

Warsaw School of Economics



REGIONAL INVESTMENT ATTRACTIVENESS 2016

Subcarpathian Voivodship

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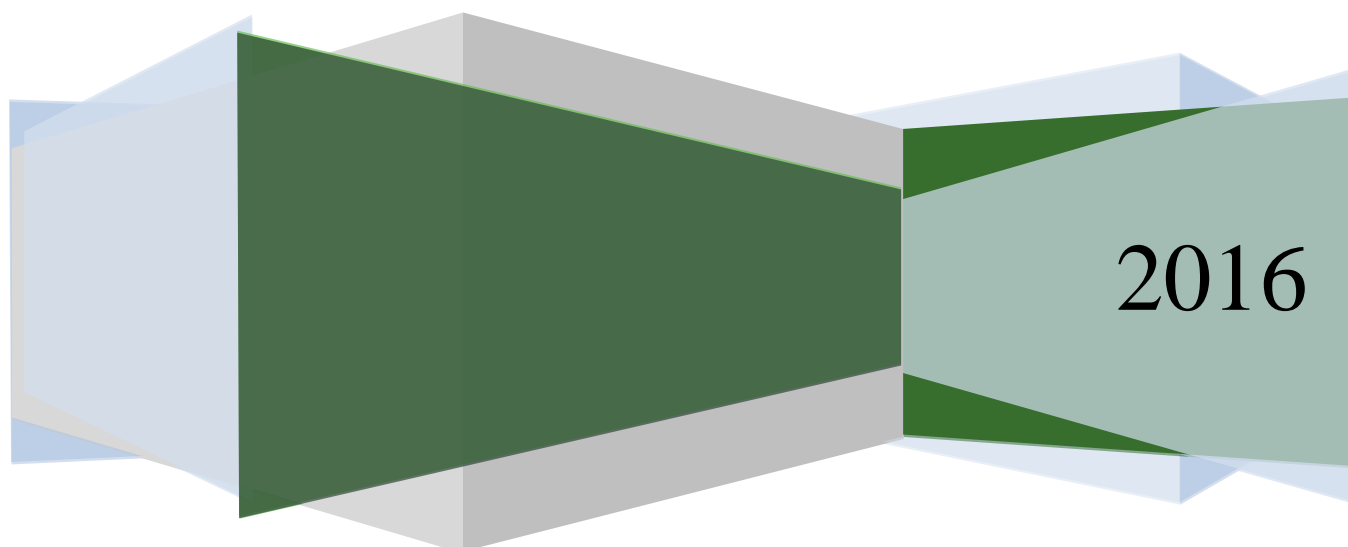
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Report prepared for the Polish Information
and Foreign Investment Agency
at the Institute of Enterprise, Warsaw School of Economics
Warsaw, December 2016





Polish Information and Foreign Investment Agency

works to increase inflow of investments to Poland, development of Polish foreign investments and intensification of Polish export.

Supporting entrepreneurs, the Agency assists in overcoming administrative and legal procedures related to specific projects. PAIiZ helps, among others, in developing legal solutions, finding a suitable location, reliable partners and suppliers.

PAIiZ implements programs dedicated for expansion in promising markets: Go China, Go Africa, Go Arctic, Go India, Go ASEAN and Go Iran. In direct support of Polish companies on the site, the Agency successfully launches foreign branches.

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INTRODUCTION

The report has been prepared to order of the Polish Information and Foreign Investment Agency and is the next edition of the regional investment attractiveness reports. The reports have been published since 2008. They are the result of scientific research conducted since 2002 under the supervision of prof. H. Godlewska-Majkowska, Ph.D., full professor in the Warsaw School of Economics, in the Institute of Enterprise, Collegium of Business Administration of the Warsaw School of Economics. All the authors are the core members of a team that develops methodology of calculating regional investment attractiveness.

The report consists of a few parts. The first part includes the synthetic presentation of the voivodship's economy, including social-economic potential of the voivodship and the level of economic development as well as economy structure. The most important socio-economic data, including information on investment attractiveness, is presented in a table. The first part of the report also presents the position of the voivodship compared to other Polish and European Union regions, paying special attention to the most important industries and high potential sectors.

The second part of the report presents internal diversification of voivodship's investment attractiveness at the levels of counties (Polish: *powiat*) and communes (Polish: *gmina*). The results of the investment attractiveness calculations for the Subcarpathian voivodship's territorial units can be compared to the other territorial units from all of the Polish regions as the calculations have been made for all of them.

In the third part of the report the main business environment institutions in the voivodship are presented, taking into consideration kinds of support which they offer to investors. This part also includes information on location of the Special Economic Zones (SEZs) in the voivodship and information on the results of their activities. The third part of the report is completed by the presentation of the results of the 'A' Commune ranking. The ranking made it possible to point out such communes that are not only attractive for potential investors but also offer them well-prepared information on the Internet.

The report is completed with the Appendix including tables with comparisons of investment attractiveness indices for voivodship's counties and communes. There is also some more detailed information in the Appendix concerning effects of functioning of the Special Economic Zones in the region.

There are two approaches to the investment attractiveness presented in this work. One of them is **potential investment attractiveness**, defined as a set of regional location advantages that influence achieving investors' goals (such as costs of running a business, sales revenues, net return on investment and investment's competitiveness).

Another approach is **real investment attractiveness**, defined as region's ability to create investor's satisfaction and influence absorption of financial and physical capital in form of investments. They can be measured by effectiveness of capital spending.¹

Potential investment attractiveness indices in their simplified version (PAI1) measure the location-specific advantages of regions. They are calculated for territorial units of various levels of statistical division of the country (communes – Polish: *gmina*, counties – Polish: *powiat*, subregions, voivodships/regions). These indices refer to the whole national economy and to the selected sections: C – manufacturing industry, G – trade and repair, I – accommodation and catering, M – professional, scientific and technical services. These sections are the core of the national economy.

Besides, some indices are calculated only for the voivodships, on the basis of characteristics available only on the regional or macroregional level which allows evaluating their investment attractiveness in a much broader context. These are PAI2 indices, which are calculated both from a general point of view and with reference to the above mentioned sections of the economy.

What is more, ranks of real investment attractiveness, which relates to the inflow of capital (in the form of investments) and the effects of investments considered from a point of view of productivity and returns on the outlays made, are used in this report. Real investment attractiveness can be calculated for voivodships, based on the statistical data available on the regional level.

The measurements in use are subject to annual review thanks to consulting them with foreign investor assistance institutions and direct contact to territorial self-government units as well as organizations of entrepreneurs. A description of methodological approach to measuring investment attractiveness of Polish regions, counties and communes can be found online on the website of the Institute of Enterprise at the Warsaw School of Economics (<http://kolegia.sgh.waw.pl/pl/KNoP/struktura/IP/struktura/ZOB/>), as well as in numerous scientific publications and expert opinions.

¹ More information on this topic can be found in: *Atrakcyjność inwestycyjna regionów Polski jako źródło przedsiębiorczych przewag konkurencyjnych*, H. Godlewska-Majkowska (ed.), Studia i Analizy Instytutu Przedsiębiorstwa, Oficyna Wydawnicza SGH, Warszawa 2012; H. Godlewska-Majkowska, *Polish regions and their investment attractiveness in the EU*, in: POLAND Competitiveness Report 2013. National and Regional Dimensions, M. Weresa (ed.), Oficyna Wydawnicza SGH, Warsaw 2013, pp 299-316.

