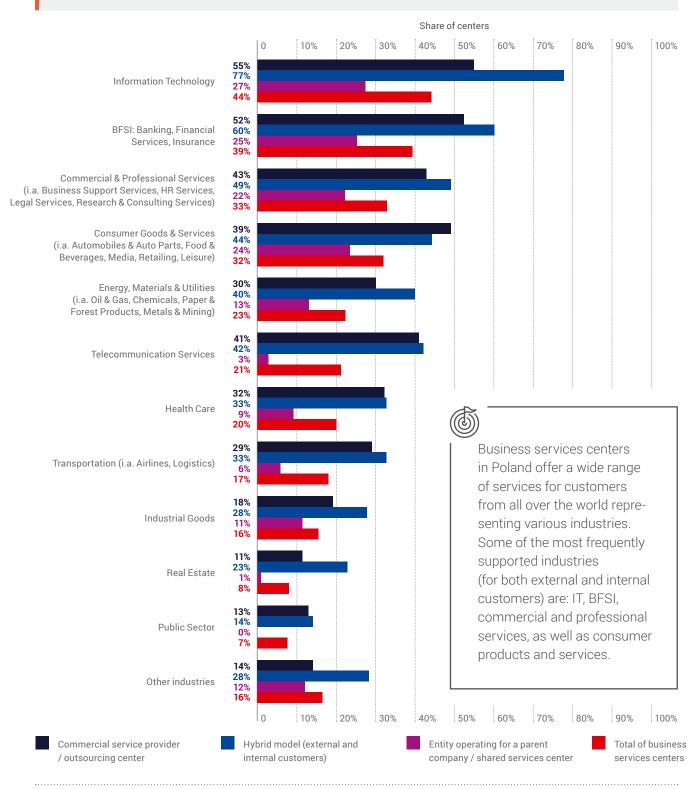
	156 000 sq m of existing office space in Lublin
\bigcirc	70% increase in the amount of office space in the last five years
Ŕ	33 000 sq m of office space will be delivered in 2017
Ţ	52 000 sq m
	10,50-11,50 € monthly rents per sq m for the best locations in Lublin
	20 000 sq m of existing office space remains vacant

Check: www.invest-in-lublin.com

FIGURE 17

26

INDUSTRY STRUCTURE OF COMPANIES (EXTERNAL AND INTERNAL CUSTOMERS) SUPPORTED BY BUSINESS SERVICES CENTERS LOCATED IN POLAND



Source: ABSL's own study based on the results of a survey addressed to business services centers (N=216 companies)

3. USA

mikomax

smart office.

FIGURE 18

MAJOR COUNTRIES FOR WHICH SERVICES ARE PROVIDED TO (INTERNAL AND EXTERNAL) CUSTOMERS BY CENTERS IN POLAND

Most of the business services centers in question (64%) named Germany as the most important country for which the company provides services. Nearly half of the centers (46%) identified the United Kingdom, while a third (33%) named the USA. Aside from Germany, the United Kingdom and the USA, business services centers most frequently serve customers from France, Poland, Switzerland and the Netherlands.

2. United

Kingdom

Source: ABSL's own study based on the results of a survey addressed to business services centers (N=200 companies)

Stand Up for your health

1. Germany



reddot award 2017 best of the best

Designed by: Tomasz Augustyniak





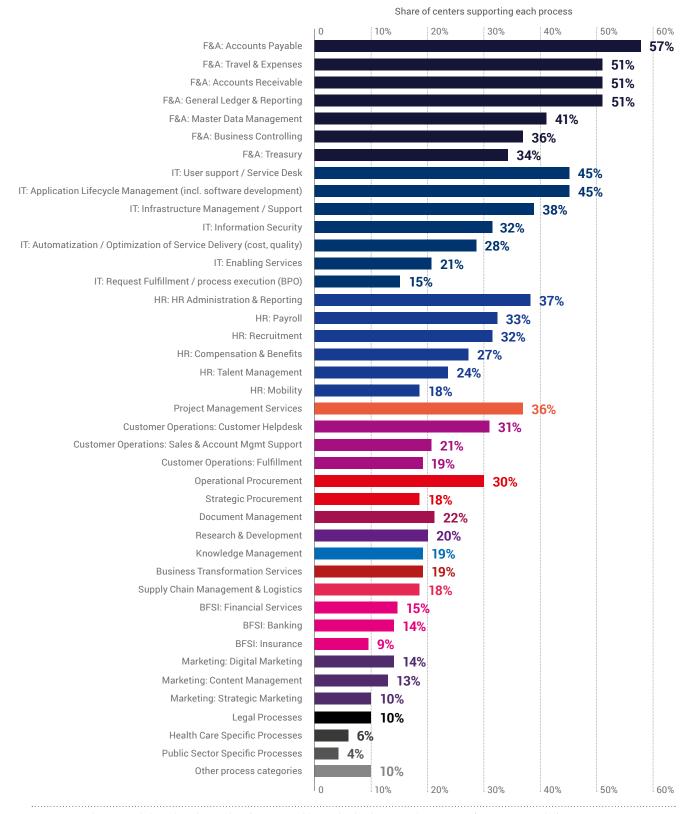
www.mikomaxsmartoffice.pl

see the movie

Overview of the business services sector

FIGURE 19

PROCESS CATEGORIES SUPPORTED BY BUSINESS SERVICES CENTERS IN POLAND



Source: ABSL's own study based on the results of a survey addressed to business services centers (N=203 companies)

FIGURE 20

LIST OF SELECTED PROCESS CATEGORIES AT BUSINESS SERVICES CENTERS BY CAPABILITY MATURITY MODEL (CMM) MATURITY LEVEL

					Share	e of each i	maturity l	evel			
			0 10)% 209	% 30%	40%	50%	60%	70%	80%	90%
	F&A: Accounts Pay	able	2 <mark>%7%</mark>	25%		3	0%			36%	8
	F&A: Travel & Expe	nses	1 <mark>% 12%</mark>		29%		31%	, ,		28%	
	F&A: Accounts Receiv	vable	2 <mark>% 10%</mark>	24%	6		30%			34%	
	F&A: General Ledger & Repo	rting	4% 9%	23	3%		32%			32%	
	F&A: Master Data Manage	ment	3% <mark>5%</mark>	29%	5		34%			29%	
	F&A: Business Contro	olling	8% 11	%	25%			36%		2	0%
	F&A: Trea	asury	10%	9%	26%			36%		1	19%
	IT: User support / Service	Desk	5% <mark>4%</mark>	17%		4	4%			30%	
Application Lifecycle Manage	ement (incl. software developn	nent)	2 <mark>1</mark> % 179	%		42%				38%	
IT: Infr	rastructure Management / Sup	oport	3% <mark>5%</mark>	4%			56%			22	2%
	IT: Information Sec	urity	5% <mark>2</mark> %	28%			42%			23	%
Automatization / Optimizatio	on of Service Delivery (cost, qu	ality)	5% 5%	13%		48	%			29%	
	IT: Enabling Ser	vices	5% 5%	18%			53%				19%
IT: Request Fu	lfillment / process execution (BPO)	10% <mark>3%</mark>	13%		44	4%			30%	
	HR: HR Administration & Repo	rting	4% 8 %	21%		:	37%			30%	
	HR: Pa	ayroll	10%	12%	18%		37	7%		23	3%
	HR: Recruit	ment	8% 6%	2	3%	:	38%		:	25	%
	HR: Compensation & Ber	nefits	7% 11	% 1	5%		43%			24	%
	HR: Talent Manage	ment	4% <mark>8%</mark>	23%	6		44%			2	1%
	HR: Mo	bility	14%	199	%	22%		27	%		18%
	Project Management Ser	vices	3% 10%	16%			45%			26%	%
Custom	ner Operations: Customer Help	desk	2 <mark>% 6%</mark>	14%		43%				35%	
Customer Operation	ns: Sales & Account Mgmt Sup	oport	17%		19%		31%			33%	
	Customer Operations: Fulfill	ment	3% <mark>8</mark> %	15%		44	%			30%	
	Operational Procure	ment	12%	12%	22%	5		40%			14%
	Strategic Procure	ment	16%	19	1%	19%			38%		8%
	Document Manage	ment	2% 9%	20%			45%			24	1%
	Research & Develop	ment	5% 5%	20%			40%			30%	
	3% 13%		21%		40	5%			17%		
	Business Transformation Ser	vices	10%	13%	15%		36%			26%	6
Sup	ply Chain Management & Logi	stics	8%	14%	24%	%		35%			19%
	BFSI: Financial Ser	vices	13%	10%	13%		27%			37%	
	BFSI: Bar	nking	17%	7%	18%	%	29%	%		29%	
Marketing: Digital Marketing			7% 11	%	29%		2	29%		249	%
	Marketing: Content Manage	ment	7%	5%		37%			26%		15%
_	_)% 20%			50%	60%	70%	80%	90%
Initial	Repeatable		Defined			Managed				timizing	
Processes are informal, disor- ganized and practiced on an ad hoc basis; but intuitively understood. Success is based on individual heroic effort.	Some processes for individual areas are known/ defined. Success is largely unpredictable and reliant on management support.	acros are co Succe impro	esses are stand is all areas and committed to co ess is predictal oved cost and s rmance.	resources nformity. ble with	define as to t and us	ocesses are ed and leave the metrics sed by man ision makin form.	e no doubt establishe agement	d	enables co ment. Suc		improve-

Source: ABSL's own study based on the results of a survey addressed to business services centers (N=203 companies)

29

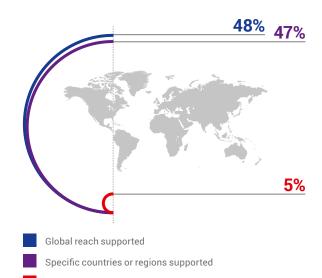
GEOGRAPHIC SCOPE OF SERVICES DELIVERED

FIGURE 21

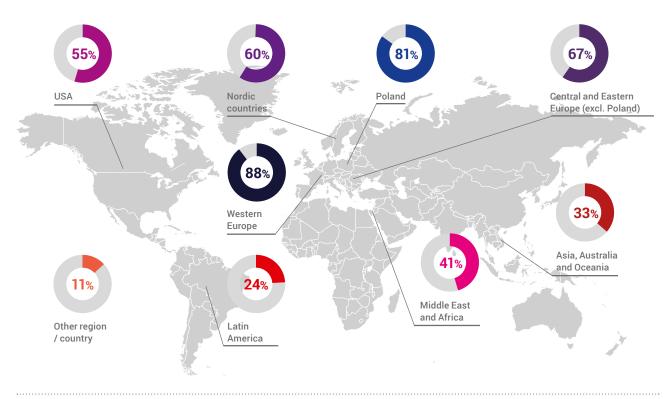
Overview of the business services sector

GEOGRAPHIC SCOPE OF THE SERVICES DELIVERED BY BUSINESS SERVICES CENTERS IN POLAND

Nearly half of the companies under analysis (48%) operate globally, for entities in various parts of the world. 47% of the entities support specific countries or regions. 5% of the companies support customers in a single country. The largest number of centers are focused on serving customers in Western Europe and Poland. It should be clarified that in the case of companies that have Polish capital, global reach supported was claimed by 14% of the respondents (compared to 52% for foreign centers).







Source: ABSL's own study based on the results of a survey addressed to business services centers (N=220 companies)

COMPANIES' PLANS CONCERNING THEIR OPERATIONS



88%

Share of companies that expanded their scope of supported services in the past year (N=216).



87%

Share of companies that plan to increase their headcount in the period from QI 2017 to QI 2018 (N=190 companies).

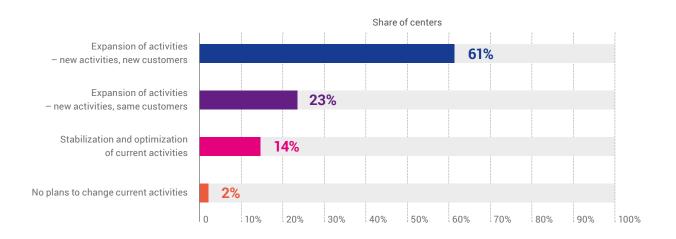


Share of business services centers that plan to expand their activities in the next year (N=219 companies).

It is worth noting that the other companies under analysis expect to stabilize and optimize their current activities (14%) and state that they have no plans to change their activities (2%). Please note that none of the companies listed reducing the scope of activities among its plans for next year.

FIGURE 22

BUSINESS SERVICES CENTERS' PLANS TO EXPAND THEIR ACTIVITIES IN THE NEXT YEAR



Source: ABSL's own study based on the results of a survey addressed to business services centers (N=219 companies)

LANGUAGES USED AT BUSINESS SERVICES CENTERS

30

Highest number of languages used at a single business services center (N=220 companies). Average number of languages used at business services centers (N=220 companies).

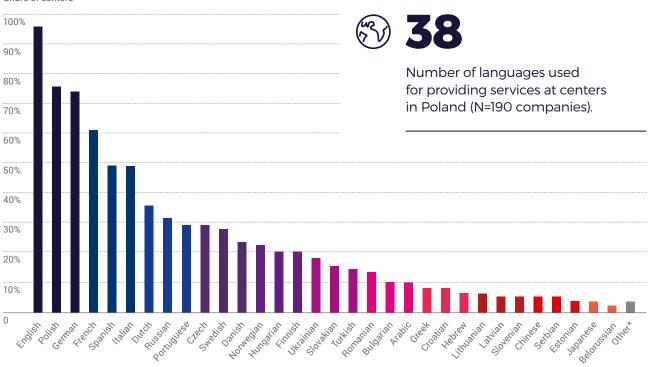


Share of business services centers using at least 10 languages in providing their services (N=220 companies).

FIGURE 23

LANGUAGES USED AT BUSINESS SERVICES CENTERS

Share of centers



* "Other" includes: Hindi, Korean, Swahili, Urdu and Vietnamese

Source: ABSL's own study based on the results of a survey addressed to business services centers (N=220 companies)

Poland

Best Workplace

laster Data

Corporate Sales

ital Marketing

SAP Service Deliver

IT Testing Services

nd Predictive Analytics

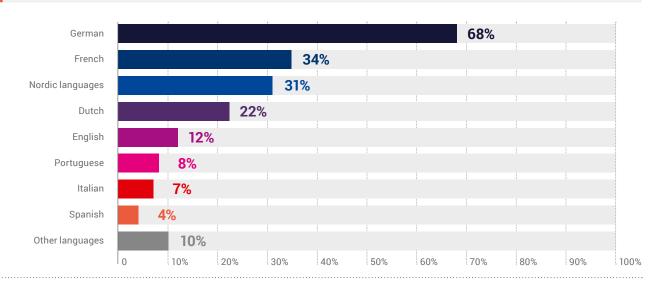
 Robotic Process Automation & Artificial Intelligence

Cyber Security

ss Intelligence



KNOWLEDGE OF LANGUAGES THAT IS MOST DESIRABLE FOR COMPANIES AND CHALLENGING TO FIND ON THE JOB MARKET



Source: ABSL's own study based on the results of a survey addressed to business services centers (N=180 companies)



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FOREIGNERS EMPLOYED AT BUSINESS SERVICES CENTERS

FIGURE 25

MAJOR COUNTRIES OF ORIGIN OF FOREIGNERS EMPLOYED AT BUSINESS SERVICES CENTERS

Ukraine remains the country most frequently named as the country of origin of foreigners employed at business services centers. As we look at the data, it is clear that Ukrainians are the largest group of foreigners at 40% of the companies that employ foreigners. Furthermore, 4 out of 10 companies list Ukrainians among the top three largest groups of foreigners. Thus, the number of Ukrainian employees of the business services sector in Poland could be estimated at over 10,000. The second-largest nationality, as identified by the respondents, were Spaniards, followed by Italians.

Source: ABSL's own study based on the results of a survey addressed to business services centers (N=173 companies)

85%

Share of business services centers employing foreigners (N=209 companies).

80%

Maximum share of foreign employees in the employment structure of a single business services center (N=209 companies).



Share of business services centers where foreigners represent at least 10% of all employees (N=209 companies).

10%

Average share of foreigners working at business services centers in Poland (12% at companies with a headcount of over 1,000 vs. 9% at smaller entities). Nearly $^{2}/_{3}$ of the foreigners employed at business services centers in Poland work for the sector's largest companies with a headcount of over 1,000 (N=209 companies).

22,000

The number of foreigners employed at BPO, SSC, IT and R&D centers in Poland represent 9% of the overall headcount in the sector (ABSL estimate).

OTHER CHARACTERISTICS OF THE INDUSTRY

FIGURE 26

OTHER CHARACTERISTICS OF THE INDUSTRY



54%

Average number of female employees at business services centers. For management, the figure is 42%. It is worth noting that, among companies whose headcount at their business services centers in Poland exceeds 1,000, the share of women in the employment structure is lower, averaging 37%. In the case of managerial staff, it amounts to 11% (N=216 companies).



93%

Average share of employees with a college degree (N=203 companies).



