

Modern Business and R&D Services in Krakow and Małopolska



Małopolska Agencja Rozwoju Regionalnego S.A., Krakowski Park Technologiczny sp. z o.o. and Kraków Nowa Huta Przyszłości S.A. jointly implement a project titled: **“POWER UP YOUR BUSINESS IN MAŁOPOLSKA”**, co-financed by the Regional Operational Programme for the Małopolska Region for 2014–2020 (RPO WM) under Priority Axis 3: “Entrepreneurial Małopolska”, measure: “The Internationalisation of Małopolska Economy”, sub-measure “The Economic Promotion of Małopolska”.

The objective of the project is to directly promote the economic potential of Małopolska on the international scene, improve the competitiveness of regional companies on foreign markets and support foreign investments in Małopolska.

The measures of the “Power up...” project include participating in foreign fairs, organising trade missions and regional workshops, issuing publications and creating a modern information system for the entrepreneurs of Małopolska.

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KraKów Nowa Huta Przyszłości S.A., managing the largest investment area in Krakow, acting in the area of logistics projects, new technologies, recreation and leisure, urban planning and development of post-industrial areas. www.knhp.com.pl

Publisher: Kraków Nowa Huta Przyszłości S.A.

ISBN 978-83948707-3-7

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Introduction

The presented report aims to describe the functioning of the modern business and the R&D sectors in the Małopolskie province.

In the area of modern business services in Małopolska, we note, among others, the largest employment and its annual growth, high competitiveness and, finally, very good development prospects. Despite the growing competition, the Małopolska business services market is dynamically developing in terms of: capital, human resources and infrastructure. A different situation prevails in the research and development sector. Despite the very good infrastructure and many investment incentives, this sector is experiencing a slight decline.

It is worth noting that currently every fifth inhabitant of the Krakow agglomeration works in a company that provides business services. The sector offers the highest salaries, rich social packages and clear career paths. Thanks to investments in business service centers, Małopolska has gained industry and service giants like Shell, Nokia, Motorola, IBM, Lufthansa, Heineken and many more.

The capital of Małopolska is Krakow - a city with over a thousand years of history, whose Old Town within the former walls, the Wawel Hill and the Kazimierz district in 1978 were inscribed on the UNESCO World Heritage List¹. The city is known in the world because of its tourist values, and in recent years due to the most dynamic development of the modern business services sector.

The guide was based on CSO (Central Statistical Office, in polish: GUS) statistical data, industry reports, scientific papers, Eurostat data and data from public institutions in Krakow and Małopolska. The present Report has been developed under the “Power up your Business in Małopolska”, co-financed by the European Regional Development Fund – Regional Operational Programme of the Małopolska Region 2014-2020, sub-measure 3.3.1 “Economic Promotion of Małopolska”.

¹ www.businessinmalopolska.pl/strona/dlaczego_malopolska

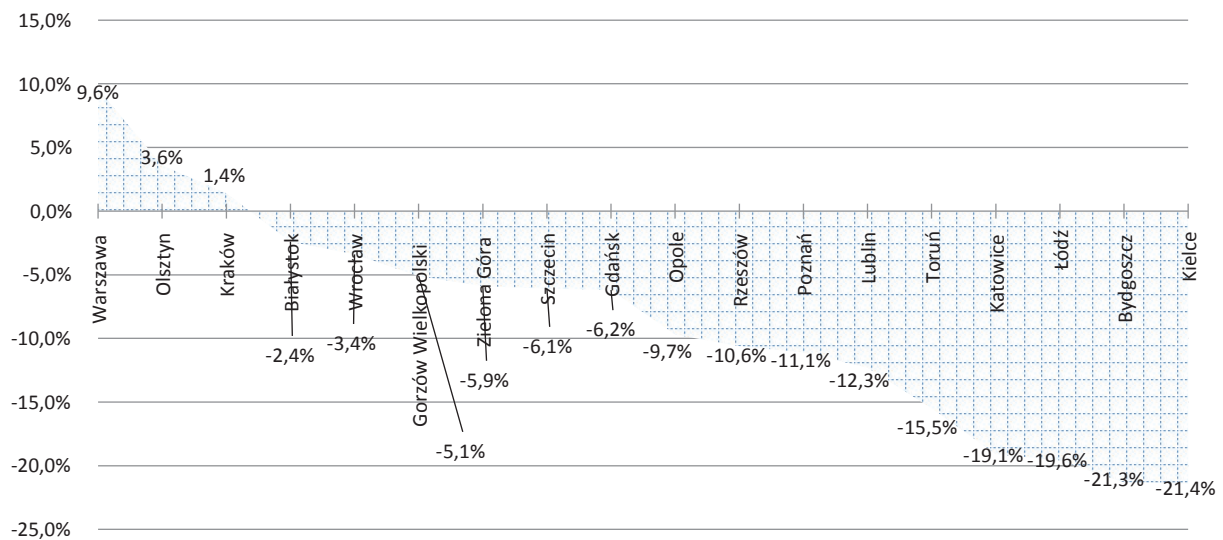


1. Socio-economic characteristics of Krakow and Małopolska

1.1. Kraków and Małopolska

Krakow, the capital city of the Małopolska Region, is the second largest city in Poland in terms of population. With the number of over 766,700 only the capital of Poland - Warszawa is larger (1, 758 million inhabitants)². Krakow is also one of the three regional cities in Poland, in which the number of inhabitants is forecast to increase by 2035³.

Graph 1. Forecast of the number of inhabitants in the most important cities in Poland by 2035



Source: Prognoza dla powiatów i miast na prawie powiatu oraz podregionów na lata 2014-2050 GUS (2014).

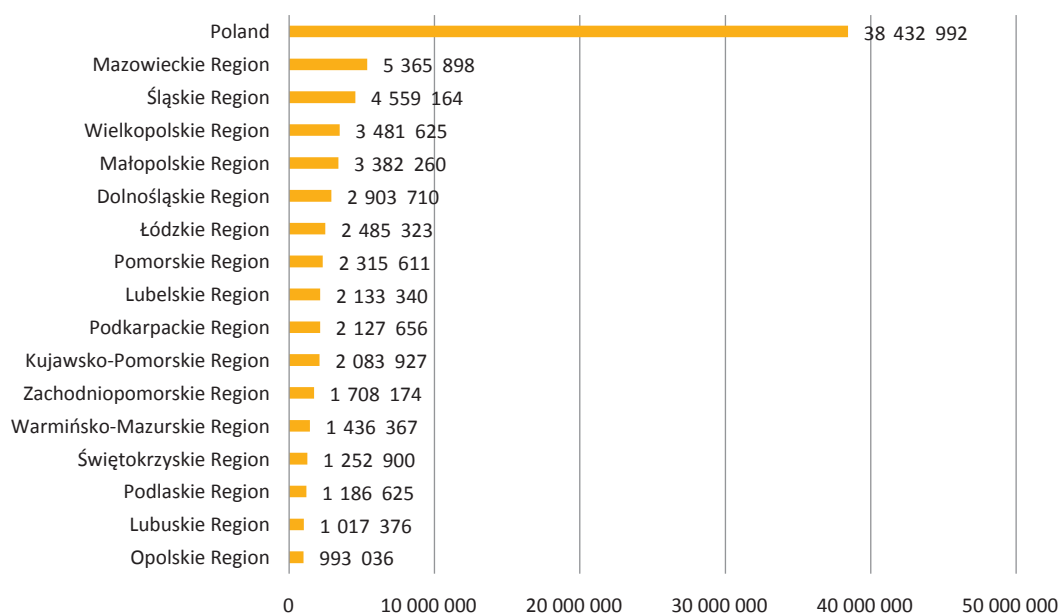
This is also confirmed by the trend over the last 4 years. Only in 2015 there was a decrease in the number of inhabitants, in the remaining years there was an increase. In 2013-2016, the number of Krakow's residents increased by 20.6 thous. people⁴.

The Małopolska Region inhabit together 3,382 million people. The majority are women (1.741 million), and men are 1.641 million. In terms of numbers, Małopolska is fourth in Poland. Only the provinces: Mazowieckie, Śląskie and Wielkopolskie have more population. 9% of the total population of Poland lives in Małopolska.

² CSO – 1st half of 2017:., www.krakow.stat.gov.pl, www.warszawa.stat.gov.pl

³ Forecast for poviats, cities and subregions for 2014-2050, CSO (2014): www.stat.gov.pl/obszary-tematyczne/ludnosc/prognoza-ludnosc/prognoza-dla-powiatow-i-miast-na-prawie-powiatu-oraz-podregionow-na-lata-2014-2050-opracowana-w-2014-r

⁴ BDL (Local Data Bank) CSO: www.bdl.stat.gov.pl

Graph 2. Population in Poland in 2016


Source: BDL CSO: www.bdl.stat.gov.pl.

1.2. Entities in the REGON register

In 2016, 371 thous. enterprises in Małopolska were registered in the REGON⁵ (which is 8.8% of enterprises in Poland), of which 134 thous. in Krakow alone (36% in relation to the province). Compared to 2013, in 2016 the number of enterprises in Małopolska increased by over 14,000, (over 7,000 in Krakow). Over 97% of business entities in Małopolska are private enterprises.

Table 1. Entities of the national economy in Małopolska Region and Krakow

Owner types	Years	Małopolska Region	Krakow
Total	2014	356,785	126,547
	2015	363,883	130,233
	2016	371,107	134,514
Public sector	2014	7,901	1,420
	2015	7,862	1,434
	2016	7,906	1,466
Private sector	2014	348,728	125,020
	2015	352,956	126,562
	2016	359,929	130,616

Source: Małopolska in numbers 2016 (Małopolska w liczbach 2016).

⁵ The public register of business entities

1.3. Structure of business entities

In the group of enterprises in Małopolska, 72.9% are enterprises of natural persons. The companies are 9.9%, the foundations and non-governmental organizations are 3.2%.