1. THE PROFILE OF REGIONAL ECONOMY OF SUBCARPATHIAN VOIVODSHIP

Subcarpathian voivodship is located on the south-eastern Poland. It borders with Slovakia (in the south) and Ukraine (in the east). The region is famous because of mining: such as sulphur, crude oil and natural gas, as well as minerals: gypsum, sandstone and limestone mined to date in the active modern mines. The main sectors are: agriculture, industry, mining, food, pharmaceutical, aerospace and information technology.

The main advantages of the region are:

- developing aviation industry,
- very well developed pharmaceutical industry, information technology and food processing,
- establishing Subcarpathian Science and Technology Park in Rzeszów,
- good transport connections: an international airport, the A4 motorway, running through the county main transport corridors TINA network,
- mining raw materials such as sulphur, oil and gas, minerals that are mined mainly in the mountainous southern part: sandstone, limestone, gypsum (including gypsum alabaster), ceramic clays, sands (including glass sands) and gravel, and peat, mineral and geothermal,
- large tracts of state forests make a significant supplier of wood and offer the possibility of using wood biomass for renewable energy production,
- availability of highly trained personnel and technical management especially in the aerospace, electrical engineering, chemical (Rzeszów University of Technology and is the largest technical university south-eastern Polish, with the only training centre in the country's civil aviation pilots).

The general characteristics of the Subcarpathian voivodship are presented in Table 1.

Table 1. General characteristics of the economy of Subcarpathian voivodship

Feature	Subcarpathian voivodship	Poland	Share [%]
Market potential			
GDP per capita 2014 (PLN/person)	31 642	44 686	-
Population (persons) on 31 December 2015	2 127 657	38 437 239	5.5%
Human resources potential			
Higher education institutions graduates (persons) in 2015	18 970	394 987	4.8%.
Secondary school graduates (persons) in 2015	17 401	284 187	6.1%.
Number of employed persons in 2015 (in thousands)	797	16 084	5.0%.
Structure of employed persons in 2015	agriculture 16.2% industry 31.2% service 52.6%		11.5% 30.5% 58.0%
Investment outlays and capital of companies with foreign capital participation in the voivodship			
Investment outlays (PLN m) in 2014	2 568.5.	78 823.1.	3.3%.
Capital of companies (PLN n) in 2014	6 003.7.	215 594.8.	2.8%.
Special Economic Zones (SEZs) in the voivodship*			
<ul style="list-style-type: none"> – Kraków – Mielec – Tarnobrzeg 			
Counties and communes distinguished according to the Potential Attractiveness Index for the national economy (PAI₁_GN)			
Counties	Class A	city of Krosno, city of Rzeszów, city of Tarnobrzeg	
	Class B	city of Przemyśl	
Communes	Class A	Boguchwała (u-r), Dębica (u), Dębica (r), Jarosław (u), Jasło (u), Krosno (u), Krościenko Wyżne (r), Leżajsk (u), Lubaczów (u), Łańcut (u), Mielec (u), Przemyśl (u), Przeworsk (u), Rzeszów (u), Sanok (u), Stalowa Wola (u), Tarnobrzeg (u)	
	Class B	Czarna (r), Dukla (u-r), Głogów Małopolski (u-r), Gorzyce (r), Krasne (r), Lesko (u-r), Łańcut (r), Medyka (r), Miejsce Piastowe (r), Nowa Dęba (u-r), Ostrów (r), Radymno (u), Trzebownisko (r), Żyraków (r)	

Additional information: (u) – urban commune, (r) – rural commune, (u-r) – urban-rural commune.

PAI – potential investment attractiveness, RAI – real investment attractiveness

* For more information see Table 3 in the Appendix.

Source: Authors' own calculations.

The number of inhabitants of the voivodship amounts to 2 127 657 (as of 2015), which is 5.5% of the population of Poland. The age structure in the voivodship in 2015 was as follows: 18.5% of the population at pre-productive age, 63.3% at productive age and 18.2% at post-productive age (for Poland it was 18%, 62% and 20% respectively).

The main potential for human capital creation in the voivodship lies in 14 higher education institutions in which there are 56 000 students studying, which makes up 4% of all students in Poland.

The main potential for human capital formation in the region represents 14 universities, which educates 59 thousand. students, or 4% of students in the country. According to a report prepared by the Committee for Evaluation of Research (KEJNA) for the Ministry of Science and Higher Education in the Subcarpathian voivodship 2 faculties of universities has received scientific category A; 12 faculties received a category - B; and 2 faculties category - C. It is also worth mentioning that 12 colleges had not received any category awarded by KEJNA. Detailed information can be found in Appendix Table 5. In addition, 10% of the secondary school students in the voivodship attend vocational schools and 35.6% attend technical schools.

The registered unemployment rate in the voivodship amounted to 11.6% in August 2016, compared to 8.5%² in Poland. The average monthly gross wages and salaries in enterprises sector in the first half-year of 2015 amounted to PLN3 484.71 which is 90% of the average for Poland.

In 2014 Subcarpathian voivodship made a contribution of 3.9% to the GDP of Poland. Calculated per capita, it amounted to PLN 31642 with the average for Poland PLN 44686. With this result the voivodship takes the 15th place in the country. The GDP growth rate in the voivodship in the years 2004-2014 amounted to 182% while the average for Poland amounted to 181%.

In comparison with the whole country the structure of employment in the voivodship is characterised by a share of the service sector at the level of 52.6% whereas a share of the agricultural and industrial sectors are respectively 16.2% and 31.2% (Central Statistical Office, Local Data Bank 2015).

Important industry sectors in the voivodship are: manufacture of rubber and plastic products (13% of the value of sold production in whole voivodship at the end of 2015), the production of motor vehicles, trailers and semi-trailers, with the exception of motorcycles (13%), manufacture of other transport equipment (10%), manufacture of fabricated metal products, (10%), manufacture of food products (8%), manufacture of products of wood and cork, except furniture, with the production of articles of straw and plaiting materials (8%) and the manufacture of chemicals and chemical products (7%).

² The unemployed and the unemployment rate according to voivodship, sub-regions and counties (as of the end of August 2015). Central Statistical Office.

The region is the leading manufacturer of aviation equipment on a national scale, which is reflected in a 19% share of the region in the national value of sold production of "manufacture of other transport equipment". Subcarpathian voivodship is also an important manufacturer of products of wood and cork, straw and wicker (9% of the national value of sold production in 2015), as well as rubber and plastic products (6%).³

When it comes to the most of the above-mentioned sectors, the voivodship improved or maintained its competitive position within the last three years (measured by its share in the country's sold production).

The information on sectors that are found as strategic by the region's authorities can be important for the investors. The voivodship's strategic sectors mentioned in the strategy of regional development include above all: aviation industry, electrical machinery, agri-food, chemical, tourism.

For the entrepreneurs willing to invest in Subcarpathian voivodship the list of the high potential sectors may be a good hint. The list was prepared by the Polish Information and Foreign Investment Agency in cooperation with the Subcarpathian voivodship self-government, based on the observations on investments inflows to the voivodship.