31

Average age of employees at BPO, SSC, IT and R&D centers (N=212 companies). It is slightly lower at foreign centers than it is at Polish centers.



81%

Share of business services centers where at least 90% of the employees have a college degree (N=203 companies).

<u>}</u> 78%

Average share of employees of business services centers employed under an indefinite term employment contract (N=208 companies). This is higher at foreign centers (79%) than at Polish centers (70%).



39%

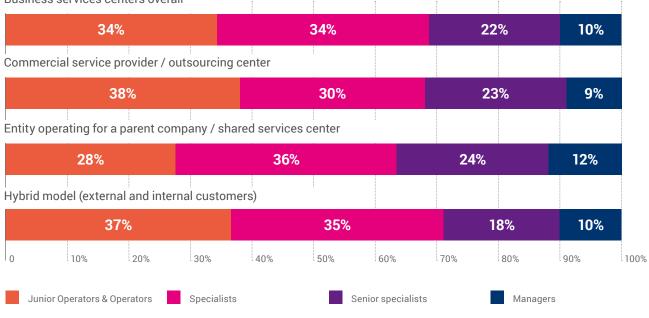
Share of business services centers that employ at least 90% of their employees under an indefinite term employment contract (N=208 companies).



Source: ABSL's own study based on the results of a survey addressed to business services centers (N=188 companies)

FIGURE 28

EMPLOYMENT STRUCTURE AT BUSINESS SERVICES CENTERS IN POLAND BY POSITION CATEGORY



Business services centers overall

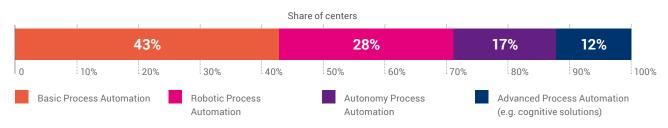
Source: ABSL's own study based on the results of a survey addressed to business services centers (N=218 companies employing 122,000 people)

BUSINESS PROCESS AUTOMATION

The vast majority of business services centers (87%) use business process automation in their operations. Process automation, as implemented at companies, ranges anywhere from basic automation involving simple spreadsheet-based VBA scripts to more sophisticated automation involving robotics tools (simple rules, structured data) and autonomy process automation (automation of complex rules, unstructured data), to the most advanced forms using cognitive solutions, among other things. It should be noted that most companies that use process automation implement various levels of automation.

FIGURE 29

LEVEL OF PROCESS AUTOMATION AT THE BUSINESS SERVICES CENTERS*



* Respondents specified the level of automation that, in their assessment, best reflects the description of process support in the company. Source: ABSL's own study based on the results of a survey addressed to business services centers (N=211 companies)

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Overview of the business services sector

EMPLOYEE TURNOVER

The level of voluntary turnover at companies with a headcount of over 1,000 at their business services centers in Poland is higher than for other entities. Among organizational models, by far the lowest levels of turnover can be identified at entities operating for a parent company/shared services centers. As regards turnover managed by the companies (non-voluntary), it does not exceed 5% in 83% of the companies.

TABLE 3

STRUCTURE OF VOLUNTARY TURNOVER LEVELS AT BUSINESS SERVICES CENTERS IN POLAND

Voluntary turnover level	Business services centers overall	Companies whose centers employ >1,000	Commercial service provider / outsourcing center	Entity operating for a parent company / shared services center	Hybrid model (external and internal customers)
Over 25%	9%	10%	18%	7%	6%
21-25%	7%	13 %	11%	3%	15%
16-20%	25 %	26 %	16%	27 %	30%
11-15%	22 %	35 %	18%	23 %	21 %
1-10%	32 %	16%	32 %	34 %	28 %
Less than 1%	5%	0%	5%	6%	0%

Source: ABSL own study

POPULATION AGED 18-44 AND THE SHARE OF PEOPLE EMPLOYED IN THE INDUSTRY

The share of people employed in the business services sector in the working and mobile age population (aged 18-44) at each location is highly varied. By far the highest percentage of people employed in the industry was identified in Kraków (18%) and Wrocław (15.4%). For most of the locations under analysis, the share is contained within the 5-10% bracket (Łódź, Tri-City, Bydgoszcz, Poznań, Warsaw and Rzeszów). The three remaining locations (Lublin, Katowice Agglomeration and Szczecin) have the lowest percentage of people employed at business services centers (less than 5%), i.e. the largest share of working and mobile age population unutilized by the industry.

It should be noted that the results of the study largely support the assessments of the business services centers regarding pressure on local labor markets (which found that Kraków and Wrocław face the toughest pressure among major business services locations). However, it should be pointed out that, while the above data may be treated as one aspect of assessing the industry's opportunities for growth at each location, overall, it also depends on various other factors.

TABLE 4

SHARE OF PEOPLE EMPLOYED IN THE INDUSTRY IN THE WORKING AND MOBILE AGE POPULATION

	Headcount at BPO, SSC, IT and R&D centers (in thousands)	Working and mobile age population (in thousands)*	Share of people employed in the industry in the working and mobile age population
Kraków	55.8	310	18.0%
Wrocław	40.0	260	15.4%
Łódź	18.1	255	7.1%
Tri-City	19.3	289	6.7%
Bydgoszcz	8.7	136	6.4%
Poznań	13.5	218	6.2%
Warsaw	42.6	687	6.2%
Rzeszów	4.5	77	5.8%
Lublin	5.7	133	4.3%
Katowice Agglomeration**	19.0	708	2.7%
Szczecin	3.7	157	2.4%

* (18-44) age range contained within the working age bracket and comprising people who are able to move to a different position, place of work or re-train. ** Katowice, Bytom, Chorzów, Dąbrowa Górnicza, Gliwice, Jaworzno, Mysłowice, Piekary Śląskie, Ruda Śląska, Siemianowice Śląskie, Sosnowiec, Świętochłowice, Tychy, Zabrze.

Source: ABSL's study based on its own data and Central Statistical Office data.



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2 OFFICE MARKET

Polish office market in 2016 have proved to be once again the most dynamically developing market in the entire Central and Eastern Europe (CEE). The 9 million sq m of the modern office stock available in several urban hubs, such as Warsaw, Kraków, Wrocław, Tri-City, Katowice, Poznań, Łódź, Szczecin or Lublin provide many potential locations to the corporates which are seeking high quality and efficient office space for their operations. The emerging alternative office regions, such as Rzeszów, Kielce, Bydgoszcz, Białystok, Toruń, Olsztyn, Opole and Radom, make Poland even more unique amongst other CEE countries.

In 2016, Polish office agglomerations kept up a robust pace in all aspects of the market. The gross take-up have reached 1.34 million sq m, developers have completed ca. 900,000 sq m and further 1.5 million sq m of office space is under construction. The business services sector continued to dominate the occupier activity and contributed to around 59% of all take-up volume registered in the major regional markets outside of Warsaw. In all major cities except Poznań and Szczecin, the share of this sector in total take-up exceeded 50%. The growth forecasts for this sector remain very positive, which will further enhance the market. Most of the regional office markets saw minor fluctuations in quarterly vacancy rates over the course of 2016. It is worth mentioning that one of the notable features of last year was a change of city with the lowest vacancy rate – Łódź outdid Krakow in that respect (6.2% in Łódź vs 7.2% in Kraków). Prime headline rents remained relatively flat throughout 2016 and, currently, rents for the best office spaces meeting the requirements of the business services sector are between €10.5 to 14.5 / sq m / month in the largest cities in Poland and between €8-12 / sq m / month in the emerging markets.



Chapter content provider: JLL

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FIGURE 30

POLAND OFFICE MARKET IN NUMBERS



9,000,000 sq m

in total of modern office space in Poland. The largest office market in the CEE.



59%

of take-up was generated by companies from business services sector outside Warsaw in 2016.



€ 11-14.50

monthly rental rates per sq m in the largest office markets in Poland.



1,188

rental agreements in modern office buildings concluded in 2016.



1,340,600 sq m

office space leased in 2016.



rental agreements over 10,000 sq m concluded in 2016.



developed office markets.





of office space under construction.



843,400 sq m

of office space to be delivered in 2017.



418,500 sq m

of space rented in 2016 by companies from the business services sector.





of existing vacant office space.

69%

of registered take-up in Kraków was generated by companies from the business services sector in 2016.

Source: JLL, January 2017

WARSAW

Warsaw is the largest office market not only in Poland but also in the entire CEE region. With modern office stock of more than 5 million sq m, the city offers potential tenants a variety of lease options, starting with 10 sq m up to 19,450 sq m available in one building. The continuous and healthy volumes of the registered demand proved Warsaw to be an attractive destination for companies, both newcomers and those already operating within the city boundaries. The gross take-up in 2016 amounted to 754,900 sq m, including the pre-lets for the 125,500 sq m. Almost 100 tenants have decided to expand their operations for a total of 75, 700 sq m. Along with vibrant tenant activity, developers are also keeping pace. In early 2017, 675,000 sq m were under construction, including The Warsaw Hub, Mennica Legacy Tower and the first phase of the Varso Place

office complex – the projects which were designed to change the city skyline. 718,800 sq m of vacant space translates into a vacancy rate of 14.2%. Prime rents were mostly unchanged over the course of 2016. However, a few subzones saw some minor corrections, primarily in the lower rental bands. Currently, prime headline rents in Warsaw City Centre range between €20.5 and 23.5 / sq m / month (a decrease from the €21-23.5 / sq m / month in previous quarters). Non-Central locations lease at €11 to 17,5 / sq m / month (very slightly down from €11 to 18 / sq m / month). Downward pressures are applicable to effective rents, which are on average 15-20% below headline rents. The best-in-class office assets should see rental levels relatively stable going forward.



Source: JLL, data as of January 2017

KRAKÓW

Kraków is the largest office market in Poland outside of Warsaw. The city will cross the 1 million sg m threshold in 2017 due to the extensive pipeline scheduled for completion. Currently, approximately 259,000 sq m of office space is under construction within the city, however 38% of that volume is already pre-leased. In 2017, a record-breaking 175,000 sq m of new office space may enter the market in Kraków, the largest developments being Enterprise Park E&F and O3 Business Campus II. Kraków continues its forward stride with a 59% share in all demand registered in regional cities (excluding Warsaw) in 2016 i.e. with a generated gross take-up standing at 187,800 sq m. It is noteworthy that pre-letting activity was exceptionally sound in Kraków in 2016, it amounted to 88,800 sq m, a result greater than

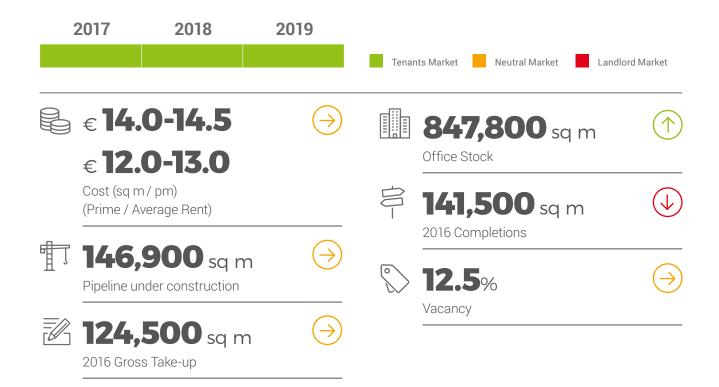
in 2015. The largest pre-lets signed in 2016 were those signed by Aon in Enterprise Park E (10,750 sq m in Q1) and Euroclear Bank in Bonarka for Business G (10,000 sq m in Q2). Extensive new supply coming to the market in 2016 (more than 149,300 sq m completed last year) resulted in an increase in vacancy at the year's end. Currently the index stands at 7.2%, which translates into 66,300 sq m of immediately available office space. Prime rents have been relatively stable in Kraków for the last five years. Nonetheless, due to the very high pipeline, some rental pressures have also been seen in modern developments. Currently prime asking headline rents in the city range between €13.5 and 14.5 / sq m / month, while average asking rents vary from €13.0 to 13.6 / sq m / month.



WROCŁAW

In early 2017 the total stock in Wrocław amounted to 847,800 sq m, while a further 146,900 sq m was under construction (around 32% of that volume was already secured by pre-let agreements). Moreover, some largescale developments are to be launched soon. In 2016 the robust leasing activity continued in Wrocław. The demand reached 124,500 sq m, with some of the largest deals in Poland signed in Wrocław, namely 16,000 sq m owner-occupied by Kaufland, a renewal for 10,800 sq m by Credit Suisse in Grunwaldzki Center and 10,500 sq m pre-let by BNY Mellon in Sagittarius Business House. Once again, the business services sector was the most active sector, with a 57% share of total demand. It is worth mentioning that pre-letting activity has significantly increased in Wrocław as compared with the whole of 2015, with a growth

of 514% (50,100 sq m in 2016 versus 8,150 sq m in 2015). At the end of Q4 2016, the vacancy rate edged up to 12.5% (compared with 8.6% in Q4 2015). The uptick is a result of the strong volume of completions during 2016 (141,500 sq m). However, the remarkable absorption in the city will allow for a stabilization of the rate in the coming quarters. Pipeline for 2017 is significantly lower than the completions volume in 2016, however still significant (more than 90,000 sq m). Prime headline rents in Wrocław currently range between €14.0 and 14.5 / sq m / month. Wrocław remains a tenant-favourable market and occupiers can expect a certain level of incentive packages from the landlord (such as rent-free periods and fit-out contributions), particularly when signing a pre-let deal.



TRI-CITY

In early 2017, total office supply in Tri-City totalled 633,900 sq m, making it the fourth largest office market in Poland (after Warsaw, Kraków and Wrocław). In 2016 more than 57,300 sq m have increased the modern office stock in the Tri-City. The construction activity in the Tri-City illustrates the strong developer confidence in the region. In early 2017 there was approximately 150,400 sq m of modern office space under development in the entire agglomeration (26% of which is already secured with pre-let agreements), below only the amounts seen in Warsaw, Kraków and Wrocław. Demand for offices in the city continues to be on a sound upward trend. In 2016 almost 93,200 sq m was transacted in the Tri-City, with over a dozen of deals for more than 1,000 sg m. New demand for high quality office premises has been generated

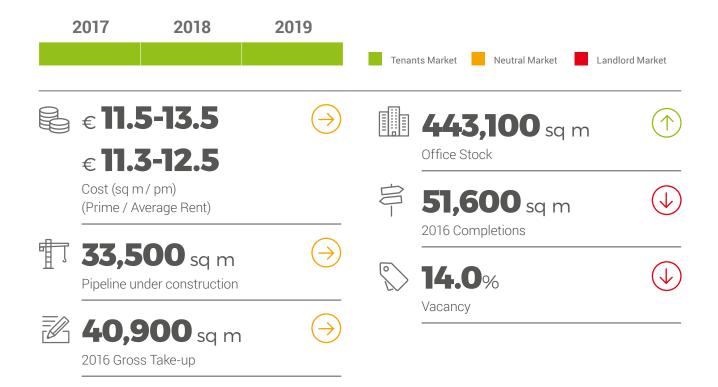
by expanding companies and newcomers, especially from the business services sector. In 2016 65% of all registered demand came from companies representing the business services sector. Sound take-up and net absorption figures registered in recent years has caused a reduction of the recorded vacancy rate. In total, the Tri-City offers 70,200 sq m of available office space spread across 52 developments, which equates to a vacancy rate of 11.1%. Prime headline rents in the Tri-City are quite stable and range between €12.75 and 13.5 sq m / month. The market conditions will most likely continue to be tenant-favourable throughout the whole of 2017, mainly due to increasing competition for pre-lease occupiers.



KATOWICE

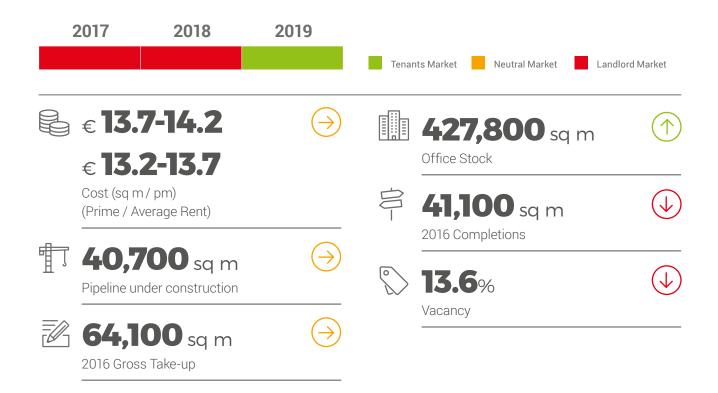
In early 2017 the office stock in Katowice amounts to 443,100 sq m (fifth largest office market in Poland). A further 33,500 sq m is under construction, however more than half of that volume is contributed by a single development - phase one of .KTW project (18,200 sq m). Registered demand in 2016 amounted to 40,900 sq m, with a 30% share of pre-lets. A large portion of the whole demand was generated by Silesia Business Park. The largest deals in 2016 included a 7,400 sq m pre-let by Rockwell Automation in A4 Business Park III, a 4,300 sq m pre-let by BPSC in Brema, a 2,700 sq m new deal by Navo Orbico in Silesia Business Park B and two deals for 2,000 sq m each: in Green Park (Aldi, new deal) and in Silesia Business Park B (by PwC, expansion). Between 2010 and the beginning of 2017, the market activity was mostly

driven by business services centers, which now occupy around one third of the entire office stock. The vacancy rate in Katowice saw significant volatility in 2016. It increased to 17.4% in Q1 2016 (from 13.2% in Q4 2015) and after some further fluctuations settled at 14.0% in Q4 2016. Currently approximately 62,200 sq m of office space is immediately available, however scattered across 39 buildings. Prime headline rents in Katowice range from €11.5 to 13.5 / sq m / month, however in Q2 2016 a small downward correction was noticed on the lower band to €12.4 / sq m / month, with a further decrease recorded in Q3 2016 to €11.5 / sq m / month. The medium-term outlook remains positive with no rental decline anticipated.



