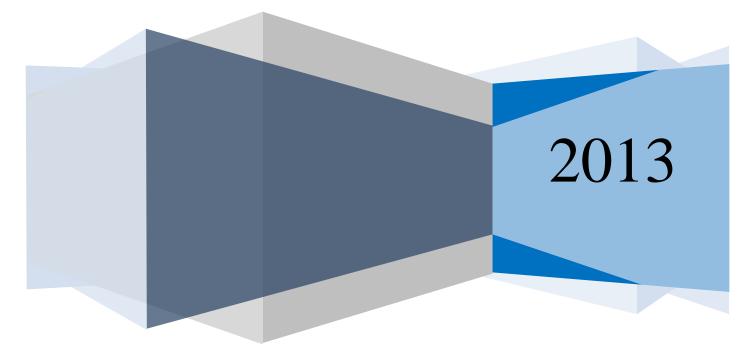
CENTRE FOR REGIONAL AND LOCAL ANALYSES

# REGIONAL INVESTMENT ATTRACTIVENESS 2013

### **Opole voivodship**

Hanna Godlewska-Majkowska, Ph.D., university professor at the Warsaw School of Economics Agnieszka Komor, Ph.D. Patrycjusz Zarębski, Ph.D. Magdalena Typa, M.A.



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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 (WSE), under the supervision of H. Godlewska-Majkowska, Ph.D., university professor at the WSE. All the Authors are the core members of a team that develops methodology of calculating regional investment attractiveness in order that characteristics of regions, which are important to investors, 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 (communes – Polish: *gmina*, counties – Polish: *powiat*, 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 calculated only for the voidoships, 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 (PAI2\_C, PAI2\_G, PAI2\_I, PAI2\_M).

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.

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 Centre for Regional and Local Analyses, which cooperates with the Institute of Enterprise: <u>www.caril.edu.pl</u>, as well as in numerous scientific publications and expert opinions.

#### 1. The profile of regional economy of Opole voivodship

Opole voivodship is situated in the south-western part of Poland. It is a region with very intensive agriculture thanks to which it is a beneficial location for food industry. The high level of agrarian culture and fertile soils also influence positively the quality of location for food industry. The region has long-established industrial traditions, in particular in the manufacture of food, mineral products, metal products, machinery and equipment as well as chemicals and chemical products. Its near-border location and numerous border crossings (both road and railway ones) predisposes the region to cooperation with Germany and the Czech Republic.

The advantages of the voivodship are also:

- its location on main domestic and European traffic routes (A4 highway),
- excellent access to inland shipping thanks to the Oder and the Gliwice-Kędzierzyn Koźle channel (the port in Kędzierzyn is the largest inland port in Poland),
- well-developed communications infrastructure including access to the Internet (the voivodship belongs to the highest rated regions in Poland),
- presence of higher education institutions,<sup>1</sup>
- rich resources for manufacture of mineral products the possibility of specialisation in sectors supporting the construction industry,
- multicultural mindset of the inhabitants of the voivodship which results in their tolerance and openness to the inflow of foreign capital; this feature is strengthened by the membership of Opole voivodship of the Praded Euroregion and the Silesia Euroregion.

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

| Feature   | Opole voivodship                                      | Poland     |   | Share [%] |  |
|---|---|------------|---|-----------|--|
| Market Potential  |   |            |   |           |  |
| GDP per capita 2010. (PLN/person)                         | 29,498  | 37,096     |   | -         |  |
| Population (persons) on 31<br>December 2012               | 1,010,203   | 38,533,299 | )   | 2.6       |  |
| Human Resources Potential                                 |   |            |   |           |  |
| Higher education institutions graduates (persons) in 2012 | 11,792  | 484,999    |   | 2.4       |  |
| Secondary schools graduates (persons) in 2012             | 10,398  | 421,317    |   | 2.5       |  |
| Number of employed persons on 31<br>December 2012         | 314,242 1,391,1203                                    |            | 3   | 2.3       |  |
| Structure of employed persons 2012                        | agriculture 16.1%<br>industry 31.8%<br>services 52.1% |            | agriculture<br>industry 27<br>services 55 | .4%       |  |

#### Table 1. General characteristics of the economy of Opole voivodship

<sup>&</sup>lt;sup>1</sup> In 2010 the Ministry of Science and Higher Education ranked among the best scientific establishments in Poland the following ones: the Institute of Heavy Organic Synthesis 'Blachownia' in Kędzierzyn-Koźle, the Faculty of Construction and the Faculty of Technical and IT Education of the Opole University of Technology, the Faculty of Philology of the University of Opole.