The high potential sectors on the list include:

- aviation industry,
- informatics,
- foundry.

Investments of this kind can be located on preferential conditions in the specially prepared places in the Special Economic Zones: **Kraków, Mielec, Tarnobrzeg, in the following subzones:**

- **Kraków SEZ, subzones:** Boguchwała (u-r), Krosno (u), Nowa Sarzyna (u-r),
- **Mielec SEZ, subzones:** Dębica (u), Dębica (r), Głogów Małopolski (u-r), Jarosław (u), Kolbuszowa (u-r), Krosno (u), Leżajsk (u), Leżajsk (r), Lubaczów (u), Łańcut (u), Mielec (u), Ostrów (r), Radymno (r), Ropczyce (u-r), Rzeszów (u), Sanok (u), Sędziszów Małopolski (u-r), Trzebowno (r), Zagórz (u-r),
- **Tarnobrzeg SEZ, subzones:** Baranów Sandomierski (u-r), Gorzyce (r), Jasło (u), Jedlicze (u-r), Nisko (u-r), Nowa Dęba (u-r), Orły (r), Przemyśl (u), Rudnik nad Sanem (u-r), Rymanów (u-r), Stalowa Wola (u), Tarnobrzeg (u).

In the all above-mentioned locations investors can benefit from tax allowances amounting to 50% - 70%, depending on the enterprise size – more information can be found on http://www.paiz.gov.pl/investment_support/investment_incentives_in_SEZ.

³Calculations based on Statistical Bulletin for the voivodship, first quarter of 2016 and first quarter of Statistical Bulletin 2015 www.stat.gov.pl (26/10/2016).

2. REGION'S RANK IN TERMS OF INVESTMENT ATTRACTIVENESS IN POLAND AND IN THE EUROPEAN UNION

Subcarpathian voivodship is one of the regions with high development potential associated with the growing aviation sector. The last time the region has increased its investment attractiveness for the industry, entering the ranks regions assessed above average. Also noteworthy are the results in terms of potential investment attractiveness associated with professional, scientific and technical activities (Class C).

Based on the methodology prepared by the team of the Institute of Enterprise while conducting statutory research in Collegium of Business Administration at the Warsaw School of Economics, calculations of European regions' investment attractiveness have been made for three years. They are based on measurements of attractiveness of human resources, market and innovativeness.⁴

Based on the above-mentioned indices it can be stated that the voivodship is taking 245th place of 273 regions (in comparison with other EU regions, NUTS2), for whom the indices were calculated. The voivodship is characterized by low class of investment attractiveness (class E) However, compared to the previous year, the voivodship increased its class of investment attractiveness by one position. Subcarpathian voivodship has a competitive advantage, when it comes to human capital, ranked class A.

Due to different methodology of research and variables taken into account for regions in Poland only and regions in the EU, the results of research are incomparable. This is because not all data are available for all the regions, e.g. data on infrastructure.

It is worth mentioning that the voivodship is more attractive than EU regions such as:

- **in Great Britain:** Cornwall and Isles of Scilly;
- **in Bulgaria:** Severozapaden, Severen tsentralen, Yugoiztochen, Yuzhen tsentralen;
- **in Greece:** Anatoliki Makedonia Thraki, Dytiki Makedonia, Ionia Nisia, Dytiki Ellada, Sterea Ellada, Peloponnisos, Voreio Aigaio;
- **in Spain:** Extremadura;
- **in Portugal:** Alentejo;
- **in Romania:** Nord-Vest, Centru, Nord-Est, Sud-Est, Sud - Muntenia, Sud-Vest Oltenia;
- **in Italy:** Puglia, Basilicata, Calabria, Sicilia, Sardegna.

⁴ More on this topic: *Atrakcyjność inwestycyjna regionów Polski na tle Unii Europejskiej*, edited by H. Godlewska-Majkowska, Oficyna Wydawnicza SGH, Warsaw 2014 and <http://kolegia.sgh.waw.pl/pl/KNoP/struktura/IP/struktura/ZOB/>

3. INTERNAL DIVERSIFICATION OF REGIONAL INVESTMENT ATTRACTIVENESS

Investment attractiveness of the particular administrative units in the voivodship is the result of how investors assess conditions of conducting business that are important for them. These conditions include labour market, technical infrastructure, market and natural conditions.

Labour market assessment gives investor the information on opportunities to recruit the right employees for their companies and labour surpluses or shortages, which indirectly influences costs of hiring workers.

Technical infrastructure assessment allows entrepreneurs to plan their investments that need preparing of investment plot equipped with the basic technical elements such as water, gas and electric installations and environment protection equipment such as sewage farms.

Social infrastructure is rated as equipment of a place where the investment is to be located with facilities influencing citizens' life quality and human resources development. These facilities provide the citizens with access to education, healthcare, sports and recreation facilities or information technologies such as Internet.

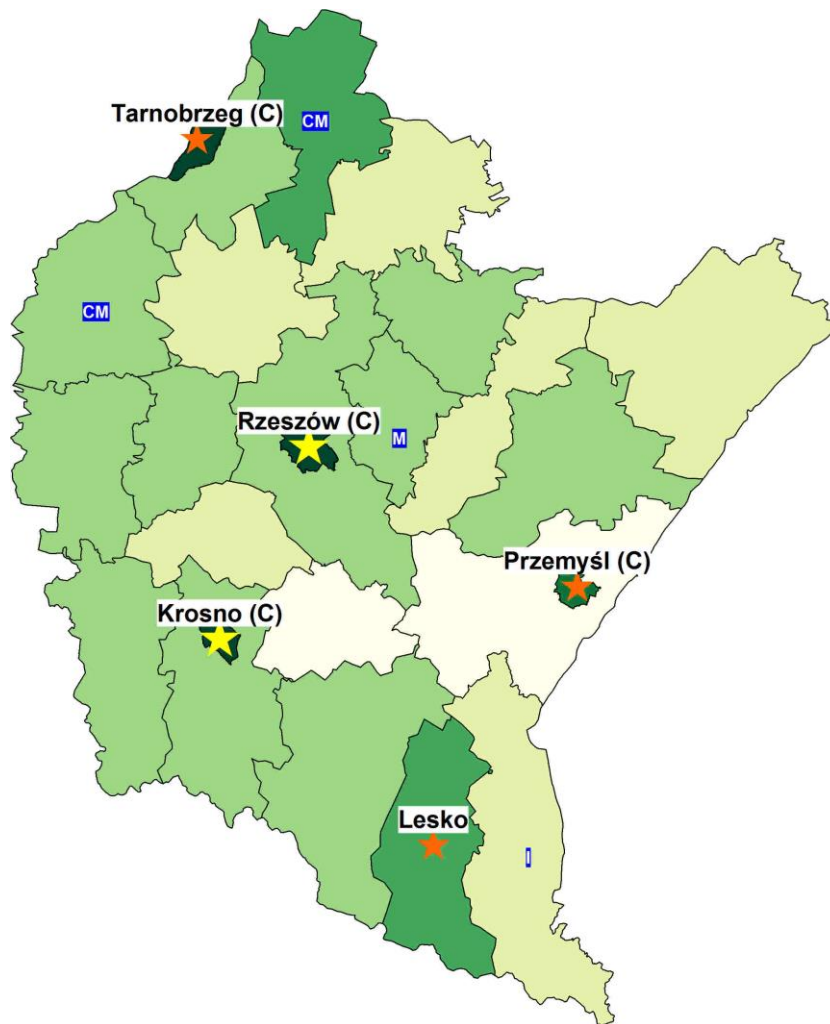
Market conditions informs on market absorptive power that means the number of potential customers and indirectly on their wealth that means ability to buy goods and services.