POZNAŃ

Modern office supply in Poznań totalled 427,800 sq m in early 2017. The market is growing at a steady pace, with more than 40,700 sq m under active construction and the launches of some large-scale projects are planned for the mid-term perspective. Furthermore, over the last five years, developers have completed more than 192,000 sq m of office space in Poznań, which equates to 45% of the overall stock. 2016 saw some 64,100 sq m of office space leased, which confirms the growing confidence of occupiers in the city. Along with the commercial success of the developments and the gradual absorption of the new space, the vacancy rate has fallen to a level comparable with other major office markets in Poland: in early 2017 it stood at 13.6%, which equates to approximately 58,000 sq m of immediately available office space. The rate is expected to decrease in the next few years, as a result of strong demand for office space and the moderate amount of construction activity in Poznań. Currently, prime headline rents stand at €13.7-14.2 / sq m/ month, levels similar to those found in Kraków and Wrocław. Average rents range between €13.2 and 13.7 / sq m / month. Further downward pressures on the levels of rents may be seen with regard to older developments, as competition in that age class is quite fierce as a result of the considerable volume of modern office developments attracting occupiers in Poznań.



ŁÓDŹ

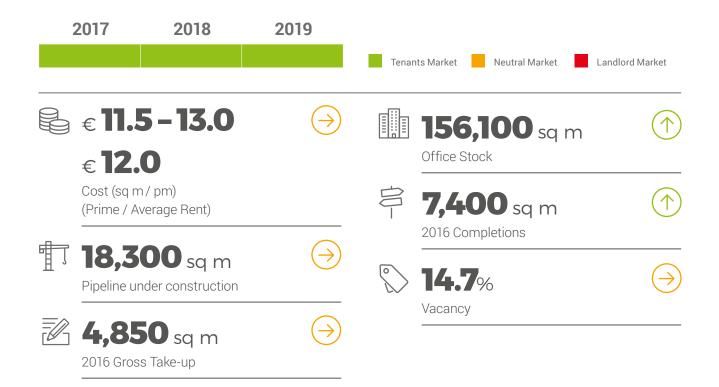
In 2016, the city attracted a number of large, international companies and finished the year with the lowest vacancy rate in Poland. The construction activity in Łódź still remains on a remarkable high level - more than 124,500 sq m is under active construction. This equates to one third of the existing office stock (360,000 sq m). Importantly, almost 55% of the under construction pipeline has been already pre-let. In 2018 modern office stock in Łódź is expected to hit 0.5 milion sq m. It is worth mentioning that, in early 2017, only about 23% of the expected new supply in 2017 was vacant. Demand for office space in the city continues to be in a sound upward trend, with 66,750 sq m let in 2016. The leasing activity was due to demand from a broad range of sectors although the business services sector continued to dominate

(51% in 2016). There has been a vast improvement in terms of vacancy in Łódź: the rate fell from 19.1% in Q4 2011 to 6.2% in early 2017, which corresponds to 22,300 sq m of available space in the city. In 2017 vacancy will still remain on a decreasing curve due to the sound demand along with the sound net absorption levels. Łódź has competitive rental rates when compared with the remaining major office markets in Poland, at the level seen in Lublin and Szczecin. Prime headline rents have been reasonably stable over the course of the last five to six years, ranging from €11.5 to 12.9 / sq m / month. One can expect that these rents will continue to be within this band over 2017, however some upward corrections may be witnessed in the upper band value.



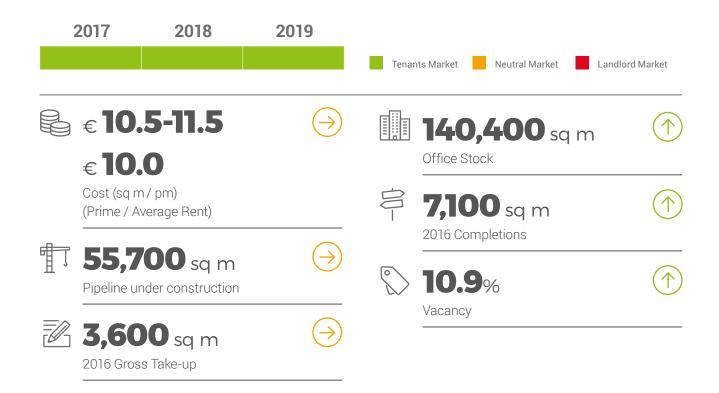
SZCZECIN

In the last couple years Szczecin office market has undergone a substantial change. Since 2010 (the completion of the Oxygen office building among others) the total supply of office space in the city has increased by almost 100,000 sq m, which is 56% of current overall modern office stock (156,100 sq m). Szczecin's office market is constantly developing as new office projects are under construction or planned. In early 2017 about 18,300 sq m were in active construction in the city in three office buildings, the largest being the Szczecin Odra Park I (9,350 sq m). The occupier activity in 2016 was rather limited, as tenants have decided to lease only 4,850 sq m. However, one can believe that occupier activity in Szczecin will remain at stable, reasonable level for a market of this size. Business services may become the main demand driver in upcoming years. The city recorded a reduction in the vacancy rate in early 2017 compared to the Q4 2015 (14.7% versus 18.4%). In the entire city there are currently seven buildings with more than 1,000 sq m of vacant space available for occupiers. Prime office headline rents for modern office space in Szczecin currently range from €11.5 to 13 / sq m / month. The upper range of this band applies to the highest quality projects such as Brama Portowa I&II and Baltic Business Park. Rents in new office developments are mainly quoted in EUR. Rents in PLN are typical for space in refurbished tenements and older office buildings.



LUBLIN

Lublin, with modern office stock estimated at approximately 140,400 sq m, ranks 8th among largest regional office markets in Poland. In early 2017 around 55,700 sq m was in active construction, of which 66% will increase the office stock in the city in 2017. Furthermore, 88,000 sq m of office space is awaiting the key pre-let in order to start its construction works. The strong concentration along Zana Street, which has become the largest commercial hub in the city, is characteristic of Lublin's office market. Demand recorded in Lublin remains moderate. In the whole of 2015, the gross take up amounted to 11,470 sq m which is a 38% increase versus 2014. Tenant activity on Lublin's office market was rather subdued in 2016. Important occupiers on the Lublin market constitute representatives of banking, finance and insurance sectors. There is also growing potential in terms of the business services sector (both newcomers and companies already operating in the city). At the moment over 15,250 sq m is vacant across the city (in 17 office buildings) and this translates into a 10.9% vacancy rate. Only three buildings offer more than 2,000 sq m for rent. Prime office headline rents for modern office space in Lublin currently range from €11 to 12/ sq m /month. Rents are still often quoted in PLN, as are service charges.



EMERGING OFFICE MARKETS IN POLAND

TABLE 5

	Rzeszów	Kielce	Bydgoszcz	Białystok	Toruń	Olsztyn	Opole	Radom
Total Stock (sq m)	103,500	64,600	61,500	60,000	54,250	44,500	30,300	17,000
Vacancy Rate (%)	14.8	9.2	13.0	13.7	8.1	25.8	1.3	17.5
Completions 2016 (sq m)	1,800	4,300	7,000	14,200	0	4,600	2,800	0
Under Construction (sq m)	0	0	23,000	2,350	3,400	9,300	8,700	8,600
Prime Rental Band (€ / sq m / month)	9-12	9.5-10.5	8.5-10.5	8-10	9-10	8.5-10	8-11	8.5-10
Prime Rental Outlook	\ominus							

Source: JLL, data as of March 2017

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3 LABOR MARKET AND SALARIES

The business services sector in Poland is viewed as a desirable place to work. When we compare the current experiences of people employed in the sector and the expectations of job applicants, it is plain to see that the latter could achieve what they expect from their employer by working at business services centers. A challenge that employers in this sector will have to face is knowing how to properly communicate these values outside the organization.

This section lays down the most important information about the labor market and educational potential in Poland, and presents the results of a study of perceptions about the business services sector as a work environment. A supplement to this section contains breakdowns of salaries at BPO, SSC, IT and R&D centers by business services location and an analysis of benefits offered at shared services centers.

FIGURE 31

LABOR MARKET IN POLAND - KEY MACROECONOMIC INDICATORS





Unemployment rate in Poland (January 31, 2017)

In January 2017, the unemployment rate in Poland was 1.6 percentage points lower than in the corresponding period of the previous year.

Source: Central Statistical Office (CSO), National Bank of Poland (NBP).



Chapter content provider: Randstad

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23.8 mln

(June 30, 2016)

of mobile age.

Working age population in Poland

had a total working age population

of 23,883,945, of whom 63% were

At the end of June 2016, Poland

FIGURE 32

KEY REGULATIONS CONCERNING THE LABOR MARKET IN POLAND



Basic working time: 8 hours per day, an average of 40 hours per week. In an equivalent working time system, there is an option to extend to 12 hours per day while maintaining a 40-hour work week (on average, in a reference period of up to 4 months).



Remuneration for overtime work: 50% extra (for exceeding the daily working time limit), 100% extra (for exceeding the weekly working time limit or for working during night-time hours) or redeemed in kind as time off.



Maximum number of overtime hours per year: 150, with an option to extend to 376 hours.

.....

.....



Remuneration for a period of inability to work due to illness: 80% of the salary (the employer covers the first 33 days of absence in a calendar year; 14 days for employees aged 50 or older).



Paid time off: 20 or 26 days per year (26 days for university graduates with at least two years' experience or anyone with at least 10 years' experience).

.....



Number of holidays (statutory holidays) per year: 13.

	E	
7		

Types of employment contracts: probation period (maximum 3 months), fixed-time (33 months), indefinite-term (required for people employed for more than 33 months or upon a third engagement by the same employer).

	٦.
-	

Notice period: 2 weeks for people employed for less than 6 weeks, 1 month for people employed for more than 6 weeks, 3 months for people employed for over 3 years.



Maternity leave: a maximum of 52 weeks for one child (covered by the Polish Social Security Office).

.....

Amount of severance pay for eliminated positions: 1 month's salary for people with less than 2 years' service, 2 months' salary for people with over 2 years' service, and 3 months' salary for those with over 8 years' service (applicable for companies with at least 20 employees)

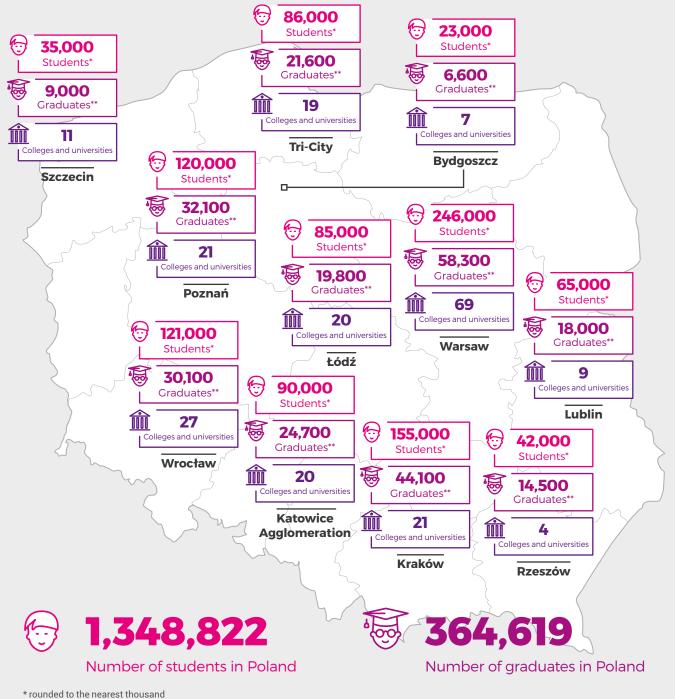
Source: Randstad

Labor market and salaries

EDUCATIONAL POTENTIAL IN POLAND

FIGURE 33

NUMBER OF STUDENTS, GRADUATES AND COLLEGES AND UNIVERSITIES IN POLAND AT SELECTED LOCATIONS

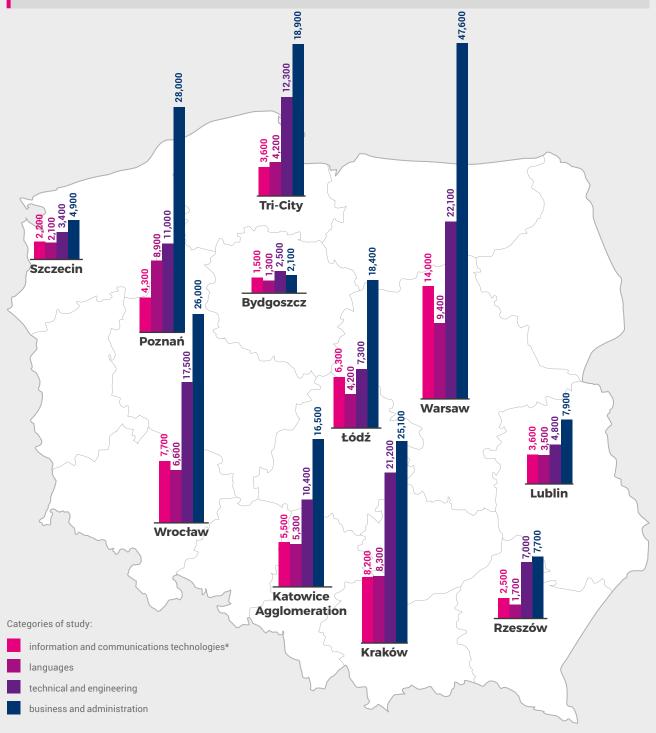


** rounded to the nearest hundred

Source: Central Statistical Office: Colleges and universities in the 2016/2017 academic year, preliminary data (students: as of November 30, 2016, graduates: as of the 2016/2017 academic year).

FIGURE 34

STUDENTS OF LANGUAGE, BUSINESS AND ADMINISTRATION, INFORMATION AND COMMUNICATIONS TECHNOLOGIES AND TECHNICAL AND ENGINEERING FACULTIES IN SELECTED LOCATIONS IN POLAND (ACADEMIC YEAR 2016/2017)



* together with a subgroup of interdisciplinary programs and qualifications covering information and communications technologies Note: all figures rounded to the nearest hundred

Source: Central Statistical Office: Colleges and universities in the 2016/2017 academic year, preliminary data (as at November 30, 2016).

- FI	GI	JR	Ε	35	

NUMBER OF POTENTIAL CANDIDATES WITH KNOWLEDGE OF SELECTED FOREIGN LANGUAGES

-				
Warsaw				
151,604	53,635	46,669	24,637	8,135
Kraków				
18,087	7,813	7,287	4,072	1,122
Wrocław				
18,122	4,489	4,408	2,211	558
Poznań				
11,690	2,970	3,085	1,090	465
Katowice Agglomerati	ion			
10,268	2,965	2,262	1,831	333
Tri-City				
8,431	2,364	2,701	1,091	1,051
Łódź				
4,804	1,877	1,843	930	311

The list was based on knowledge of foreign languages as declared on LinkedIn (where the total number of users in Poland is 2,250,000). The values presented depend on the popularity of LinkedIn in the various urban centers.

Source: Randstad based on LinkedIn data

PERCEPTIONS ABOUT BUSINESS SERVICES SECTOR EMPLOYEES

FIGURE 36

PERCEPTIONS ABOUT BUSINESS SERVICES SECTOR EMPLOYEES AMONG PERSONS QUALIFIED TO WORK IN THE BUSINESS SERVICES SECTOR

is fluent in English and conversant	has a great ability
in other languages	to work under pressure
is committed to continued professional growth	has high analytical skills
enters the job market as soon	tends to be single with
as he/she graduates	no family of his/her own yet

Source: Study of perceptions about the business services sector as a work environment conducted by Randstad, in collaboration with research agency ARC Rynek i Opinia, from September 2016 to November 2016 (mini FGI and CAWI, N=150, study conducted on a sample of participants qualified to work in the business services sector).



78%

The share of persons employed in this industry, who would recommend working at business services centers to others.