Table 2. Types of business entities

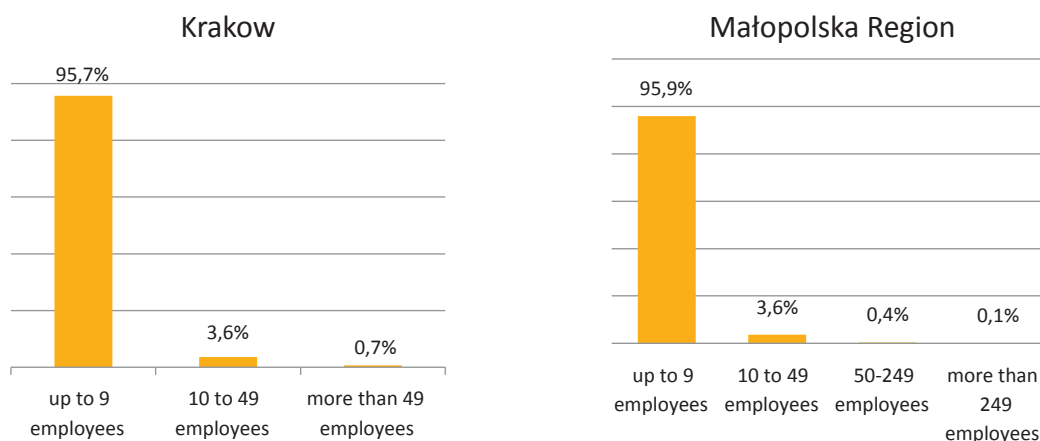
Types	2010	2014	2015	% 2015
Total	331,336	356,785	363,883	100.00%
Cooperatives	1,120	1,142	1,137	0.31%
State-owned enterprises	28	20	20	0.01%
Commercial companies	22,530	32,096	36,083	9.92%
Foundations, associations and social organizations	8,937	10,958	11,694	3.21%
Individual business activity	253,184	263,142	265,355	72.92%

Source: Małopolska in numbers 2016 (Małopolska w liczbach 2016).

In Małopolska, micro enterprises (employing up to 9 employees) are 96% of the total registered entities, small (employing up to 49 employees) 3.6%, medium (employing up to 249 employees) 0.4%, and large (employing 250 or more employees) 0.1%.

In terms of the size of enterprises **in the capital of the region, Krakow**, so-called micro-enterprises (employing up to 9 employees) are definitely dominant. There are almost 96% of them. Small companies (up to 49 employees) are 3.6%, medium and large enterprises – 0.7%.

Graph 3. Structure of the size of companies in Krakow and in Małopolska Region (2016)

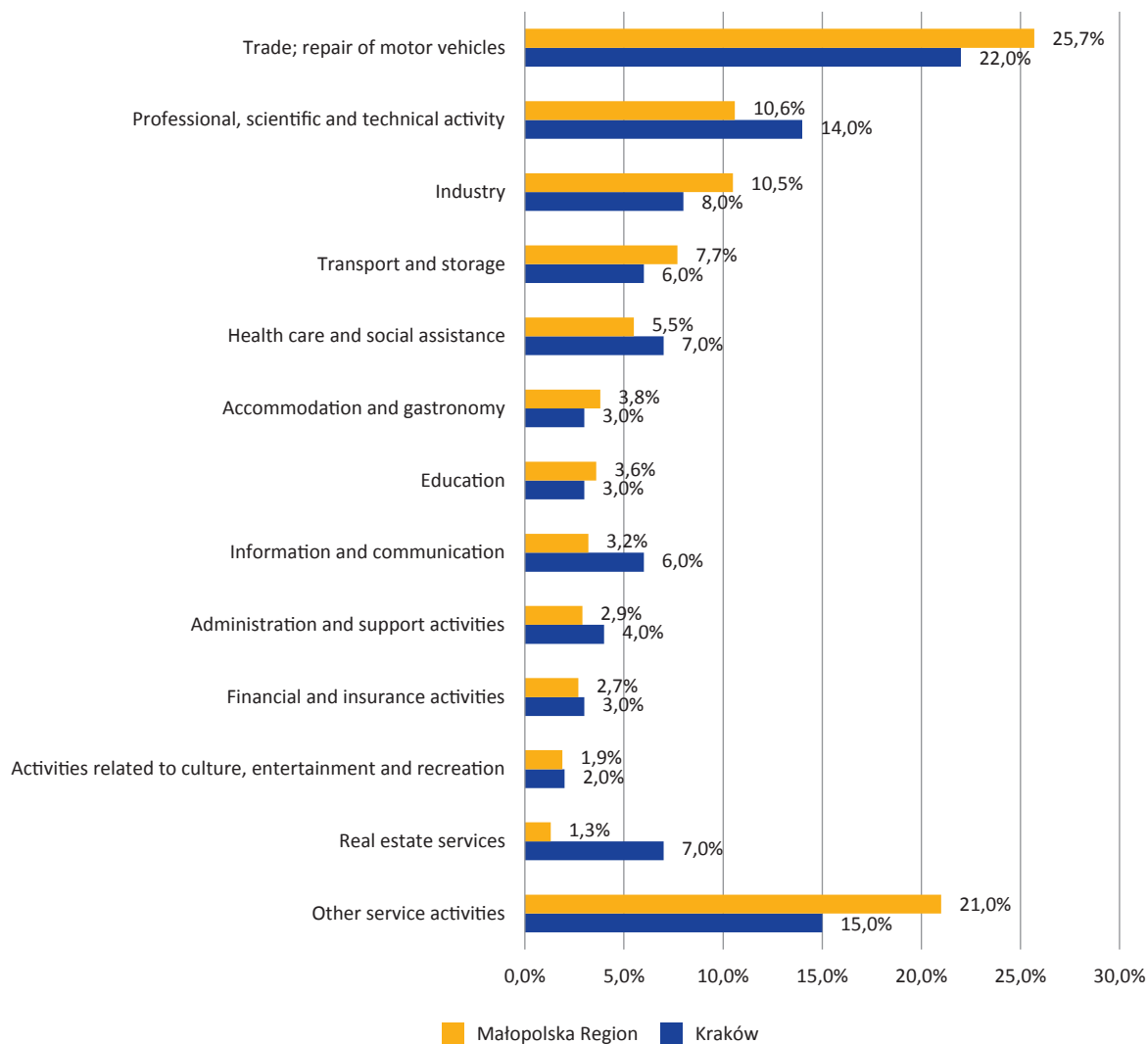


Source: BDL: www.bdl.stat.gov.pl.

The most numerous branches among enterprises in Małopolska are: trade and repair of motor vehicles (25.7% of all enterprises), professional, scientific and technical activities (10.6%) and industry (10.5%).

In Krakow, the largest number of enterprises is in the industry: trade and repair of motor vehicles (22%). There are also numerous companies from the following industries: professional, scientific and technical activity (14%) and industry (8%).

Graph 4. Structure of entities of the national economy in Krakow and in Małopolska Region (2016)



Source: Bank Danych Lokalnych: www.bdl.stat.gov.pl.

Due to the amount of Gross Domestic Product generated, **the Małopolskie province** is in the national forefront (after the following provinces: Mazowieckie, Śląskie, Wielkopolskie, Dolnośląskie). In 2015 GDP of Małopolska (expressed in constant prices) reached PLN 134 billion (EUR 31.44 billion), with a 4.6% increase compared to the previous year. When it comes to GDP per capita, **Krakow** is particularly attractive. In 2015 Krakow reached the national lead (4th place, for the sub-regions: the capital city of Warsaw, Poznań, Wrocław) with the result of PLN 72,303 (17,012 Euro) GDP per capita, i.e. higher by 82% from the region's average⁶.

⁶ CSO: www.bdl.stat.gov.pl

1.3. Foreign investments

Poland in 2015 absorbed 309 billion euros in foreign investments and ranks 14th in the European Union and the first among Central European countries. It should be emphasized that Poland is the 2nd country in Europe in terms of the number of jobs created as part of foreign investments (second only to Great Britain). In 2016, thanks to FDI (Foreign Direct Investment), over 22,000 new jobs were created⁷. Poland also ranks 4th in the EU in terms of the number of investment projects. The FDI in Poland are located mainly in three sectors: industry, finance and business services as well as in transport and communication. In 2005-2016, 95% of foreign direct investment was carried out in these sectors.

1.4. The level and structure of foreign investments in Małopolska and Krakow

In Poland over 80% of foreign capital in 2015 was located in five provinces: almost a half in the Mazowieckie province (47.4%), and more than one third in the following four provinces: Wielkopolskie (10.8%), Śląskie (8.4%), Dolnośląskie (8.3%) and Małopolskie (6.2%)⁸.

The largest capital invested in Małopolska comes from the Netherlands (31.3%), followed by German capital (20.6%), and the third capital is French (11.8%). In addition, the region features, among others: Cypriot, American, Italian, Spanish, Swedish and Belgian⁹.

Table 3. Foreign capital by country in the Małopolska Region (2015)

Country	Capital million EUR	%
Netherlands	1,234.5	31.3%
Germany	812.7	20.6%
France	466.0	11.8%
United Kingdom	345.2	8.8%
Austria	274.1	6.9%
Switzerland	192.3	4.9%
Cyprus	137.9	3.5%
USA	123.5	3.1%
Italy	118.3	3.0%
Spain	112.7	2.9%
Sweden	81.4	2.1%
Belgium	45.2	1.1%
Total	3,943.7	100%

Source: Economic activity of entities with foreign capital in 2015, CSO.

⁷ Atrakcyjność inwestycyjna Polski 2017, Warszawa p. 8.

⁸ Economic activity of entities with foreign capital in 2015, GUS

⁹ CSO: www.bdl.stat.gov.pl

In 2015, there were 4819 companies within FDI operating in Małopolska¹⁰. Nearly ¾ enterprises with foreign capital were invested in Krakow (3,583 companies). And in poviats, foreign investments occurred in a significant number in: Krakow powiat (231 investments), Tarnów powiat (109 investments) and in the Wieliczka powiat (108 investments).

¹⁰ MORR: www.obserwatorium.malopolska.pl





Jul

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Nov

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Foreign investors in Małopolska are primarily interested in the industrial sector (43.3% of the value of all foreign investments) and the services sector (41.2% of the value of all foreign investments). The commercial sector brings together only 15.5% of foreign expenditure¹¹. In 2014, greenfield investments were the most popular (investments located in areas that were previously not designated for production or services (46%) and privatizations (37%))¹².

