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REGIONAL INVESTMENT ATTRACTIVENESS 2012

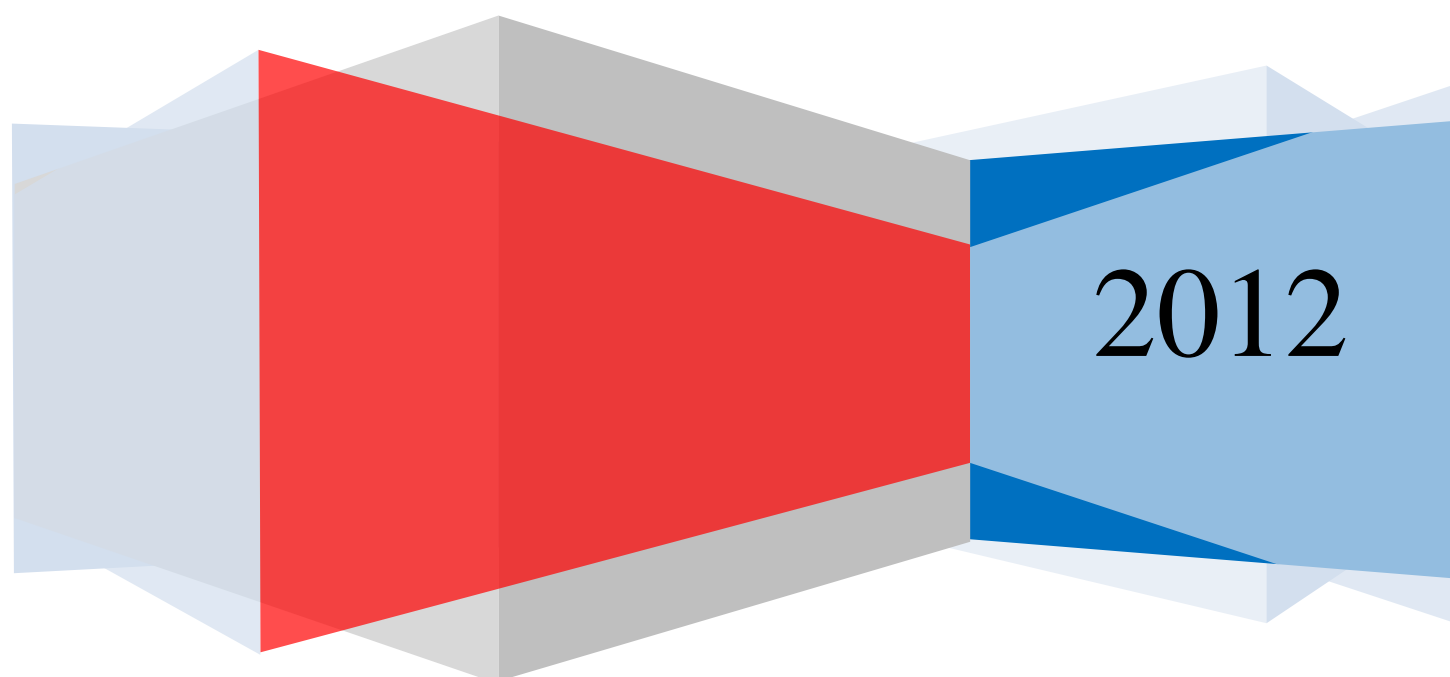
Subcarpathian voivodship

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Introduction

This report has been prepared thanks to the application of results of scientific research conducted since 2002 by the Institute of Enterprise, Collegium of Business Administration of the Warsaw School of Economics, under the supervision of Prof. H. Godlewska-Majkowska, Ph.D. All Authors are core members of the team that develops the methodology of calculating regional investment attractiveness in order that important characteristics of regions are captured as closely as possible both in general terms and from a point of view of specificity of a given kind of business activity as well as a size of investment.

Potential investment attractiveness (PAI) indices measure the location-specific advantages of regions. In their simplified version they are calculated for territorial units of various levels of statistical division of the country (gminas/communes, poviats/counties, subregions, voivodships/regions). These are PAI1 indices, which refer to the whole regional/national economy (PAI1_GN) and selected sections: C – manufacturing industry, G – trade and repair, I – tourism and catering, M – professional, scientific and technical services.

Besides, some indices are only calculated for voidoships on the basis of much more characteristics available on the regional or macroregional level. This allows us to evaluate 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 (PAI2_C, PAI2_G, PAI2_I, PAI2_M).

What is more, real investment attractiveness ranks are used in this report, 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 previously made.

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 organisations of entrepreneurs. A description of methodological approach to measuring investment attractiveness of Polish regions, counties and communes can be found online on the Web site of the Institute of Enterprise : www.sgh.waw.pl/instituty/ip, on the Web site of the Centre for Regional and Local Analyses, which cooperates with the Institute of Enterprise: www.caril.edu.pl, as well as in numerous scientific publications and expert opinions

1. The profile of regional economy of Subcarpathian voivodship

Subcarpathian voivodship is situated in south-eastern Poland. It borders on Slovakia (in the south) and the Ukraine (in the east). The region is endowed with rich deposits of such resources as: sulphur, oil and natural gas as well as mineral resources like gypsum, sandstones and limestone currently extracted in active modern mines. The main sectors of economy are agriculture, industry, extraction, the manufacture of food, the manufacture of pharmaceuticals, aviation and IT.

The main advantages of the voivodship are:

- the developing aviation industry,
- a well-established manufacture of pharmaceuticals, IT and food industry,
- the establishment of the Subcarpathian Science and Technology Park in Rzeszów,
- good transport connections: international airport, A4 highway, main transport corridors of the TINA network running through the voivodship,
- natural resources like sulphur, oil and natural gas, mineral resources extracted mainly in its mountainous southern part: sandstones, limestone, gypsum (including gypsum alabaster), ceramic loams, sands (including sands suitable for glass-making) and gravel as well as peat, mineral and thermal waters,
- large areas of forests make the voivodship an important producer of timber and give an opportunity of using wood biomass for the production of renewable energy,
- the accessibility of well-skilled human resources trained in management and technical fields, in particular in aviation, manufacture of electric machinery and manufacture of chemicals and chemical products (The Rzeszów University of Technology is the largest technical higher education institution of south-eastern Poland and the only training centre for civil pilots in Poland).

Additional information

Chart 1. General characteristics of the economy of Subcarpathian voivodship

| Feature | Subcarpathian voivodship | Poland | Share [%] |
|---|--------------------------|------------|-----------|
| Market Potential | | | |
| GDP per capita (PLN/person) in 2009 | 24,131 | 35,210 | - |
| Population (persons) on 31 December 2011 | 2,128,687 | 38,538,447 | 5.5 |
| Human Resources Potential | | | |
| Higher education institutions graduates (persons) in 2011 | 21,790 | 492,646 | 4.4 |

| | | | |
|--|---|---|------|
| Secondary schools graduates (persons) in 2011 | 29,117 | 421,724 | 6.9 |
| Number of employed persons on 31 December 2011 | 794.727 | 13.911.203 | 5.7% |
| Structure of employed persons in 2011 | agriculture 21.4% industry 30.4% services 48.2% | agriculture 12.7% industry 30.6% services 56.7% | |
| Investment outlays and capital of companies with foreign capital participation in the voivodship | | | |
| Investment outlays (PLN mln) in 2010 | 873.9 | 61,600.3 | 1.4 |
| Capital of companies (PLN mln) in 2010 | 2,198.4 | 188,812.4 | 1.2 |
| Special economic zones (SEZs) in the voivodship | | | |
| <div>- The Mielec SEZ, subzones: Dębica, Głogów Małopolski, Jarosław, Kolbuszowa, Laszki, Leżajsk, Ostrów, Ropczyce, Trzebowniko, Zagórz, Dębica (city), Jarosław (city), Leżajsk (city), Lubaczów (city), Mielec (city), Rzeszów (city), Sanok (city).</div> <div>- The Tarnobrzeg SEZ, subzone: Gorzyce, Jasło, Jedlicze, Nisko, Nowa Dęba, Orły, Rymanów, Jasło (city), Przemyśl (city), Przeworsk (city), Stalowa Wola (city), Tarnobrzeg (city),</div> <div>- The Cracow SEZ, subzones: Boguchwała, Krosno (city)</div> | | | |
| Investment attractiveness | | | |
| Potential investment attractiveness (location-specific advantages evaluation) | | | |
| Real investment attractiveness (economic effects evaluation) | | | |
| Poviats and gminas distinguished according to the Potential Attractiveness Index for the national economy | | | |
| Poviats | Class A | Krosno (city), Przemyśl (city), Rzeszów (city), | |
| | Class B | Tarnobrzeg (city) | |
| Gminas** | Class A | Krosno (1), Jarosław (1), Rzeszów (1), Mielec (1), Jasło (1), Łańcut (1), Sanok (1), Dębica (1), Leżajsk (1), Przemyśl (1), Stalowa Wola (1), Przeworsk (1), Tarnobrzeg (1), Krościenko Wyżne (2), Boguchwała (3), Dębica (2), Lubaczów (1) | |
| | Class B | Ropczyce (3), Jedlicze (3), Ostrów (2), Kolbuszowa (3), Krasne (2), Głogów Małopolski (3), Radymno (1), Dukla (3), Gorzyce (2), Trzebowniko (2), Nowa Dęba (3), Jarosław (2), Besko (2), Solina (2), Lesko (3), Iwonicz-Zdrój (3), Miejsce Piastowe (2), Nowa Sarzyna (3), Żyraków (2), Nisko (3) | |

In 2009 Subcarpathian voivodship made a contribution of 3.8% to the GDP of Poland. . Calculated per capita, it amounted to PLN 24.131 with the average for Poland PLN 35,210. With this result the voivodship occupies the fifteenth place in the country. The GDP growth rate in the period 2003-2009 amounted to 154,6%, while the national average reached 168.5%.