| Investment outlays and capital of companies with foreign capital participation in the voivodship   |                    |  |   |        |                             |                        |  |  |  |  |
|--|--------------------|--|---|--------|-----------------------------|------------------------|--|--|--|--|
| Investment o   | utlays (PLN m) in  | n 2011   | 877.4   |        | 73704.4                     | 1.2                    |  |  |  |  |
| Capital of c<br>2011   | companies (PLN     | m) in  | 1690.6  |        | 194160.6                    | 0.9                    |  |  |  |  |
| Special econ   | omic zones (SEZ    | Zs) in the   | voivodship*   |        |                             |                        |  |  |  |  |
| <ul> <li>Katowice SEZ, subzones in: gm. Gogolin, gm. Kietrz, gm. Krapkowice, gm. Strzelce Opolskie, gm. Ujazd, m. Kędzierzyn-Koźle</li> <li>Starachowice SEZ, subzone: gm. Tułowice</li> <li>Wałbrzych SEZ, subzones in: gm. Kluczbork, gm. Namysłów, gm. Nysa, gm. Praszka, gm. Prudnik, gm. Skarbimierz, m. Opole</li> <li>Distinguishing investment attractiveness ratings PAI _2 and RAI (class A, B and C)</li> </ul> |                    |  |   |        |                             |                        |  |  |  |  |
| Potential inve   | estment attractive | ness PAI   | _2  |        |                             |                        |  |  |  |  |
| Real investm   | ent attractiveness | RAI  |   | Scienc | ce and technical profession | onal activity Class B  |  |  |  |  |
| Counties an economy (PA  |                    | stinguish  | ed according to   | the Po | otential Attractiveness     | Index for the national |  |  |  |  |
| Counting   | Class A            | Opole  |   |        |                             |                        |  |  |  |  |
| Counties   | Class B            |  |   |        |                             |                        |  |  |  |  |
| Communes   | Class A            | U (  | Brzeg (1), Skarbimierz (2), Namysłów (3), Kędzierzyn-Koźle (1), Zdzieszowice (3), Dobrzeń Wielki (2), Tułowice (2), Opole (1) |        |                             |                        |  |  |  |  |
| Communes   | Class B            | Kluczbork (3), Nysa (3), Prudnik (3), Bierawa (2), Gogolin (3), Krapkowice (3), Chrząstowice (2), Niemodlin (3), Ujazd (3) |   |        |                             |                        |  |  |  |  |

Source: Authors' own calculations.

\* On the above list and further in the report gm. is a Polish abbreviation for gmina – commune and m. is an abbreviation for miasto – city. If there is information *city* following the name of the county, it indicates a commune which has a status of a city and carries out county's tasks is mentioned (a city county). Otherwise the counties include more than one commune (land counties).

Additional information: (1) – urban commune, (2) – rural commune, (3) – urban-rural commune.

In 2010 Opole voivodship made a contribution of 2.1% to the GDP of Poland. Calculated per capita, it amounted to PLN 29,498 with the average for Poland PLN 37,096. With this result the voivodship takes the  $11^{\text{th}}$  place in the country. The GDP growth rate in the voivodship in the years 2003-2010 amounted to 164.7% while the average for Poland amounted to 168%. In comparison with the whole country the structure of employment in the voivodship is characterised by a relatively low share of the service sector (52.1%) whereas a share of the agricultural and industrial sectors are respectively 16.1% and 31.8% (Central Statistical Office, Regional Data Bank 2013).

The number of inhabitants of the voivodship amounts to 1,010,203 (as of 2013), which is 2.6% of the population of Poland. The age structure in the voivodship in 2012 was as follows: 16.6% of the population at pre-productive age, 65.1% at productive age and 18.3% at post-productive age (for Poland it was 18.3%, 63.9% and 17.8% respectively). The registered unemployment rate in the voivodship amounted to 13.5% in August 2013, compared to 13%

in Poland. The average monthly gross wages and salaries in enterprises sector in the first halfyear of 2013 amounted to PLN 3335.8, which is 88.5% of the average for Poland.

The main potential for human capital creation in the voivodship lies in 6 higher education institutions in which there are 35 thousand students studying, which makes up 2.1% of all students in Poland. Moreover, 3.1% of the secondary school students in the voivodship attend vocational schools and 2.7% attend technical schools.

The voivodship's strategic sectors mentioned in the strategy of regional development include above all: manufacture of chemicals and chemical products, manufacture of food, construction and others: power industry, manufacture of machinery and equipment, the manufacture of metallic and non-metallic mineral products, timber industry.

Preferential conditions of conducting business activities are offered in the voivodship i.a. in the following special economic zones:

- Katowice SEZ subzone: gm. Gogolin, gm. Kietrz, gm. Krapkowice, gm. Strzelce Opolskie, gm. Ujazd, m. Kędzierzyn-Koźle,
- Starachowice SEZ, subzone: gm. Tułowice,
- Wałbrzych SEZ, subzone: gm. Kluczbork, gm. Namysłów, gm. Nysa, gm. Praszka, gm.
   Prudnik, gm. Skarbimierz, m. Opole.