BENEFITS OF WORKING IN THE BUSINESS SERVICES SECTOR

Those who have the skills required to work in the business services sector are primarily looking for:

- a good salary;
- promotion opportunities;
- job security;
- and a friendly work environment.

It is worth noting that there is a significant disparity between the needs of potential employees in the sector and what their current employers provide. By juxtaposing these responses with the experiences of people currently employed in the sector, the study demonstrates that the reported work-related needs and expectations are generally similar but satisfied in different ways by current employers. It should be emphasized that requirements valued the most by the candidates are indeed satisfied through employment at business services centers.



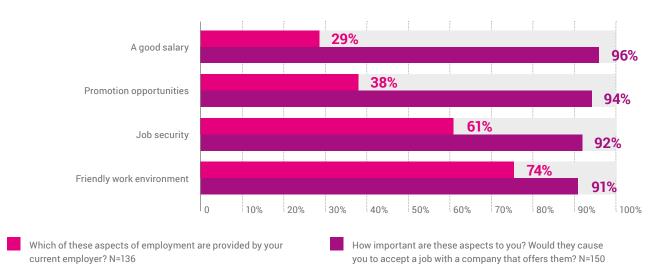
The share of persons whose employees' career plans involve working in the business services sector.

It is also worth noting that for 80% of business services sector employees and 75% of those qualified to work in this industry, an important aspect of the job is the wide range of benefits it offers. Among the aspects valued the most by current employees of the business services sector are:

- a workplace break room (and providing employees with a variety of group game options, such as football or darts);
- company social benefits funds (benefits for lowest-paid employees);
- emergency financial assistance for families of employees (in the event of fire, flooding etc.);
- reimbursement of commuting expenses;
- subsidized meals;
- option to subsidize summer camp packages for employees' children (including a variety of field trips, such as trips to the zoo);
- sizable discounts on the company's products or services.

FIGURE 37

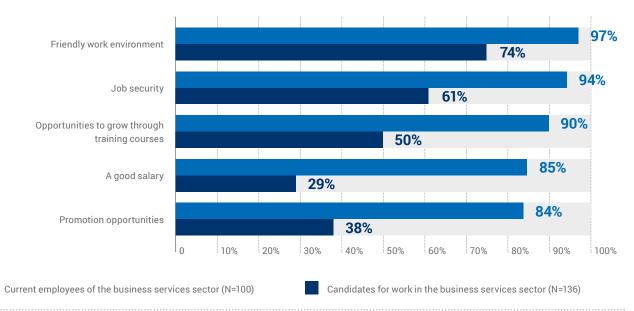
ASPECTS OF A JOB IMPORTANT TO CANDIDATES FOR THE SECTOR COMPARED TO THEIR CURRENT SITUATION



Source: Study of perceptions about the business services sector as a work environment conducted by Randstad, in collaboration with research agency ARC Rynek i Opinia, from September 2016 to November 2016 (mini FGI and CAWI, N=150, study conducted on a sample of participants qualified to work in the business services sector).

FIGURE 38

ASPECTS OF EMPLOYMENT PROVIDED BY EMPLOYERS IN THE OPINION OF CURRENT BUSINESS SERVICES CENTER EMPLOYEES AND CANDIDATES FOR WORK IN THE SECTOR



Source: Study of perceptions about the business services sector as a work environment conducted by Randstad, in collaboration with research agency ARC Rynek i Opinia, from September 2016 to November 2016 (mini FGI and CAWI, N=150, study conducted on a sample of participants qualified to work in the business services sector and mini FGI and CATI, N=100, study conducted among persons currently employed in the business services sector).

SALARIES AT BUSINESS SERVICES CENTERS

TABLE 6

GROSS MONTHLY SALARY (IN EUR) AT BPO, SSC, IT, R&D CENTERS FOR EMPLOYEES WHO SPEAK ENGLISH (KRAKÓW) The salary charts were prepared on the basis of conclusions from interviews with candidates and employers and an analysis of recruitment processes dedicated to the business services sector in Poland. In total, 2,800 recruitment processes conducted by Randstad were analyzed. The figures are for Q1 2017.

KRAKÓW

F&A: GL	Min	Opt	Мах
Junior Accountant (1-2 year's experience)	950	1060	1180
Accountant (2-3 year's experience)	1180	1300	1540
Senior Accountant (over 3 year's experience)	1540	1770	2130
Team Leader (team of 5-15 people)	2130	2370	3080
Manager (team of up to 50 people)	3080	3550	4730
F&A: AP / AR	Min	Opt	Max
Junior Accountant (1-2 year's experience)	900	990	1140
Accountant (2-3 year's experience)	1060	1300	1540
Senior Accountant (over 3 year's experience)	1420	1540	1890
Team Leader (team of 5-15 people)	2130	2370	3080
Manager (team of up to 50 people)	2840	3550	4730
Desking			
Banking	Min	Opt	Мах
Junior Fund Accountant (up to 1 year experience)	830	950	1060
Fund Accountant (1-3 year's experience)	1060	1300	1420
Senior Fund Accountant (over 3 year's experience)	1420	1610	1890
AML/KYC Junior Analyst (up to 1 year experience)	950	1060	1180
AML/KYC Analyst (1-3 year's experience)	1180	1300	1540
AML/KYC Senior Analyst (3-5 year's experience)	1420	1660	1890
Junior Analyst (Product Control, Reporting, Business Analysis / up to 1 year experience)	900	1060	1180
Analyst (Product Control, Reporting, Business Analysis / 1-3 year's experience)	1300	1540	1890
Senior Analyst (Product Control, Reporting, Business Analysis / over 3 year's experience)	1770	2130	2600
Team Leader (team of 5-15 people)	2130	2370	2840
Manager (team of up to 50 people)	3310	4020	4730
Customer Service	Min	Opt	Мах
Junior Specialist (no experience)	760	830	950
Specialist (over 1 year experience)	830	950	1180
Team Leader (team of 5-15 people)	1420	1660	2130
Manager (team of up to 50 people)	2130	2370	3550
	2.00	2010	

Procurement / Order Management	Min	Opt	Мах
Junior Specialist (up to 1 year experience)	950	1060	1180
Specialist (1-3 year's experience)	1180	1420	1660
Senior Specialist (over 3 year's experience)	1540	1770	2130
Team Leader (team of 5-15 people)	2370	2840	3310
Manager (team of up to 50 people)	3310	4260	5210
Manager (team of up to 50 people)	5510	4200	5210
HR processes	Min	Opt	Мах
Junior Specialist (up to 1 year experience)	710	830	950
Specialist (1-2 year's experience)	830	1060	1300
Senior Specialist (over 2 year's experience)	1180	1540	1890
Junior Payroll Specialist (up to 1 year experience)	830	950	1060
Payroll Specialist (1-3 year's experience)	1060	1300	1540
Senior Payroll Specialist (over 3 year's experience)	1420	1660	2130
Team Leader (team of 5-15 people)	2130	2600	3310
Manager (team of up to 50 people)	3310	3790	4730
IT	Min	Opt	Max
1st Line Support (2 year's experience)	950	1060	1420
2nd Line Support (2 year's experience)	1180	1420	1890
3rd Line Support (2 year's experience)	1890	2600	3310
IT Administration (3 year's experience)	1660	2130	3080
Network / Security (3 year's experience)	2130	2600	3080
Business / System Analyst (3 year's experience)	1890	2600	3080
Developer (3 year's experience)	2130	2600	3080
Tester (3 year's experience)	1770	2250	2840
Team Leader (team of 5-15 people)	2370	3310	4020
	2840	3550	4020
Project Manager (team of up to 50 people)	2040	3550	4750
R&D			
	Min	Opt	Max
Laboratory Specialist (over 2 year's experience)	990	1180	1420
Technologist (over 2 year's experience)	1060	1420	1770
Design Engineer (2-4 year's experience)	1060	1610	1890
Senior Design Engineer (over 4 year's experience)	1660	1890	2250
Product Development / NPI Engineer (2-4 year's experience)	1180	1770	2010
Senior Product Development / NPI Engineer (over 4 year's experience)	1660	2130	2370
Quality Engineer (2-4 year's experience)	1060	1660	1890
Senior Quality Engineer (over 4 year's experience)	1660	2010	2130
R&D Manager (team of up to 50 people)	3310	3790	4020

Source: Randstad

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TABLE 7

GROSS MONTHLY SALARY (IN EUR) AT BPO, SSC, IT, R&D CENTERS FOR EMPLOYEES WHO SPEAK ENGLISH (ŁÓDŹ) The salary charts were prepared on the basis of conclusions from interviews with candidates and employers and an analysis of recruitment processes dedicated to the business services sector in Poland. In total, 2,800 recruitment processes conducted by Randstad were analyzed. The figures are for Q1 2017.

ŁÓDŹ

F&A: GL	Min	Opt	Max
Junior Accountant (1-2 year's experience)	950	1060	1300
Accountant (2-3 year's experience)	1060	1230	1420
Senior Accountant (over 3 year's experience)	1420	1660	1890
Team Leader (team of 5-15 people)	1890	2370	3080
Manager (team of up to 50 people)	3080	3550	4260
Mundger (team of up to oo people)	0000	0000	4200
F&A: AP / AR	Min	Opt	Max
Junior Accountant (1-2 year's experience)	830	990	1140
Accountant (2-3 year's experience)	990	1140	1370
Senior Accountant (over 3 year's experience)	1280	1400	1540
Team Leader (team of 5-15 people)	1660	1890	2370
Manager (team of up to 50 people)	2370	3080	3790
Banking	Min	Opt	Max
Junior Fund Accountant (up to 1 year experience)	760	830	1060
Fund Accountant (1-3 year's experience)	1060	1180	1330
Senior Fund Accountant (over 3 year's experience)	1370	1490	1820
AML/KYC Junior Analyst (up to 1 year experience)	710	830	950
AML/KYC Analyst (1-3 year's experience)	830	990	1180
AML/KYC Senior Analyst (3-5 year's experience)	1160	1230	1540
Junior Analyst (Product Control, Reporting, Business Analysis / up to 1 year experience)	880	990	1110
Analyst (Product Control, Reporting, Business Analysis / 1-3 year's experience)	990	1180	1440
Senior Analyst (Product Control, Reporting, Business Analysis / over 3 year's experience)	1300	1660	1890
Team Leader (team of 5-15 people)	1770	2010	2480
Manager (team of up to 50 people)	2370	3080	4260
Customer Convice			
Customer Service	Min	Opt	Мах
Junior Specialist (no experience)	710	830	950
Specialist (over 1 year experience)	900	990	1140
Team Leader (team of 5-15 people)	1180	1420	1770
Manager (team of up to 50 people)	1770	2010	2370

Procurement / Order Management	Min	Opt	Мах	
Junior Specialist (up to 1 year experience)	950	990	1060	
Specialist (1-3 year's experience)	1180	1300	1420	
Senior Specialist (over 3 year's experience)	1540	1660	1890	
Team Leader (team of 5-15 people)	2010	2370	2840	
Manager (team of up to 50 people)	2840	3550	4260	
HR processes	Min	Opt	Мах	
Junior Specialist (up to 1 year experience)	660	710	760	
Specialist (1-2 year's experience)	780	830	990	
Senior Specialist (over 2 year's experience)	990	1060	1180	
Junior Payroll Specialist (up to 1 year experience)	900	950	1060	
Payroll Specialist (1-3 year's experience)	1140	1300	1540	
Senior Payroll Specialist (over 3 year's experience)	1540	1700	2130	
Team Leader (team of 5-15 people)	2010	2370	2840	
Manager (team of up to 50 people)	2840	3550	4020	
-				
Τ	Min	Opt	Мах	
Ist Line Support (2 year's experience)	760	1060	1300	
2nd Line Support (2 year's experience)	1040	1230	1610	
Brd Line Support (2 year's experience)	1510	1890	2370	
T Administration (3 year's experience)	1420	1870	2460	
Network / Security (3 year's experience)	1890	2270	3190	
Business / System Analyst (3 year's experience)	1800	2370	2840	
Developer (3 year's experience)	1890	2750	3310	
Tester (3 year's experience)	1330	1800	2560	
Feam Leader (team of 5-15 people)	1890	2890	3790	
Project Manager (team of up to 50 people)	2560	3600	4690	
R&D	Min	Opt	Мах	
aboratory Specialist (over 2 year's experience)	1060	1180	1300	
Fechnologist (over 2 year's experience)	1180	1660	2130	
Design Engineer (2-4 year's experience)	1420	1540	1660	
Senior Design Engineer (over 4 year's experience)	1660	1890	2370	
Product Development / NPI Engineer 2-4 year's experience)	1540	1660	1770	
Senior Product Development / NPI Engineer (over 4 year's experience)	1770	2130	2840	
Quality Engineer (2-4 year's experience)	1180	1540	1660	
Senior Quality Engineer (over 4 year's experience)	1540	1660	2130	
R&D Manager (team of up to 50 people)	2840	3310	4260	

Source: Randstad

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TABLE 8

GROSS MONTHLY SALARY (IN EUR) AT BPO, SSC, IT, R&D CENTERS FOR EMPLOYEES WHO SPEAK ENGLISH (POZNAŃ) The salary charts were prepared on the basis of conclusions from interviews with candidates and employers and an analysis of recruitment processes dedicated to the business services sector in Poland. In total, 2,800 recruitment processes conducted by Randstad were analyzed. The figures are for Q1 2017.

POZNAŃ

F&A: GL	Min	Opt	Мах
Junior Accountant (1-2 year's experience)	900	950	1060
Accountant (2-3 year's experience)	1060	1180	1300
Senior Accountant (over 3 year's experience)	1300	1540	1770
Team Leader (team of 5-15 people)	2010	2600	3080
Manager (team of up to 50 people)	3550	4260	4730
Wanager (team of up to be people)	0000	4200	+100
F&A: AP / AR	Min	Opt	Мах
Junior Accountant (1-2 year's experience)	830	950	1060
Accountant (2-3 year's experience)	950	1060	1180
Senior Accountant (over 3 year's experience)	1300	1420	1540
Team Leader (team of 5-15 people)	1770	2130	2840
Manager (team of up to 50 people)	3080	3550	4260
Banking	Min	Opt	Max
Junior Fund Accountant (up to 1 year experience)	900	950	1060
Fund Accountant (1-3 year's experience)	1060	1180	1300
Senior Fund Accountant (over 3 year's experience)	1300	1420	1540
AML/KYC Junior Analyst (up to 1 year experience)	950	1060	1180
AML/KYC Analyst (1-3 year's experience)	1180	1300	1540
AML/KYC Senior Analyst (3-5 year's experience)	1540	1700	1890
Junior Analyst (Product Control, Reporting, Business Analysis / up to 1 year experience)	830	950	1060
Analyst (Product Control, Reporting, Business Analysis / 1-3 year's experience)	1060	1300	1540
Senior Analyst (Product Control, Reporting, Business Analysis / over 3 year's experience)	1540	1890	2130
Team Leader (team of 5-15 people)	1890	2130	2600
Manager (team of up to 50 people)	2840	3310	4730
Customer Service			
	Min	Opt	Мах
Junior Specialist (no experience)	760	880	950
Specialist (over 1 year experience)	950	1060	1180
Team Leader (team of 5-15 people)	1420	1660	2130
Manager (team of up to 50 people)	1890	2370	2600

Procurement / Order Management	Min	Opt	Max	
Junior Specialist (up to 1 year experience)	900	950	1060	
Specialist (1-3 year's experience)	1060	1180	1420	
Senior Specialist (over 3 year's experience)	1420	1540	1890	
Feam Leader (team of 5-15 people)	1890	2370	2840	
Manager (team of up to 50 people)	3080	3790	4730	
HR processes				
in processes	Min	Opt	Max	
Junior Specialist (up to 1 year experience)	830	950	1060	
Specialist (1-2 year's experience)	990	1060	1180	
Senior Specialist (over 2 year's experience)	1180	1300	1420	
Junior Payroll Specialist (up to 1 year experience)	830	950	1060	
Payroll Specialist (1-3 year's experience)	1060	1300	1420	
Senior Payroll Specialist (over 3 year's experience)	1420	1660	1890	
Feam Leader (team of 5-15 people)	1660	2370	2840	
Manager (team of up to 50 people)	2600	3310	3790	
Τ				
	Min	Opt	Max	
st Line Support (2 year's experience)	950	1060	1300	
2nd Line Support (2 year's experience)	1180	1540	1660	
Brd Line Support (2 year's experience)	1660	1890	2130	
T Administration (3 year's experience)	1420	1660	2370	
Network / Security (3 year's experience)	1660	2130	2840	
Business / System Analyst (3 year's experience)	1660	2130	2720	
Developer (3 year's experience)	1660	2370	2840	
Fester (3 year's experience)	1660	2130	2840	
Feam Leader (team of 5-15 people)	2130	2600	3550	
Project Manager (team of up to 50 people)	2840	3310	4140	
R&D				
	Min	Opt	Max	
aboratory Specialist (over 2 year's experience)	1060	1230	1420	
Fechnologist (over 2 year's experience)	1140	1300	1700	
Design Engineer (2-4 year's experience)	1300	1660	2130	
Senior Design Engineer (over 4 year's experience)	1890	2130	2370	
Product Development / NPI Engineer 2-4 year's experience)	1300	1660	2130	
Senior Product Development / NPI Engineer (over 4 year's experience)	1890	2130	2370	
Quality Engineer (2-4 year's experience)	1300	1540	1890	
Senior Quality Engineer (over 4 year's experience)	1890	2010	2370	
R&D Manager (team of up to 50 people)	3310	4020	4730	

Source: Randstad

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TABLE 9

GROSS MONTHLY SALARY (IN EUR) AT BPO, SSC, IT, R&D CENTERS FOR EMPLOYEES WHO SPEAK ENGLISH (TRI-CITY) The salary charts were prepared on the basis of conclusions from interviews with candidates and employers and an analysis of recruitment processes dedicated to the business services sector in Poland. In total, 2,800 recruitment processes conducted by Randstad were analyzed. The figures are for Q1 2017.