The number of inhabitants of the voivodship amounts to 3,298,270 (as of 2009), which makes up 8.6% of the population of Poland. In comparison with the whole country the structure of employment in the voivodship is characterised by a relatively low share of the service sector (48.2%) whereas a share of the agricultural and industrial sectors is respectively 21.4% and 30.4% (CSO, RDB 2012).

The number of inhabitants of the voivodship amounts to 2,128,687 (as of 2011), which makes up 5.5% of the population of Poland. The age structure of the voivodship in 2010 was as follows: 15.9% of the population at pre-reproductive age, 68.1% at reproductive age and 16.0% at post-reproductive age (for Poland, respectively, 15.1%, 68.1% and 16.9%). The registered unemployment rate in the voivodship in August 2012 was 15.3%, compared to 12.4% in Poland¹. The average gross monthly remuneration in enterprises sector in the first six months of 2012 amounted to PLN 2,994.1, which is 81.2% of average remuneration in Poland.

The main potential for human capital creation in the voivodship is constituted by 21 higher education institutions in which 70.9 thousand students study, which makes up 4.1% of all students Poland-wide. Moreover 6.7 % of pupils of secondary schools attend technikum schools and 5.8% vocational schools.

The voivodship's strategic sectors mentioned in the strategy of regional development include above all: aviation, the manufacture of electric machinery and equipment, food industry, the manufacture of chemicals and chemical products as well as tourism.

Preferential conditions of conducting business activities are offered in this voivodship i.a. by the following 3 special economic zone (in Polish: Specjalne Strefy Ekonomiczne, hence abbreviation SSE):

- Mielecka SSE (Mielec special economic zone), subzones: Dębica, Głogów Małopolski, Jarosław, Kolbuszowa, Laszki, Leżajsk, Ostrów, Ropczyce, Trzebnów, Zagórz, the city of Dębica, the city of Jarosław, the city of Leżajsk, the city of Lubaczów, the city of Mielec, the city of Rzeszów, the city of Sanok;
- Tarnobrzaska SSE (Tarnobrzeg special economic zone), subzone: Gorzyce, Jasło, Jedlicze, Nisko, Nowa Dęba, Orły, Rymanów, the city of Jasło, the city of Przemyśl, the city of Przeworsk, the city of Stalowa Wola, the city of Tarnobrzeg;
- Krakowska SSE (Cracow special economic zone), subzones: Boguchwała, the city of Krosno.

2. Region's rank in terms of investment attractiveness in Poland

Subcarpathian voivodship is characterised by a low level of universal investment attractiveness, which manifests itself in its rank (Class D) according to the main potential investment attractiveness index for the whole national economy PAI 2_GN. It has to be mentioned however, that this rank has improved since the last year's ranking. This also applies to the rise to Class D of the region's investment attractiveness for capital-intensive industry and professional, scientific and technical activities. In the simplified version (PAI1) the voivodship received an above-average class D of potential investment attractiveness for hostels and restaurants investments.

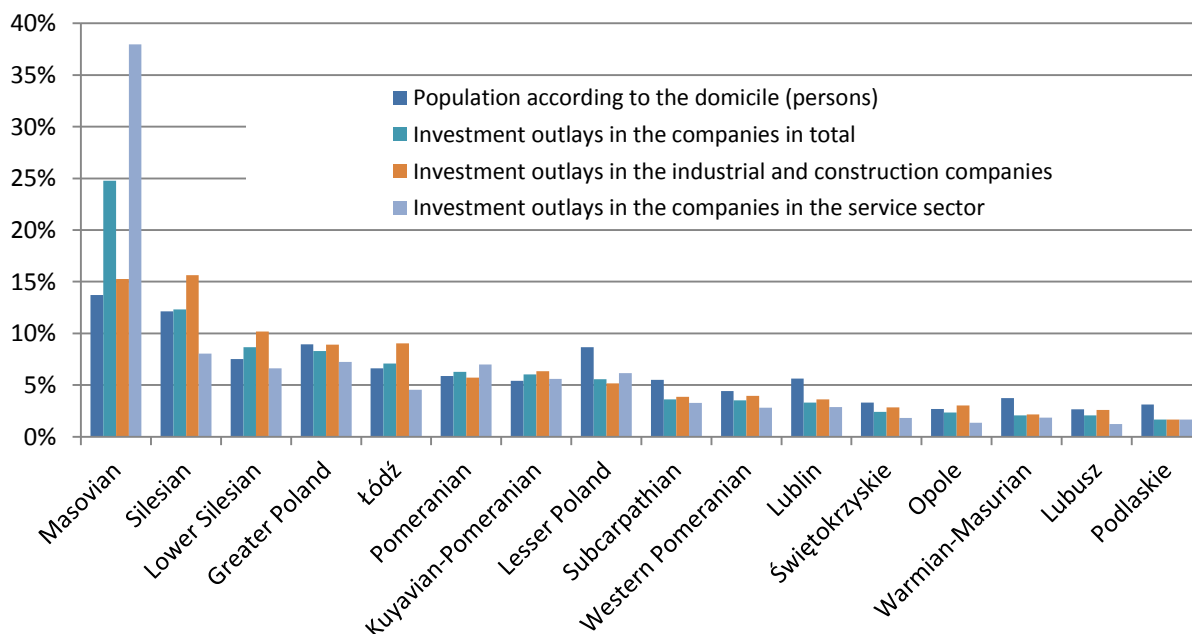
Investment attractiveness can also be determined on the basis of indices of real investment attractiveness (RAI), based on such microclimates as: returns on tangible assets, labour productivity, self-financing of self-government territorial units and investment outlays.

¹ The unemployment rate in voivodships, subregions and poviats in August 2012 is based on the data of Central Statistical Office.

The region received low ranks of RAI indices. In this field no major improvement is noted, but the real investment attractiveness of trade and repairs increased from Class F to E.

Potential and real investment attractiveness is reflected in the decisions of investors on capital flow. This is shown in Exhibit 1.

Exhibit 1. Regional structure of investment outlays in the companies in 2010 in comparison with the share in the population (percentage of country's population)



Note: these are the most up-to-date data.

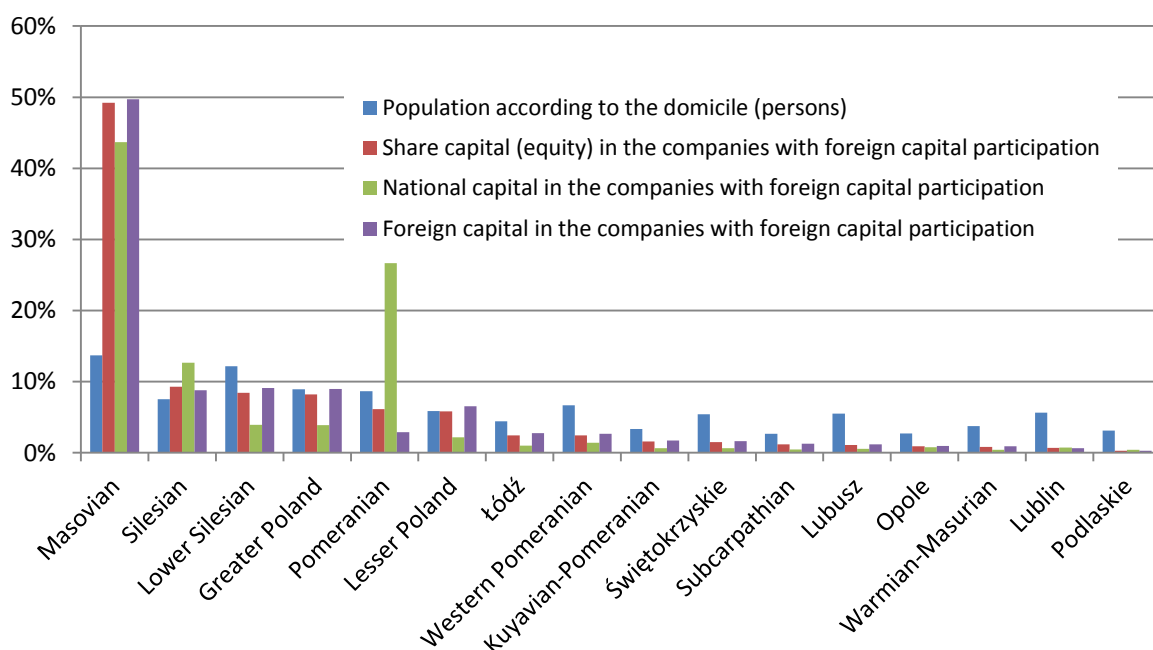
Source: Authors on the basis of the Local Data Bank (downloaded 23.10.2012)

In 2010 the Subcarpathian voivodship had a 3.6% share in investment layouts for companies which situated it in the ninth position. That means an improvement of two places in comparison to 2009. This improvement should be regarded positive but still the share of this voivodship in the total investment layouts in Poland is inferior to the demographic potential (6% of Poland's population). The problem applies to a similar extent to industry and services. The share of Subcarpathian voivodship in national investment layouts of industrial companies in 2010 equaled 3.9% and of service companies 3.3%. It was slightly higher among agricultural companies (4.9%).