Environment conditions were rated as they are a basic factor influencing tourism development and citizens' life quality.

The composite assessment of all the above-mentioned elements in particular counties or communes shows spatial differentiation of investment attractiveness in the voivodship. What is more, calculations for particular sectors of economy are presented such as industry, trade and modern services connected with professional, scientific and technical activities are presented (Chart 1 and Chart 2). The distinguished locations presented on the map are marked with stars that indicate highest marks for the above-mentioned areas of conducting business.

An **orange star** means that a county or a commune was rated above average in all the sections analysed (national economy, industry, trade, tourism and professional services) and the **golden star** is the highest distinction and means that all the rated sections in a particular commune or county were ranked at the highest level

Chart 1. Potential investment attractiveness of counties of Subcarpathian voivodship, considering the most attractive sections



POTENTIAL INVESTMENT ATTRACTIVENESS
of counties (poviats) for national economy in 2015

- A
 - B
 - C
 - D
 - E
 - F
- ★ The highest rank for all the sections according PKD (Polish Classification of Economic Activity): C, G, I and M
- ★ Ranks above the average for all the sections according PKD (Polish Classification of Economic Activity): C, G, I and M

Ranks above the average for C, G, I, M sections according to PKD (Polish Classification of Economic Activity)

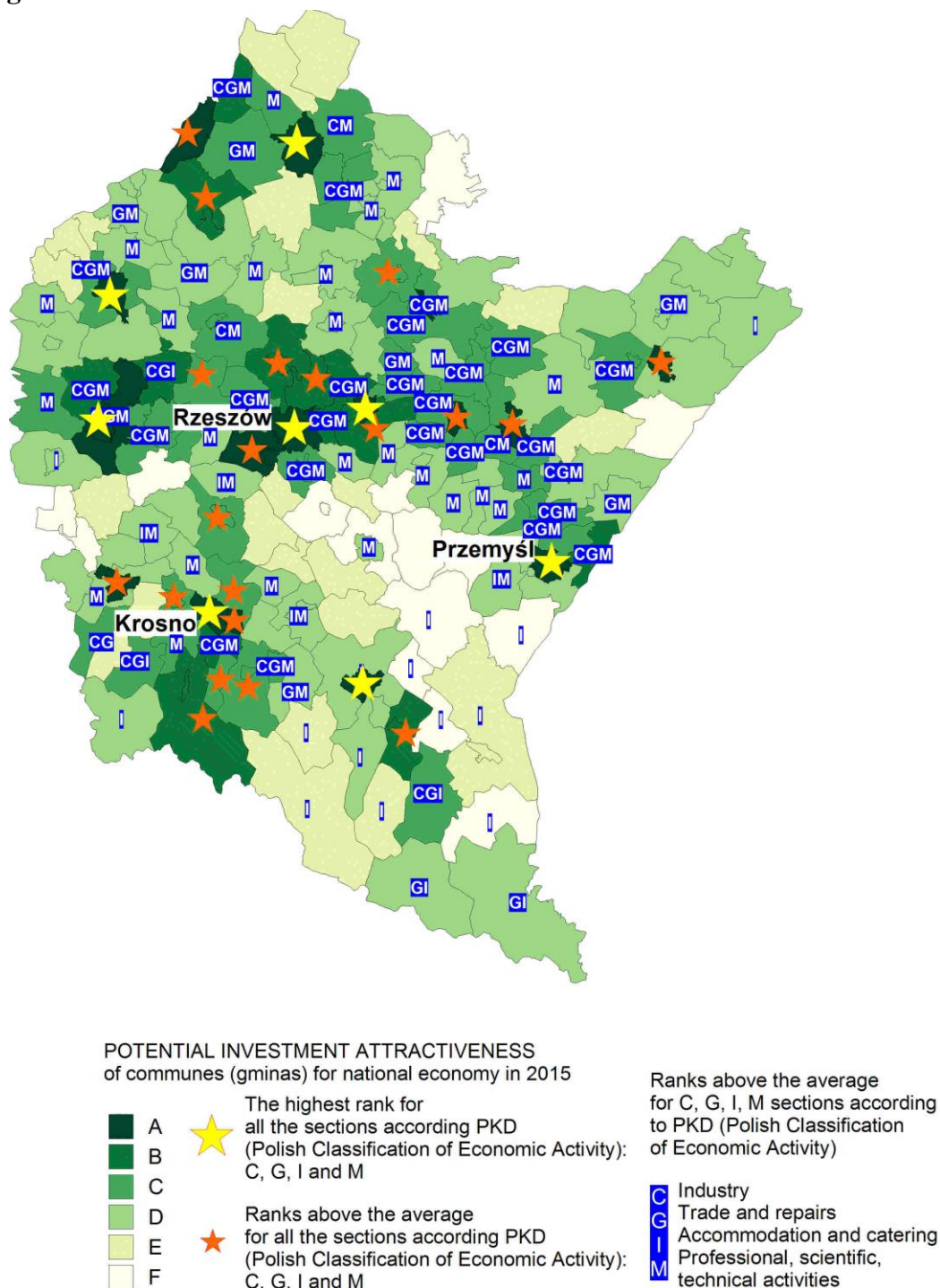
- C Industry
- G Trade and repairs
- I Accommodation and catering
- M Professional, scientific, technical activities

Golden star counties:

Krosno, Rzeszów

Source: Author's own work.

Chart 2. Potential investment attractiveness of communes of Subcarpathian voivodship, considering the most attractive sections



Golden star communes:

Dębica (u), Krosno (u), Łańcut (u), Mielec (u), Przemyśl (u), Rzeszów (u),
Sanok (u), Stalowa Wola (u)

Source: Author's own work.

An **orange star** means that a county or a commune was rated above average in all the sections analysed (national economy, industry, trade, tourism and professional services) and the **golden star** is the highest distinction and means that all the rated sections in a particular commune or county were ranked at the highest level.

When it comes to counties, the highest ranked **distinguished with golden star** cities are: Krosno, Rzeszów. The highest ranked **distinguished with an orange star** are city of Przemyśl, city of Tarnobrzeg, Lesko County.

When it comes to urban communes, the highest ranked of them were:

- **distinguished with golden star:** Dębica (u), Krosno (u), Łańcut (u), Mielec (u), Przemyśl (u), Rzeszów (u), Sanok (u), Stalowa Wola (u),
- **distinguished with an orange star:** Jarosław (u), Jasło (u), Lubaczów (u), Przeworsk (u), Tarnobrzeg (u).

Among rural communes the highest rank communes include:

- **distinguished with an orange star:** Korczyna (r), Krościenko Wyżne (r), Łańcut (u), Trzebownisko (r).