TRI-CITY

F&A: GL	Min	Opt	Мах
Junior Accountant (1-2 year's experience)	950	1060	1180
Accountant (2-3 year's experience)	1180	1420	1540
Senior Accountant (over 3 year's experience)	1540	1700	1890
Team Leader (team of 5-15 people)	2130	2600	3080
Manager (team of up to 50 people)	3550	4260	5440
	0000	4200	0++0
F&A: AP / AR	Min	Opt	Мах
Junior Accountant (1-2 year's experience)	900	990	1180
Accountant (2-3 year's experience)	1140	1300	1420
Senior Accountant (over 3 year's experience)	1420	1540	1660
Team Leader (team of 5-15 people)	1770	2130	2370
Manager (team of up to 50 people)	2600	3310	4260
Banking	Min	Opt	Max
Junior Fund Accountant (up to 1 year experience)	900	950	1060
Fund Accountant (1-3 year's experience)	1060	1180	1370
Senior Fund Accountant (over 3 year's experience)	1370	1540	1660
AML/KYC Junior Analyst (up to 1 year experience)	950	1060	1180
AML/KYC Analyst (1-3 year's experience)	1180	1420	1660
AML/KYC Senior Analyst (3-5 year's experience)	1660	2010	2130
Junior Analyst (Product Control, Reporting, Business Analysis / up to 1 year experience)	950	1060	1180
Analyst (Product Control, Reporting, Business Analysis / 1-3 year's experience)	1180	1420	1770
Senior Analyst (Product Control, Reporting, Business Analysis / over 3 year's experience)	1770	2010	2250
Team Leader (team of 5-15 people)	2130	2600	3080
Manager (team of up to 50 people)	3550	4260	4970
Customer Service			
	Min	Opt	Мах
Junior Specialist (no experience)	830	900	950
Specialist (over 1 year experience)	950	1060	1300
Team Leader (team of 5-15 people)	1420	1770	2130
Manager (team of up to 50 people)	1890	2370	2840

Procurement / Order Management	Min	Opt	Мах
Junior Specialist (up to 1 year experience)	900	990	1060
Specialist (1-3 year's experience)	1060	1300	1420
Senior Specialist (over 3 year's experience)	1420	1660	1770
Team Leader (team of 5-15 people)	1890	2370	2840
Manager (team of up to 50 people)	3080	3790	4730
HR processes	Min	Opt	Мах
Junior Specialist (up to 1 year experience)	900	990	1060
Specialist (1-2 year's experience)	1060	1180	1300
Senior Specialist (over 2 year's experience)	1300	1420	1540
Junior Payroll Specialist (up to 1 year experience)	950	990	1060
Payroll Specialist (1-3 year's experience)	1060	1300	1540
Senior Payroll Specialist (over 3 year's experience)	1540	1770	2010
Feam Leader (team of 5-15 people)	2250	2600	3080
Manager (team of up to 50 people)	3080	3550	4020
-			
Τ	Min	Opt	Мах
st Line Support (2 year's experience)	950	1140	1300
2nd Line Support (2 year's experience)	1300	1540	1660
Brd Line Support (2 year's experience)	1660	2130	2480
T Administration (3 year's experience)	1300	1770	2250
Network / Security (3 year's experience)	1660	2130	2370
Business / System Analyst (3 year's experience)	1660	2010	2840
Developer (3 year's experience)	1660	2480	3190
Fester (3 year's experience)	1420	1890	2250
Feam Leader (team of 5-15 people)	2130	2840	3790
Project Manager (team of up to 50 people)	2840	3310	4260
20.0			
₹&D	Min	Opt	Мах
aboratory Specialist (over 2 year's experience)	1060	1180	1420
echnologist (over 2 year's experience)	1180	1660	1890
Design Engineer (2-4 year's experience)	1180	1660	1890
Senior Design Engineer (over 4 year's experience)	1890	2130	2370
Product Development / NPI Engineer 2-4 year's experience)	1300	1660	2010
Senior Product Development / NPI Engineer (over 4 year's experience)	1890	2130	2370
Quality Engineer (2-4 year's experience)	1180	1540	1890
Senior Quality Engineer (over 4 year's experience)	1890	2250	2370
R&D Manager (team of up to 50 people)	3080	3550	4260

Source: Randstad

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TABLE 10

GROSS MONTHLY SALARY (IN EUR) AT BPO, SSC, IT, R&D CENTERS FOR EMPLOYEES WHO SPEAK ENGLISH (WARSAW) The salary charts were prepared on the basis of conclusions from interviews with candidates and employers and an analysis of recruitment processes dedicated to the business services sector in Poland. In total, 2,800 recruitment processes conducted by Randstad were analyzed. The figures are for Q1 2017.

WARSAW

F&A: GL	Min	Oat	Мах
Junior Accountant (1-2 year's experience)	1180	Opt 1300	1420
Accountant (1-2 year's experience)	1540	1770	2010
Senior Accountant (over 3 year's experience)	1890	2010	2250
Team Leader (team of 5-15 people)	2370	2840	3550
Manager (team of up to 50 people)	3550	4260	5440
Manager (team of up to 50 people)	3330	4200	5440
F&A: AP / AR	Min	Opt	Мах
Junior Accountant (1-2 year's experience)	1040	1140	1300
Accountant (2-3 year's experience)	1300	1370	1590
Senior Accountant (over 3 year's experience)	1470	1610	1770
Team Leader (team of 5-15 people)	1890	2250	2840
Manager (team of up to 50 people)	2840	3550	4730
Banking	Min	Opt	Мах
Junior Fund Accountant (up to 1 year experience)	1060	1180	1350
Fund Accountant (1-3 year's experience)	1230	1540	1770
Senior Fund Accountant (over 3 year's experience)	1540	1890	2130
AML/KYC Junior Analyst (up to 1 year experience)	900	970	1040
AML/KYC Analyst (1-3 year's experience)	1060	1350	1540
AML/KYC Senior Analyst (3-5 year's experience)	1370	1700	1890
Junior Analyst (Product Control, Reporting, Business Analysis / up to 1 year experience)	1180	1300	1420
Analyst (Product Control, Reporting, Business Analysis / 1-3 year's experience)	1300	1660	1890
Senior Analyst (Product Control, Reporting, Business Analysis / over 3 year's experience)	1770	2130	2480
Team Leader (team of 5-15 people)	2130	2720	3430
Manager (team of up to 50 people)	3190	4260	5440
Customer Service			
	Min	Opt	Мах
Junior Specialist (no experience)	830	950	1180
Specialist (over 1 year experience)	990	1300	1420
Team Leader (team of 5-15 people)	1420	1890	2250
Manager (team of up to 50 people)	1890	2600	3790

Procurement / Order Management	Min	Opt	Max
Junior Specialist (up to 1 year experience)	1060	1300	1420
Specialist (1-3 year's experience)	1420	1660	1890
Senior Specialist (over 3 year's experience)	1890	2130	2370
Team Leader (team of 5-15 people)	2840	3550	4020
Manager (team of up to 50 people)	3790	4500	5920
	0.00		0020
HR processes	Min	Opt	Max
Junior Specialist (up to 1 year experience)	900	990	1060
Specialist (1-2 year's experience)	1140	1300	1420
Senior Specialist (over 2 year's experience)	1420	1540	1660
Junior Payroll Specialist (up to 1 year experience)	1060	1140	1180
Payroll Specialist (1-3 year's experience)	1300	1540	1660
Senior Payroll Specialist (over 3 year's experience)	1770	2010	2370
Team Leader (team of 5-15 people)	2250	2840	3550
Manager (team of up to 50 people)	3310	4020	4970
IT	Min	Opt	Max
1st Line Support (2 year's experience)	950	1140	1420
2nd Line Support (2 year's experience)	1300	1540	2010
3rd Line Support (2 year's experience)	1890	2370	2960
IT Administration (3 year's experience)	1770	2340	3080
Network / Security (3 year's experience)	2370	2840	3550
Business / System Analyst (3 year's experience)	2250	2960	3550
Developer (3 year's experience)	2370	3430	4140
Tester (3 year's experience)	1660	2250	3190
Team Leader (team of 5-15 people)	2370	3080	4380
Project Manager (team of up to 50 people)	3190	4000	5210
R&D	Min	Opt	Max
Laboratory Specialist (over 2 year's experience)	1060	1180	1420
Technologist (over 2 year's experience)	1180	1660	2130
Design Engineer (2-4 year's experience)	1420	1660	1890
Senior Design Engineer (over 4 year's experience)	1660	2130	2600
Product Development / NPI Engineer (2-4 year's experience)	1660	1890	2130
Senior Product Development / NPI Engineer (over 4 year's experience)	2130	2600	3310
Quality Engineer (2-4 year's experience)	1300	1660	1890
Senior Quality Engineer (over 4 year's experience)	1660	1890	2130
R&D Manager (team of up to 50 people)	3080	3790	4730

Source: Randstad

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TABLE 11

GROSS MONTHLY SALARY (IN EUR) AT BPO, SSC, IT, R&D CENTERS FOR EMPLOYEES WHO SPEAK ENGLISH (WROCŁAW) The salary charts were prepared on the basis of conclusions from interviews with candidates and employers and an analysis of recruitment processes dedicated to the business services sector in Poland. In total, 2,800 recruitment processes conducted by Randstad were analyzed. The figures are for Q1 2017.

WROCŁAW

F&A: GL	N 4		
Junior Accountant (1-2 year's experience)	Min 1060	Opt 1180	Max 1300
		1540	1660
Accountant (2-3 year's experience)	1180		
Senior Accountant (over 3 year's experience)	1660	1770	2130
Team Leader (team of 5-15 people)	2130	2840	3310
Manager (team of up to 50 people)	3790	4500	5680
F&A: AP / AR	Min	Opt	Мах
Junior Accountant (1-2 year's experience)	950	1060	1300
Accountant (2-3 year's experience)	1180	1300	1540
Senior Accountant (over 3 year's experience)	1420	1540	1770
Team Leader (team of 5-15 people)	2010	2250	2840
Manager (team of up to 50 people)	2840	3550	4730
Banking	Min	Opt	Мах
Junior Fund Accountant (up to 1 year experience)	950	1180	1300
Fund Accountant (1-3 year's experience)	1180	1420	1660
Senior Fund Accountant (over 3 year's experience)	1540	1890	2130
AML/KYC Junior Analyst (up to 1 year experience)	950	1060	1180
AML/KYC Analyst (1-3 year's experience)	1180	1300	1420
AML/KYC Senior Analyst (3-5 year's experience)	1420	1660	1890
Junior Analyst (Product Control, Reporting, Business Analysis / up to 1 year experience)	1180	1300	1420
Analyst (Product Control, Reporting, Business Analysis / 1-3 year's experience)	1300	1660	1890
Senior Analyst (Product Control, Reporting, Business Analysis / over 3 year's experience)	1770	2130	2480
Team Leader (team of 5-15 people)	2370	2840	3310
Manager (team of up to 50 people)	3080	4500	5440
Questa man Questian			
Customer Service	Min	Opt	Max
Junior Specialist (no experience)	830	950	1060
Specialist (over 1 year experience)	950	1060	1300
Team Leader (team of 5-15 people)	1420	1660	1890
Manager (team of up to 50 people)	1890	2600	3550

Procurement / Order Management	Min	Opt	Max	
Junior Specialist (up to 1 year experience)	1060	1180	1300	
Specialist (1-3 year's experience)	1300	1420	1660	
Senior Specialist (over 3 year's experience)	1660	1770	2010	
eam Leader (team of 5-15 people)	2370	2840	3310	
Manager (team of up to 50 people)	3310	4260	4730	
HR processes				
in processes	Min	Opt	Max	
Junior Specialist (up to 1 year experience)	830	950	1060	
Specialist (1-2 year's experience)	1060	1180	1300	
Senior Specialist (over 2 year's experience)	1300	1420	1540	
unior Payroll Specialist (up to 1 year experience)	950	1060	1180	
Payroll Specialist (1-3 year's experience)	1180	1300	1540	
Senior Payroll Specialist (over 3 year's experience)	1540	1660	1890	
eam Leader (team of 5-15 people)	2250	2720	3310	
Nanager (team of up to 50 people)	3310	3790	4730	
Τ				
	Min	Opt	Max	
st Line Support (2 year's experience)	850	1020	1300	
nd Line Support (2 year's experience)	1300	1420	1940	
rd Line Support (2 year's experience)	2010	2370	3080	
T Administration (3 year's experience)	1540	1940	2320	
letwork / Security (3 year's experience)	1990	2410	3030	
Business / System Analyst (3 year's experience)	2060	2440	2840	
Developer (3 year's experience)	1890	2840	3430	
ester (3 year's experience)	1660	2370	2840	
eam Leader (team of 5-15 people)	2600	3410	4140	
Project Manager (team of up to 50 people)	2840	3900	4730	
3&D				
	Min	Opt	Max	
aboratory Specialist (over 2 year's experience)	1060	1180	1420	
echnologist (over 2 year's experience)	1180	1540	1770	
Design Engineer (2-4 year's experience)	1060	1540	1660	
Senior Design Engineer (over 4 year's experience)	1540	1770	2130	
roduct Development / NPI Engineer 2-4 year's experience)	1420	1660	1890	
enior Product Development / NPI ngineer (over 4 year's experience)	1890	2130	2370	
Quality Engineer (2-4 year's experience)	1300	1540	1660	
Senior Quality Engineer (over 4 year's experience)	1770	1890	2130	
&D Manager (team of up to 50 people)	3310	3790	4260	

Source: Randstad

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TABLE 12

GROSS MONTHLY SALARY (IN EUR) AT BPO/SSC/IT/R&D CENTERS AT OTHER LOCATIONS FOR EMPLOYEES WHO SPEAK ENGLISH

The salary charts were prepared on the basis of conclusions from interviews with candidates and employers and an analysis of recruitment processes dedicated to the business services sector in Poland. In total, 2,800 recruitment processes conducted by Randstad were analyzed. The figures are for Q1 2017.

Note: The cost of salaries in cities not accounted for in the summaries (incl. Bydgoszcz, Opole, Radom, Kielce, Olsztyn, Białystok) may be lower than presented.