Relevant human potential, in comparison with other voivodships, has not found proper reflection in the inflow of direct foreign investments - see Exhibit 2.

The share of Subcarpathian voivodship in the share capital is only 1.2%. This is too little in view of 5.5% of Poland's population. This phenomenon appears for both national and foreign capital. In the years 2003-2009 the voivodship has decreased its competitive position on direct foreign investments, as in these years its share decreased from 1.7% to 1.2% - see Exhibit 3. Also the competitive position measured as a number of employees of entities with foreign capital participation decreased from 3.1% to 2.4%. This indicates that the voivodship is not using its cost-driven competitive advantages, including those related to labour factor.

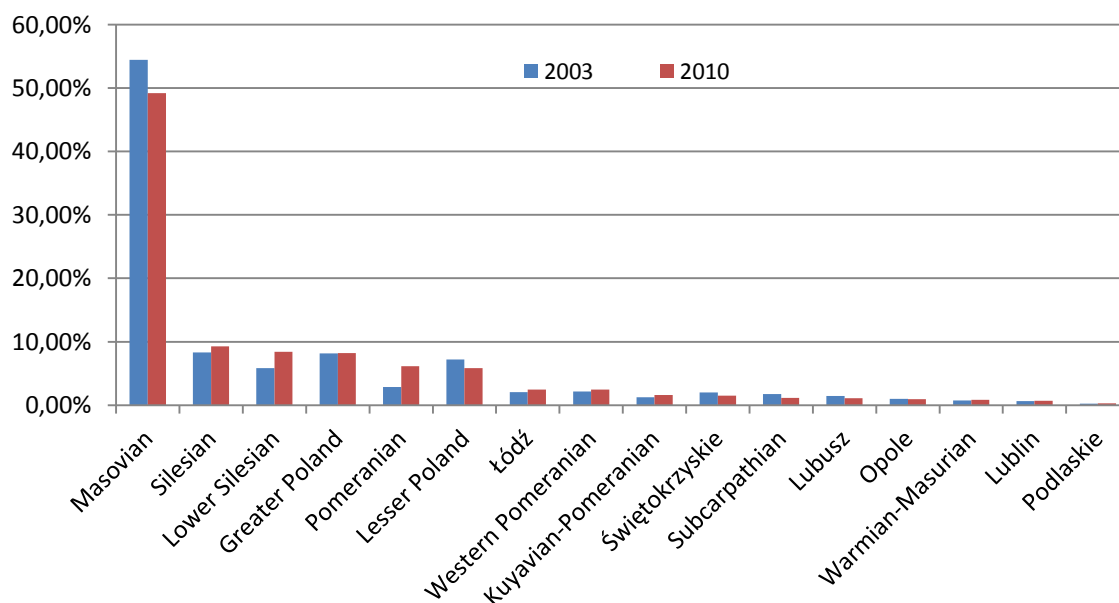
Exhibit 2. Regional structure of capital in the companies with foreign capital participation in comparison with a share in population (% national population)



Note: these are the most up-to-date data.

Source: Authors on the basis of the Local Data Bank (downloaded 23.10.2012)

Exhibit 3. Regional competitive rank in terms of investments with foreign capital participation according to the value of share capital of the companies with foreign capital participation in 2003 and 2010 (percentage of national representation)



Source: Authors on the basis of the Local Data Bank (downloaded 23.10.2012)

An opportunity for Subcarpathian voivodship lies in neatly prepared investment offers. Self-government units of Subcarpathian voivodship should seek opportunities in careful

preparation of offers of investment areas in accordance with their location-specific advantages.

3. Internal diversification of regional investment attractiveness

Poviats (counties)

The following poviats are considered most attractive in Subcarpathian voivodship: the city of Krosno, the city of Przemyśl, the city of Rzeszów, the city of Tarnobrzeg - see Chart 2.

Chart 2. Potential investment attractiveness of poviats of Subcarpathian voivodship for the national economy and selected sections

| Powiat | PAI1_GN | PAI1_GN | PAI1_C | PAI1_G | PAI1_I | PAI1_M |
|------------------------|---------|---------|--------|--------|--------|--------|
| The city of Krosno | 0,367 | A | A | A | A | A |
| The city of Rzeszów | 0,352 | A | A | A | A | A |
| The city of Przemyśl | 0,320 | A | B | A | B | A |
| The city of Tarnobrzeg | 0,299 | B | B | C | B | A |
| leski | 0,270 | C | C | B | A | D |
| stalowowolski | 0,270 | C | C | C | C | C |
| ropczycko-sędziszowski | 0,270 | C | C | D | D | C |
| dębicki | 0,268 | C | C | D | E | C |
| jarosławski | 0,267 | C | C | E | E | C |
| krośnieński | 0,265 | C | D | D | D | C |

Source: Authors' own materials.

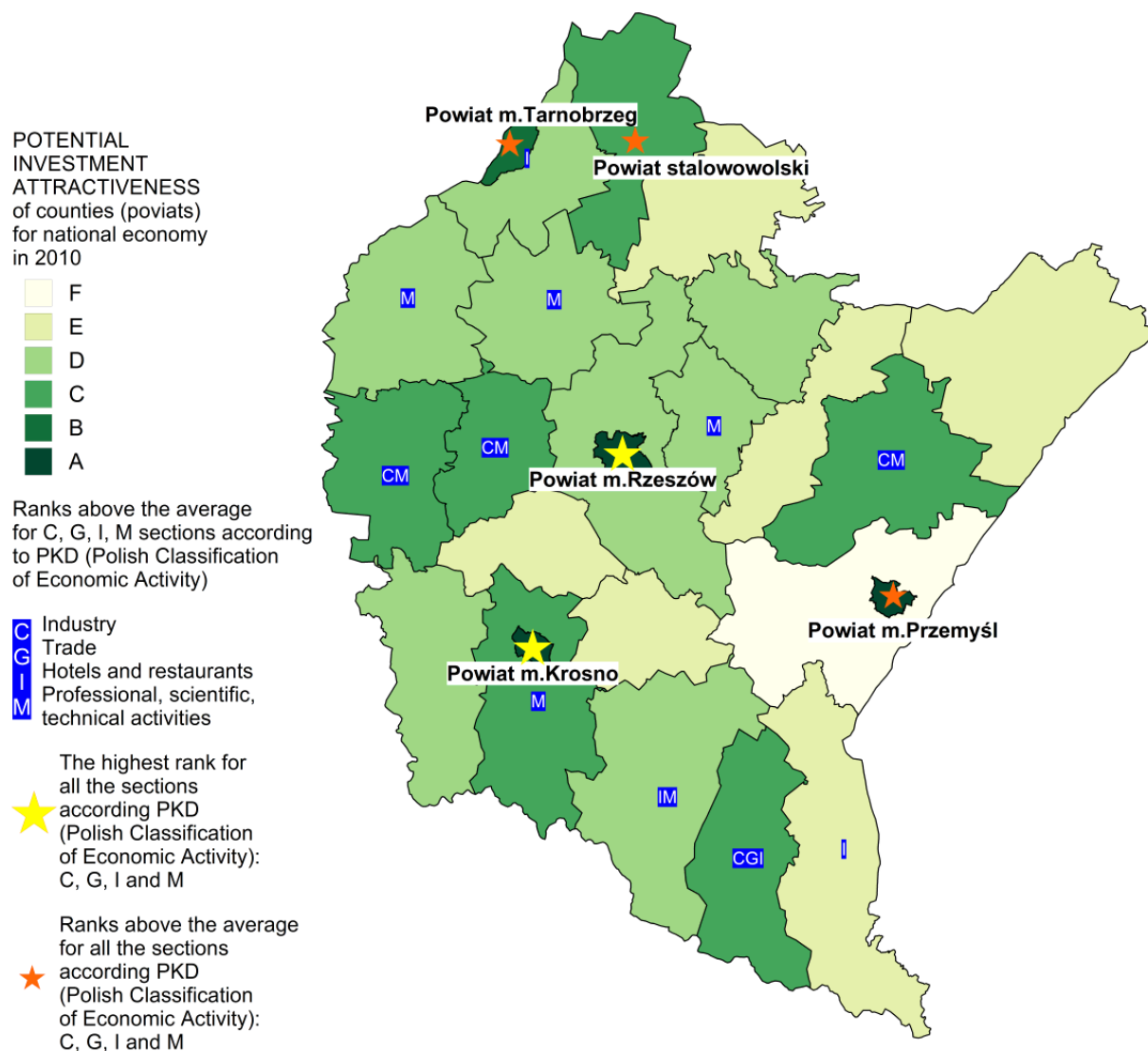
The following poviats should be distinguished: the cities of Rzeszów and Krosno as these units attained Class A in their potential investment attractiveness for all sections of the national economy under scrutiny in this research.