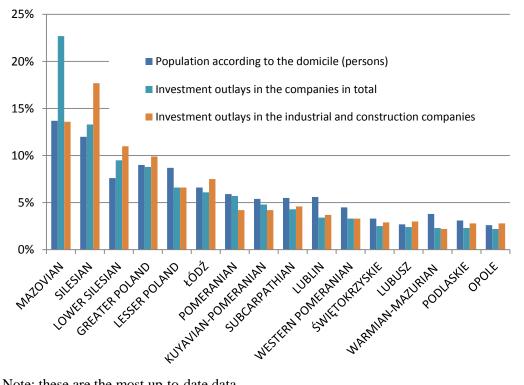
## 2. Region's rank in terms of investment attractiveness in Poland and in the European Union

Opole voivodship is characterised by low level of overall investment attractiveness, which is indicated by the high rank (class E) according to the main potential investment attractiveness index calculated for the whole regional economy PAI 2\_GN (see Chart 1 in the Appendix). The region was also ranked relatively low in terms of potential investment attractiveness calculated with use of PAI2.<sup>2</sup>

Investment attractiveness can also be evaluated on the basis of indices of real investment attractiveness (RAI), which are based on microclimates such as: return on tangible assets, labour productivity, self-financing of self-government territorial units and investment outlays. The region was ranked above the average in terms of RAI indices for and professional, scientific and technical activities (class C) - see Table 2 in the Appendix.

Potential and real investment attractiveness is reflected in the decisions of investors on business location. This is shown in Chart 1.

## Chart 1. Regional structure of investment outlays in the companies in 2011 in comparison with the share in the country's population



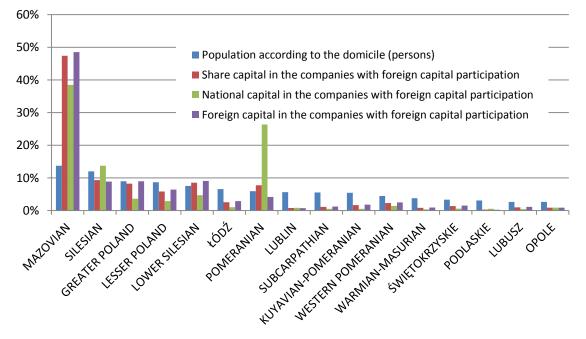
Note: these are the most up-to-date data. Source: Authors on the basis of the Local Data Bank (downloaded 13 November 2013).

<sup>&</sup>lt;sup>2</sup> Section C – manufacturing industry, section G – trade and repair, section I – hotels and restaurants, section M – professional, scientific and technical activities. Methodological description of calculation of investment attractiveness of Polish regions, counties and communes can be found on the website of Institute of Entrepreneurship, Collegium of Business and Administration, Warsaw School of Economics: <a href="http://kolegia.sgh.waw.pl/pl/KNoP/struktura/IP/publikacje">http://kolegia.sgh.waw.pl/pl/KNoP/struktura/IP/publikacje</a>

In 2010 Opole region took the 16<sup>th</sup> place when it comes to the investment outlays in companies (2.2% of its total value in all voivodships). This is too little considering the fact that the voivodship's share in the total population is 2.6% and does not apply to investment in industrial and construction companies (2.8% of total investment outlays in this kind of companies for Poland).

Region's location at the border of the country and membership in Euroregions create a chance of growth for foreign investment absorption. In the view of data on accumulated share capital in the companies with foreign capital participation it has to be stated, though, that this chance is not sufficiently used - see Chart 2.

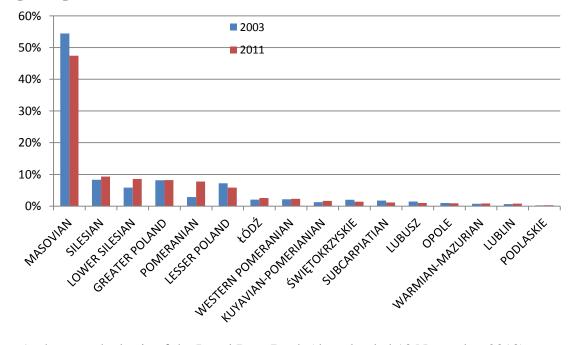
## Chart 2. Regional structure of capital in the companies with foreign capital participation in comparison with a share in population



Note: These are the most up-to-date data. Source: Authors on the basis of the Local Data Bank (downloaded 13 November 2013).

Although in 2011the share of Opole region in the country's population reached 2.6%, the accumulated share capital in the companies with foreign capital in all analysed sectors is merely 0.9% of their national level. In the years 2003-2011 the weak competitive position on direct foreign investments market decreased slightly from 0.98% to 0.87% - see Chart 3.

Chart 3. Regional competitive rank in terms of investments with foreign capital participation according to the value of share capital in the companies with foreign capital participation in 2003 and 2011 (% of total value for Poland)



Source: Authors on the basis of the Local Data Bank (downloaded 13 November 2013).

An opportunity for Opole voivodship might be investment sites thoroughly prepared by self-government territorial units, utilizing location's advantages.

Opole voivodship is concerned as a potential business localization in comparison with the other European regions. When it comes to innovativeness, market and human capital factors, the voivodship took the  $246^{th}$  place of 270 regions in the EU and was ranked Class F – see Table 2 in the Appendix.

Opole voivodship has competitive advantage when it comes to human capital, ranked class C. Despite its low rank it still can compete with lower ranked regions such as: **in Italy**: Basilicata, Calabria; **in Portugal:** Norte, Alentejo, Região Autónoma dos Açores and Centro (PT); **in Slovakia:** Stredné Slovensko, Východné Slovensko; **in Greece**: Peloponnisos; **in Romania:** Vest, Nord-Vest, Centru, Sud-Est, Sud-Vest Oltenia, Nord-Est and Sud - Muntenia; **in Hungary**: Dél-Alföld; Észak-Alföld; **in Bulgaria:** Severen tsentralen, Yugoiztochen, Yuzhen tsentralen and Severozapaden.