In 2015, the number of foreign investors in the Małopolskie province who invested more than EUR 1 million was 123. The largest number of investors invested funds in the following industries:

¹¹ Małopolskie Voivodship Marshall Office, Raport o stanie województwa: Województwo małopolskie 2016, Krakow 2016, p. 172-173

¹² Inwestorzy zagraniczni w Małopolsce w 2014 roku, MORR: Warszawa 2016, p. 78.



business services (18 entities), construction (15 entities), ICT (15 entities), machinery and metal (14 entities) and in the food sector (12 entities)¹³.

Krakow itself is very attractive for foreign investors (the cumulated value of foreign investments in Krakow in 2015 is USD 872.52 million – almost 6% more than in 2014). Krakow has absorbed about 70% of the total foreign investment in the region¹⁴. In addition, significant investments were also placed in Tarnów (EUR 88.3 million), in the following poviats: Krakow powiat (EUR 75.8 million) Wieliczka powiat (EUR 40.6 million), Brzesko powiat (EUR 30.2 million) and in Chrzanów powiat (EUR 25.8 million)¹⁵.

¹³ Instytut Badań nad Gospodarką Rynkową, Atrakcyjność inwestycyjna województw i podregionów Polski 2016, p. 38.

¹⁴ Krakow Mayor, Raport o stanie miasta 2015, Krakow 2015, p. 95

¹⁵ Economic activity of entities with foreign capital in 2015, CSO



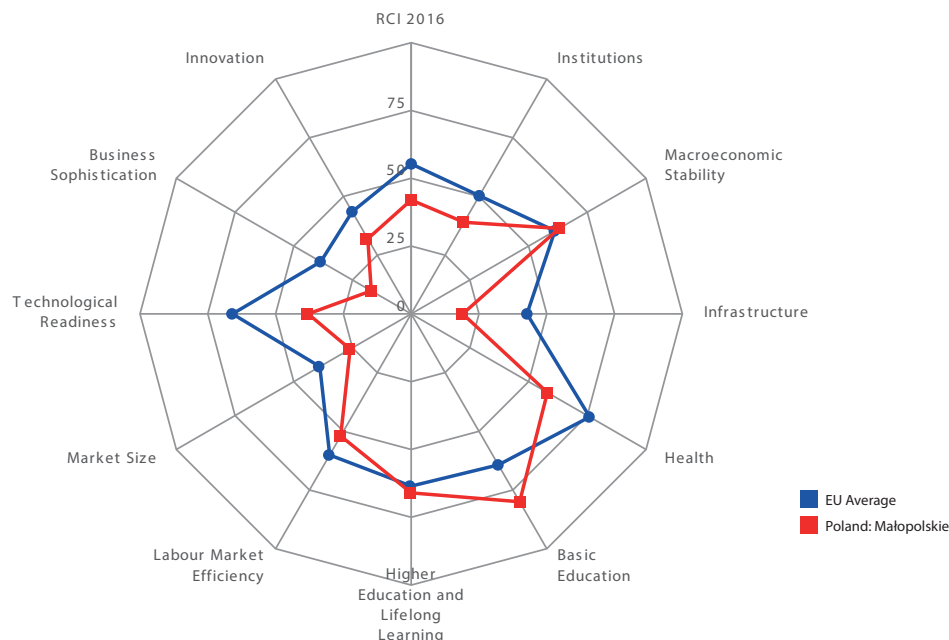
2 Małopolska investment attractiveness- factors influencing foreign investments in the region.

Investment attractiveness can be considered in the context of many factors. The most important include access to educated staff, facilities for business, support of local authorities, communication accessibility. Małopolska is a province with the highest number of students per 1000 population in Poland and ranks second in terms of R&D expenditure (PLN 1 million) per 100 km². Population and low unemployment rates are also high indicators¹⁶.

2.1 European Regional Competitiveness Index

The Małopolskie province received very high notes regarding the unused potential of investment in the Regional Competitiveness Index¹⁷. In the European Commission's 2016 study on the measurement of the RCI index, Małopolska was ranked 171 out of 273 EU regions (gaining 42.4% of possible points to be obtained). The RCI indicator reflects the region's ability to offer an attractive and friendly environment for businesses and residents - in the context of work and the quality of life¹⁸. In the innovation ranking, Małopolska is 211 among 321 classified EU regions, and the overall RCI index places this region in the 171 position¹⁹.

Graph 5. Comparison of main indicators of RCI Małopolska and EU



Source: European Regional Competitiveness Index 2016

¹⁶ Instytut Badań nad Gospodarką Rynkową, Atrakcyjność inwestycyjna województw i podregionów Polski 2016, p. 38

¹⁷ European Regional Competitiveness Index 2016:

¹⁸ The Eu Regional Competitiveness Index 2016, p. 2. The regions were assessed the highest in the EU: (1) London along with neighboring territories (Great Britain); (2) Berkshire, Buckinghamshire and Oxfordshire (Great Britain); (3) Utrecht (Netherlands) and (4) Stockholm (Sweden), vide: The EU Regional Competitiveness Index 2016, p. 5

¹⁹ European Regional Competitiveness Index 2016

We can read in the interpretation of the European Commission that Małopolska, despite obtaining 42.4%, shows many strengths in relation to regions with similar attractiveness (competitiveness). The province is particularly favorable in terms of education and the functioning of institutions (a result higher than the average obtained for a group of similar regions). Also the opportunities for innovation in Małopolska are much higher than in other regions with a similar level of economic development²⁰.

2.2 Position in the Eurostat ranking

According to Eurostat data (Eurostat Regional Yearbook 2016), Małopolska generates GDP per capita at 60.31% of the EU average²¹. The province is particularly favorable compared to other EU regions in the context of unemployment. In 2015, Eurostat estimated unemployment in Małopolska to 7.1% – while the EU average was then 9.4%. Małopolska has a high rate also in terms of R&D expenditure in relation to GDP. According to Eurostat data (2013) Małopolska with the result of 1.3% took the second place in Poland (for the Mazowieckie province, which scored 1.55%)²².



²⁰ European Commission (P. Annoni, L. Dijkstra, N. Gargano), The Eu Regional Competitiveness Index 2016, p. 10, 12

²¹ This is a similar result, for example to the following regions: Severozápad - Czech Republic (62.76%), Campania - Italy (60.68%), Extremadura - Spain (62.83%), Kontinentalna Hrvatska - Croatia (59.75%).

²² In the EU, the amount of R & D expenditure can be compared with such regions as: Lombardy - Italy (1.3%), Basse-Normandie - France (1.22%), Luxembourg - Luxembourg (1.3%), Prov. West-Vlaanderen - Belgium (1.37%), Kent - Great Britain (1.29%).

ranking



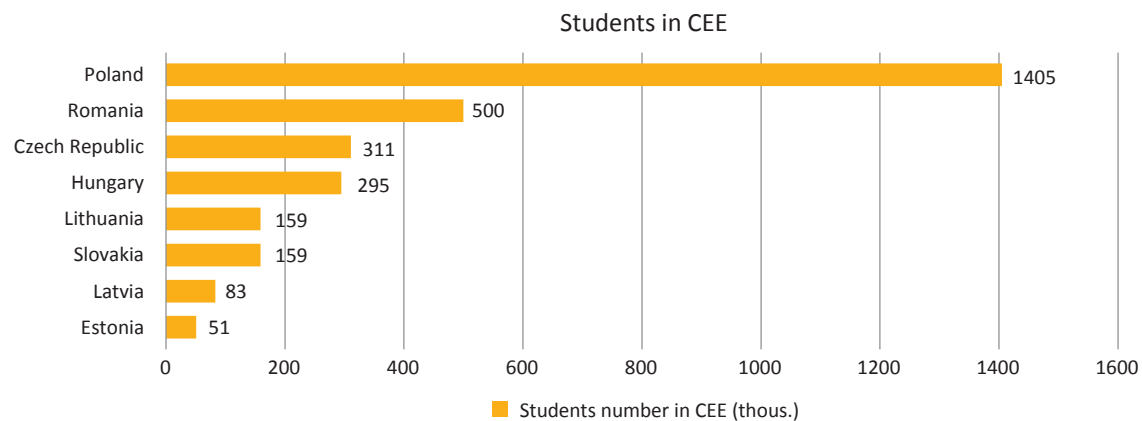


3 Krakow investment attractiveness – factors influencing foreign investments in the city

3.1 Comparison to CEE countries

In the group of Central European countries, Poland occupies the first place in terms of the number of modern service centers (over 900 BSS in 2016) ahead of: Czech Republic (200 BSS), Hungary (83 BSS) and Slovakia (around 70 BSS)²³. The essential factor that determined the dominant position of Poland in this group of countries is the number of students. In Poland, it exceeds the value of 1.405 million, in the Czech Republic 311 thous, in Hungary 295 thous, and in Slovakia 159 thous.

Graph 6. Students (thous.)



Source: Business services destinations in central Europe 2017, p. 8

Also the important factor that has influenced the highest position of Poland is the knowledge of English. In 2017 in the European English Proficiency Index Poland ranked 11th place among the world countries and seventh in the group of EU countries. Hungary in 2017 reached the 16th position in the world, Czech Republic 20th, and Slovakia 21st position²⁴.

Table 4. English Proficiency Index

Ranking EU	Index	Country
10	61.50	Poland
16	59.10	Czech Republic
18	58.70	Hungary
21	57.30	Slovakia

Source: Business services destinations in central Europe 2017, p.8

²³ Business services destinations in central Europe 2017

²⁴ Ranking jest odzwierciedleniem badania znajomości języka angielskiego, wśród dorosłych mieszkańców państw. Vide. www.ef.edu/epi

The comparative analysis takes into account: Krakow, Prague and Brno in the Czech Republic, Bratislava in Slovakia and Budapest and Debrecen in Hungary²⁵.

- 1) Prices per m² of premises in the city center are the highest in Budapest and in Prague. Prices in Krakow are slightly higher than in Brno, but lower than the other analyzed cities. Prices per m² of premises outside city centers are the highest in Prague. Krakow offers prices that are higher than in other compared cities.
- 2) Available office space and the demand for new offices is the largest in state capitals (in Budapest and Prague). Krakow, on the other hand, is much ahead of Brno and Debrecen in this respect.
- 3) The number of business service centers is the highest in Krakow.
- 4) The largest number of universities is in Budapest (Kraków holds the third position in this respect).
- 5) The number of university graduates, in the scope of the available data, is the highest in Krakow.
- 6) The largest number of SSC employees is in Krakow.
- 7) The highest increase in employment was recorded in Krakow.