In reference to the sections mentioned below the following poviats should be additionally distinguished:

- Leski, jarosławski, ropczycko-sędziszowski, dębicki, stalowowolski (Class C) for section C,
- Stalowowolski, the city of Tarnobrzeg (Class C) for section I,
- Krośnieński, sanocki, jarosławski, kolbuszowski, łańcucki, ropczycko-sędziszowski, dębicki, mielecki, stalowowolski (Class C) for section M.

Synthetic evaluation of potential investment attractiveness of poviats of Subcarpathian voivodship is presented in Exhibit 4.

Exhibit 4. Spatial diversification of potential investment attractiveness of poviats of Subcarpathian voivodship with consideration of the most attractive sections



Source: Authors' own materials.

Gminas (communes)

Like poviats, gminas are also very much diversified in terms of investment attractiveness. The highest ranked gminas are: Krosno (1), Jarosław (1), Rzeszów (1), Mielec (1), Jasło (1), Łańcut (1), Sanok (1), Dębica (1), Leżajsk (1), Przemyśl (1), Stalowa Wola (1), Przeworsk (1), Tarnobrzeg (1), Krościenko Wyżne (2), Boguchwała (3), Dębica (2), Lubaczów (1). It is also reflected in their high ranks (Class A or B) for all analysed sections – see Chart 3.

Chart 3. Potential investment attractiveness of gminas of Subcarpathian voivodship for the national economy and selected sections

| Gmina | PAI1_GN | PAI1_GN | PAI1_C | PAI1_G | PAI1_I | PAI1_M |
|----------------------|---------|---------|--------|--------|--------|--------|
| Krosno (1) | 0,275 | A | A | A | A | A |
| Jarosław (1) | 0,261 | A | A | A | C | A |
| Rzeszów (1) | 0,260 | A | A | A | A | A |
| Mielec (1) | 0,256 | A | A | A | B | A |
| Jasło (1) | 0,251 | A | A | A | C | A |
| Łańcut (1) | 0,249 | A | A | A | A | A |
| Sanok (1) | 0,249 | A | A | A | A | A |
| Dębica (1) | 0,248 | A | A | A | B | A |
| Leżajsk (1) | 0,244 | A | A | A | A | A |
| Przemyśl (1) | 0,242 | A | A | A | B | A |
| Stalowa Wola (1) | 0,242 | A | A | A | B | A |
| Przeworsk (1) | 0,238 | A | A | A | B | A |
| Tarnobrzeg (1) | 0,236 | A | A | A | B | A |
| Krościenko Wyżne (2) | 0,228 | A | A | A | C | A |
| Boguchwała (3) | 0,227 | A | A | B | B | A |
| Dębica (2) | 0,226 | A | B | C | D | A |
| Lubaczów (1) | 0,223 | A | A | B | C | A |

(1) – urban commune, (2) – rural commune, (3) – rural-urban commune

Source: Authors' own material.

Attractive are also such gminas which belong to Class B according to the PAI1_GN index as: Ropczyce (3), Jedlicze (3), Ostrów (2), Kolbuszowa (3), Krasne (2), Głogów Małopolski (3), Radymno (1), Dukla (3), Gorzyce (2), Trzebownisko (2), Nowa Dęba (3), Jarosław (2), Besko (2), Solina (2), Lesko (3), Iwonicz-Zdrój (3), Miejsce Piastowe (2), Nowa Sarzyna (3), Żyraków (2), Nisko (3). The location-specific advantages are also universal in these gminas, which makes them attractiveness for all kinds of business activity in question.

In reference to the sections mentioned below the following gminas of Class C should be distinguished:

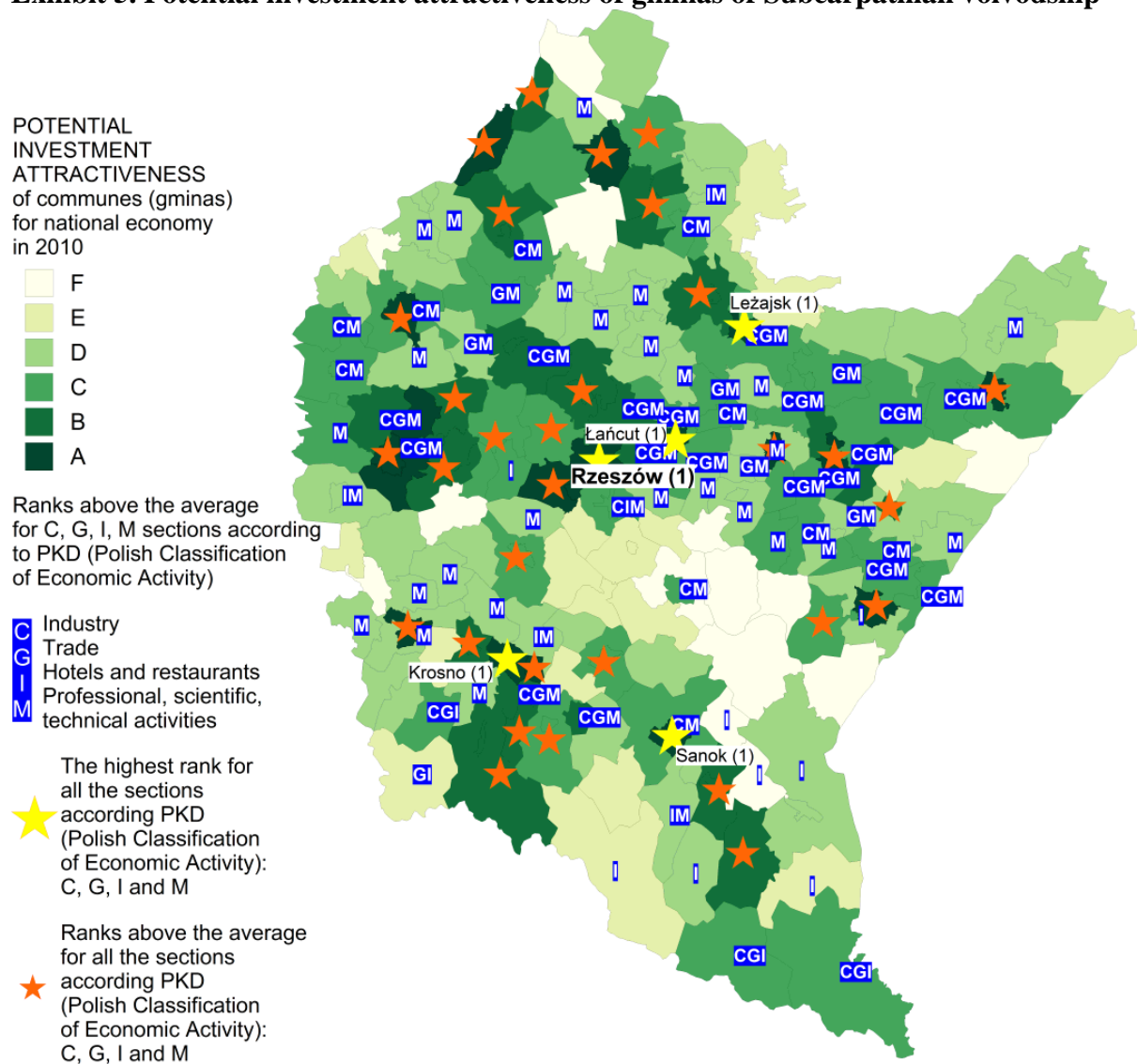
- Lutowiska (2), Brzozów (3), Nowy Żmigród (2), Miejsce Piastowe (2), Rymanów (3), Sanok (2), Cisna (2), Pawłosiów (2), Roźwienica (2), Wiązownica (2), Oleszyce (3), Krasieczyn (2), Medyka (2), Orły (2), Żurawica (2), Tryńcza (2), Zarzecze (2), Majdan Królewski (2), Białobrzegi (2), Czarna (2), Łańcut (2), Sędziszów Małopolski (3),

Dynów (1), Świlcza (2), Tyczyn (3), Strzyżów (3), Żyraków (2), Leżajsk (2), Nowa Sarzyna (3), Mielec (2), Radomyśl Wielki (3), Wadowice Górne (2), Rudnik nad Sanem (3), Pysznica (2) – for section C,