#### 3. Internal diversification of regional investment attractiveness

#### **Counties**

The most attractive county in Opole voivodship is Opole which was ranked Class A for all the analysed sections of national economy – see Table 2.

| Table 2. Potential investment attractiveness of counties of Mazovian voivodship for the |
|---|
| national economy and selected sections  |

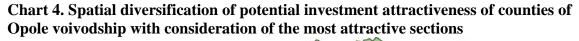
| County           | PAI1_GN | PAI1_GN | PAI1_C | PAI1_G | PAI1_I | PAI1_M |
|------------------|---------|---------|--------|--------|--------|--------|
| Opole            | 0.337   | А       | А      | А      | А      | А      |
| Kędzierzyn-Koźle | 0.255   | С       | С      | D      | D      | С      |
| Krapkowice       | 0.254   | С       | С      | С      | С      | С      |
| Brzeg            | 0.243   | С       | С      | С      | D      | С      |

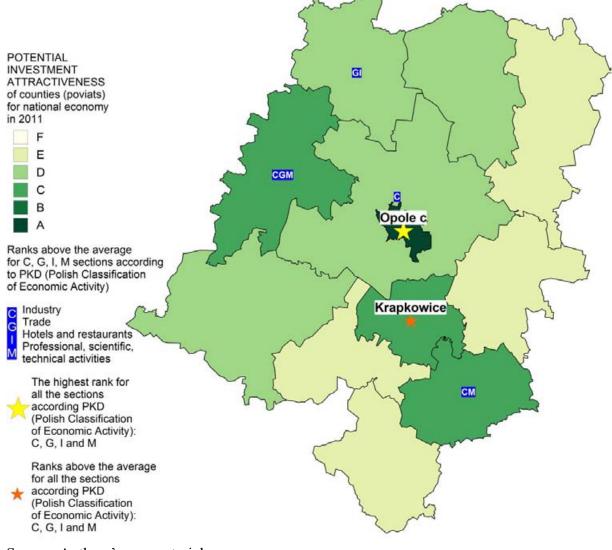
Source: Authors' own calculations.

In reference to the sections mentioned below the following counties should be additionally distinguished (all of them are land counties):

- Kędzierzyn-Koźle, Krapkowice, Brzeg, Opole (Class C) for section C,
- Krapkowice, Brzeg, Namysłów (Class C) for section G,
- Krapkowice (Class C) for section I and Kędzierzyn-Koźle, Krapkowice, Brzeg for section M.

Synthetic evaluation of potential investment attractiveness of counties of Opole voivodship is presented in Chart 4.





Source: Authors' own materials. Note: "c" stands for city county.

#### **Communes**

Like counties, the Opole region communes are also very much diversified in terms of investment attractiveness. The highest ranked communes are: Brzeg (1), Skarbimierz (2), Namysłów (3), Kędzierzyn-Koźle (1), Zdzieszowice (3), Dobrzeń Wielki (2), Tułowice (2), Opole (1). It is also reflected in their high ranks (class A or B) for all the analysed sections – see Table 3.

| Commune            | PAI1_GN | PAI1_GN | PAI1_C | PAI1_G | PAI1_I | PAI1_M |
|--------------------|---------|---------|--------|--------|--------|--------|
| Brzeg (1)          | 0.275   | А       | А      | А      | В      | А      |
| Opole (1)          | 0.256   | А       | А      | А      | А      | А      |
| Kędzierzyn-Koźle   |         |         |        |        |        |        |
| (1)                | 0.252   | А       | А      | А      | А      | А      |
| Zdzieszowice (3)   | 0.241   | А       | А      | А      | С      | А      |
| Tułowice (2)       | 0.223   | А       | А      | В      | В      | В      |
| Namysłów (3)       | 0.223   | А       | А      | А      | В      | А      |
| Skarbimierz (2)    | 0.221   | А       | А      | А      | С      | В      |
| Dobrzeń Wielki (2) | 0.218   | А       | А      | А      | В      | А      |
| Nysa (3)           | 0.215   | В       | В      | В      | D      | А      |
| Gogolin (3)        | 0.215   | В       | А      | А      | А      | В      |
| Kluczbork (3)      | 0.211   | В       | В      | В      | С      | А      |
| Chrząstowice (2)   | 0.209   | В       | В      | В      | В      | В      |
| Krapkowice (3)     | 0.208   | В       | В      | В      | С      | А      |
| Prudnik (3)        | 0.207   | В       | В      | В      | D      | В      |
| Bierawa (2)        | 0.205   | В       | В      | В      | В      | В      |
| Niemodlin (3)      | 0.200   | В       | В      | С      | В      | С      |
| Ujazd (3)          | 0.198   | В       | В      | В      | С      | С      |

 Table 3. Potential investment attractiveness of communes of Opole voivodship for the national economy and selected sections

(1) – urban commune, (2) – rural commune, (3) – urban-rural commune Source: Authors' own calculations.