Table 5. The factors of investment attractiveness of the leading SSC centers in Krakow and the leading cities of Central Europe

Indicators	Kraków	Prague	Brno	Bratislava	Budapest	Debrecen
Prime rents central (EUR/sq. m/mth)	15,00	20,00	13,00	16,00	21,00	12,50
Prime rents non-central (EUR/sq. m/mth)	14,00	17,00	11,00	13,00	13,00	12,50
Office stock (sq. m) thous.	915,800	3,208,400	525,100	1,618,024	3,360,000	12,500
Take-up (sq. m)	187,800	305,400	56,700	148,500	284,600	N/A
Under construction stock (sq. m)	273,200	330,300	44,300	225,000	427,400	34,300
No. of Business Services Centers (SSC, BPO, ITO, R&D, etc.)	138	109	32	N/A	77	6
No. of academies	21	33	12	12	36	1
No. of graduates	43,700	N/A	N/A	N/A	22,000	N/A
No. of employees in Business Services Sector	50,300	40,000		40,000	28,000	20,300
Employment growth in the Business Services Sector (YoY)	41.0%	16.0%		N/A	4.5%	8.6%

Source: Business services destinations in central Europe 2017, CBRE

Summing up the CBRE survey, it should be noted that Kraków dominates in 3 out of 7 categories, and the advantages for investing in Kraków are: cooperation between universities, the number of students and graduates, and the highest rate of employment growth.

²⁵ Business services destinations in central Europe 2017

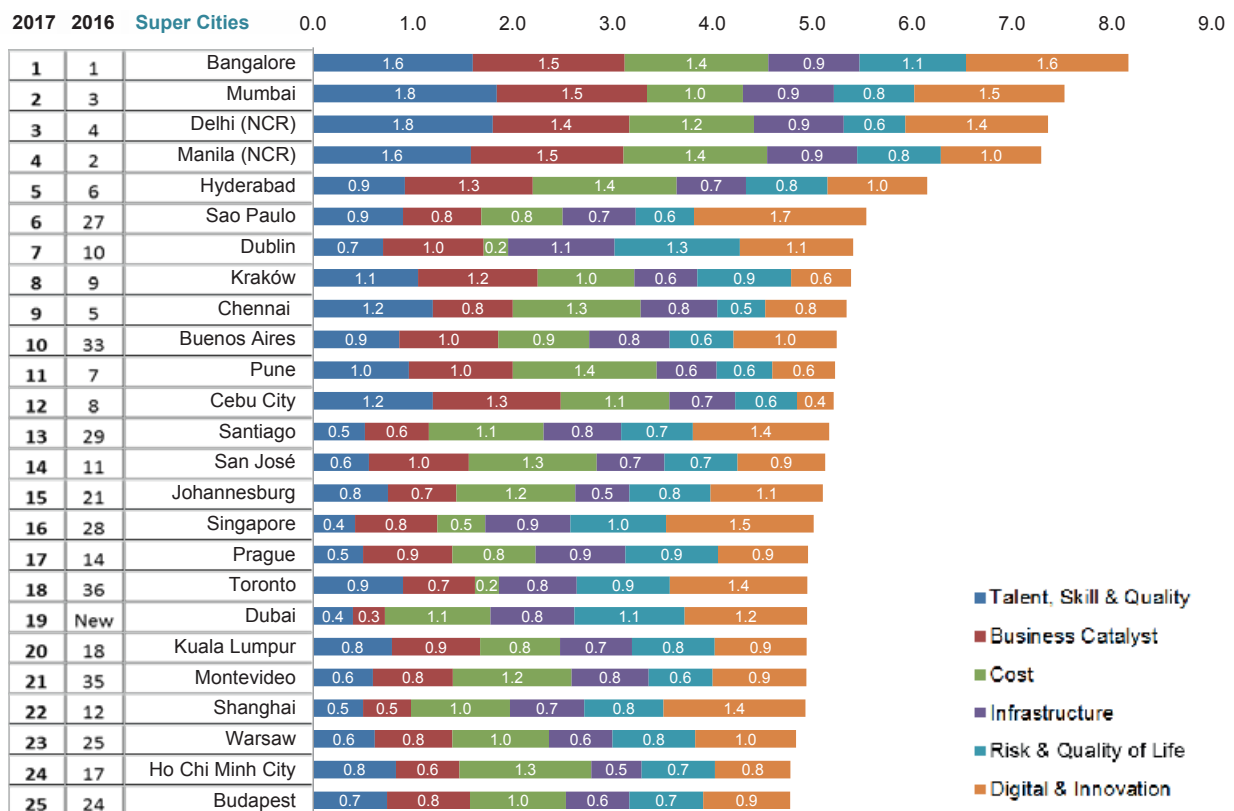
3.2 Krakow against leading foreign cities.

For years, Krakow has remained at the forefront of the ranking of most attractive cities in terms of location of modern business services centers. In 2017, Krakow was eighth in the world and the second in Europe (second only to Dublin). Leading places in this ranking are taken by cities from India (Bangalore, Mumbai and Delhi). The evaluation criteria in the above ranking are as follows:

- 1) Talents and quality of human resources,
- 2) Business potential,
- 3) Investment costs,
- 4) Infrastructure.
- 5) Safety and quality of life,
- 6) Digital innovations.

Krakow received the highest rating in business potential and talents, as well as the quality of personnel. Compared to 2016, in 2017 Krakow occupied one position higher. What is important in the same ranking Poland gained ninth position in the world and the first in Europe.

Graph 7. Tholons Services City Index



Source: <http://www.tholons.com/Tholonstop100/TholonsTop100-2017v.7.pdf>



In the summary, there should be mentioned such factors proving the investment attractiveness of Małopolska and Krakow, as:

- 1) a large population;
- 2) availability of highly qualified employees;
- 3) stable economic situation;
- 4) very good education system;
- 5) very good universities;
- 6) high efficiency of conducted research and development works.

4 Characteristics of the business services sector

BSS (Business Service Sector) or business services is a general term describing a work that supports the business activity of its own company or external companies. BSS distinguishes itself: BPO/SSC and R&D.

BPO/SSC ²⁶	<p>BPO – Business Process Outsourcing - ordering the execution of individual processes (most often related to the administration and back office, i.e. accounting, HR, IT [ITO] and customer service on the front office side, i.e. customer service and complaints) to external companies for additional savings;</p> <p>SSC - Shared Service Center - separated from the organization and grouped together, departments generating costs such as: accounting, HR, IT, purchasing department. The Shared Services Center remains within the enterprise's capital group and does not have to be relocated to another country. It provides services only to its parent company and its clients.</p>
R&D ²⁷	<p>Systematically carried out creative work, undertaken to increase the knowledge base, including knowledge about man, culture and society, as well as to find new applications for this knowledge.</p> <p>Research and development includes three types of research:</p> <ol style="list-style-type: none"> basic research, i.e. experimental or theoretical work, undertaken primarily to acquire new knowledge about the basics of phenomena and observable facts, without focusing on practical applications or use; industrial research (formerly used), i.e. research aimed at acquiring new knowledge and skills to develop new products, processes and services or to introduce significant improvements to existing products, processes or services; these studies include the creation of components of complex systems, especially to assess the suitability of generic technologies; development works – include the acquisition, merging, shaping and utilization of currently available knowledge and skills in the field of science, technology and business and other knowledge and skills for production planning and the creation and design of new, changed or improved products, processes or services. Development works do not include routine and periodic changes to products, production lines, manufacturing processes, existing services and other operations in progress, even if such changes are of improvement nature.

The Central and Eastern Europe (CEE) region has significant potential in the BSS type of services segment. Around 1,400 international service centers currently operate in the entire region. The leader in the region is Poland, where there are about 1,078 service centers and the average annual increase in employment in the last few years amounts to approx. 20%²⁸.

The main advantages of Poland in attracting such projects are: favorable investment climate, high qualifications of Polish employees and development of modern business-related infrastructure. The BSS sector is one of the fastest-growing and also the most-creating jobs in the Polish economy. According to the Polish Information and Foreign Investment Agency, 852 BSS centers currently employ 240,000 people (including over 55,000 in Krakow)²⁹.

²⁶ Bilans kompetencji branż PBO i ITO w Krakowie. Raport końcowy z przeprowadzonych badań, UM, UJ: Krakow 2012, p 16-17.

²⁷ stat.gov.pl/cps/.../ASSETS_Dzialalnosc_badawcza_i_rozwojowa.pdf

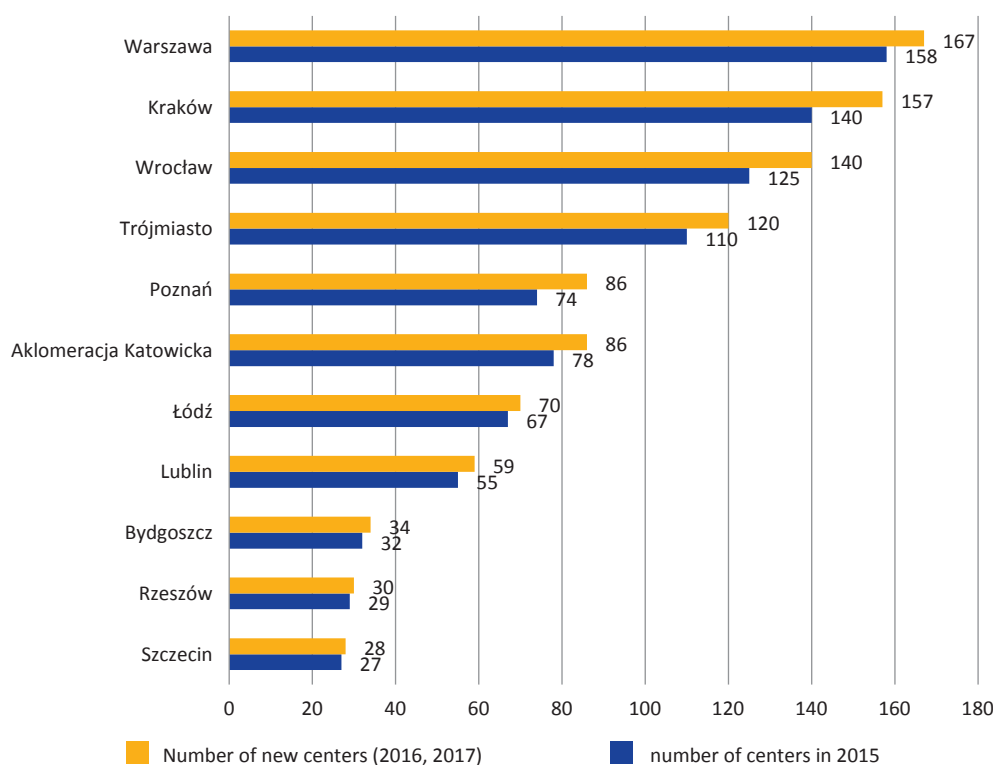
²⁸ Polish Agency of Investment and Trade: www.paih.gov.pl/sektory/bss

²⁹ Ibid.