- Brzozów (3), Krempna (2), Nowy Żmigród (2), Jedlicze (3), Miejsce Piastowe (2), Rymanów (3), Besko (2), Chłopice (2), Jarosław (2), Pawłosiów (2), Wiązownica (2), Oleszyce (3), Krasieczyn (2), Medyka (2), Żurawica (2), Gać (2), Sieniawa (3), Tryńcza (2), Zarzecze (2), Cmolas (2), Kolbuszowa (3), Niwiska (2), Czarna (2), Łańcut (2), Żołynia (2), Ropczyce (3), Sędziszów Małopolski (3), Krasne (2), Świlcza (2), Strzyżów (3), Dębica (2), Żyraków (2), Leżajsk (2), Nisko (3), Pysznica (2) - for section G,
- Ustrzyki Dolne (3), Brzozów (3), Jasło (1), Korczyna (2), Krościenko Wyżne (2), Tyrawa Wołoska (2), Zagórz (3), Olszanica (2), Jarosław (1), Radymno (1), Lubaczów (1), Przemyśl (2), Ropczyce (3), Sędziszów Małopolski (3), Świlcza (2), Tyczyn (3), Strzyżów (3), Pilzno (3), Nowa Sarzyna (3), Ulanów (3), Pysznica (2), Gorzyce (2), Nowa Dęba (3) - dla sekcji I,
- Brzozów (3), Jasło (2), Kołaczyce (3), Skołyszyn (2), Chorkówka (2), Dukla (3), Korczyna (2), Wojaszówka (2), Sanok (2), Zagórz (3), Lesko (3), Solina (2), Chłopice (2), Rokietnica (2), Wiązownica (2), Cieszanów (3), Krasieczyn (2), Stubno (2), Gać (2), Kańczuga (3), Przeworsk (2), Tryńcza (2), Cmolas (2), Majdan Królewski (2), Niwiska (2), Raniszów (2), Dzikowiec (2), Markowa (2), Rakszawa (2), Żołynia (2), Dynów (1), Chmielnik (2), Kamień (2), Sokołów Małopolski (3), Czudec (2), Frysztak (2), Czarna (2), Pilzno (3), Grodzisko Dolne (2), Leżajsk (2), Padew Narodowa (2), Przecław (3), Wadowice Górne (2), Rudnik nad Sanem (3), Ulanów (3), Pysznica (2), Zaleszany (2), Baranów Sandomierski (3) – for section M.

Synthetic evaluation of potential investment attractiveness of gminas of Subcarpathian voivodship is presented in Exhibit 5.

Exhibit 5. Potential investment attractiveness of gminas of Subcarpathian voivodship



Source: Authors' own materials.

4. Voivodship's institutional support for investors and entrepreneurs

The development of business surrounding in a region is a vital component of its investment attractiveness. The institutions that support entrepreneurship, pro-investment solutions, research commercialization and innovativeness are of special importance. Among the voivodeship's business-supporting institutions one should mention: Podkarpacki Park Naukowo Technologiczny AEROPOLIS in Rzeszów, Preinkubator Akademicki Podkarpackiego Parku Naukowo Technologicznego AEROPOLIS in Rzeszów, Rzeszowska Agencja Rozwoju Regionalnego S.A., Podkarpacki Klub Biznesu in Rzeszów, Mielecka Agencja Rozwoju Regionalnego S.A., Tarnobrzaska Agencja Rozwoju Regionalnego S.A., Bieszczadzka Agencja Rozwoju Regionalnego S.A. w Ustrzykach Dolnych, Inkubator Przedsiębiorczości IN-MARR w Mielcu, Centrum Promocji Biznesu in Rzeszów, Regionalna Izba Gospodarcza w Sanoku, Regionalna Izba Gospodarcza w Stalowej Woli, Regionalna Izba Gospodarcza w Przemyślu, Podkarpacka Izba Gospodarcza w Krośnie, Izba Przemysłowo-Handlowa in Rzeszów, Izba Rzemieślnicza in Rzeszów.

Podkarpacki Park Naukowo Technologiczny AEROPOLIS in Rzeszów (Podkarpacki Research and Technology Park AEROPOLIS in Rzeszów). The park specialises in traditional regional aeroplane industry and offers investment areas with full amenities, part of which are incorporated into SSE Euro Park Mielec. Additionally the park offers services for businesses operating within its bounds. It operates the Academic Preincubator, which promotes the entrepreneurship of students, graduates and research staff of higher education institutions in the voivodship. The preincubator is an entity that operates on behalf of its member would-be-entrepreneurs. It offers expertise (in the field of management, marketing, finances) and allows a person that has an idea for a business to take actions that will enable the creation of his or her firm. The preincubator offers office and production space and conference rooms. Its members are able to continue their operations as part of the Incubator of PPNT, which offers office and production space as well as technical infrastructure. The incubator is targeted mainly at hi-tech businesses in the fields of air, IT and automotive industries. The Park plans to launch workshops and laboratories and offers IT and consulting services that support innovativeness as part of a Technology Transfer Centre, which acts as an intermediary between research and business sectors. The TTC support creating clusters, especially in air, electro-machinery, wood, chemical and food-processing industries. One of the supporting partners of the PPNT is the Society of Air Industry Entrepreneurs "Dolina Lotnicza". An important addition is an IT cluster "Informatyka Podkarpacka". (www.aeropolis.com.pl/, 02.10.2012.).

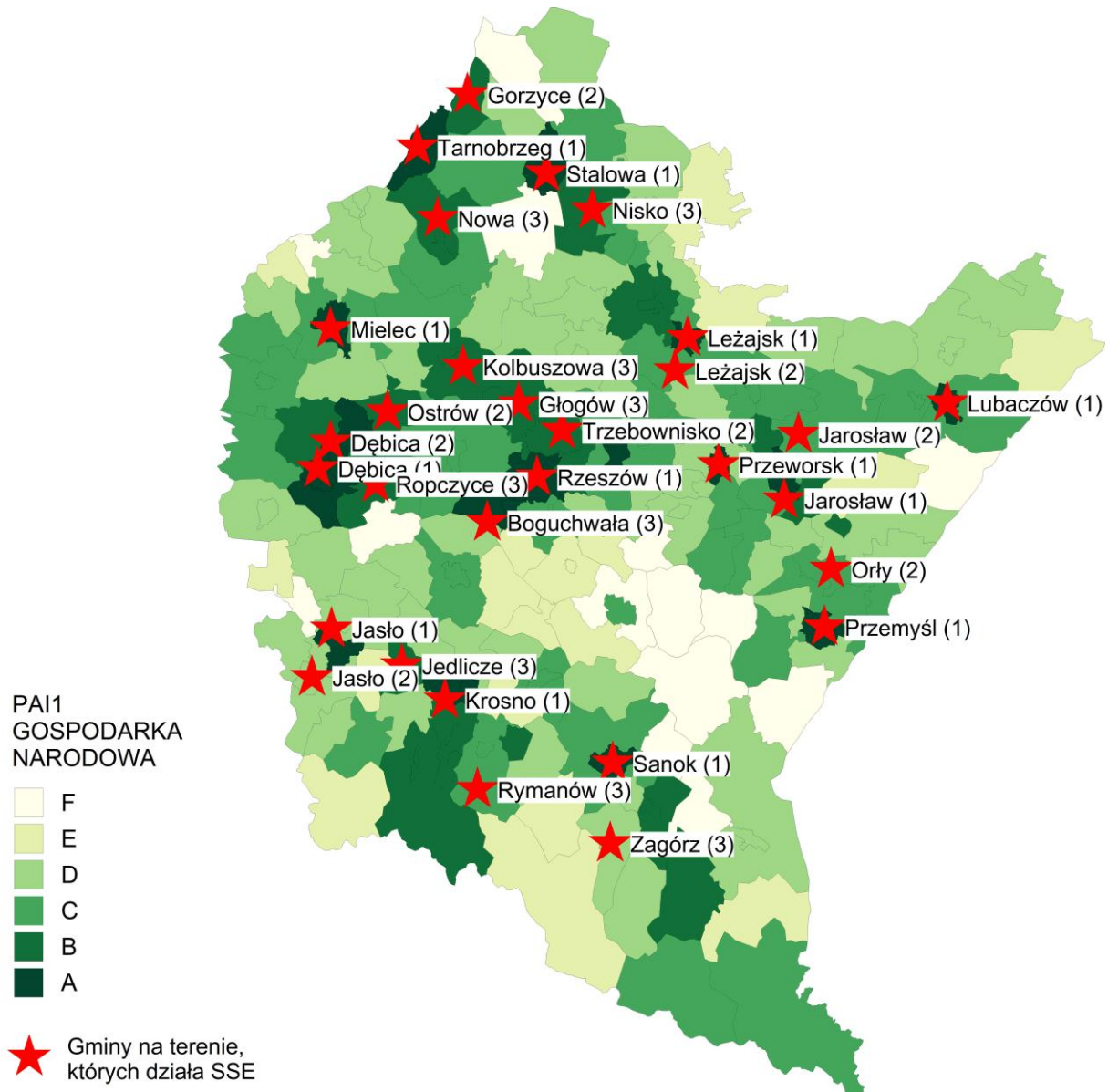
Rzeszowska Agencja Rozwoju Regionalnego S.A. (Rzeszów Regional Development Agency Inc.) operates a Centre for Training, Organisation and International Cooperation, which offers trainings in the field of EU funding, marketing etc.), an Economic Cooperation Centre, which offers advice on acquiring EU funding, business plan preparation, feasibility studies and preparation of financing application documentation, a Technology Transfer, Innovativeness and Informatisation Centre, which offers IT, consulting services, supports cluster formation, Entrepreneurship Development Centre, which offers advice on business creation for micro and S&M Enterprises, Investor Service Centre, which offers legal advice and investment consulting, feasibility studies, offer and demand databases. (www.rarr.rzeszow.pl/, 02.10.2012.).