Among urban-rural communes the highest rank communes include:

- **distinguished with an orange star:** Boguchwała (u-r), Dukla (u-r), Głogów Małopolski (u-r), Iwonicz-Zdrój (u-r), Jedlicze (u-r), Lesko (u-r), Nowa Dęba (u-r), Nowa Sarzyna (u-r), Rymanów (u-r), Sędziszów Małopolski (u-r), Strzyżów (u-r).

4. VOIVODSHIP'S INSTITUTIONAL SUPPORT FOR INVESTORS AND ENTREPRENEURS

The development of business environment institutions in a region is a vital component of its investment attractiveness. The institutions that support entrepreneurship, pro-investment solutions, research commercialization and enterprises' innovativeness are of special importance.

4.1. BUSINESS ENVIRONMENT INSTITUTIONS

Among business environment institutions (excluding R&D institutions) that influence region's economic development are: chambers of commerce, associations, business incubators, technology

parks, technology transfer centres, consulting centres, financial institutions and development agencies.⁵

For the investors especially important is a system of regional Investor Assistance Centres set up by the Polish Information and Foreign Investment Agency in consultation with voivodships' marshals to ensure complex services for investors in each voivodship.

**In Subcarpathian voivodship such centre is:
Investor Assistance Centre operating within the structure of
Rzeszów Regional Development Agency SA**

www.coi.rzeszow.pl



Subcarpathian Investor Assistance Centre is a partner of the Polish Information and Foreign Investment Agency and a one stop shop: a source of regional information that is useful for investors, legal acts, investment offers and current data on region's economy. The personnel of the centre have qualifications to offer services for investors and are working according to the standards set by the Polish Information and Foreign Direct Investment Agency, which offers it substantive help and trainings.

An important tool supporting investors are the Special Economic Zones, which are described in the further part of this report.

Below some chosen business environment institutions are presented that operate for entrepreneurship development by supporting development of new technologies and cooperation of enterprises.

These institutions are among others:

Chamber of Industry and Commerce in Rzeszów (www.iph.rzeszow.pl)

The chamber is an organization offering: information, training, counselling, promotion and marketing, legalization of export documents, issuing certificates of origin of goods, organization of courses, seminars, workshops, training, trade missions, assistance in matching companies, help with finding financing. The chamber also provides advisory services and assistance in preparation of documents for companies applying for grants and funding from the government and the EU. The Chamber acknowledges the best performing firms in their business award "Leader

⁵ Information included in this part of the report refer to the end of 2015.

of the Subcarpathian voivodship", as well as certifications "Reliable Company" for businesses operating in the Subcarpathian voivodship as well as beyond its borders.

Subcarpathian Business Club (www.pkb.net.pl)

The club was founded to support and integrate the businesses and Subcarpathian employers. The club organizes joint purchasing groups and builds prestige of Subcarpathian entrepreneurship. Goals of the club are: helping members, co-operating with the authorities in the implementation of projects of importance for the region and the members of the Club, participating in public consultation, preparing expertise and inquiries on matters relating to the business community, organizing and conducting system of advisory and consulting, training, seminars and conferences, conducting information system serving economic contacts, organizing trade missions, meetings and other club events, promotions, banquets and exhibitions. In 2012. GDP Loan Fund was established from own funds of the club. On the website of the Club operates sales platform that enables members of the Club of the sale of goods and services.

Business Promotion Centre in Rzeszów (www.cpb.rze.pl)

The Centre supports companies from Subcarpathian voivodship by their promotion. The main goal of the Centre is to help companies in creating a positive image. The Centre offers web development and hosting services - maintenance of websites, file servers and databases. The Centre operates such projects as: Fair Play Enterprise, Employment Fair Play, Subcarpathian Economic Award, Subcarpathian Quality Award, Subcarpathian Service Economic Program "Tasty Because Subcarpathian".

Science and Technology Park of Podkarpacie - AEROPOLIS (www.aeropolis.com.pl)

It is the first industrial park in Poland, which is to uphold the traditions of aviation. The main objective of the Park is to facilitate the establishment of both big investors and small and medium-sized enterprises, with a particular focus on innovative enterprises and introducing products / services technologically advanced. AEROPOLIS is an idea for acquiring new technologies and at the same time exploiting the potential of local universities and research centers - research. Park offer includes: investment areas, providing office space for rent, production - service, production, and conference rooms, the Academic Pre-incubator and Technology Incubator, support services for businesses located in the Park, networking, business brokerage services and auxiliary assistance in raising funds (including the EU).

Industry Park in Mielec (www.marr.com.pl, <http://www.intech-mielec.pl>)

The Regional Development Agency (MARR) is responsible for managing the Park. The aim of the Construction of New Technology Incubator In-Tech, along with the expansion of the Industry Park Mielec implemented under Measure I.3. Operational Programme Development of Eastern Polish 2007-2013, project is preparation of land for economic activity through modernization and expansion of the existing technical infrastructure and building new infrastructure necessary for the proper functioning of the Park. In addition, the goal of the project is to provide potential investors with manufacturing and service area to do business. Through the project,

were armed 12.6365 ha of investment areas, built and modernized production area and service on the basis of the purchased equipment was set up facilities research - development (laboratory and prototype) available for innovative micro, small and medium-sized enterprises. Incubators offer New Technologies TECH IN-1 and IN-TECH 2 includes services related to: rental of office space, social and economic infrastructure of the full basic internal and external, as well as renting conference rooms.

Industry and Technology Park in Tarnobrzeg (www.tppt.tarnobrzeg.pl)

The main goal of the park is to increase the investment attractiveness of the Subcarpathian region and stimulate local entrepreneurship by providing good conditions for conducting business. The goal is being achieved through increasing innovation of local economy, effective management of post-productive assets and providing infrastructure services and consulting. In the park investors can find three zones, including: industrial zone (production hall) and technology zone (Technology Incubator). In addition, the Park offer includes investment areas. The area of the park is a part of Tarnobrzeg Special Economic Zone called EURO-PARK WISŁOSAN. In facilities of Park investors can start their business in innovative technologies, as well as companies who offer service and consulting providing services for entrepreneurs operating in the Park.

Regional Development Agency in Rzeszów (www.rarr.rzeszow.pl)

The aim of the agency is to carry out activities for development of the Subcarpathian voivodship by focusing and mobilizing the potential of local and advisory activities and services in restructuring processes, opening and supporting business ventures, promotion of the region and attract foreign capital. The offer includes: consultancy, training, building design, as well as organization of trade missions. Operates within the Agency Loan Fund. Moreover Agency offers services related to directory listings and technological needs network of technological exchange IRC - Innovation Relay Centres Network (directory contains listings and inquiries made by technology companies, universities, R & D centres and laboratories). The Agency also provides consulting services related to obtaining funds from the EU funds for investment projects.

MARR Regional Development Agency (www.marr.com.pl)

The Agency's role is to initiate, organize and support the restructuring and economic development through the integration of Mielec County people and institutions. The offer includes: training, advisory, accounting, financial services (within the Agency operates Loan Fund providing investment and working capital loans to the sector of micro, small and medium-sized enterprises investing in Podkarpacie). In the structures MARR operates Mielec Industrial Park, Incubator of New Technologies, Measurement Laboratory and Prototype, as well as agency real estate agents. Regional Development Agency MARR SA Regional was the operator of the Regional Centre for Vocational Education and New Technologies in Strzyżów offering specialized courses and training in modern laboratories equipped with machinery and equipment with high technical parameters and teaching.