4.1 The number of business service centers in Krakow.

There are currently 157 centers in Krakow: BPO, SSC, IT, R&D. In comparison year to year 2015 this number increased by 17 entities (the largest increase in Poland). Warszawa remained the leader position, followed by Krakow, followed by Wrocław, Tri-City, Poznań, the Katowice Agglomeration, Łódź, Lublin, Bydgoszcz, Rzeszów and Szczecin³⁰.

Graph 8. BPO, SSC, R&D centers between 2015 to 2017



Source: Sektor nowoczesnych usług biznesowych w Polsce (Sector BSS in Poland) 2016 (2017), ABSL

4.2 Employment in business service centers

In the period from Q1 2016 to Q1 2017, employment in the modern business services sector in Poland increased by 32 thous. people (i.e. by 15%), of which $\frac{3}{4}$ new jobs were generated by foreign centers. Thus, 748 service centers belonging to 524 foreign companies employ in Poland already 198 thous. people³¹.

In the first quarter of 2017, there were 1,078 business services centers in Poland (Polish and foreign) employing 244 thous. people. Taking into account the development of the industry in recent years, it can be assumed that in 2020, service centers will employ over 300,000. people. Among 724 companies that have their service centers in Poland there are 80 investors from the Fortune Global 500 list (2016) employing 67 thous. employees in 134 service centers (27% of employment in the sector)³².

³⁰ Sektor nowoczesnych usług biznesowych w Polsce, ABSL: 2017 s. 14.

³¹ Sektor nowoczesnych usług biznesowych w Polsce 2016 (2017), ABSL, p. 6.

³² Ibidem.

The percentage of people employed in BSS in relation to the total number of employees is high in Krakow (18%) and Wrocław (15.4%). This means that the business services industry is one of the most important in these cities. In other cities, these values are already much lower.

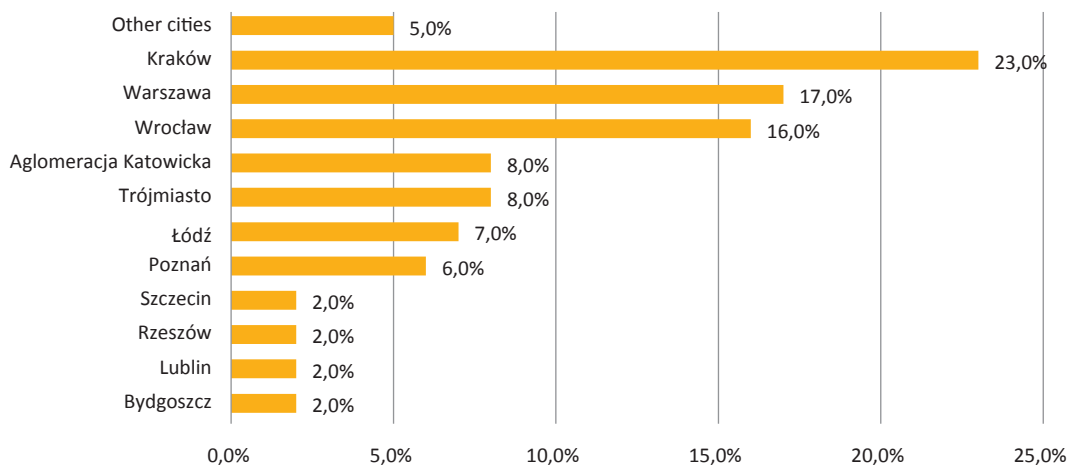
Table 6. The percentage of BSS workers in the general population of the employed

	Employment in BPO, SSC, IT, R&D centers (thous.)	Number of working age population (thous.)	Proportion of employees of the sector in the working-age population - mobile
Krakow	55.8	310	18.0%
Wrocław	40.0	260	15.4%
Łódź	18.1	255	7.1%
Trójmiasto	19.3	289	6.7%
Bydgoszcz	8.7	136	6.4%
Poznań	13.5	218	6.2%
Warszawa	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%

Source: Sektor nowoczesnych usług biznesowych w Polsce (Sector BSS in Poland) (2017), ABSL p.39

There are 47 so-called large business services centers employing over 1,000 people, and 7 employ more than 10,000 employees. In terms of employment, Krakow is definitely dominating with the number of employees equal to 55.8 thous. (23% of the total sector employees in Poland). 42.6 thous. employees work in Warszawa, 40,000 in Wrocław, and in the Katowice Agglomeration and in the Tri-City – 19,000 each. The structure of the number of employees is presented in the chart below.

Graph 9. Employees in the BSS (percentage of the total sector employees - 2017)



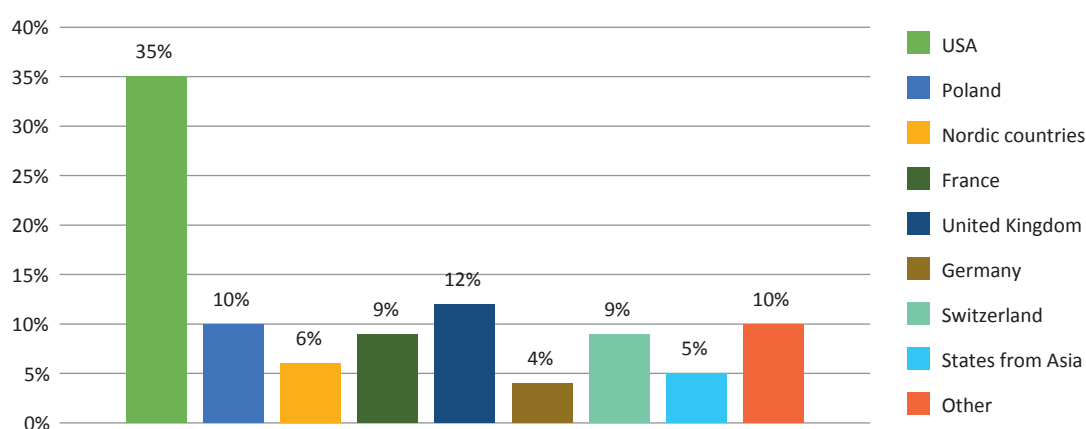
Source: Sektor nowoczesnych usług biznesowych w Polsce (Sector BSS in Poland; 2017), ABSL p. 12

In absolute terms, the highest number of new jobs was in Warszawa – 5.9 thous. (19%), Wrocław 5.7 thous. (18%) and in Krakow 5.5 thous. (17%). Each of the smaller centers increased their employment by over 2,000 employees.

4.3 The origin of the capital of business services centers

Taking into account the home country in which the company's head office is located, Krakow's service centers have the highest percentage of American (35%), British (12%) and Polish (10%) capital. Other home countries are primarily: Scandinavian countries, France, Switzerland, Germany and Asian countries³³.

Graph 10. Employment structure of service centers in main business centers by subsidiaries season location of the center of the company



Source: Sektor nowoczesnych usług biznesowych w Polsce (Sector BSS in Poland; 2017), ABSL

4.4 Salaries in business services centers

Salaries in Krakow business services centers are much higher than the so-called average salary in the region. The amount of remuneration depends mainly on the employee's professional experience, and to a lesser extent on the department in which he or she works³⁴.

Table 7. The dominant salary of accountants (2016)³⁵

F&A: GL	PLN	EUR
Junior Accountant (1-2 years of experience)	4,500	1,059
Accountant (2-3 years)	5,500	1,294
Senior Accountant (more than 3 years)	7,500	1,765
Team Leader (a team of 5-15 people)	10,000	2,353
Manager (team up to 50 people)	15,000	3,529

³³ The structure of origin of capital is different than in the case of investments in other industries in Małopolska, where Dutch capital dominates.

³⁴ Calculated on the basis of average annual exchange rates of the National Bank of Poland: www.nbp.pl/home.aspx?f=/statystyka/kursy.html (1 EUR= 4,425 PLN; 06/20/2016)

³⁵ Sektor nowoczesnych usług biznesowych w Polsce (Sector BSS in Poland; 2017), ABSL.