Podkarpacki Klub Biznesu in Rzeszów. (Podkarpacki Business Club in Rzeszów) offers consulting services (marketing, insurance, European advice) as well as seminars and trainings (pertaining to quality systems, new technologies, accounting, taxes, management, work organisation, marketing, sales, interpersonal communication, IT). The Club operates a system of joint purchases (“Grupy Zakupowe”) in order to lower the operating costs (the offer includes fuel, energy, telecommunication, group insurance, stationaries, chemical, automobiles, post services, advertisements, recycling). The Club runs also a Sales Platform and a Platform “Klubowicze – Klubowiczom”, which enable selling to all parties (the former) and only to members of the Club (the latter). As part of the Grupy Zakupowe, the Club has created an Employee Grupa Zakupowa, which allows the employees of Club members to favourably buy products in special distribution points. (www.pkb.net.pl/, 02.10.2012.).

Special economic zones in Subcarpathian voivodeship - effects

There are three special economic zones (SSE) in Podkarpackie voivodeship: Mielecka, Tarnobrzaska and Krakowska. At the end of 2011 the areas of SSE were part of 12 cities and 17 gminas (counties). The area of Krosno is part of two zones: Krakowska and Mielecka (Exhibit 6).

Exhibit 6. The location of SSE in Subcarpathian voivodeship



Source: Authors' own calculations.

First SSE were established in 1995. The enterprises operating in the zones have until 2011 invested 4,6 billion PLN which constitutes 6% of all economic zone capital expenditures in Poland. In the same period the enterprises have created 12 thousand jobs, which constitutes 7% of all new jobs created in economic zones - cf. Chart 4.

Chart 4. Effects of special economic zone functioning at the end of 2011

| SSE/ Gmina | Leading industries (capital expenditure larger than 20% of overall capital expenditure in the subzone) | New jobs created | Cumulated capital expenditure in million PLN |
|-------------------------------------|---|-------------------------|---|
| Krakowska SSE, Boguchwała (3) | | | |
| Mielecka SSE, Dębica (1) | Rubber and synthetic materials | 295 | 91,3 |
| Mielecka SSE, Dębica (2) | Rubber and synthetic materials | 208 | 258,9 |
| Mielecka SSE, Głogów Małopolski (3) | Data unavailable | | |
| Tarnobrzaska SSE, Gorzyce (2) | Data unavailable | | |
| Mielecka SSE, Jarosław (1) | Data unavailable | | |
| Mielecka SSE, Jarosław (2) | Data unavailable | | |
| Tarnobrzaska SSE, Jasło (1) | Furniture, oil | 652 | 175,5 |
| Tarnobrzaska SSE, Jasło (2) | Data unavailable | | |
| Tarnobrzaska SSE, Jedlicze (3) | Data unavailable | | |
| Mielecka SSE, Kolbuszowa (3) | Data unavailable | | |
| Krakowska SSE, Krosno (1) | Metal products | 0 | 4,8 |
| Mielecka SSE, Leżajsk (1) | Data unavailable | | |
| Mielecka SSE, Leżajsk (2) | Data unavailable | | |
| Mielecka SSE, Lubaczów (1) | Data unavailable | | |
| Mielecka SSE, Mielec (1) | Rubber and synthetic materials, metal products, automotive | 5.365 | 2.106,5 |
| Tarnobrzaska SSE, Nisko (3) | Data unavailable | | |
| Tarnobrzaska SSE, Nowa Dęba (3) | Pharmaceutical | 389 | 197,2 |
| Tarnobrzaska SSE, Orły (2) | Data unavailable | | |
| Mielecka SSE, Ostrów (2) | Data unavailable | | |
| Tarnobrzaska SSE, Przemyśl (1) | Window production | 0 | 0,0 |
| Tarnobrzaska SSE, Przeworsk (1) | Data unavailable | | |
| Mielecka SSE, Ropczyce (3) | Data unavailable | | |
| Tarnobrzaska SSE, Rymanów (3) | Data unavailable | | |
| Mielecka SSE, Rzeszów (1) | Transport equipment | 98 | 49,9 |
| Mielecka SSE, Sanok (1) | Data unavailable | | |
| Tarnobrzaska SSE, Stalowa Wola (1) | Metal products | 3.102 | 1.017,5 |
| Tarnobrzaska SSE, Tarnobrzeg (1) | Construction materials | 1.144 | 291,3 |
| Mielecka SSE, Trzebownisko (2) | Transport equipment | 606 | 428,1 |
| Mielecka SSE, Zagórz (3) | Machinery | 55 | 13,5 |

Source: Authors' own calculations based on PAiIZ data.

Mielec and Stalowa Wola have attracted the largest amount of investment. In Mielec rubber and synthetic materials industry is dominating: Plastic Factory COBI S.A., Plastwag S.A., Polsko - Koreańskie PP-H JOONGPOL Sp. z o.o., PPHU Wojciech Tycner, SAMDEX Sp. z o.o., Temar Sp. z o.o., ZPTSz "PZL - Mielec" Sp. z o.o., final metal products: ALPHA Technology Sp. z o.o. Sp. k., BASCO 2 Andrzej Nawrot i Wspólnicy Sp. J., Casmec - System Józef Małecki, DUL MAR Sp.j., Eurotech Sp. z o.o., Firma Tarapata Sp. z o.o., FPUH Mechanika Leśniak Danuta i Adam, METALPOL Sp. z o.o., PPHU P&S Sp. z o.o., REGMOT Sp. z o.o., RSM Zakł.Prod. Maszyn i Urządzeń Sp. z o.o., RETECH Sp. z o.o., SSC Sp. z o.o. Spółka Komandytowa, FPU WALDREX s.c., Yasa Motors Poland Sp. z o.o., Zakład Akcesoriów Meblowych Gładysiek Sp. j., EC AvioTech Sp. o.o. (Zakład Narzędziowy Prodream Sp. z o.o.), Zakład "RPOL" Roman Polit and automotive industry: King & Fowler Polska Sp. z o.o., Kirchhoff Polska Sp. z o.o., Gardner Aerospace - Mielec Spółka z.o.o.,

Remog Polska Sp. z o.o., WAW Mielec Sp. z o.o., GALWEX Cebula Elwira i Wspólnicy Sp.j., Leopard Automobile-Mielec Sp. z o.o., STAMET - Stanisław Stachura, Automotive Coachbuilding and Design Sp. z o.o., Zakład Produkcyjny Kamot-Mielec S.A., Lear Corporation Poland II Sp. z o.o., MELEX A&D Tyszkiewicz Sp.j. In Stalowa Wola metal products and aluminium processing are dominating: ATS Stahlschmidt & Maiworm Sp. z o.o., HSW - Zakład Kuźnia Matrycowa Sp. z o.o., MCS-METAL CLEANING SERVICE Sp. z o.o., Uniwheels Production Poland Sp. z o.o., Eurometal S.A., IWAMET Sp. z o.o., PPHU Domostal s.c., Zakład Mechaniczny "TASTA" Sp. z o.o., RAKOCZY STAL Sp. Jawna, BAGPAK Polska Sp. z o.o., WOBI STAL Sp. z o.o.

According to SSE development plans the voivodeship aims at attracting investments:

- Supporting the development of Dolina Lotnicza Cluster and investments from electro-machinery and chemical industries according to the industrial traditions of the region – in Krakowska and Mielecka SSE.
- Traditionally associated with the region – especially from chemical, construction materials, electro-machinery, aluminium processing industries – in Tarnobrzaska SSE.

‘A’ Commune

Student Scientific Organisation for Entrepreneurship and Regional Analyses affiliated to the Institute of Enterprise of the Warsaw School of Economics, has again published the results of its research into the quality of investor assistance given by the communal authorities. The subject of this study of investment attractiveness is: an audit of Web sites and audit of e-contact in Polish and English with communal authorities. The effect of this study is a ranking ‘A’ Commune, which is thought to distinguish best performing self-government territorial units in terms of the use of means of electronic communication in their assistance. The research is carried out using the mystery client method. In this year’s edition all gminas belonging to Class A according to the PAI 2010 index were subject to query.

As a result 70 gminas have been distinguished; this includes 5 gminas situated in Subcarpathian voivodship – see Chart 5.

Chart 5. Gminas in Subcarpathian voivodship distinguished as ‘A’ Communes

| Gmina | Powiat | Audit of Web sites | Audit of e-contact in Polish | Audit of e-contact in English | Sum |
|----------------|---------------|---------------------------|-------------------------------------|--------------------------------------|-------------|
| Dębica (1) | dębicki | 7 | 3 | 4 | 14 |
| Gorzyce (2) | tarnobrzeski | 9 | 5 | 0 | 14 |
| Jasło (1) | jasielski | 7 | 3 | 3,5 | 13,5 |
| Tarnobrzeg (1) | Tarnobrzeg | 8 | 5 | 0 | 13 |
| Krosno (1) | Krosno | 9 | 4 | 0 | 13 |

Source: Authors’ own materials.