Attractive communes are also the class B communes according to the PAI1\_GN index. Among these communes are: Kluczbork (3), Nysa (3), Prudnik (3), Bierawa (2), Gogolin (3), Krapkowice (3), Chrząstowice (2), Niemodlin (3), Ujazd (3). The location-specific advantages are also universal for these communes, which makes them attractive for all kinds of business activity concerned in this research.

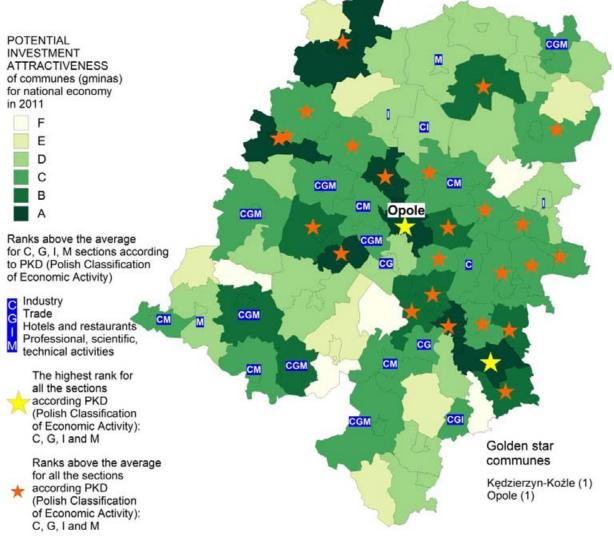
However, this characteristic cannot be found in all of the communes that belong to Class C. Only a few Class C communes fulfil this condition: Miedziana Góra (2), Zagnańsk (2), Małogoszcz (3) – see Table 3 in the Appendix.

In reference to the particular sections taken into consideration in this research the following communes of Class C should be distinguished:

- Grodków (3), Lewin Brzeg (3), Głuchołazy (3), Paczków (3), Głogówek (3), Głubczyce (3), Walce (2), Olesno (3), Praszka (3), Dąbrowa (2), Murów (2), Ozimek (3), Prószków (3), Turawa (2), Izbicko (2), Jemielnica (2), Kolonowskie (3), Leśnica (3), Strzelce Opolskie (3) for section C,
- Grodków (3), Lewin Brzeg (3), Głubczyce (3), Polska Cerekiew (2), Walce (2), Olesno (3), Praszka (3), Komprachcice (2), Niemodlin (3), Ozimek (3), Popielów (2), Prószków (3), Jemielnica (2), Kolonowskie (3), Leśnica (3) for section G,
- Skarbimierz (2), Lubsza (2), Kluczbork (3), Polska Cerekiew (2), Krapkowice (3), Zdzieszowice (3), Dobrodzień (3), Łubniany (2), Murów (2), Tarnów Opolski (2), Jemielnica (2), Kolonowskie (3), Leśnica (3), Ujazd (3), Zawadzkie (3) for section I,
- Grodków (3), Lewin Brzeg (3), Lubsza (2), Wołczyn (3), Głuchołazy (3), Otmuchów (3),
   Paczków (3), Głogówek (3), Głubczyce (3), Praszka (3), Dąbrowa (2), Łubniany (2),

Niemodlin (3), Popielów (2), Turawa (2), Jemielnica (2), Kolonowskie (3), Leśnica (3), Strzelce Opolskie (3), Ujazd (3), Zawadzkie (3) - for section M.

Synthetic evaluation of potential investment attractiveness of communes of Opole voivodship is presented in Chart 5.



#### Chart 5. Potential investment attractiveness of communes of Opole voivodship

Source: Authors' own calculations.

#### 4. Voivodship's institutional support for investors and entrepreneurs

The development of business supporting 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. Among the voivodship's business-supporting institutions that influence the voivodship's economic development the following ones should be mentioned (excluding scientific research institutions):

- chambers of commerce: Izba Gospodarcza "Śląsk" in Opole, Opolska Izba Gospodarcza, Nyska Regionalna Izba Gospodarcza, Izba Rzemieślnicza in Opole,
- associations (including business centres): Stowarzyszenie "Promocja Przedsiębiorczości" in Opole, Opolskie Centrum Rozwoju Gospodarki, Namysłowskie Stowarzyszenie Inicjatyw Gospodarczych, Regionalne Centrum Rozwoju Edukacji in Opole, Opolskie Centrum Transferu Innowacji, Ośrodek Innowacji NOT in Opole, Regionalne Centrum Transferu Wiedzy i Technologii Innowacyjnych przy Państwowej Wyższej Szkole Zawodowej in Nysa, Opolskie Centrum Demokracji Lokalnej, Wojewódzki Zakład Doskonalenia Zawodowego in Opole, Fundacja Rozwoju Śląska oraz Wspierania Inicjatyw Lokalnych in Opole, Stowarzyszenie Opole Klub Biznesu, Stowarzyszenie Nowoczesna Opolszczyzna, Opolska Loża Business Centre Club,
- business incubators: Akademicki Inkubator Przedsiębiorczości przy Politechnice Opolskiej, Opolski Inkubator Przedsiębiorczości przy Stowarzyszeniu "Promocja Przedsiębiorczości", Akademicki Inkubator Przedsiębiorczości Uniwersytetu Opolskiego, Kluczborski Inkubator Przedsiębiorczości,
- technology parks, science parks, industrial parks: Kędzierzyńsko Kozielski Park Przemysłowy, Park Naukowo- Technologiczny in Opole, Opolski Park Naukowo-Technologiczny, Park Technologiczno - Innowacyjny Sp. z o.o. Tarnów Opolski,
- consulting centres (including personal consulting and agricultural consulting): Opole Ośrodek Doradztwa Rolniczego in Łosiów, Manpower w Brzegu, Adecco Opole, Deloitte Biuro in Opole, Agencja Pracy OTTO in Opole,
- financial institutions (guarantee funds): Fundusz Mikro Sp. z o.o.- Przedstawicielstwo Lokalne in Opole,
- others: Centrum Współpracy Polska Chiny Instytut Konfucjusza in Opole, Politechnika Opolska.