Table 8. The dominant salary of specialist for settlements³⁶

F&A: AP /AR	PLN	EUR
Junior Accountant (1-2 years of experience)	4,200	988
Accountant (2-3 years)	5,500	1,294
Senior Accountant (more than 3 years)	6,500	1,529
Team Leader (a team of 5-15 people)	10,000	2,353
Manager (team up to 50 people)	15,000	3,529

Table 9. The dominant salary of specialist for banking³⁷

Banking	PLN	EUR
Junior Fund Accountant (up to 1 year of experience)	4,000	941
Fund Accountant (1 to 3 years of experience)	5,500	1,294
Senior Fund Accountant (over 3 years of experience)	6,800	1,600
AML / KYC Junior Analyst (up to 1 year of experience)	4,500	1,059
AML / KYC Analyst (1-3 years of experience)	5,500	1,294
AML / KYC Senior Analyst (3-5 years of experience)	7,000	1,647
Junior Analyst (Product Control, Reporting, Business Analysis / up to 1 year of experience)	4,500	1,059
Analyst (Product Control, Reporting, Business Analysis / 1 to 3 years of experience)	6,500	1,529
Senior Analyst (Product Control, Reporting, Business Analysis / over 3 years of experience)	9,000	2,118
Team Leader (a team of 5-15 people)	10,000	2,353
Manager (team up to 50 people)	17,000	4,000

Table 10. The dominant salary of customer service employees³⁸

Customer Service	PLN	EUR
Junior Specialist (1-2 years of experience)	3,500	824
Specialist (2-3 years)	4,000	941
Team Leader (a team of 5-15 people)	7,000	1,647
Manager (team up to 50 people)	10,000	2,353

³⁶ Ibidem

³⁷ Ibidem

³⁸ Ibidem

Table 11. The dominant salary of procurement³⁹

Procurement / Order Management	PLN	EUR
Junior Specialist (1-2 years of experience)	4,500	1,059
Specialist (2-3 years)	6,000	1,412
Senior Specialist (more than 3 years)	7,500	1,765
Team Leader (a team of 5-15 people)	12,000	2,824
Manager (team up to 50 people)	18,000	4,235

Table 12. The dominant salary of HR specialists⁴⁰

HR processes	PLN	EUR
Junior Specialist (1-2 years of experience)	3,500	824
Specialist (2-3 years)	4,500	1,059
Senior Specialist (more than 3 years)	6,000	1,412
Team Leader (a team of 5-15 people)	4,000	,941
Junior Payroll Specialist (up to 1 year of experience)	5,500	1,294
Senior Payroll Specialist	7,000	1,647
Team Leader (a team of 5-15 people)	11,000	2,588
Manager (team up to 50 people)	16,000	3,765

Table 13. The dominant salary of IT specialists⁴¹

IT	PLN	EUR
1st Line Support (2 years of experience)	4,500	1,059
2nd Line Support (2 years of experience)	6,000	1,412
3rd Line Support (2 years of experience)	11,000	2,588
IT Administration (3 years of experience)	9,000	2,118
Network / Security (3 years of experience)	11,000	2,588
Business / System Analyst (3 years of experience)	11,000	2,588
Developer (3 years of experience)	11,000	2,588
Tester (3 years of experience)	9,500	2,235
Team Leader (a team of 5-15 people)	14,000	3,294
Project Manager (team up to 50 people)	15,000	3,529

³⁹ Ibidem

⁴⁰ Ibidem

⁴¹ Ibidem

Table 14. The dominant salary of R&D specialists⁴²

R&D	PLN	EUR
Laboratory Specialist (more than 2 years of experience)	5,000	1,176
Technologist (more than 2 years of experience)	6,800	1,600
Design Engineer (2-4 years of experience)	6,800	1,600
Senior Design Engineer (more than 4 years of experience)	8,000	1,882
Product Development / NPI Engineer (2-4 years of experience)	8,000	1,882
Senior Product Development / NPI	7,500	1,765
Engineer (more than 4 years of experience)	9,000	2,118
Quality Engineer (2-4 years of experience)	7,000	1,647
Senior Quality Engineer (more than 4 years of experience)	8,600	2,024
R&D Manager (up to 50 people)	14,000	3,294

⁴² Ibidem



4.5 Non-wage benefits

Non-pay benefits include granting the employee a gratuity in a form other than cash. Their main goal is to motivate employees, to better equip the workplace and attract the best specialists in the labor market. In the centers of modern business services in Poland, the most-offered non-financial benefits include: private medical care, multisport/fitness card, group life insurance⁴³, company social benefits fund, fresh fruit in the office, bonuses for individual contributions, flexible working hours. Non-wage benefits are usually offered by large centers (employing over 500 people), and such in Poland most often occur in Krakow (17).

Table 15. Non-wage benefits in BSS

Non-wage benefits	Participation of Centers
Private medical care	94%
Multisport / fitness card	91%
Group life insurance*	72%
Social benefits fund	68%
Fresh fruit in the office	67%
Bonuses for individual contributions	67%
Flexible working hours	65%
Returns for trainings	60%
The opportunity to work from home	56%
Laptop	54%
Additional bonus for achieved goals	49%
Relocation bonus	45%
The cafeteria system	38%
Parking space	38%
Share in annual results	29%
Vouchers for lunches / lunch cards	23%
Mobile phone	23%
The company's products at a discount	23%
Additional paid days off	20%
Special support for young mothers	18%
Support for disabled employees	17%
Pension fund	14%
Shares	11%
SodexoFlexiPass	10%
Coverage of travel/commuting costs	10%

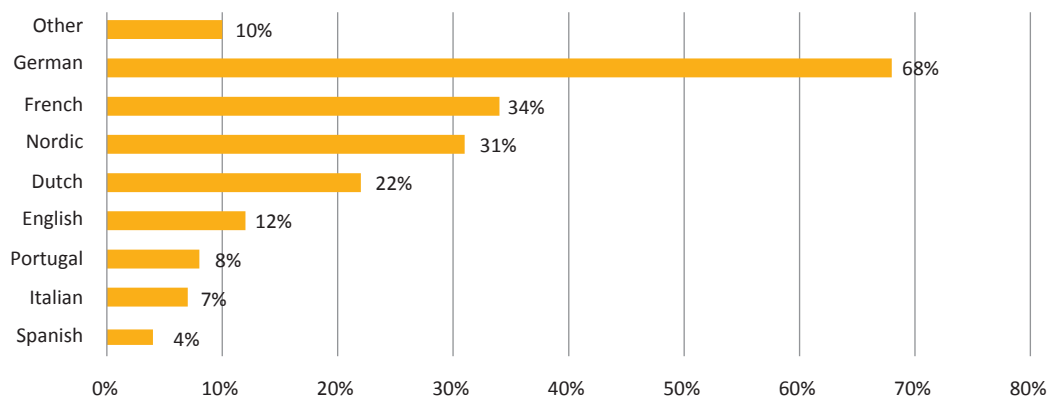
Source: Sektor nowoczesnych usług biznesowych w Polsce (Sector BSS in Poland; 2017), ABSL, p 39.

⁴³ Life insurance is not a non-remuneration measure. However, it occurs in this function in ABSL reports.

4.6 Languages used at business service centers.

A necessary condition to work in the business services center is fluent knowledge of English, and in the Opole province – German. In total, 38 languages are used in BSS. On average, 8 languages are used in each center. In addition to English and German, frequently used languages are: French (61%), Spanish and Italian (48%) Dutch (35%) and Russian (32%). The languages that are currently most sought after among potential employees are: German (68%), French (34%), Nordic (31%) and Dutch (22%). In the future, the palette of deficit languages will expand to include Arabic and Mandarin.

Graph 11. Most valued foreign languages in the BSS



Source: Sektor nowoczesnych usług biznesowych w Polsce (Sector BSS in Poland; 2017), ABSL.





5 Profile of the employee of the modern business services center.

5.1 Key competencies

The employee profile of the modern business services center is expressed mainly through his competencies⁴⁴.

Competencies that are important and difficult to acquire - BPO/SSC and ITO/IT

Noteworthy is the high rank of both so-called hard and soft competencies. The most important group of competencies are those that are both important and difficult to obtain. These include: communication (oral and written), commitment, analytical skills, coping with stress, adaptation, focus on goals, customer orientation, intercultural sensitivity, cooperation, influence on others⁴⁵.

Table 16. Important and deficit competencies - BPO / SSC

The most important competencies		The most difficult competencies to acquire	
Honesty	4.78	Oral communication	3.78
Customer orientation	4.67	Intercultural sensitivity	3.78
Oral communication	4.60	Written communication	3.78
Care for quality	4.60	Involvement	3.67
Cooperation	4.60	Analytical skills	3.63
English skills	4.60	Italian skills	3.57

Source: Bilans kompetencji branż PBO i ITO w Krakowie. Raport końcowy z przeprowadzonych badań, UM, UJ: Krakow 2012, p. 30. *Scale 1 – competencies least important/the easiest to get ..., 5 competencies the most important/the most difficult to obtain.

In the ITO/IT sector, competencies assessed simultaneously as important and difficult to obtain are: initiative, innovation, commitment, algorithms and data structures, and intercultural sensitivity.

⁴⁴ Bilans kompetencji branż PBO i ITO w Krakowie. Raport końcowy z przeprowadzonych badań, UM, UJ: Krakow 2012. The authors of the report did not distinguish between qualifications and competencies. In practice, however, qualifications are always confirmed by documents, and competencies are innate or acquired skills.

⁴⁵ Bilans kompetencji branż PBO i ITO w Krakowie..., p. 32.

Table 17. Important and deficit competencies – ITO/IT

The most important competencies		The most difficult competencies to acquire	
English skills	4.50	Initiative	3.86
Honesty	4.50	Innovation	3.71
Initiative	4.43	The ability to test software	3.60
Care for quality	4.43	Involvement	3.57
Involvement	4.43	Algorithms and data structures	3.50
Innovation	4.29	Intercultural 'sensitivity'	3.50

Source: Bilans kompetencji branż PBO i ITO w Krakowie. Raport końcowy z przeprowadzonych badań, UM, UJ: Krakow 2012, p. 33. *Scale 1 – competencies least important / the easiest to get ..., 5 competencies the most important / the most difficult to obtain.



It is worth emphasizing that the leading positions of the ranking include the so-called soft skills: innovation, impact on others, coping with stress and initiative. Companies from the BPO/SSC industry will need more and more innovators and candidates for leaders and managers who will be able to show attitudes characteristic of knowledge-based economies⁴⁶. By contrast, the importance of foreign language skills will decrease. This is due to the high degree of mastery of these languages by university graduates. To work in the business services sector, B2 language level is required.

Among the fields of study giving the highest employment opportunities in the BPO/SSC sector, employers indicated philology and economics (mainly accounting and finance). In the case of ITO / IT, the most frequently indicated fields of study were programming, automation and robotics, computer science, physics and mathematics⁴⁷.

⁴⁶ Ibidem p. 35.

⁴⁷ Ibidem p. 51.



5.2 Programming employee development

In the opinions of employers, graduates and experienced employees require constant training and courses to meet the competence criteria required to work in modern business services centers. These trainings are necessary at every stage of the career, and their need results from technological changes, expanding markets and service packages and the functioning of promotion systems within the organization (new specific competencies are needed at each position).