Regional Development Agency in Tarnobrzeg (www.tarr.pl)

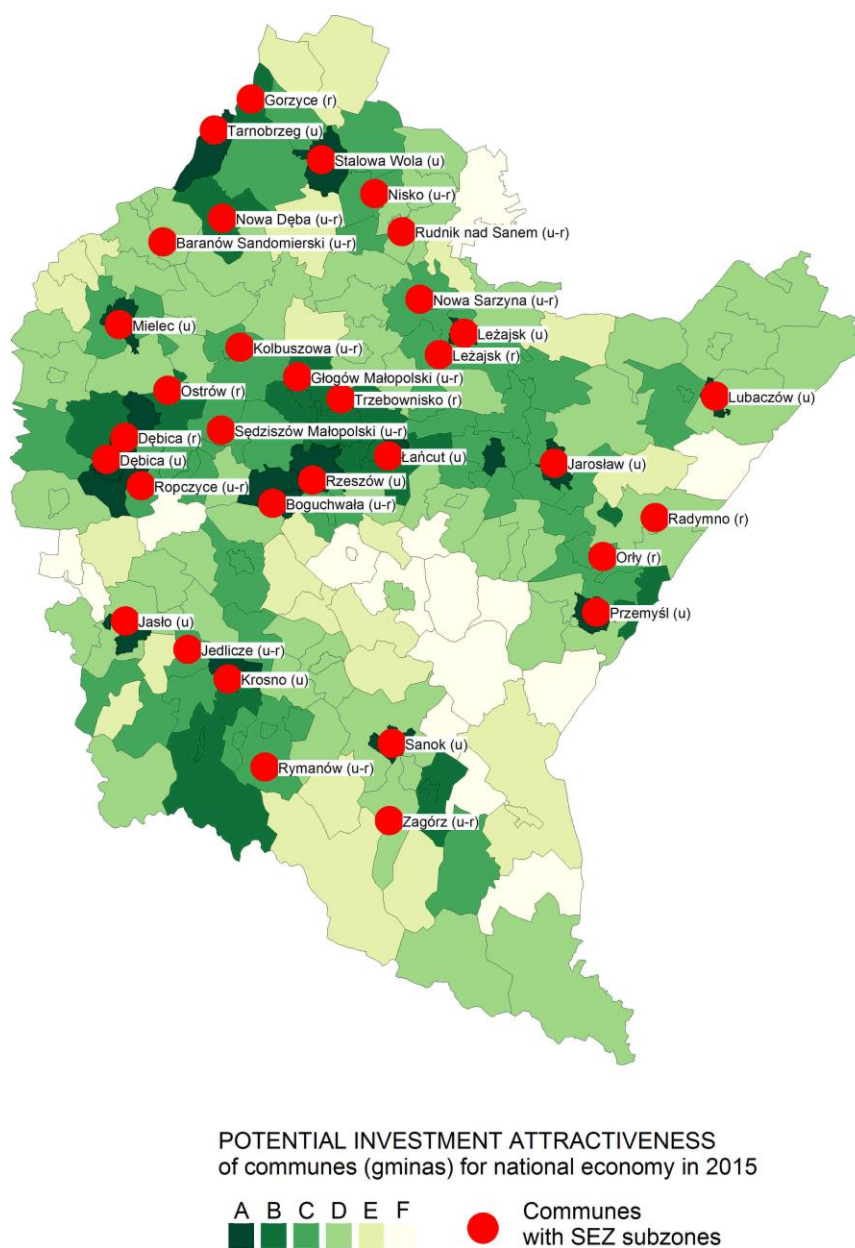
TARR offer includes: sharing office space to conduct business within the Business Incubator, financial support (Loan Fund), help with applying for financial support from external sources, training, organization of trade missions, association of Polish and foreign partnerships, local government units, assistance for projects in the field of development of investment areas Tarnobrzeg Industry and Technology Park (Agency is the operator of the Park). Agency gives the opportunity to do business as part of the Academic Business Incubator. The Agency is one of the founding members of the group for the automotive cluster Automotive Alliance East.

4.2. SPECIAL ECONOMIC ZONES IN THE VOIVODSHIP – EFFECTS

There are three SEZ operating in the Subcarpathian voivodship: Mielec, Tarnobrzeg i Kraków. At the end of 2015 the areas of the SEZ were parts of 13 cities and 20 communes (in Krosno there are 2 SEZ: Kraków i Mielec) – see Chart 3.

The Subcarpathian SEZs were created in 1995. Till the end of 2015 the enterprises operating in the Subcarpathian SEZ's subzones have invested PLN 7 bln in this area which is 6% of all investment outlays in the Polish SEZs. In the same time the enterprises created 31.8 thousand new jobs in the region, which was 10% of all new jobs created in the Polish economic zones - see Table 4 in the Appendix.

Investments of highest value came to Mielec and Stalowa Wola. The structure of investments in Mielec is dominated by wood and products of wood and cork, except furniture and articles of straw and materials of a kind used for weaving Swedwood Poland Ltd. and because of the number of operators dominate rubber and plastic products: Plastic Factory COBI SA, Plastwag SA, Polish - Korean PP-H JOONGPOL Ltd., Wojciech Tycner, SAMDEX Ltd., Temar Ltd., ZPTSz "PZL - Mielec" Ltd., fabricated metal products: Alpha Technology Ltd. Sp. k., BASCO 2 Andrzej Nawrot & Partners. J., Casmet - The Joseph Malecki, DUL MAR Sp.j., Eurotech Ltd., the company Tarapata Ltd., FPUH Mechanics Lesniak Danuta and Adam, METALPOL Ltd., P & S Ltd., REGMOT Ltd., RSM Zakł.Prod. Machinery and Equipment Ltd., RENNtech Ltd. SSC Ltd. Limited Partnership, FPU WALDREX sc, Yasa Motors Poland Ltd., Department of Furniture Accessories Gładyszek Sp. j., EC AVIOTECH Ltd. (d. Plant Tool PRODREM Ltd. Department of "RPOL" Roman Polit and motor vehicles: King & Fowler Poland Ltd., Kirchhoff Poland Ltd., Gardner Aerospace - Mielec Company Ltd., Remog Poland Ltd., WAW Mielec Ltd., GALWEX Onions Elvira & Partners Sp.j., Leopard Automobile Mielec LTd., STAMET - Stanislaw Stachura, Automotive Coachbuilding and Design Ltd., Production Plant Kamot-Mielec SA, Lear Corporation Poland II Ltd., MELEX A & D Tyszkiewicz s.j. In Stalowa Wola dominates production of metal and aluminium processing: ATS Stahlschmidt & Maiworm Ltd., HSW - Department Forge Forging Ltd., MCS-METAL CLEANING SERVICE Ltd., Uniwheels Production Poland Ltd., Eurometal SA, IWAMET Ltd. Domostal s.c., Department of Mechanical Engineering "TASTA" Ltd., RAKOCZY STEEL, BAGPAK Poland Ltd., WOBI STEEL Ltd.