Association Entrepreneurship **Promotion** (Stowarzvszenie "Promocia for *Przedsiębiorczości"*) in Opole works against unemployment and its effects, i.a. by setting micro-, small and medium enterprises. A business incubator is operating as a part of the association which offers office space, storage space and workshops rent on preferential conditions. It also offers business support services such as promotion, legal, financial and marketing advice. The association runs an Entrepreneurship Development Fund which grants loans and capital support or financial support other than loans for the unemployed. The fund also offers support at preparing loan applications for business activities. The project "Opolska Kuźnia Przedsiębiorczości 2" offers free of charge consulting and trainings on legal aspects of running business activity by physical persons, on labour law, finance and accounting, setting and running a business. The members of the programs can also apply for non-returnable funds (paid monthly for 6 months). Enterprise Europe Network in Opole also works at the association, which offers services for SMEs. Its offer includes personal counselling, thematic meetings, seminars, trainings, European Club, broker meetings, technological audit, negotiations support, looking for cooperation partners (including access to databases of technological offers and companies profiles - Bulletin Board Service (BBS) and business cooperation - Business Co-operation Database (BCD)). (www.spp.opole.pl/, 03 November 2013)

**Opole Centre for Economy Development** (Opolskie Centrum Rozwoju Gospodarki) actively takes part in promotion and activation of entrepreneurship, especially when it comes to creation science, technology and industry parks, clusters, local offices for economic development, entrepreneurship and innovativeness centres. Companies form Opole voivodship interested in cooperation with foreign trade partners and investors can free of charge take use the centre's experts help at establishing contacts. The centre is running Opening Regional Innovation System in the Opolskie Voivodship which offers free of charge services for micro-, small and medium enterprises of innovation partner, such as: analysing of company's innovativeness potential and preparing report including recommendations that should help the company to increase its innovativeness. The report contains potential directions for company's development and possible ways of getting support for the company (including raising funds and donations for company development). A pilot project is being run within the project, concentrating on matching companies from Lower Austria with companies from Opole region to start cooperation to exchange good practices, innovative solutions, technologies and patents. Investors and Exporters Service Centre operates within the Opole Centre for Economy Development which grants access to a database of investment sites, industrial facilities and tourist facilities in the region. The centre's tasks are i.a.: promotion of communes' and counties; investment offers, informing on investment rules and conditions, legal acts and procedures connected with making investments and running business, organizing meetings of investors and representatives of local self-governments, intermediary in establishing contacts between business partners, organization of trainings aimed at increasing investors and entrepreneurs service quality and promoting exports. (http://ocrg.opolskie.pl/, 03 November 2013)

Academic Entrepreneurship Incubator at Opole Institute of Technology (Akademicki Inkubator Przedsiębiorczości przy Politechnice Opolskiej) rents space for new companies on preferential conditions and offers consulting services and trainings for firms. The incubator operates a database of innovations, initiatives and internship offers for graduates of Opole Institute of Technology and region's entrepreneurs. The incubator also operates a database of abstracts of bachelor, master, doctoral and habilitation thesis of students and staff of Opole Institute of Technology as well as a database of proposal of thesis subjects submitted by businesses and institutions, which – after approval – are presented to students and research staff. The initiative "We don't write thesis to be put away on a shelf" aims to present research results according to the demand of businesses and regional economy as well as to facilitate knowledge acquired during studies. practical use of the course of (www.inkubator.po.opole.pl/, 03 November 2013).

**Kędzierzyn-Koźle Industrial Park LLC** (*Kędzierzyńsko-Kozielsko Park Przemysłowy Sp. z o.o.*) offers support at investment process such as: preparation of investment offers (investment sites, office space and production halls), visits and meetings arrangement, looking for trade partners and suppliers, support at administration processes (like getting permissions), advisory on public help. The park offers investment sites (with infrastructure), offices, production halls and storage space for rent. (www.kkpp.pl/, 03 November 2013)

**Micro Fund LLC in Opole** (Fundusz Mikro Sp. z o.o. – Przedstawicielstwo Lokalne in Opole) aims at promoting loans for micro- and small enterprises. The loans offered by the fund are aimed at financing business activities, the amount of the loan is dependent on the