The main employee development tools identified by employers are:

- 1) Introductory training, so-called Induction programme or Onboarding;
- 2) Training related to work-related knowledge (referred to as “hard”), e.g. accounting, legal issues;
- 3) Training to improve intra- and interpersonal skills (referred to as “soft”), e.g. communication, customer service, coping with stress, assertiveness, team work;
- 4) Language training;
- 5) Mentoring (especially in the ITO/IT industry, an experienced engineer is assigned to new employees);
- 6) Group coaching run by the manager;
- 7) Visits to the company branches;
- 8) Workshops in companies for which people work to exchange knowledge and learn about the business context of operations;
- 9) Support from a more experienced colleague in the first months of work;
- 10) Training organized by people from the team⁴⁸.

⁴⁸ Ibidem p. 52.



The profile of an employee of the BPO/SSC sector can be accurately described. It is a person who:

- 1) Most often completed philological or economic studies,
- 2) Knows a foreign language at the level of at least B2,
- 3) Constantly improves his competencies thanks to trainings and courses,
- 4) Can work in teams (including international teams),
- 5) Is honest, creative, innovative and committed,
- 6) Has specialist knowledge in his or her field and related fields⁴⁹.

5.3 Job profile

The most important professional groups working in BPO/SSC sector are:

- application developers,
- system analysts,
- development of information systems specialists,
- network and multimedia application designers,
- accountants,
- financial and investment advisors,
- office service employees,
- call centers employees.

According to ABSL data, the average age of an employee in the business services sector is 31, the percentage of women employed in business services centers is 54%, and 93% of employees have higher education⁵⁰. It is also a common practice to employ students from last years of study.

⁴⁹ Bilans kompetencji branż PBO i ITO w Krakowie...

⁵⁰ Sektor nowoczesnych usług biznesowych w Polsce 2017 (Sector BSS in Poland 2017), ABSL, p. 35





6 R&D sector in Małopolska

6.1 Innovative enterprises in Małopolska.

The contribution of innovative enterprises in the total number of enterprises in 2014 stood at 13.5%. In terms of expenditures on innovation activities, Małopolska in 2014 was ranked 7th, generating 5.6% of domestic expenditures. It should be noted that the innovative potential of the region is also affected by the number of R&D employees. The Małopolskie province is ranked second in Poland in this respect (this percentage reached 1.5% in 2015, country average: 0.96%)⁵¹. The average annual growth rate of employment is 3.7%.

Total employment in Research and Development sector in Małopolska Region in 2015 amounted to 14,475 FTE⁵². Including in the business sector 50,156 people, and in the research sector 6,837 people. The percentage of employees performing research and development work with respect to the economically active population is 1.5%.

Table 18. Employees in R&D (2015)

Indicators	
Total employees (FTE)	14,475.6
Employed in the enterprise sector (FTE)	5,016.6
Employed in the scientific research sector (FTE)	6,837.6
Employed for 1000 professionally active people	10.6
Contribution of people employed in R&D in the professionally active population (in percentages)	1.5%

Source: Bank Danych Lokalnych: www.bdl.stat.gov.pl.

R&D employees are mainly employed in medium and large production companies with European or global reach. The larger the company, the more often it has a separate R&D department⁵³.

Table 19. Employing R&D staff and the size of the company

Type of business	Employees	Companies employing R&D specialists (%)	Companies with research and development (%)
Micro	0-9	8.6	0.7
Small	10-49	11.3	2.8
Average	50-249	19.4	6.5
Big	250 and more	32	40.0
Total		71.3	50.0

Source: Bank Danych Lokalnych: www.bdl.stat.gov.pl.

⁵¹ MORR. Departament Polityki Regionalnej, Małopolska. Innowacyjność i działania badawczo-rozwojowe wśród małopolskich przedsiębiorstw, Krakow 2016, p. 17

⁵² Full Time Equivalent - equivalent to one employee working full-time.

⁵³ Ibidem, p. 19-20

The field of economic activity in which the largest number of research and development employees work is production (23.8%). In addition, every fifth manufacturing company has a separate research and development department.

Table 20. R&D specialists in companies with specific profiles

Business profile	Companies employing R&D specialists (%)	Companies with research and development (%)
Trade	4.3	1.4
Production	23.8	20
Services	10.3	0.3
Total	38.4	21.7

Source: Bank Danych Lokalnych: www.bdl.stat.gov.pl.



The completed research and development works most often led to the implementation of a new product, service, production process or the improvement of existing ones. In the period 2013-2015, development initiatives were undertaken by 26.4% of Małopolska enterprises. 21.1% of enterprises decided to introduce significant changes concerning the company's functioning, which however were not technical innovations. Introduction (improvement) of products, services or production processes is popular among all enterprises, regardless of their size, however, they are most often found in large (72%) and micro enterprises (22.3%)⁵⁴.

6.2 Expenditures on innovative activity

In 2015, the total expenditures of Małopolska companies in research and development amounted to PLN 541.82 million (EUR 47.52 million). The IT industry spent the most (EUR 47.52 million). Companies in the professional, scientific and technical industry spent EUR 29.6 million, production of machinery and equipment not classified elsewhere EUR 1.8 million, and production of chemicals and chemical products EUR 11.9 million.

Table 21. Internal expenditures in the enterprise sector for R&D (2015)

Sector	PLN (millions)	EUR (millions)
Information and communication	201.95	47.52
Professional, scientific and technical activities	125.78	29.59
Production of machinery and equipment, not classified elsewhere	75.80	17.83
Production of chemicals and chemical products	50.70	11.93
Manufacture of finished metal products, excluding machinery and equipment	36.90	8.68
Mining	12.01	2.83
Metal industry	10.64	2.50
Production of products from other non-metallic mineral materials	9.25	2.18
Production of food products	6.14	1.44
Production of other transport equipment	2.57	0.61
Agriculture, forestry, hunting and fishing	2.25	0.53
Wholesale and retail trade; repair of motor vehicles, including motorcycles	1.88	0.44
Construction	1.88	0.44
Sewage disposal and treatment; activities related to the collection, recycling	1.25	0.29
Other production of products	1.16	0.27
Outlays dedicated to specific activities	1.11	0.26
Activities related to culture, entertainment and recreation	0.55	0.13

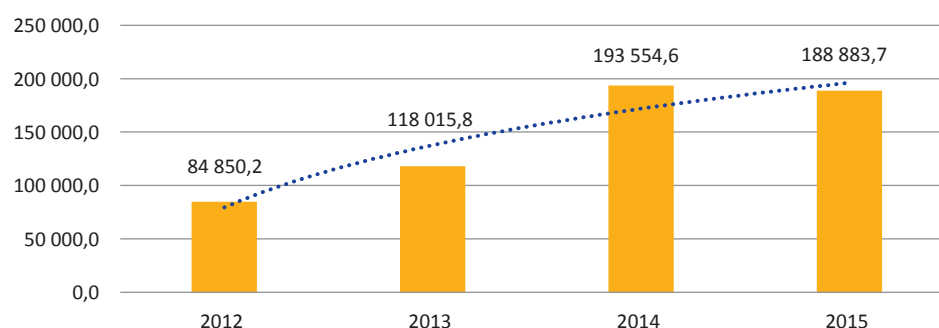
Source: Bank Danych Lokalnych: www.bdl.stat.gov.pl.

⁵⁴ MORR. Departament Polityki Regionalnej, Małopolska. Innowacyjność i działania badawczo-rozwojowe wśród małopolskich przedsiębiorstw, Krakow 2016, p. 21-22

Innovative solutions planned for implementation concern the following industries: information and communication technologies (33.1%), sustainable energy (20.1%), electrical engineering (18.0%), production of metals and metal products as well as non-metallic mineral products (15.8%), creative industries and leisure (13.3%), life sciences (12.2%), chemistry (11.5%), others (6.8%)⁵⁵. These industries are so-called smart specializations of the Małopolskie province⁵⁶. In 2014, 256 patents and inventions were submitted in Małopolska. Over 80% of them belong to Krakow.

Considering the expenditures of enterprises on innovative activity per one person professionally active, Małopolska with the result of PLN 1,464 (EUR 343) in 2014 was ranked 9th in Poland (country average: PLN 2,158, EUR 505). These expenditures increased cyclically until 2014, and in 2015 a slight decrease was recorded.

Graph 12. Expenditure on R&D in the Małopolska Region (PLN thous.)



Source: Bank Danych Lokalnych: www.bdl.stat.gov.pl

6.3 Cooperation between R&D, BSC and science centers

Accessibility to high education.

In 2016, there were 23 universities in Krakow, of which 10 were public and 13 non-public. The master's level studies were carried out by 15 universities. The total number of students is 171.5 thous., 115.7 thous. of them are full-time students and 38.8 thous. are part-time students. In addition, 38.7 thous. people participate in postgraduate or doctoral studies. The number of graduates was estimated at 50.7 thous. and graduates of post-graduate or doctoral studies - respectively at 7.8 thous.⁵⁷ There are over 12,000 academic teachers in Krakow, including 1,283 professors. For years, the Jagiellonian University has been recognized as one of the best universities (usually ranked first in national rankings). The AGH University of Science and Technology is also high in the rankings (6th position in 2016)⁵⁸.

⁵⁵ Analiza rynku małopolskiego (2017): Polsko-Amerykański Most Innowacji (PLUS): Krakow 2017, p. 55.

⁵⁶ The Regional Innovation Strategy of the Małopolska Voivodship 2014-2020 indicates key areas for regional specialization (the so-called smart specialization of the region). The selection of key areas for regional specialization is one of the conditions for launching European funds under the new financial perspective from 2014. The key areas for the development of Małopolska are: Life sciences, Sustainable energy, Information and communication technologies, Chemistry, Production of metals and metal products as well as non-metallic mineral products, Electrical engineering and engineering industry, Creative industries and free time. Vide: www.regionalneprogramyoperacyjne.pl/inteligentne-specjalizacje-malopolskie

⁵⁷ Krakow w liczbach 2016, Wydział Rozwoju Miasta - Urząd Miasta Krakowa: Krakow 2017, p. 3.

⁵⁸ Ranking of universities: www.perspektywy.pl/RSW2016/ranking-uczelni-akademickich

Other, important universities from the modern business services sector point of view are: Cracow University of Technology, Pedagogical University, University of Economics, Academy of Adam Frycz-Modrzewski. All of them actively cooperate with the business services sector by: consulting the key competencies of students and graduates (described in the section devoted to the profile of the employee of business services centers) apprenticeship and internships programs as well as active participation of researchers in research and development⁵⁹.