	AGGEOMERATION						
F&A: GL	Min	Opt	Max	Min	Opt	Max	
Junior Accountant (1-2 year's experience)	950	1060	1180	830	950	1060	
Accountant (2-3 year's experience)	1180	1300	1540	1060	1300	1490	
Senior Accountant (over 3 year's experience)	1540	1660	1890	1420	1770	2010	
Team Leader (team of 5-15 people)	1890	2600	2840	2010	2840	3550	
Manager (team of up to 50 people)	2370	3080	4260	2370	3080	3550	
F&A: AP / AR	Min	Opt	Max	Min	Opt	Max	
Junior Accountant (1-2 year's experience)	830	950	1060	710	780	880	
Accountant (2-3 year's experience)	1060	1180	1300	950	1090	1420	
Senior Accountant (over 3 year's experience)	1300	1420	1770	1300	1420	1890	
Team Leader (team of 5-15 people)	1890	2130	2840	1770	1890	2370	
Manager (team of up to 50 people)	2370	3080	3790	2250	2600	3310	
Customer Service	Min	Opt	Max	Min	Opt	Мах	
Junior Specialist (no experience)	710	830	950	590	830	950	
Specialist (up to 1 year experience)	990	1180	1300	830	950	1060	
Team Leader (team of 5-15 people)	1420	1660	1890	1060	1420	1770	
Manager (team of up to 50 people)	1890	2130	2600	1660	2010	2370	
ІТ	Min	Opt	Мах	Min	Opt	Мах	
1st Line Support (2 year's experience)	830	950	1300	950	1180	1300	
2nd Line Support (2 year's experience)	950	1180	1660	1080	1300	1610	
3rd Line Support (2 year's experience)	1660	1890	2370	1300	1540	2320	
IT Administration (3 year's experience)	1420	1890	2370	1420	1890	2480	
Network / Security (3 year's experience)	1770	2250	2840	1800	2160	3190	
Business / System Analyst (3 year's experience)	1660	2370	2840	1710	2130	2960	
Developer (3 year's experience)	1890	2370	3080	1800	2610	3150	
Tester (3 year's experience)	1660	2130	2600	1260	1710	2430	
Team Leader (team of 5-15 people)	2130	2840	3550	1890	2720	3670	
Project Manager (team of up to 50 people)	2370	3310	4020	2600	3550	4500	

KATOWICE AGGLOMERATION LUBLIN

RZESZÓW

SZCZECIN

F&A: GL	Min	Opt	Max	М	n.	Opt	Max
Junior Accountant (1-2 year's experience)	710	830	950	7	60	830	900
Accountant (2-3 year's experience)	950	1060	1230	9	50	1060	1180
Senior Accountant (over 3 year's experience)	1180	1540	1770	11	80	1420	1540
Team Leader (team of 5-15 people)	1660	1890	2370	17	70	2130	2600
Manager (team of up to 50 people)	2130	2370	2840	26	00	3080	4260
F&A: AP / AR	Min	Opt	Max	M	n	Opt	Max
Junior Accountant (1-2 year's experience)	710	780	900	7	10	760	900
Accountant (2-3 year's experience)	920	990	1180	9	00	990	1060
Senior Accountant (over 3 year's experience)	1060	1300	1420	10	60	1180	1350
Team Leader (team of 5-15 people)	1540	1770	2370	16	60	1890	2130
Manager (team of up to 50 people)	2010	2250	2720	23	70	2840	3550
Customer Service	Min	Opt	Мах		n	Opt	Мах
Junior Specialist (no experience)	590	710	830		10	760	830
Specialist (up to 1 year experience)	830	950	1060	8	30	950	1180
Team Leader (team of 5-15 people)	1060	1420	1660	13	00	1660	1890
Manager (team of up to 50 people)	1660	2010	2370	17	70	1890	2370
ІТ	Min	Opt	Мах	M	n	Opt	Мах
1st Line Support (2 year's experience)	950	1180	1300		50	990	1180
2nd Line Support (2 year's experience)	1080	1300	1610		50	1180	1660
3rd Line Support (2 year's experience)	1300	1540	2320	16		1890	2130
IT Administration (3 year's experience)	1420	1890	2480	18		2130	2370
Network / Security (3 year's experience)	1800	2160	3190	16		2130	2840
Business / System Analyst (3 year's experience)	1710	2130	2960	18		2370	2600
Developer (3 year's experience)	1800	2610	3150	17	70	2130	3080
Tester (3 year's experience)	1260	1710	2430	16	60	1890	2370
Team Leader (team of 5-15 people)	1890	2720	3670	21	30	2600	3550
Project Manager (team of up to 50 people)	2600	3550	4500	23	70	3080	4020

Source: Randstad

TABLE 13

LANGUAGE BONUSES (IN EUR GROSS)

Spread of rates for specialist positions:*		
	From	То
Spanish / Portuguese / Russian / Italian	70	190
French	120	240
German	120	240
Nordic languages / Finnish	190	470

* specialist positions = all positions considered in the salary charts except for managers and team leaders

Source: Randstad

TABLE 14

AVERAGE SALARY GROWTH (Q1 2017 VS Q1 2016) BY LOCATION AND PROCESS CATEGORY

Specialist positions* (main business service locations) IT 19% HR processes 8% Banking 8% 7% **Customer Service** 6% F&A: GL F&A: AP / AR 6% R&D 3% Procurement 3% / Order Management

Specialist positions* not including IT	
Wrocław	9%
Poznań	8%
Tri-City	7%
Warsaw	5%
Łódź	3%
Kraków	3%

Specialist positions* specialist positions in IT	
Warsaw	25%
Wrocław	19%
Kraków	18%
Łódź	13%
Poznań	11%
Tri-City	8%

* specialist positions = all positions considered in the salary charts except for managers and team leaders

Source: Randstad

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BENEFITS AT SHARED SERVICES CENTERS (SSCs)

Companies and employees appreciate well-designed benefits programs. From the employer's point of view, the costs these entail are often treated on an equal footing with other investment expenses. This means that employers expect to see a return on that investment, e.g. in the form of increased employee engagement and satisfaction, lower employee turnover, and direct savings for example resulting from better (faster) access to health care, fewer absences due to illness, etc. The cost of these benefits is also critical, or, more precisely, such cost should be significantly lower than the price employees would have to pay individually. And it is important for a company to only finance those benefits that employees actually use on a regular basis. In this context, the question naturally arises as to whether companies are using benefits as a means of building their competitive advantage, creating a suitable image, and, in effect, as a tool for acquiring the best employees. Market data confirms that these days, it is not enough to "only" offer appropriate benefits; they must also be perceived as better than those offered by competing employers.

Below is the market data for two particularly popular benefits (popularity above 80% in medium and large businesses in Poland) as well as one that will be offered by all companies in 2018 (namely retirement benefits and the government idea for the compulsory employee capital program (Pracownicze Plany Kapitałowe, PPK)).

FIGURE 39

POPULARITY OF SELECTED BENEFITS IN SHARED SERVICES CENTERS

SSCs



₽	70 %



Health care Share of companies providing health care (non-statutory) to all employees

Employee insurance Share of companies providing employees with insurance benefits

Retirement plan

Share of companies offering employees (not necessarily all) a retirement plan

Companies from other industries







* However, this already applies, for example, to 100% of pharmaceutical companies. ** Where the benefit, in 9 out of 10 cases, is offered to a broad group of professionals/para-professionals.

*** In 90% of cases these plans are addressed to a broad group of employees from the category of professionals/para-professionals.

Source: Mercer (Poland TRS, 2016) on the basis of responses from 72 shared services centers in Poland and 351 companies from other industries.

Note: in accordance with the government pension system reform plan, employers not running employee pension programs (Pracowniczy Program Emerytalny, PPE) will be obliged, as from 2018, to offer their employees participation in employee capital programs (PPK).

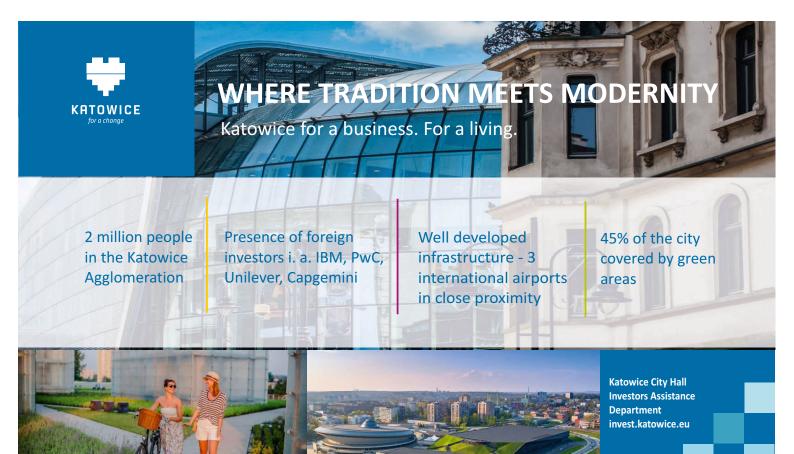


Content provider of subsection "Benefits at shared services centers (SSCs)": **Mercer** Mercer is a leading global provider of consulting services in the area of generating, managing and administrating payroll systems, medical care programs, pensions, insurance and other employee benefits. More information at: www.mercer.com

In the above three benefits categories, when compared with the pharmaceutical, FMCG and High Tech industries, SSCs feature above-average participation in the benefits offered. In every case, the clear leader in these comparisons is the pharmaceutical sector, while FMCG and SSCs vie for second place.

- Shared services centers are the "youngest" among those industries analyzed. This means that SSCs have managed very rapidly to introduce solutions that had already been implemented in traditional industries.
- 2. There is not always a connection between the age or education of employees and their expectations. The shares of SSCs and companies from the overall market offering retirement or life insurance plans are very similar.

- 3. The most popular benefit from the three mentioned above is health care. It is worth emphasizing that, in recent years, the quality of services provided by medical clinics and insurance companies has declined considerably, while the costs of those benefits continue to rise.
- 4. Employee satisfaction depends on a given benefit being provided (financed), and also on the quality of the benefit. In effect, companies should be certain that the benefits function well, and that the money they spend on them yields material results that can be measured, e.g. by a satisfaction index, the number of favorable opinions, the relation between expenses and benefits used (where benefits can be, e.g., the number of visits to the doctor, the number of absences due to illness, the value of compensation paid, or the investment return in pension schemes).



4 IT DIRECTIONS IN A SNAPSHOT

A few years ago, 'IT enabled' or 'technology enabled' distinguished your product or service from the 'crowd'. Today, it is difficult to find something that would be completely 'analog' – conceived, developed and produced manually. And given how quickly some trends that were emerging a year or two ago became mainstream, this will be even more challenging.

Terms such as RPA, Machine Learning, Artificial Intelligence and Cognitive Computing are used today in Shared Service Centers, not just in universities. In the next few pages, you will find a few intellectual invitations to discuss how today's world is becoming disrupted with these terms, and what we want to do about it.

Q: QUO VADIS ROBO? A: TO SCHOOL!

Eureka! I automated it and it's running on its own!

We have been automating activities for many years. It started when the first computer calculated the first figure. Then, we put a CPU into every electronic device to program it, to execute instructions, to wake us up, to change CDs, to remember, and even to learn from what we had selected on our control panels. Today we treat lack of all this as possible drawbacks of products. So, with all of this, the IT, telecommunications, media, and data circling above our heads without us having to intervene, why are we so excited when we run a macro in MS Excel – not to mention a robot? Because we are builders, creators, we will, thus, also build robots.

Pinocchio, Frankenstein, I-Boy...

Maybe the intention is neither science nor fatherhood, but the business motive is to get more by doing less – harsh nasty capitalism, some might say. Yet, don't we use our kitchen aids, CD changers, and washing machines for the same reason? They do the hard work for us, while we engage in more complex activities or we simply laze in the sun. Hey – the sun is there for us, so why shouldn't we make use of it?! Building a "robot" to help us is natural and is in our blood – building tools was good in the Stone Age and it is still good today.

I'm afraid of spiders.

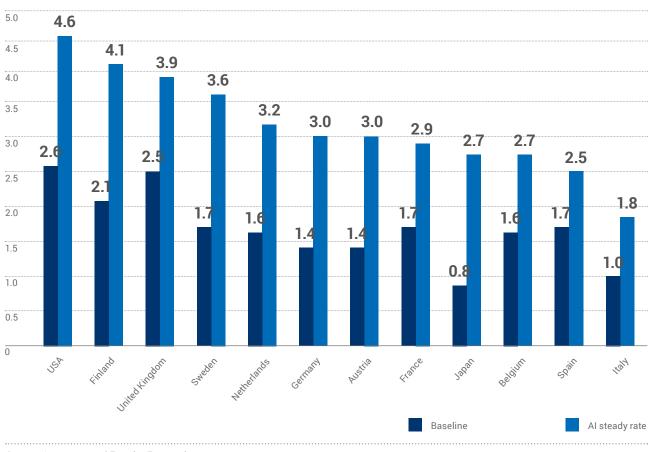
Most people who are afraid of spiders, mice and similar creatures are afraid of them because they move faster than we do. They are hard to kill and they seem to have such BIG TEETH. We create this image because we do not actually know them. But we know our computers, the factory robots, GSM/LTE, GPS, TV, and Internet. They have become our in-house animals. We take care of them and they give us milk. But, out there, on the other side of our fence, there is a wolf (i.e. a robot that we don't know yet). We don't know that it will become our puppy dog soon. It will sit on the couch with us to watch TV. In fact, our neighbors have one already and they are happy when it brings them their shoes.

Have you seen that? Their dog is trained!

Can a robot go to school? Yes, and when it comes back it will not be a simple robot anymore. By enhancing it with AI, our robot will be interactive. It will sense, learn patterns, draw conclusions from data, and propose solutions. Will it still be our robot puppy, or will we be afraid of it since it will be too fast?

FIGURE 40

ANNUAL GROWTH RATES IN 2035 OF GROSS VALUE ADDED (A CLOSE APPROXIMATION OF GDP), COMPARING BASELINE GROWTH IN 2035 TO AN ARTIFICIAL INTELLIGENCE SCENERIO WHERE AI HAS BEEN ABSORBED INTO THE ECONOMY



Source: Accenture and Frontier Economics

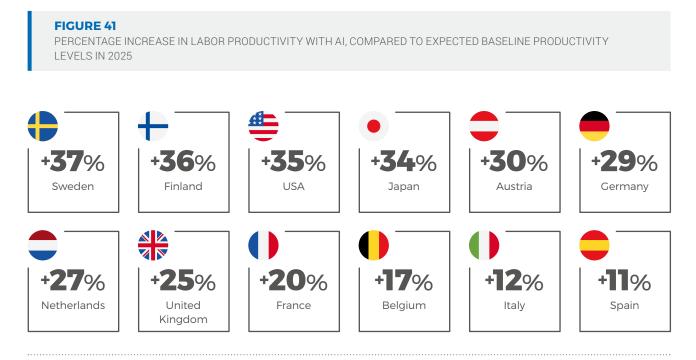
IT directions in a snapshot

The human race gives me hope – as long as it is us who create the robots and choose the school, there is no need to worry and we should embrace with open arms this next step in our HUMAN evolution.

Hard figures

Countries benefit from the adoption of Robotics and AI. On top of traditional RPA, AI automates complex tasks that require adaptability, which AI offers via self-learning. Existing labor and capital can be engaged much more effectively, as AI allows human beings to focus on what we do best imagine, create, and innovate. Al offers the ability to boost current capital and labor to stimulate economic growth. Research shows unprecedented opportunities for value creation.

Poland is an ideal country for adopting RPA and AI. We have all that we need: talent, the economic climate, drive for innovation, ecosystem technology, and a large population of both creators and users. We have advanced technology in business, shared services, and R&D; and we are a leader in Europe. So, what will our VALUE PERCENTAGE be when our robots get back from school?



Source: Accenture and Frontier Economics

HOW TO BE AGILE IN A WATERFALL ORGANIZATION?

It's already been more than 16 years since the Agile Manifesto was published, and it seems that everyone is claiming to have Agile delivery teams. On the other hand, many big corporations have been managed in a chain-of-command way for decades, with cascade models for managing products and services. It is not surprising that Agile delivery models are a hot topic for IT teams as they struggle to fully implement them across IT shared service centers.

Before we join the Agile crusade, we should remember that the Agile approach is not necessarily the best model, it is merely a model that is valid in specific circumstances that target flexibility, i.e. when:

- there is great uncertainty about what needs to be built (when a customer doesn't really know what he needs);
- there is a need to release value as quickly as possible, learn about the problem and have the ability to swiftly change direction (basically when flexibility and speed are critical);
- there is a manageable risk of releasing a partial solution, (at least we are not risking anyone's life).

It just so happens that a considerable portion of software development fits that criteria. But remember that building a platform for other apps or constructing a core software engine with a wellknown set of capabilities may not fit these criteria. In these situations, it is better to tweak or design a delivery model to fit the specific needs of the project/ challenge.

OK, so you have decided to run an Agile delivery model. Here are a few consequences and hints.

Finding the right people.

An Agile team is very often formed from available people, rather than selecting those who fit the criteria for success. The Project Owner (PO), as the "Business Person", in particular needs to be engaged from day one, and stay engaged every single day whilst steering the project in the right direction on behalf of "the business". Therefore, the ideal PO should come from "the business". You may have heard someone saying, "We do not have time for this", or even worse, "What's the point of an IT organization? They should manage that part!", when executives do not want to dedicate any of their time at all. In such cases, we may get a "Proxy Product Owner" who may even have a Business Analyst background, but without business knowledge & support. In such cases, beware - you may be doomed to fail.

An Agile team can become extremely valuable (not individuals, nor projects). Be careful to select members who:

- have T-shaped skills (are experts in at least one domain with the ability to collaborate across disciplines with experts in other areas and are able to apply knowledge in these areas);
- can work in one team and one team only;
- complement each other with the knowledge they are bringing from the business.

Agile requires and provides more control of the project direction.

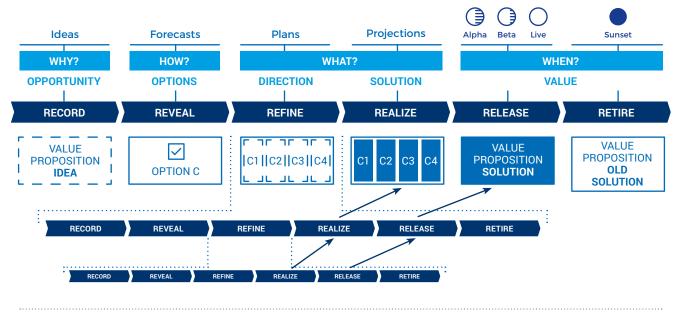
It can be a very enlightening moment for executives & senior management when they understand that Agile, the delivery model, enables and requires them to be in charge. This very often means that not only the project team needs to receive training on what its members' roles ought to be, but also the senior management requires preparation and training on what its role in this Agile environment is.