Chart 3. The location of SEZs in Subcarpathian voivodship

Source: Authors' own work.

According to the Subcarpathian SEZ development plan, the voivodship intends to acquire the following kinds of investors:

- contributing to the development of the cluster "Aviation Valley" and the investment of electrical engineering and chemical industry, supporting industry traditions of the region for Kraków SEZ and Mielec SEZ,
- developing traditional industries to the region, especially the chemical, construction materials and electrical engineering, processing of aluminium, for Tarnobrzeg SEZ.

APPENDIX

Table 1. POTENTIAL INVESTMENT ATTRACTIVENESS OF POLISH VOIVODSHIPS FOR THE NATIONAL ECONOMY AND ITS SELECTED SECTIONS

Voivodship	PAI1_GN	PAI1_GN	PAI1_C	PAI1_G	PAI1_I	PAI1_M
	National economy	National economy	Industry	Trade and repairs	Accommodation and catering	Professional, scientific and technical activities
Voivodships						
LOWER SILESIAN	0.868	A	A	A	B	B
KUYAVIAN-POMERANIAN	0.556	C	C	E	E	D
LUBLIN	0.131	F	F	F	F	F
LUBUSZ	0.296	E	E	D	D	E
ŁÓDŹ	0.636	C	B	E	E	D
LESSER POLAND	0.759	B	B	A	A	B
MAZOVIAN	1.000	A	A	A	A	A
OPOLE	0.243	E	E	E	F	E
SUBCARPATHIAN	0.314	E	E	D	E	D
PODLASKIE	0.210	E	E	E	D	E
POMERANIAN	0.716	B	C	A	A	B
SILESIAN	0.988	A	A	C	C	A
ŚWIĘTOKRZYSKIE	0.000	F	F	F	F	F
WARMIAN-MASURIAN	0.291	E	E	C	C	D
GREATER POLAND	0.618	C	C	B	D	B
WESTERN POMERANIAN	0.693	B	C	D	A	C

Source: Authors on the basis of the results of statutory research carried out in Collegium of Business Administration under the guidance of H. Godlewska-Majkowska (2016).

Table 2. POTENTIAL INVESTMENT ATTRACTIVENESS OF COUNTIES OF SUBCARPATHIAN VOIVODSHIP FOR THE NATIONAL ECONOMY AND SELECTED SECTIONS

County	PAI1_GN	PAI1_GN	PAI1_C	PAI1_G	PAI1_I	PAI1_M
	National economy	National economy	Industry	Trade and repairs	Accommodation and catering	Professional, scientific and technical activity
Counties						
city of Rzeszów	0.326	A	A	A	A	A
city of Krosno	0.319	A	A	A	A	A
city of Tarnobrzeg	0.272	A	A	A	B	A
city of Przemyśl	0.259	B	B	A	A	A
Lesko	0.234	C	B	B	A	C
Stalowa Wola	0.214	C	C	D	D	C

Source: Authors on the basis of the results of statutory research carried out in Collegium of Business Administration under the guidance of H. Godlewska-Majkowska (2016).

Table 3. POTENTIAL INVESTMENT ATTRACTIVENESS OF COMMUNES OF SUBCARPATHIAN VOIVODSHIP FOR THE NATIONAL ECONOMY AND SELECTED SECTIONS

Commune	PAII_GN	PAII_GN	PAII_C	PAII_G	PAII_I	PAII_M
	National economy	National economy	Industry	Trade and repairs	Accommodation and catering	Professional, scientific and technical activity
Urban communes						
Krosno (u)	0.222	A	A	A	A	A
Rzeszów (u)	0.221	A	A	A	A	A
Mielec (u)	0.208	A	A	A	A	A
Łańcut (u)	0.202	A	A	A	A	A
Jasło (u)	0.201	A	A	A	C	A
Sanok (u)	0.198	A	A	A	A	A
Dębica (u)	0.193	A	A	A	A	A
Tarnobrzeg (u)	0.191	A	A	A	B	A
Przemyśl (u)	0.189	A	A	A	A	A
Jarosław (u)	0.189	A	A	A	B	A
Przeworsk (u)	0.188	A	A	A	B	A
Stalowa Wola (u)	0.187	A	A	A	A	A
Leżajsk (u)	0.185	A	A	A	D	A
Lubaczów (u)	0.177	A	A	B	B	A
Radymno (u)	0.169	B	B	B	E	A
Rural communes						
Krośnice (r)	0.187	A	A	A	B	A
Dębica (r)	0.178	A	B	B	D	A
Trzebnica (r)	0.173	B	B	B	B	A
Krasne (r)	0.171	B	B	B	E	A
Ostrów (r)	0.164	B	B	C	B	D
Miejsce Piastowe (r)	0.163	B	B	B	D	B
Gorzyce (r)	0.163	B	C	B	E	B
Medyka (r)	0.162	B	B	B	E	B
Łańcut (r)	0.162	B	C	C	C	A
Żyrardów (r)	0.159	B	C	C	D	B
Czarna (r)	0.159	B	C	C	E	B
Jarosław (r)	0.159	C	C	C	E	B
Tryńcza (r)	0.158	C	C	B	E	C
Świeża (r)	0.156	C	C	C	D	B
Pawłosiów (r)	0.156	C	C	D	E	C
Żurawica (r)	0.155	C	C	C	E	B
Zarzecze (r)	0.154	C	C	C	E	B

Białobrzegi (r)	0.153	C	C	C	E	B
Orły (r)	0.152	C	C	C	E	B
Besko (r)	0.151	C	C	C	F	B
Mielec (r)	0.151	C	C	C	E	B
Solina (r)	0.151	C	C	B	A	D
Przeworsk (r)	0.149	C	C	C	F	B
Gać (r)	0.149	C	C	C	E	B
Nowy Żmigród (r)	0.149	C	C	C	B	D
Leżajsk (r)	0.148	C	C	C	E	C
Dębowiec (r)	0.146	C	C	C	D	D
Korczyna (r)	0.146	C	C	C	A	C
Jaśliska (r)	0.145	C	C	B	B	F
Żołynia (r)	0.145	C	D	C	E	B
Chorkówka (r)	0.145	C	D	D	D	C
Chłopice (r)	0.144	C	D	D	E	C
Pysznica (r)	0.144	C	C	D	D	C
Grębow (r)	0.143	C	D	C	D	C
Czarna (r)	0.143	C	D	D	D	C
Zaleszany (r)	0.142	C	D	D	F	C
Urban-rural communes						
Boguchwała (u-r)	0.182	A	A	B	B	A
Lesko (u-r)	0.171	B	B	B	A	B
Głogów Małopolski (u-r)	0.171	B	B	C	B	B
Nowa Dęba (u-r)	0.167	B	B	B	B	B
Dukla (u-r)	0.160	B	B	B	A	C
Ropczyce (u-r)	0.156	C	C	C	D	B
Rymanów (u-r)	0.155	C	C	C	B	C
Nisko (u-r)	0.154	C	C	C	D	C
Iwonicz-Zdrój (u-r)	0.153	C	C	C	B	C
Jedlicze (u-r)	0.153	C	C	C	B	B
Nowa Sarzyna (u-r)	0.152	C	C	C	C	B
Sędziszów Małopolski (u-r)	0.152	C	C	C	C	B
Oleszyce (u-r)	0.148	C	C	C	D	B
Sieniawa (u-r)	0.147	C	C	C	D	B
Kolbuszowa (u-r)	0.146	C	C	D	E	C
Strzyżów (u-r)	0.145	C	C	C	C	C
Tyczyn (u-r)	0.142	C	C	C	D	B

Notice: (u) – urban commune, (r) – rural commune, (u-r) – urban-rural commune

Source: As for Table 1., Note: All the indices in the report have been calculated on the basis on the most up-to-date data from the Local Data Bank (LDB), 2016.