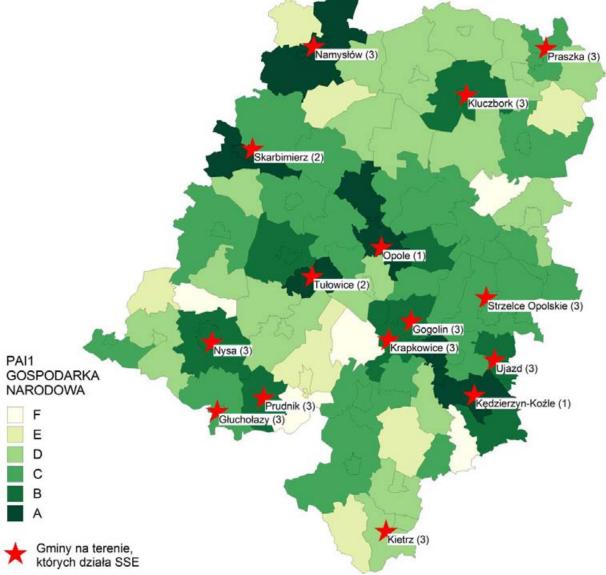
present and predicted financial-economic condition of the customer (up to PLN 50,000). The fund also cooperates with banks to the benefit of companies that do not meet banks' loan requirements.

(http://www.funduszmikro.pl/, 03 November 2013).

#### Special economic zones in Opole voivodship - effects

There are 3 special economic zones (SEZs) in Opole voivodship: Katowice SEZ, Wałbrzych SEZ and Starachowice SEZ. At the end of 2012 the areas of the SEZs were parts of 2 cities and 14 communes – see Chart 6.

#### Chart 6. The location of SEZs in Opole voivodship



Note: Red stars indicate communes with SEZ subzones within their areas. Source: Authors' own calculations.

The first SEZ areas were brought into life in 1996 in Strzelce Opolskie. The investment outlays made by SEZ companies operating in the communes of Opole region by the end of 2012 amounted to PLN 2.12 billon, which made 3% of all investment outlays made

in the Polish SEZs. In the same time the SEZ companies in the region created 2.4 thousand new jobs which made 1% of all jobs created in the Polish SEZs (see Table 4).

| SEZ / Subzone           | County, Commune                             | Leading industries (at least<br>20% share of revenue or<br>employment   | Cumulat<br>ed<br>capital<br>expendit<br>ure in<br>million<br>PLN (end<br>of 2012) | Jobs<br>number<br>(end of<br>2012) |
|-------------------------|---|---|---|------------------------------------|
| Wałbrzych / Skarbimierz | Brzeg, Skarbimierz (2)                      | food products   | 1,301.71  | 1,116                              |
| Wałbrzych / Kluczbork   | Kluczbork, Kluczbork<br>(3)                 | fabricated metal products<br>(except machinery and<br>equipment)  | 10.53   | 11                                 |
| Wałbrzych / Namysłów    | Namysłów, Namysłów (3)                      | no investors yet  |   |                                    |
| Katowice / Gliwice      | Nysa, Głuchołazy (3)                        | paper and paper products  | 47.42   | 19                                 |
| Wałbrzych / Nysa        | Nysa, Nysa (3)                              | wood, wood and cork products,<br>except furniture; articles of<br>straw and plaiting materials,<br>rubber and plastic products, | 41.12   | 140                                |
| Wałbrzych / Prudnik     | Prudnik, Prudnik (3)                        | machinery and equipment n.e.c.  | 7.86  | 20                                 |
| Katowice / Gliwice      | Głubczyce, Kietrz (3)                       | no investors yet  |   |                                    |
| Katowice / Gliwice      | Kędzierzyn-Koźle,<br>Kędzierzyn-Koźle (1)   | no investors yet  |   |                                    |
| Katowice / Gliwice      | Krapkowice, Gogolin (3)                     | no investors yet  |   |                                    |
| Katowice / Gliwice      | Krapkowice,<br>Krapkowice (3)               | paper and paper products  | 198.89  | 54                                 |
| Katowice / Gliwice      | Olesno, Olesno (3)                          | no investors yet  |   |                                    |
| Wałbrzych / Praszka     | Olesno, Praszka (3)                         | no investors yet  |   |                                    |
| Starachowice / Tułowice | Opole, Tułowice (2)                         | rubber and plastic products,<br>fabricated metal products<br>(except machinery and<br>equipment),                               | 68.66   | 534                                |
| Katowice / Gliwice      | Strzelce Opolskie,<br>Strzelce Opolskie (3) | wood, wood and cork products,<br>except furniture; articles of<br>straw and plaiting materials                                  | 410.01  | 280                                |
| Katowice / Ujazd        | Strzelce Opolskie,<br>Ujazd (2)             | No investors yet  |   |                                    |
| Wałbrzych / Opole       | Opole (city), Opole (1)                     | fabricated metal products<br>(except machinery and<br>equipment)  | 35.28   | 205                                |
|                         |   |   |   |                                    |

 Table 4. Effects of special economic zone functioning at the end of 2012

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

The largest investments in the voivodship have been completed in Skarbimierz, where Cadbury Polska Sp. z o. o. (THE NETHERLANDS, producer of chewing gums), Cadbury Sp. z o. o. (THE NETHERLANDS, producer of chocolate products), Keiper Polska Sp. z o.o. (Germany, car seats elements and constructions), FPS Polska Sp. z o.o. (Germany, metal packaging).