Prioritize deliverables per biggest value for the business.

Your IT delivery organization often needs to start listening and prioritizing business needs. The IT team may not always agree with the business priorities due to a lack of customer and business perspective.

FIGURE 42

END-TO-END ITERATIVE DELIVERY MODEL



Source: Emergn Ltd.

Therefore, a strong Product Owner is the key element of the team ensuring that business value is understood and prioritized.

How to prepare a Business Case (incl. budget, time, ROI) for Agile delivery projects?

One approach we can use is to define an MVP (Minimal Viable Product) and try to estimate the costs around it, as an input to the Business Case. If you pick an Agile method with timeboxed iterations, your cost for a running team is predictable – you can cap the duration of the project and the only part that is uncertain is the scope. This is also the reason for choosing Agile as a delivery model in the first place. So, let's prepare

our sponsor or the client for any uncertainties in the project and detail "which is not known at the given stage" rather than trying to invent the figures.

An even better idea (although revolutionary for some) would be to implement a consistent framework for managing value propositions and to utilize Agile practices outside of the delivery part and apply them to the end – to-end iterative operations framework that can accommodate the many styles of Agile delivery (above). As a result, the Business Case and Value Proposition become elements in the iterative lifecycle of the company's end-to-end operations.

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THE PRINCIPLES OF ETHICAL BEHAVIOR IN COGNITIVE ANALYTICS

Every industry today is being swamped by a tsunami of unstructured, multimedia data. The ability to understand that data becomes critical for business processes. Cognitive applications enable that capability.

At the 2017 World Economic Forum in Davos, IBM CEO Ginni Rometty laid out three guiding "principles for AI", calling for responsible use of cognitive abilities to advance and aid human beings, not replace them. "We say cognitive, not AI, because we are augmenting intelligence," Rometty said. "For most of our businesses and companies, it will not be man or machine... it will be a symbiotic relationship. Our purpose is to augment and really be in service of what humans do."

Cognitive analytics provide a display and an understanding of mass data, face up to the challenges of data quality, fill the gaps, and validate the hypothesis. Data analysts focus on constructing data models ready to be used in statistical analysis, which is repetitive and adaptive, making it possible to train cognitive systems. The final, ultimate goal of cognitive analytics is to put forward recommendations to influence human decision-making processes, which requires a sense of ethics.

COMING BACK TO AI PRINCI-PLES IN MORE DETAIL:

Purpose

The purpose of AI and cognitive systems is to augment human intelligence. Technology, products, services and policies will be designed to enhance and extend human capability, expertise and potential. Cognitive systems will not realistically attain consciousness or independent agency. Rather, they will increasingly be embedded in the processes, systems, products and services by which business and society function – all of which will and should remain within human control.

Transparency

For cognitive systems to fulfill their world-changing potential, it is vital that humans have confidence in their recommendations, judgments and uses. Therefore, the following must be clear:

- when and for what purposes AI is being applied;
- The major sources of data and expertise that inform the insights of cognitive solutions, as well as the methods used to train those systems and solutions;
- The principle that clients own their own business models and intellectual property and that they can use AI and cognitive systems to enhance the advantages they have built, often through years of experience.

Skills

The economic and societal benefits of the new cognitive era will not be realized if the human side of the equation is not supported. This is uniquely important with cognitive technology, which augments human intelligence and expertise and works collaboratively with humans. Companies should work to help students, workers and citizens acquire the skills and knowledge to engage safely, securely and effectively in a relationship with cogni-

tive systems, and to perform the new kinds of work and jobs that will emerge in the cognitive economy.

More than a century of experience dealing with clients from every industry and sector reveals that transparency and principles that engender trust are important for both business and society. However, there is still much learning ahead for all of us. In that spirit, let this publication spark a society-wide dialogue on fundamental questions that must be answered, in order to achieve the economic and societal potential of a cognitive future.

#HACKATHONS. COOKBOOK

Hackathons happen all over the globe and across many different industries. Those events typically last between a full day and a weekend and bring together groups of innovative people to solve problems and improve our world through and with technology. In recent years, hackathons evolved from a stereotypical computer programming weekend into a real idea vehicle for a variety of industries – and the list is continually growing.

Bringing the "outside in" is the base expectation for business services centers professionals nowadays. Leaders need to learn how to leverage external insights generated from data by data science, engineering, and wrangling community. This type of collaboration is encouraged by freedom to define and jointly investigate a wicked problem described by the data.

Sounds interesting so far? So – how can you organize a successful hackathon then? Follow these ten steps, and find out yourself where the road is going to take you!

1. Leave ample time to prepare

Define very clearly what the business problem you are trying to solve is (if you have a particular technology in mind, mention that too)

2. Set goals

You need to think big, but start small. In lean startup terminology, this is called a minimum viable product (MVP)

3. Have realistic outcomes

Expectation that the end result of hackathon will be your next billion dollar brand is futile. Keep in mind that this is to generate ideas, network, and understand more about the industry and the topic that participants are addressing.

4. Attendees

All participants need to be co-located in the same physical place (including the customer – owner of the business problem)

5. Do your homework. Be technology-enabled

Technologies to use must be determined and made available up front (e.g. database, R for analysis, etc.). Don't spend precious time reading docs, and trying to figure out how to use libraries, but focus 100% on building the functionality that is unique to your solution.

6. Envision your perfect demo and work backwards

Communicate clear expectations for the demos to all attendees from the beginning of the event. Some attendees will become frustrated when they see others demoing paper prototypes or Photoshop mockups when they believed a working implementation was required.

7. Use a PaaS (Platform as a Service) for deployment and hosting

Unless you're using some obscure software that is not supported by the PaaS providers, you'll be able to deploy faster and spend more time developing your solution if you choose to use a PaaS.

8. Security, power and connectivity are critical

Make sure Wi-Fi is easy to access for all attendees. Make sure you have a backup Internet option if the Wi-Fi goes out. Have spare cables and USB drives available. Ensure proper physical security for participants during the event.

9. Don't forget the simple things

Some of the easiest things to forget are often the most simple (food, beverages, etc.). Have a quiet, dark place to get some rest. Take frequent breaks. Sometimes walking away from the solution and coming back to it after taking a break makes all the difference in breaking through a tough problem.

10. Have fun!

If you follow all these guidelines, prepare well in advance, and get plenty of rest before the big day, you'll maximize your odds of having an event that's not just successful, but enjoyable as well. Good luck!

CHAPTER AUTHORS:

Q: QUO VADIS ROBO? A: TO SCHOOL! MICHAŁ GRABARZ SALES DIRECTOR AT COMMUNICATIONS, MEDIA AND TECHNOLOGY, ACCENTURE

HOW TO BE AGILE IN A WATERFALL ORGANIZATION? DARIUSZ LIS MANAGING PARTNER, INNOMENTORS

THE PRINCIPLES OF ETHICAL BEHAVIOR IN COGNITIVE ANALYTICS RAFAL ROGOZA BUSINESS UNIT MANAGER, IBM GLOBAL SERVICES DELIVERY CENTRE PAWEŁ JASIONOWSKI EUROPE PREDICTIVE ANALYTICS MODELER, IBM GLOBAL SERVICES DELIVERY CENTRE

#HACKATHONS. COOKBOOK

PIOTR KOZIOROWSKI ENTERPRISE DATA WAREHOUSE OWNER, PROCTER & GAMBLE



ABSL IT CLUB

The ABSL IT Club mission is to build an innovation-friendly environment where companies from a variety of sectors, with different cultures and striving for slightly different goals, are united by the vision of creating a diverse, stimulating and collaborative environment helping to move the IT industry in Poland to the next level of development.

Views are exchanged within the IT Club in three workgroups:

- · benchmarking, research and analysis;
- · talent management and linking with universities;
- · public relations, legal and lobbying.

More information at: www.itclub.internal.absl.pl

GRZEGORZ ŚNIADAŁA SENIOR IT MANAGER, PROCTER & GAMBLE, ABSL IT CLUB LEADER

5 PERSPECTIVES ON POLAND'S ROLE IN THE GLOBAL SERVICES INDUSTRY

Poland has seen exponential growth in the set up and expansion of service delivery centers by both enterprises and service providers in the past four to five years. It is now the largest service delivery location within the Nearshore Europe region.¹

The reason for Poland's success is its superlative talent/cost/risk value proposition in the region for service delivery across functions, as illustrated by Maturity | Arbitrage | Potential (MAP) Matrix[™] assessments for IT-Applications and Banking Business Process Services (BPS) in the Nearshore Europe region.

¹Nearshore Europe includes Central and Eastern Europe, the Baltic States, and Nearshore UK (Scotland, Northern Ireland, and Ireland)



Chapter content provider: **Everest Group** Everest Group is a consulting and research firm focused on strategic IT, business services, and sourcing. The firm advises senior executives of leading enterprises, providers, and investors. More information at: **www.everestgrp.com**

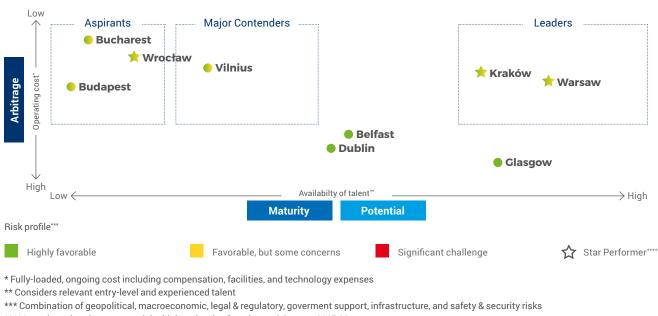
FIGURE 43 MATURITY | ARBITRAGE | POTENTIAL (MAP) MATRIX™ FOR NEARSHORE EUROPE IT-APPLICATIONS Low Aspirants Major Contenders Leaders Poland tier-2 Poland tier-1 Łódź Kraków Bucharest 😑 🛑 Sofia Gdańsk Warsaw Operating cost* Riga 🧲 Kiev City Budapest 🔴 Arbitrage Vilnius Bratislava Prague 🛑 Talinn Belfast ★ Dublin Glasgow High Availabilty of talent** Low ← \rightarrow High Maturity Potential Risk profile*** Highly favorable Favorable, but some concerns Significant challenge Star Performer**** * Fully-loaded, ongoing cost including compensation, facilities, and technology expenses ** Considers relevant entry-level and experienced talent

*** Combination of geopolitical, macroeconomic, legal & regulatory, goverment support, infrastructure, and safety & security risks

**** Locations that demonstrated the highest levels of market activity over 2015-16

Source: Everest Group (2017)

FIGURE 44 MATURITY | ARBITRAGE | POTENTIAL (MAP) MATRIX[™] FOR NEARSHORE EUROPE BANKING BP



**** Locations that demonstrated the highest levels of market activity over 2015-16

Source: Everest Group (2017)

Perspectives on Poland's role in the global services industry

One can see significant disruption to service delivery paradigms – changes that are likely to alter the course of the global services industry permanently and at an unprecedented pace. In the table below, Poland's value as a service delivery location is measured against each of these disruptive movements. Poland has all the right ingredients for success in the new normal global services industry – an industry rife with disruption at an ever-increasing pace.

TABLE 16

KEY DISRUPTIVE TRENDS IMPACTING GLOBAL SERVICES AND POLAND'S VALUE PROPOSITION

Key disruptive trends impacting global services	Poland's value proposition	
Move toward service and product digitalization through technologies/processes such as cloud, analytics, mobile, social media management, automation, Internet of Things, and cybersecurity	 Geographical proximity and high degree of cultural intimacy with a Western European client base 	
	 Highly skilled talent pool oriented toward complexity and innovation 	
Intensifying shortage and competition for talent globally	 Large, multi-faceted, and growing talent pool Multiple tier-2 cities 	
 Onshore locations (e.g., Western Europe and United States / Canada) affected by decreasing STEM enrolments 		
 Increasing competitive intensity and saturation in established offshore destinations (e.g., tier-1 cities in India and the Philippines) 		
Changes in profile of talent demand	High degree of specialization and complexity in Polish ducation system offering realization and flexibility	
Automation, digitalization, and an increasingly	education system – offering resilience and flexibility to employers	
sophisticated service delivery portfolio are driving he need for talent that can support niche processes, offer earnability, and demonstrate an aptitude for innovation	 Deep and mature domestic market offers access to niche skills 	
Intentional portfolio strategy planning by enterprises and service providers	Skilled talent pool offering potential for multi-function delivery – enables shared services centers to play	
 Optimization of number of locations and scale across locations 	a prominent role for the enterprise (e.g. drive the digital and automation agendas or become centers of excellence for specific processes)	
 Specific roles allocated to locations/centers (e.g., centers of excellence, hubs/spokes) 		
Increasing focus on risk diversification in the global service delivery portfolio	Attractive risk diversification alternative due to a stable geopolitical, macroeconomic, and legal/regulatory environment along with attractive infrastructure and safety/security	
 Large enterprises and service providers operate scaled delivery centers in offshore locations that typically present notable operating environment risks 		
 Companies are looking to de-risk their global portfolios by diversifying access to talent and ensure business continuity 		



6 INVESTMENT INCENTIVES FOR THE BUSINESS SERVICES SECTOR

The business services sector is one of the most dynamic branches of the Polish economy, with enormous potential, in particular, to create a large number of new jobs for highly skilled employees. Unsurprisingly, Poland is eager to offer an extensive range of incentives for this developing sector. The most popular forms of investment incentives, which may be often combined in accordance with applicable cumulation rules, include: direct governmental grants for a new investment and/or creation of new jobs; tax allowances in Special Economic Zones (CIT exemption); co-financing of investments in R&D infrastructure of enterprises; tax allowance for R&D activities; real estate tax exemption.

DIRECT GOVERNMENTAL GRANTS FOR A NEW INVESTMENT AND/ OR CREATION OF NEW JOBS

The Program for Supporting Investments of Major Importance to Polish Economy for 2011-2023 (the "Program"), which aims to boost the innovativeness and competitiveness of Polish economy by supporting new investments, offers in particular:

 grants for the creation of new jobs in the business services sector. In order to apply for support, an investor must implement a new investment project with at least 250 new jobs and a minimum of PLN 1.5 million of investment expenditures for fixed assets (excluding lease), provided that the business services specified in the Program account for at least 60% of all the processes performed by the investor;

 grants for an investment and/or creation of new jobs in the R&D sector. In order to apply for support in connection with the creation of new jobs, an investor must implement a new investment project with at least 35 new jobs for employees with a university degree and a minimum of PLN 1 million of investment costs (excluding lease). The support is granted exclusively for the creation



Chapter content provider: Baker & McKenzie Krzyżowski i Wspólnicy Baker McKenzie is one of the largest and most recommended law firms in Poland offering integrated legal and business support during the investment processes. More at: www.bakermckenzie.com of new jobs for employees with a university degree. In order to apply for support in connection with eligible costs of the new investment, an investor must implement a new investment project with a minimum of PLN 10 million of eligible costs (excluding lease) and least 35 new jobs for employees with a university degree.

The amount of support per job ranges between PLN 3,200 and PLN 15,600 (there are certain

limits set for 0-250, 251-500, 501-1000, and 1000+ employees) and depends on the assessment of several factors, mainly, the number of jobs created, including jobs for employees with a university degree, and investment location.

The maximum amount of support for R&D projects in which investment expenditures are eligible costs is 10% and depends on the assessment of several factors, including investment expenditures and investment location.



Procedure for granting support

- Presentation of the investment project: the entrepreneur completes the "Information about investment project" form and submits it to Poland Agencja Inwestycji i Handlu S.A. ("PAIH")
- Preparation of an offer for financial support: PAIH analyzes the information submitted by the investor and provides the Chairman of the Interministerial Committee for Investments of Major Importance to the Polish Economy with information about the project and a draft offer of financial support, with justification
- The Committee takes up the decision on recommended support for the project and submits a recommendation to the Minister of Economy for the final decision on granting the support
- PAIH informs the investor of the Committee's recommendation. The Investor takes a decision on accepting or rejecting the offer
- After accepting the offer, the investor applies to the Minister of Economy for a letter of intent confirming that the investment may commence
- The Minister of Economy sends to the investor a letter of intent confirming that the investment may commence
- The Minister of Economy executes an agreement on the award of support with the investor.

A written application for support must be submitted before commencement of work on the project or before commencement of business activities. The amount of support may not exceed the maximum aid intensity in a given region (see map below).

Investment incentives for the business services sector

Project durability

In connection with the execution of an agreement for public aid in the form of a specific grant, the investor agrees to:

- maintain each newly created job for at least five years (three years for SMEs), starting from the date of its creation;
- maintain the investment in the region for at least five years (three years for SMEs), starting from the date of its commencement.