Knowledge Transfer Centers (pol. SPIN)

Małopolska Knowledge Transfer Centers is a project that provides free technical audit and knowledge transfer services by institutions located at universities. A summary of these centers is provided in the table below.

⁵⁹ An interesting initiative is also the creation of the Małopolska Science Center, which is planned to be opened in 2022. The objectives of the Małopolska Science Center are: shaping the attitude of openness, activity and curiosity of the world; building a positive attitude towards science, deepening scientific knowledge and encouraging it to be used on a daily basis; searching for and developing talents and competencies using science as a tool or inspiration; unlocking the potential resulting from cooperation between representatives of various fields: science, art, education, entrepreneurship and social activities; presenting current, objective and life-related learning in an attractive and original way in form and subject. Estimated value of the project: approx. PLN 150 million. Vide, www.malopolska.pl/biznes/rozwoj-regionalny/malopolskie-inwestycje/malopolskie-centrum-nauki

Table 22. Knowledge Transfer Centers in Małopolska

Knowledge Transfer Centers	Characteristic	The leading university	Website
Center of Intelligent Information Systems (CISI)	The Center provides pro-innovation services in the field of intelligent systems, and thus related to the processing of large amounts of data and the use of knowledge from analyzes to improve quality and efficiency. Thus, it offers support in a wide range of topics: from control systems (lighting, traffic), through recommendation systems (decision support), monitoring systems, management systems (energy, resources), to issues related to optimization or the Internet of Things.	AGH University of Science and Technology	www.isi.agh.edu.pl



<p>Małopolskie Centrum Budownictwa Energooszczędnego (MCBE) (centre of energy-efficient construction industry)</p>	<p>The Center conducts service, consulting, information, training and promotion activities in the field of transfer of innovative technologies, entrepreneurship and stimulation of innovative projects in the area of low energy construction together with systems for obtaining energy from renewable sources</p>	<p>Cracow University of Technology</p>	<p>www.mcbe.pl</p>
<p>Centrum Zrównoważonego Rozwoju i Poszanowania Energii WGGiOŚ Akademii Górniczo-Hutniczej „Miękinia” (centre of sustainable development and energy observance)</p>	<p>Scientific and research center of the AGH University of Science and Technology located on the site of the former porphyry mine in Miękinia near Krzeszowice. The Center supports entrepreneurs in the process of optimizing the energy efficiency of enterprises, including through changes in technological and production processes as well as in adapting objects to modern energy standards using renewable energy sources (RES) and energy-saving construction. The Center’s operation area includes photovoltaic systems, heat pumps and other known renewable energy technologies.</p>	<p>AGH University of Science and Technology</p>	<p>www.miekinia.agh.edu.pl</p>
<p>Małopolska Center of Biotechnology</p>	<p>The Center operates in the area of biotechnology, infectious diseases, food safety, structural biology, nutrigenomics, neurobiology and bioinformatics. The offer is addressed to the life science and IT sectors</p>	<p>Jagiellonian University</p>	<p>www.mcb.uj.edu.pl</p>

Source: own elaboration based on Krakowwww.spin.malopolska.pl.



7 Investment incentives for the business services and the R&D sector

7.1 Support Programme for Investments of material impact on the Polish economy in 2011 – 2023

The sectors of modern business services and R&D are in the group of seven so-called priority sectors in Poland. Therefore, in 2011 the Council of Ministers adopted a programme to support investments in these sectors entitled “Support Programme for Investments of material impact on the Polish economy in 2011 – 2023”⁶⁰.

Such support is granted in the form of subsidies under a bilateral agreement between the Minister of Economy and the investor. The subject of such support may be: creation of new jobs (or a grant for employment for both sectors) and reimbursement of the costs of a new investment for the R&D sector and other so-called priority sectors⁶¹.

Support for creation of new job places (employment grant). For the BSS sector, support in the amount of PLN 3,200 to PLN 15,600 (from EUR 775.5 to EUR 3,684) has been accepted for one newly created workplace⁶². The amount of employment grant depends, among others, on:

- 1) in case of manufacturing projects:
 - the number of new jobs created,
 - the percentage of employees with higher education,
 - location,
 - investment expenditures,
 - sector,
 - attractiveness of the products on international markets.
- 2) in case of services projects:
 - the number of new jobs created,
 - the percentage of employees with higher education,
 - location,
 - complexity of processes provided by the company.

Support for new investments (investment grant) in the R&D sector covers up to 10% of eligible costs of this investment⁶³. The amount of investment grant depends, among others, on:

- the number of new jobs created,
- investment outlays per employee,
- location.

⁶⁰ Governmental grants. Polish Investment and Trade Agency: https://www.paih.gov.pl/our_services/investor_package/investment_incentives;

⁶¹ Ibidem

⁶² In addition, the investor can get 20% of the costs of creating jobs for the location of the investment in Eastern Poland.

⁶³ Ibidem

Procedure for the award of support:

1. The investor submits to the Polish Investment and Trade Agency S.A information on the planned project on a standard form, signed by persons authorized to represent the investor.
2. Information is evaluated by Polish Investment and Trade Agency. Agency provides the Chairman of the Committee with information about the project and a draft offer of financial support, with a justification.
3. The Committee takes up decision on recommended support for the project and submits recommendation to the Minister of Economy for the final decision on granting the support.
4. Polish Investment and Trade Agency informs the investor of the Committee's recommendation. The investor takes a decision on accepting or rejecting the offer.
5. After accepting the offer, the investor applies to the Minister of Economy for a letter of intent confirming that the investment may commence.
6. The Minister of Economy sends to the investor a letter of intent confirming that the investment may commence.
7. Minister of Economy concludes with the investor an agreement on the award of a support⁶⁴.

7.2 Tax breaks in Special Economic Zones

If the investment takes place within the Special Economic Zone⁶⁵, the investor may receive:

- 1) Tax exemption (CIT or PIT),
- 2) A plot fully prepared for investments at a competitive price,
- 3) Free assistance in completing formalities relate to the investment,
- 4) Exemption from property tax (in some municipalities⁶⁶).

7.3 Funding to support investments in R&D infrastructure.

Funding to support investments in R&D infrastructure was established as part of Measure 2.1 of the Intelligent Development Operational Program 2014-2020. The support includes funding equipment, technologies and other necessary infrastructure that will serve the purpose of conducting research and development works, to create innovative products and services⁶⁷.

Funding includes:

- 1) Investment expenditures;
- 2) Costs of relevant technical knowledge;
- 3) Costs of consultancy and equivalent services used for the purposes of the project;
- 4) Costs of purchase of materials and products used to implement of the project.

The maximum funding amounts up to 35% of eligible costs⁶⁸.

⁶⁴ Ibidem

⁶⁵ Special Economic Zones (SEZ) are administratively separate areas of Poland, where investors can conduct business on preferential terms. The purpose of this support instrument is to accelerate the development of regions by attracting new investments and promoting job creation.

⁶⁶ Municipalities set their own preferences in terms of investment.

⁶⁷ Sektor nowoczesnych usług biznesowych w Polsce 2017, ABSL, p. 94.

⁶⁸ Rozporządzenie Rady Ministrów z dnia 30 czerwca 2014 r. w sprawie ustalenia mapy pomocy regionalnej na lata 2014–2020.



7.4 Tax relief for R&D

Tax relief for R&D⁶⁹ allows deduction from the tax base of expenses incurred for research and development activities. The amount of deduction cannot exceed the company's annual income. Tax relief can be granted for:

- 1) Payments of employees performing research and development works;
- 2) Acquisition of materials, raw materials and equipment used for research and development activities;
- 3) Acquiring external research and development expertise;
- 4) Costs associated with obtaining patents or industrial designs⁷⁰.

The R&D tax rate depends on the size of the enterprise. Small and medium-sized enterprises can deduct up to 50% of all eligible costs, and large enterprises (over 249 employees) account for 50% of staff costs and 30% of other eligible costs⁷¹. The period of settlement of expenditure on R&D within the framework of tax relief is 6 years.

⁶⁹ www.mf.gov.pl/krajowa-administracja-skarbowa/wiadomosci/komunikaty/asset_publisher/2UWI/content/ulga-podatkowa-na-dzialalnosc-badawczo-rozwojowa

⁷⁰ Sektor nowoczesnych usług biznesowych w Polsce 2017, ABSL, p 95

⁷¹ Ibidem



Conclusions

The demographic situation of Krakow and Małopolska is very beneficial. The population of Krakow and the province, in the perspective of 2035, will increase. The unemployment rate is low and steadily decreasing. Krakow is the second largest city in Poland in terms of population, and Małopolska - the fourth province.

Almost 9% of all Polish businesses operate in the Małopolska region, and over 1/3 of Małopolska entities operate in Krakow. The economic structure of the region is very diverse. In recent years, the number of companies has developed its businesses here- mainly private ones. The Krakow's business sectors consists mainly of companies from professional, scientific and technical activities. Highly qualified specialists work in these companies have huge economic impact on the city and province.





The investment attractiveness of Małopolska and Krakow is very high. The city occupies leading positions in Polish rankings, mainly due to the following factors: the highest number of students in higher education institutions per 1000 inhabitants, high prestige of the city, highest employment in the CSS sector and high employment growth, as well as very good educational and scientific infrastructure. In the European rankings, Małopolska occupies the highest positions in the group of Central European regions and one of the highest among Polish provinces. These rankings underline the high investment potential of Krakow, which is confirmed annually by prizes and awards granted to this city.

Poland is a leader in the modern business services sector among the countries of Central and Eastern Europe, and Krakow is the vice-leader in Poland. It gives way only to Warszawa. However, taking into account the so-called hard quantitative indicators Krakow should be considered as the leader of the industry, because there is the largest number of employees in the modern business services sector and the high growth dynamics is maintained. The city is still gaining prestigious global investors. The business services market itself is very attractive from the employees' point of view. It offers them high salaries and a very wide social package. Krakow business service centers implement many tasks and processes: logistics, financial, management, consulting, research and development. The range of these activities is global. It is, therefore, a sector with very high growth potential, which is worth investing in.

ISBN 978-83948707-3-7

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