Table 4. EFFECTS OF SPECIAL ECONOMIC ZONE FUNCTIONING AT THE END OF 2015

SEZ	County, commune	Cumulated capital expenditure in million PLN	New jobs number	Leading industries (at least 20% share of revenue or employment)
Kraków	Leżajsk, Nowa Sarzyna (u-r)	6	-	chemicals and chemical products
Kraków	Rzeszów, Boguchwała (u-r)	1	-	machinery and equipment nec
Kraków/ Mielec	city of Krosno, Krosno (u)	71	113	rubber and plastic
Mielec	Dębica, Dębica (u)	308	25	rubber and plastic
Mielec	Dębica, Dębica (r)	352	243	rubber and plastic
Mielec	Jarosław, Jarosław (u)	5	85	motor vehicles (excluding motorcycles), trailers and semi-trailers
Mielec	Jarosław, Radymno (r)	-	-	no leading industry
Mielec	Kolbuszowa, Kolbuszowa (u-r)	4	4	storage and support services for transportation
Mielec	Leżajsk, Leżajsk (u)	-	-	no leading industry
Mielec	Leżajsk, Leżajsk (r)	-	-	no leading industry
Mielec	Lubaczów, Lubaczów (u)	15	27	machinery and equipment nec
Mielec	łańcucki, Łańcut (u)	25	2	other products
Mielec	city of Rzeszów, Rzeszów (u)	85	293	manufacture of other transport equipment
Mielec	Mielec, Mielec (u)	1 558	4 575	
Mielec	Ropczyce-Sędziszów, Ostrów (r)	4	2	fabricated metal products, except machinery and equipment
Mielec	Ropczyce-Sędziszów, Ropczyce (u-r)	21	178	computers, electronic and optical products; manufacture of other transport equipment

Mielec	Ropczyce-Sędziszów, Sędziszów Małopolski (u-r)	-	-	no leading industry
Mielec	Rzeszów, Głogów Małopolski (u-r)	408	1 715	rubber and plastic
Mielec	Rzeszów, Trzebownisko (r)	1 286	2 404	machinery and equipment nec; motor vehicles (excluding motorcycles), trailers and semi-trailers; manufacture of other transport equipment
Mielec	Sanok, Sanok (u)	23	175	wood and products of wood and cork, except furniture; articles of straw and materials of a kind used for plaiting
Mielec	Sanok, Zagórz (u-r)	94	541	rubber and plastics; motor vehicles (excluding motorcycles), trailers and semi-trailers
	Jasło, Jasło (u)	96	413	wood and products of wood and cork, except furniture; articles of straw and materials of a kind used for weaving; furniture
Tarnobrzeg	Krosno, Jedlicze (u-r)	-	-	no leading industry
Tarnobrzeg	Krosno, Rymanów (u-r)	38	253	wood and products of wood and cork, except furniture; articles of straw and materials of a kind used for weaving; products of other non-metallic mineral
Tarnobrzeg	city of Przemyśl, Przemyśl (u)	13	42	metals; fabricated metal products, except machinery and equipment
Tarnobrzeg	city of Tarnobrzeg, Tarnobrzeg (u)	457	645	products of other non- metallic mineral
Tarnobrzeg	Nisko, Nisko (u-r)	68	593	fabricated metal products, except machinery and equipment
Tarnobrzeg	Przemyśl, Orły (r)	2	-	Products of agriculture, hunting and related support services
Tarnobrzeg	Stalowa Wola, Stalowa Wola (u)	1 401	3 874	fabricated metal products, except machinery and equipment; motor vehicles (excluding motorcycles), trailers and semi-trailers; machinery and equipment

				nec
Tarnobrzeg	Tarnobrzeg, Baranów Sandomierski (u-r)	-	-	no leading industry
Tarnobrzeg	Tarnobrzeg, Gorzyce (r)	349	1 268	metals
Tarnobrzeg	Tarnobrzeg, Nowa Dęba (u-r)	335	685	basic pharmaceutical substances, medicines and other pharmaceutical products; fabricated metal products, except machinery and equipment
Tarnobrzeg	Nisko, Rudnik nad Sanem (u-r)	-	-	no leading industry

Source: Authors' own calculations based on the Ministry of Economy data.

TABLE 5. UNIVERSITIES, FACULTIES AND ITS CATEGORIES

School name	Category of the Ministry of Science and Higher Education
Bronisław Markiewicz State Higher College of Technology and Economics in Jarosław	no data
State College of Eastern Europe in Przemyśl	no data
Jan Grodek State Higher Vocational School in Sanok	no data
Prof. Stanisław Tarnowski State Higher Vocational School in Tarnobrzeg	no data
Stanislaus Pigoń State Higher Vocational School in Krosno	no data
Higher Education School - Bl. Fr. Władysław Findysz in Jasło	no data
Ignacy Łukasiewicz University of Technology in Rzeszów	A - Faculty of Mathematics and Applied Physics
	B - Civil and Environmental Engineering
	B - Electrical Engineering and Computer Science
	B - Faculty of Chemistry
	B - Faculty of Mechanical Engineering and Aeronautics
	B - Management Department
Polish-Czech College of Business and Sport "Collegium Glacense" in Stalowa Wola	no data
University of Rzeszów	A - Biotechnology Institute of Applied and Basic Sciences
	B - Faculty of Philology
	B - Faculty of Sociology and History
	B - Faculty of Medicine
	B - Faculty of Biology and Agriculture
	B - Faculty of Mathematics and Natural Sciences
	B - Faculty of Pedagogy and Fine Arts
	B - Faculty of Arts
	B - Faculty of Economics
	B - Faculty of Law and Administration

School of Safety in Przemysl	no data
Higher School of Economics in Stalowa Wola	no data
School of Computer Science and Management in Przemysl	no data
University of Information Technology and Management in Rzeszów	B - Faculty of Administration and Social Sciences
	B - Faculty of of Tourism and Health Sciences
	B - Faculty of Economics
	C - Faculty of Applied Informatics
School of Engineering and Economics in Rzeszow	no data
School of Law and Administration in Przemysl	C - School of Law and Administration in Przemysl; Faculty of Law and Administration in Rzeszow
Higher School of Social and Economic in Przeworsk	no data

Source: Authors' own work based on the Official Journal of the Ministry of Science and Higher Education Warsaw, 9 July 2014 .; Item 38; Communication from the Minister of Science and Higher Education of July 4, 2014 year; of scientific terms granted to scientific institutions.

Translation and editing of the report: Paulina Mechło