An individual aid project is not required to be notified to the European Commission, unless:

the support exceeds certain maximum levels,
 e.g., €11.25 million in Warsaw (€7.5 million from January 1, 2018), €18.75 million in Wrocław,
 or €26.25 million in Kraków; or

.....

 the entrepreneur has closed the same or similar operations elsewhere in the EEA in the two preceding years.

TAX ALLOWANCES IN SPECIAL ECONOMIC ZONES ("SEZ")

SEZ are designated administrative areas in the territory of Poland (at present, there are 14 SEZ with a total area of 20,000 ha) in which entrepreneurs implementing new investments can benefit from the corporate income tax exemption; regarding the income from business activity as specified in the permit and conducted in a given SEZ.

The CIT exemption is available for investors who have obtained a permit to operate in the SEZ. The permit specifies, in particular:

 Minimum number of jobs the investor agrees to create in the SEZ and the deadline for creating such jobs



Permit application procedure

- Entering into direct discussions
- · Submission of a letter of intent describing key parameters of the investment
- Execution of a security deposit agreement
- Publication of an invitation to negotiations or joint tender in the press
- · Investor's purchase of the terms of reference for the tender or negotiations
- Submission of an offer in accordance with the purchased terms of reference
- Tender or negotiations committee proceedings; acceptance of the offer by the committee

.....

- Negotiations
- Issuance of a permit by the SEZ's Management Board.

- minimum value of investment expenditures the investors agrees to incur in the SEZ and the deadline for making those expenditures;
- date of the investment's completion;
- maximum amount of eligible costs of the investment and two-year eligible costs of labor the investor may incur in the SEZ.

.....

The CIT exemption is available from the moment the value of the entrepreneur's investment expenditures reaches or exceeds €100,000.00 until the exemption limit is used up in full or until the operations of the SEZ end (at present, until December 31, 2026). The exemption limit is calculated on the basis of investment expenditures or two-year labor costs incurred by the entrepreneur and the aid intensity ratio in a region. Condition for the CIT exemption:

- ownership of assets covered by the investment expenditures for a period of five years (three years for SMEs) from the date of their registration in the record of fixed and intangible assets; however, replacement of obsolete installations or outdated equipment is possible in connection with the fast development of technologies;
- maintenance of the investment in the region in which aid was granted for at least five years (three years for SMEs) from the date when the investment was completed.

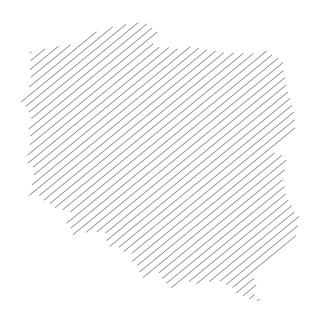
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THINKING ABOUT INVESTING **IN POLAND**?

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Example:

A significant entrepreneur is implementing a new investment project in Wałbrzyska SEZ, dolnośląskie voivodeship; the total cost of the investment is PLN 70,000,000 and the total eligible cost is PLN 52,500,000.

Therefore, the value of the public aid available to the entrepreneur in the form of the CIT exemption is:

PLN 52,500,000 (total cost of the new investment) x 25% (aid intensity) = PLN 13,125,000 = value of public aid, i.e., value of the income tax exemption

Income tax rate = 19%

Amount of tax-exempt income: PLN 13,125,000 / 19% = PLN 69,078,947.40

CO-FINANCING OF INVESTMENTS IN R&D INFRASTRUCTURE OF ENTERPRISES

As part of Measure 2.1 of the Smart Growth Operational Program 2014-2020, it is possible to obtain support for investments in R&D infrastructure of enterprises and for the creation and development of R&D infrastructure, by investing in equipment, technologies and other necessary infrastructure which will be used for R&D activities aimed at creating innovative goods and services. Co-financed costs include:

.....

- investment expenditures;
- technical know how;
- advisory and other equivalent services used in connection with the project;
- purchase of materials and products directly related to the project.

.....

Co-financing values:

 minimum value of eligible costs of the project: PLN 2,000,000.00;

.....

 maximum co-financing, as % of the total eligible expenditures, per regional aid map: from 10 to 70%;

 minimum own share of the beneficiary, as % of eligible expenditures: from 30 to 90%.

The investor is bound by a five-year durability period (three-year period for SMEs) during which the investor must keep the effects of the project (as declared in the application for co-financing) unchanged in terms of form and scope. The durability period is calculated from the date of payment of the final grant.

Grants are available under the calls for proposals procedure. The nearest collection of applications will take place from May 8, 2017 through July 7, 2017. The total amount of funds earmarked for the project co-financing under this application round is PLN 900,000,000.00.

TAX ALLOWANCE FOR R&D ACTIVITIES

It is possible to deduct expenditures incurred in connection with R&D activities from the taxable amount. The amount of deduction in a financial year may not exceed the amount of income that the taxpayer has earned from business activities. Eligible costs include, in particular:

- payables under, inter alia, employment relationships and the related contributions, to the extent they are financed by the remitter, provided that those payables and contributions are related to employees that have been employed to carry out R&D activities;
- purchase of raw materials and other materials directly related to the R&D activities;
- studies, opinions, advisory and other equivalent services, as well as purchase of scientific results, rendered or performed under a contract by a scientific unit for the needs of the R&D activities;
- use of research and testing equipment, against payment, exclusively in the R&D activities, except for the use of such equipment under an agreement executed with the taxpayer's affiliate;

 costs of obtaining and maintaining patents, utility models and rights to registered industrial designs, as paid by the taxpayer.

R&D tax allowance rate:

- SMEs 50% of all eligible costs, regardless of type
- Large enterprises 50% of payroll costs and 30% of other eligible costs.

The R&D allowance must be settled within six years.

REAL ESTATE TAX EXEMPTION

The real estate tax exemption is valid in communes which have introduced such exemption by way of a resolution. The aid that results from the real estate tax exemption corresponds to the value of tax exemption. Aid may be calculated in relation to:

 costs of investments in fixed and intangible assets that are connected with the new investment or

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 costs of creation of new jobs in connection with the new investment.

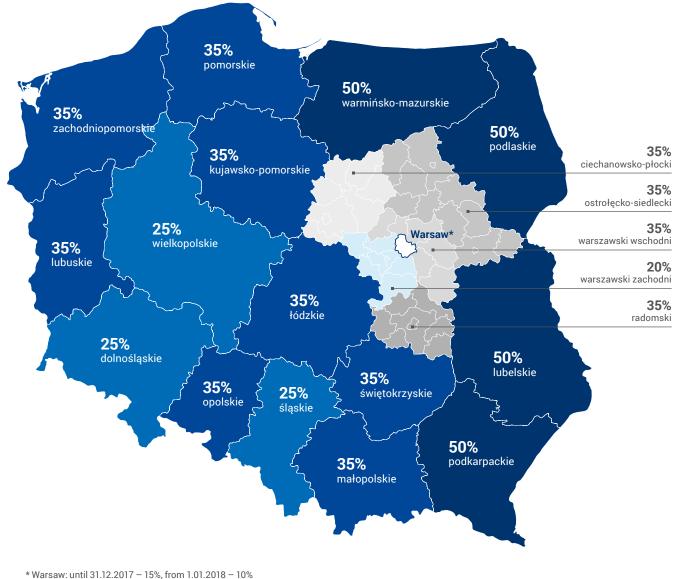
Conditions for granting aid:

 the entrepreneur must cover at least 25 % of the eligible costs from its own funds or external funding sources (i.e., non-public aid);

- the investment must be maintained in the region for at least five years (three years for SMEs) from the the date of its completion;
- for aid calculated based on the costs of new jobs creation: the jobs must be created no later than three years from the date of the investment's completion; the employment must remain at a level not lower than the average level of employment for the 12 months preceding the creation of the new jobs, and the new jobs must be maintained, for at least five years (three years for SMEs) from the date they were created.



2014-2020 REGIONAL AID MAP FOR POLAND



^{*} warsaw: until 31.12.2017 – 15%, from 1.01.2018 – 10%

Source: European Commission [http://europa.eu/rapid/press-release_IP-14-180_en.htm]

Tax aid available under resolutions of communal councils is considered as "automatic aid", which means that an entrepreneur is eligible for exemption by operation of law, upon satisfaction of the conditions provided for in the communal council's resolution. However, the intended use of such aid must be published in the form of a notification, as specified in the relevant resolution.

Tax aid applies only to costs incurred after notification.

Under a single investment project, an entrepreneur may use various forms of public aid; however:

- a combination of those funds may not exceed the maximum aid intensity in a given region (see map below);
- maximum aid intensity rates apply to investments of large enterprises and may be increased by 10% for investments of medium enterprises and by 20% for investments of small enterprises.

.....

Cumulation rules applicable to support granted under the Program combined with other forms of public aid:

- support granted under the Program may not, in principle, be combined with other forms of support, including, in particular, with support from EU funds and exemptions available in the SEZ, except for an investment:
 - for which the amount of aid under the Program does not exceed PLN 3 million;
 - which is an investment in the business services sector, provided that an investor creates at least 500 new jobs;

» which is an investment in the R&D sector.

.....

Example:

Governmental grant+ real estate tax exemption as minimum aid

Size of the enterprise: medium

Location: łódzkie voivodeship

Total cost of the new investment: PLN 13,000,000

Public aid intensity: 45% (35% + 10%)

A medium-sized enterprise implements an investment project in the R&D sector in łódzkie voivodeship; the total cost of the investment is PLN 13,000,000 and the eligible costs amount to PLN 10,000,000; the investment will create 35 new jobs for employees with a university degree.

The entrepreneur receives support in the form of a governmental grant corresponding to 10% of the eligible costs, i.e., PLN 1,000,000.00.

Since the aid intensity in the instant case is 45% and the entrepreneur has already used 10%, in the form of the grant, it may still benefit from 35%, i.e., PLN 3,500,000.

However, since minimum aid may not exceed €200,000.00 for three years, the aid limit available to the entrepreneur as part of the real estate tax exemption will be the amount of €200,000.00 for no longer than three years.

Investment incentives for the business services sector

- in the event of a combination of support in connection with the costs of a new investment or creation of new jobs under the Program with other regional aid granted in the form of direct governmental grants, programs co-financed from EU funds or tax exemptions in SEZ, the amount of the financial support is reduced by 10%. This does not apply to:
- investments in the R&D sector;
- investments with minimum eligible costs of PLN 750 million or investments creating at least 1,500 new jobs;
- investments in one of the five voivodeships
 in Eastern Poland (świętokrzyskie, podkarpackie,
 podlaskie, lubelskie, and warmińsko-mazurskie).

Example:

Governmental grant + Warmińsko-Mazurska SEZ Size of the enterprise: medium Location: warmińsko-mazurskie voivodeship Total cost of the new investment: PLN 20,000,000 Public aid intensity: 60% (50% + 10%)

A medium-sized enterprise implements an investment project in the business services sector in warmińsko-mazurskie voivodeship; the investment will create 500 new jobs.

The project received a score of 70 points; the entrepreneur will receive the following support:

250 x 6,300 + 250 x 7,100 = 3,350,000 + 670,000 = PLN 4,020,000

- The amounts of 6,300 and 7,100 correspond to the support per job, upon employment of the required number of employees under the Program;
- The amount of 670,000 results from an increase in the support by 20%, as the investment project is implemented in warmińsko-mazurskie voivodeship.

Therefore, the entrepreneur has already used 20.1% of the 60% aid intensity permitted in the instant case, in the form of the CIT exemption available under a permit to carry out business activity in Warmińsko-Mazurska SEZ, it may still benefit from 39.9%, i.e., PLN 7,980,000 (19% of income generated from activities carried out in the zone, which the entrepreneur will not pay on account of corporate income tax).

POLAND - COUNTRY OVERVIEW

SELECTED ECONOMIC INDICATORS





GDP Growth



€**11,200** GDP per capita (2016)



8.1%

Unemployment rate (March 2017)

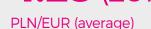


1.8%



4.36 (2016),

4.28 (2017**)



3.94 (2016), **3.99** (2017**)
PLN/USD (average)

* Forecast ** January-May

Source: GUS, NBP, Eurostat



Poland has the eighth-largest economy in the European Union in terms of nominal GDP (425 billion euros in 2016) and has been a leader in economic growth in the European Union in the past ten years. One of the most important branches contributing to the growth of Poland's economy is the business services sector. The industry's impressive growth in recent years enabled Poland to strengthen its standing among the world's most important locations for investments into (BPO, SSC, IT and R&D) business services centers.

Language: Polish

Currency: złoty (PLN)

Number of cities with over 200,000 residents: 11

Accumulated value of foreign investments: 159 billion euros (2015)

POLAND IN INTERNATIONAL ORGANIZATIONS

EU (2004), NATO (1999), OECD (1996), WTO (1995), ONZ (1945) and others

BUSINESS SERVICES IN POLAND: TRENDS, CHALLENGES AND IDEAS FOR GROWTH

3 1. Recruitment becomes marketing

While higher demand for new talent will not hamper the growth of the sector, it will necessitate increased spending on creative recruitment marketing efforts, building a clear image on social media (PR), events and creating a desirable work environment (multifunctional office space, communications, lifestyle and flexible work arrangements). We anticipate an increase in transfers between global corporations and small, locally-owned companies that rely on innovation. The government can play a significant role in balancing the market through a range of desirable programs to attract talent (e.g. from countries such as Ukraine and Belarus) and Poles living abroad. However, there is no guarantee of immediate results.

2. Time to shine on a regional level

Smaller regional cities can become a vibrant alternative to large urban centers (RegioShores), but this would involve an entirely different organizational model that incorporates some aspects of the cluster concept (in this case, a leading urban center, e.g. with 100,000 residents and a network of neighboring towns within a 50 kilometer radius). A network of locally-partnered business services centers (with a headcount of up to 100), with local capital and support in the form of regional funds, could become a desirable subcontractor for larger entities in major urban centers who are seeking new channels to attract skilled workers. The ability to build a good model, make use of the right technologies and manage the offerings of networks of business services centers will be crucial in ensuring their success in this respect. In the future, the lifestyle offered by smaller towns and easier access to nature may reduce economic migration to larger urban centers and help take advantage of local talent that has no intention of leaving but may not be able to find desirable employment at this time (often below their skill level).

3. Partnerships "between the little guy and the big guy" are no longer a matter of choice

Increasing the desirability of work at business services centers and striving for innovation must also involve building models of cooperation between large, international business and start-up companies. Small companies are often not aware that local competence centers at global corporations may become an important avenue for marketing innovative concepts. Besides, any new concept can turn into innovation if we are able to commercialize/market it on a large scale. In this context, it is important to be close to the "big guy" to understand the needs that give rise to global scalability opportunities. One such example is business process automation. ABSL has been very active in this area, among other things, through the ABSL Startup Challenge that has been in place for two years now.

4. A move towards R&D

Poland has tremendous research and development potential. Investments in this area will certainly continue to grow in the next five years. In this case, we are not referring to large-format laboratories, but merely medium-sized entities that will emerge alongside existing business services centers/competence centers. Of great importance will be the efforts of educational and government institutions to facilitate these types of partnerships, among other things, by creating better opportunities for businesses to become actively involved in educational programs. The involvement will have a crucial effect on the growth of this highly innovative segment of the service industry.

5. Time for hybrid solutions

The market has been seeing an increasing number of acquisitions of business services centers by global outsourcing companies. In most cases, they result from global transformation programs where companies choose to operate in hybrid model. They involve increased business process specialization, where companies clearly define what functions of their business they want to retain as part of their own business services center and the functions they are looking to outsource. There are more and more one-stop shop solutions (co-location centers: internal business services centers and the outsourcing company's teams). The majority of leading global outsourcing companies have branch offices in Poland, which offers a wide range of new opportunities for the future given the large number of existing shared services centers.

Era of robots? Not anytime soon

Industry analysts are in a race to outspeculate one another, threatening that the industry may become fully automated within a few years. Experience to date does not support this radical direction. However, robotics and automation are now a standard part of business services centers' operational models. In the next few years, companies will concentrate on ensuring the stability of these solutions as they await smarter ideas with a focus on learning and speech synthesis. During that time, employment levels will become more stable with a decreased upward trend, but coincide with a greater complexity of tasks at hand. Companies will have no choice but to rely on tech natives, as increasing levels of automation will require proficient use of an ever-growing number of programs and software and the ability to continually learn due to the sheer speed of innovation in the industry.

1. With ourselves and others in mind

New generations of employees are much more insistent on engaging in what matters on a local level and solving real problems faced by their communities. Environmental protection, corporate social responsibility, mental health. Corporations will have to quickly adjust their work models, as the level of involvement of companies in local communities and their challenges may play a greater role in job choice than job description and salary. This will have an effect on redefining productivity models, with greater emphasis on employee mental health and wellbeing. In many cases, this will require increased autonomy of local branch offices and tailoring global programs to fit local needs. Today, these ideas may seem unrealistic, but in the near future they will determine who remains competitive on what will more and more prominently become an employee's market.

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