The Web sites of the communes above have foreign language versions and in cas of Jasło Web site it i salso provided with an online question form. Dębica and Krosno prepared model answers to e-mails in Polish which contained answers to all questions raised as well as detailed explanations regarding suport for investment offered by tchem. Jasło and Dębica were the only communes in Subcarpathian region which replied to e-mails in English. Jasło deserves a particular distinction for offering help with registering business activity.

5. Region's strengths and weaknesses

Subcarpathian voivodship has its unique character and clear specificity which influences its strengths and weaknesses. If divided according to the main factors of location and location conditions classified into microclimates composing potential and real investment attractiveness, they can be grouped into strengths (microclimates ranking A, B or C) and weaknesses (microclimates ranking D, E or F) – see Chart 6.

Chart 6. Strengths and weaknesses of Subcarpathian voivodship

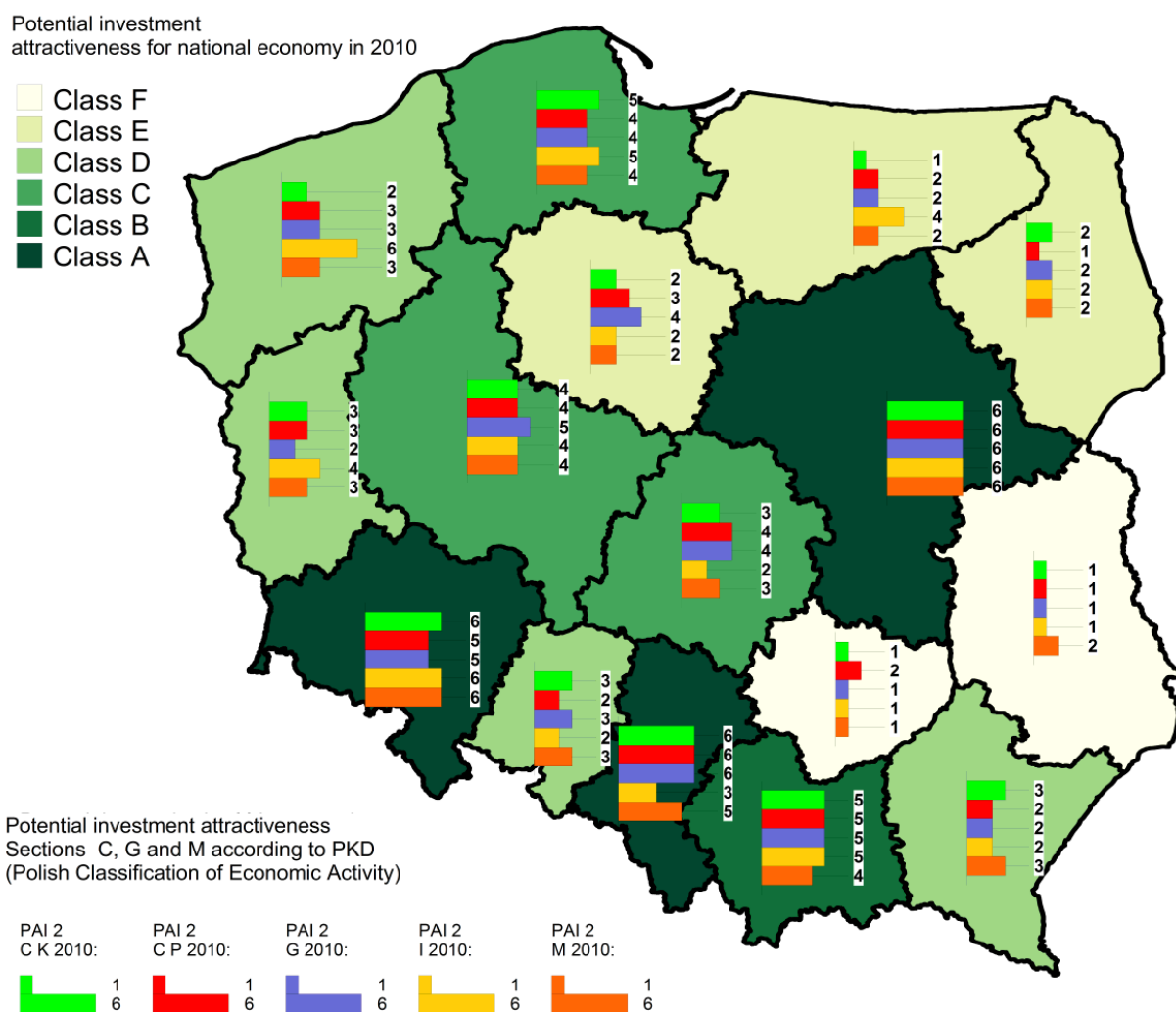
| Strengths of the region according to the microclimates by IP SGH | Weaknesses of the region according to the microclimates by IP SGH |
|--|---|
| National economy | |
| Microclimate Social Infrastructure Class B Microclimate Social Capital Class A Microclimate Innovativeness Class A Investment outlays Class C | Microclimate Human Resources Class D Microclimate Technical Infrastructure Class F Microclimate Market Class E Microclimate Administration/Governance Class F Labour productivity in enterprises Class F Returns on tangible assets Class F Profitability of enterprises Class D Self-financing of self-government units Class F |
| Capital intensive industry | |
| Microclimate Social Infrastructure Class A Microclimate Social Capital Class A Microclimate Innovativeness Class A | Microclimate Human Resources Class D Microclimate Technical Infrastructure Class F Microclimate Market Class E Microclimate Administration/Governance Class F Returns on tangible assets Class E Labour productivity in enterprises Class E Self-financing of self-government units Class F Investment outlays Class E |
| Labour intensive industry | |
| Microclimate Social Infrastructure Class A Microclimate Social Capital Class B | Microclimate Human Resources Class D Microclimate Technical Infrastructure Class F Microclimate Market Class E Microclimate Administration/Governance Class E Returns on tangible assets Class E Labour productivity in enterprises Class E Self-financing of self-government units Class F Investment outlays Class E |
| Trade | |
| Microclimate Human Resources Class C Microclimate Social Capital Class A | Microclimate Technical Infrastructure Class F Microclimate Social Infrastructure Class D |

| | |
|---|---|
| Returns on tangible assets Class B | Microclimate Market Class E Microclimate Administration/Governance Class F Labour productivity in enterprises Class E Self-financing of self-government units Class F Investment outlays Class D |
| Tourism | |
| Microclimate Human Resources Class B Microclimate Social Infrastructure Class C Microclimate Social Capital Class A Returns on tangible assets Class C Investment outlays Class C | Microclimate Technical Infrastructure Class F Microclimate Market Class F Microclimate Administration/Governance Class F Labour productivity in enterprises Class D Self-financing of self-government units Class F |
| Professional, scientific and technical activities | |
| Microclimate Social Infrastructure Class A Microclimate Social Capital Class A Microclimate Innovativeness Class A | Microclimate Human Resources Class E Microclimate Technical Infrastructure Class F Microclimate Market Class E Microclimate Administration/Governance Class E Returns on tangible assets Class E Labour productivity in enterprises Class E Self-financing of self-government units Class F Investment outlays Class D |

Source: Authors on the basis of the results of research of the Institute of Enterprise of the Warsaw School of Economics (IP SGH).

APPENDIX

Exhibit 1. Potential investment attractiveness of Polish voivodship broken down by basic sections of the national economy

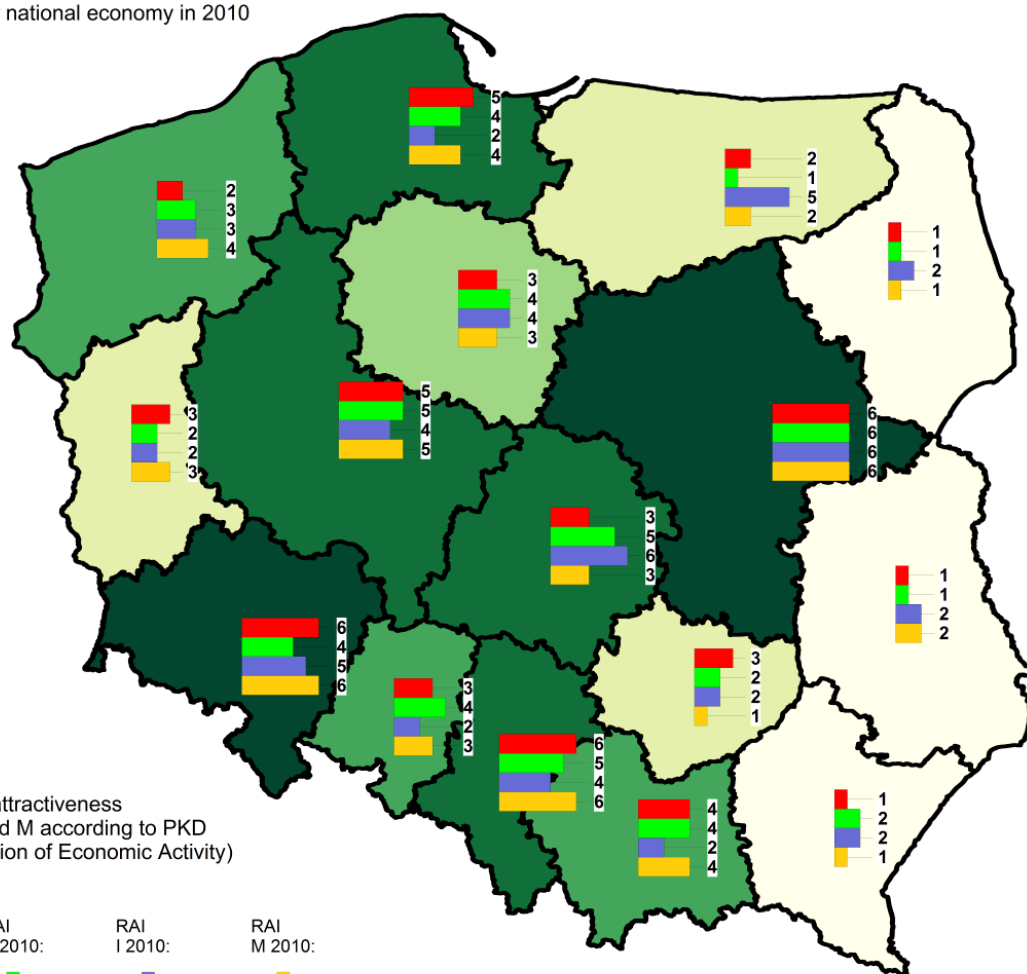


Source: Authors' own materials.

Exhibit 2. Real investment attractiveness of Polish voivodship broken down by basic sections of the national economy

Real investment attractiveness for national economy in 2010

- Class F
- Class E
- Class D
- Class C
- Class B
- Class A



Source: Authors' own materials.

Chart 1. List of investment attractiveness indices for voivodships

| Voivodship | LOWER SILESIAN | KUYAVIAN-POMERANIAN | LUBLIN | LUBUSZ | ŁÓDŹ | LESSER POLAND | MASOVIAN | OPOLE | SUBCARPATHIAN | PODLASKIE | POMERANIAN | SILESIAN | ŚWIĘTOKRZYSKIE | WARMIAN-MASURIAN | GREATER POLAND | WESTERN POMERANIAN |
|-------------------|-----------------------|----------------------------|---------------|---------------|-------------|----------------------|-----------------|--------------|----------------------|------------------|-------------------|-----------------|-----------------------|-------------------------|-----------------------|---------------------------|
| PAI1 GN | A | E | F | C | D | C | A | E | D | E | B | A | F | D | B | C |
| PAI2 GN | A | E | F | D | C | B | A | D | D | E | C | A | F | E | C | D |
| RAI GN | A | D | F | E | B | C | A | C | F | F | B | B | E | E | B | C |
| PAI1 C | A | D | F | C | C | C | A | D | E | E | B | A | F | E | C | C |
| PAI2 C KAPITAŁ | A | E | F | D | D | B | A | D | D | E | B | A | F | F | C | E |
| PAI2 C PRACA | B | D | F | D | C | B | A | E | E | F | C | A | E | E | C | D |
| RAI C | A | D | F | D | D | C | A | D | F | F | B | A | D | E | B | E |
| PAI1 G | A | E | F | C | D | B | A | D | E | F | B | A | F | C | C | C |
| PAI2 G | B | C | F | E | C | B | A | D | E | E | C | A | F | E | B | D |
| RAI G | C | C | F | E | B | C | A | C | E | F | C | B | E | F | B | D |
| PAI1 I | B | E | F | B | E | B | A | E | D | E | B | D | F | B | C | A |
| PAI2 I | A | E | F | C | E | B | A | E | E | E | B | D | F | C | C | A |
| RAI I | B | C | E | E | A | E | A | E | E | E | E | C | E | B | C | D |
| PAI1 M | A | E | F | C | D | C | A | D | D | F | B | B | F | D | B | C |
| PAI2 M | A | E | E | D | D | C | A | D | D | E | C | B | F | E | C | D |
| RAI M | A | D | E | D | D | C | A | D | F | F | C | A | F | E | B | C |

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

Chart 2. Potential investment attractiveness of poviats of Subcarpathian voivodship for the national economy and selected sections

| Poviats (counties) | PAI1_GN | PAI1_GN_C lasses | PAI1_C_ Classes | PAI1_G_ Classes | PAI1_I_ Classes | PAI1_M_ Classes |
|------------------------|---------|---------------------|--------------------|--------------------|--------------------|--------------------|
| The city of Krosno | 0,367 | A | A | A | A | A |
| The city of Rzeszów | 0,352 | A | A | A | A | A |
| The city of Przemyśl | 0,320 | A | B | A | B | A |
| The city of Tarnobrzeg | 0,299 | B | B | C | B | A |
| leski | 0,270 | C | C | B | A | D |
| stalowowolski | 0,270 | C | C | C | C | C |
| ropczycko-sędziszowski | 0,270 | C | C | D | D | C |
| dębicki | 0,268 | C | C | D | E | C |
| jarosławski | 0,267 | C | C | E | E | C |
| krośnieński | 0,265 | C | D | D | D | C |
| kolbuszowski | 0,259 | D | D | E | F | C |
| mielecki | 0,257 | D | D | D | D | C |
| sanocki | 0,255 | D | D | D | C | C |
| łańcucki | 0,253 | D | D | D | D | C |
| leżajski | 0,252 | D | D | D | E | D |
| jasielski | 0,250 | D | D | D | D | D |
| tarnobrzeski | 0,248 | D | D | D | C | D |
| rzeszowski | 0,245 | D | D | E | D | D |
| przeworski | 0,233 | E | E | D | E | D |
| nizański | 0,233 | E | E | E | E | E |
| lubaczowski | 0,229 | E | E | E | E | E |
| bieszczadzki | 0,224 | E | E | D | C | E |

Source: See Chart 1.

Chart 3. Potential investment attractiveness of gminas of Subcarpathian voivodship for the national economy and selected sections

| Gmina (commune) | PAI1_GN | PAI1_GN_classes | PAI1_C_classes | PAI1_G_classes | PAI1_I_classes | PAI1_M_classes |
|-----------------------|---------|-----------------|----------------|----------------|----------------|----------------|
| Krosno (1) | 0,275 | A | A | A | A | A |
| Jarosław (1) | 0,261 | A | A | A | C | A |
| Rzeszów (1) | 0,260 | A | A | A | A | A |
| Mielec (1) | 0,256 | A | A | A | B | A |
| Jasło (1) | 0,251 | A | A | A | C | A |
| Łańcut (1) | 0,249 | A | A | A | A | A |
| Sanok (1) | 0,249 | A | A | A | A | A |
| Dębica (1) | 0,248 | A | A | A | B | A |
| Leżajsk (1) | 0,244 | A | A | A | A | A |
| Przemyśl (1) | 0,242 | A | A | A | B | A |
| Stalowa Wola (1) | 0,242 | A | A | A | B | A |
| Przeworsk (1) | 0,238 | A | A | A | B | A |
| Tarnobrzeg (1) | 0,236 | A | A | A | B | A |
| Krośnice Wyżne (2) | 0,228 | A | A | A | C | A |
| Boguchwała (3) | 0,227 | A | A | B | B | A |
| Dębica (2) | 0,226 | A | B | C | D | A |
| Lubaczów (1) | 0,223 | A | A | B | C | A |
| Ropczyce (3) | 0,218 | B | B | C | C | A |
| Jedlicze (3) | 0,218 | B | B | C | B | A |
| Ostrów (2) | 0,218 | B | B | B | B | B |
| Kolbuszowa (3) | 0,217 | B | B | C | D | A |
| Krasne (2) | 0,215 | B | B | C | E | B |
| Głogów Małopolski (3) | 0,215 | B | B | B | B | A |
| Radymno (1) | 0,213 | B | B | B | C | A |
| Dukla (3) | 0,213 | B | B | B | A | C |
| Gorzyce (2) | 0,213 | B | B | B | C | A |
| Trzebownisko (2) | 0,212 | B | B | B | D | A |
| Nowa Dęba (3) | 0,212 | B | B | B | C | B |
| Jarosław (2) | 0,211 | B | B | C | D | B |
| Besko (2) | 0,209 | B | B | C | D | B |
| Solina (2) | 0,208 | B | B | B | A | C |
| Lesko (3) | 0,208 | B | B | B | A | C |
| Iwonicz-Zdrój (3) | 0,206 | B | B | B | B | B |
| Miejsce Piastowe (2) | 0,204 | B | C | C | D | B |
| Nowa Sarzyna (3) | 0,203 | B | C | B | C | B |
| Żyraków (2) | 0,202 | B | C | C | E | B |
| Nisko (3) | 0,202 | B | B | C | A | B |

Source: See Chart 1.

Note: all indices in this report have been computed on the basis of the most up-to-date data from the Local Data Bank (2012).