The SSE development plans assume that the voivodship should attract the following investments:

from advanced technology industries and data processing services – in Katowice SEZ,

- from food-processing, chemical, energy, mineral resources, machinery, metal and furniture industries in Starachowice SEZ,
- related to logistics and traditional voivodship's industries furniture and wood branches in Wałbrzych SEZ.

#### '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 offered by the communal authorities.

The subject of this qualitative research of investment attractiveness is evaluation of the websites and evaluation of e-mail contact with communal authorities in two languages: Polish and English. The effect of this research 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 to provide assistance to the customers. The research is carried out with the use of mystery client method. In this year's edition all communes belonging to Class A and B according to the PAI 2011 index were subject to the evaluation.

As a result 90 communes were distinguished, of which 2 are situated in Opole voivodship (see Table 5).

| Place in the<br>ranking<br>(for the whole<br>country) | Commune       | Evaluation of<br>websites<br>(score) | Evaluation of<br>e-mail contact<br>in Polish<br>(score) | Evaluation of<br>e-mail contact<br>in English<br>(score) | Sum  |  |
|---|---------------|--------------------------------------|---|--|------|--|
| 37  | Nysa (3)      | 15.0                                 | 9.0   | 0.0  | 24.0 |  |
| 76  | Kluczbork (3) | 11.0                                 | 9.0   | 0.0  | 20.0 |  |

Table 5. Communes in Opole voivodship distinguished as 'A' Communes

Source: Authors' own calculations.

The websites of Nysa and Kluczbork distinguish themselves by their presence in social media. What is more, Nysa in its reply to the e-mail questions sent a leaflet containing information on running a business and invited the investor to personal contact.

#### 5. Region's strengths and weaknesses

Opole 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 that influence potential and real investment attractiveness, they can be grouped into strengths (microclimates with ranking A, B or C) and weaknesses (microclimates with ranking D, E or F) – see Table 6.

| Strengths of the region according to the          | Weaknesses of the region according to the     |
|---|---|
| microclimates by the Institute of Enterprise      | microclimates by the Institute of Enterprise  |
| of the Warsaw School of Economics                 | of the Warsaw School of Economics             |
|   | economy                                       |
| Microclimate Human Resources Class C              | Microclimate Technical Infrastructure Class E |
| Social Microclimate Class C                       | Microclimate Social Infrastructure Class D    |
| Productivity of entreprises Class C               | Market Microclimate Class D                   |
| Profitability of entreprises Class B              | Microclimate Administration/Government Class  |
| Self-financing of self-government units Class B   | E   |
|   | –<br>Microclimate Innovativeness Class F      |
|   | Returns on tangible assets Class F            |
|   | Investment outlays Class F                    |
| Canital-inter                                     | nsive industry                                |
|   | -   |
| Microclimate Social Infrastructure Class C        | Microclimate Human Resources Class E          |
| Social Microclimate Class A                       | Microclimate Technical Infrastructure Class D |
| Productivity of entreprises Class C               | Market Microclimate Class D                   |
| Self-financing of self-government units Class B   | Microclimate Administration/Government Class  |
|   |   |
|   | Microclimate Innovativeness Class F           |
|   | Returns on tangible assets Class F            |
|   | Investment outlays Class E                    |
|   | nsive industry                                |
| Microclimate Human Resources Class B              | Microclimate Technical InfrastructureClass E  |
| Microclimate Social Infrastructure Class B        | Social Microclimate Class D                   |
| Productivity of entreprises Class C               | Market Microclimate Class D                   |
| Self-financing of self-government units Class B   | Microclimate Administration/GovernmentClass   |
|   | Returns on tangible assets Class F            |
|   | Investment outlays Class E                    |
| Tr  | ade   |
| Social Microclimate Class B                       | Microclimate Human Resources Class D          |
| Self-financing of self-government units Class B   | Microclimate Technical InfrastructureClass D  |
|   | Microclimate Social Infrastructure Class F    |
|   | Market MicroclimateClass D                    |
|   | Microclimate Administration/GovernmentClass   |
|   | D   |
|   | Returns on tangible assets Class E            |
|   | Productivity of entreprises Class D           |
|   | · · ·   |
|   | Investment outlays Class E                    |
| Tou   | Investment outlays Class E<br>rism            |
| Tou<br>Microclimate Social Infrastructure Class B |   |

| Table 6. Strengths and weaknesses of Opole voivo |
|--|
|--|

| Self-financing of self-government units Class B | Market Microclimate Class E                  |
|---|--|
|   | Microclimate Administration/Government Class |
|   | E  |
|   | Returns on tangible assets Class D           |
|   | Productivity of entreprises Class E          |
|   | Investment outlays Class F                   |
| Professional, scientific                        | and technical activities                     |
| Microclimate Social Infrastructure Class B      | Microclimate Human Resources Class D         |
| Social Microclimate Class C                     | Microclimate Technical InfrastructureClass E |
| Returns on tangible assets Class A              | Market MicroclimateClass D                   |
| Productivity of entreprises Class B             | Microclimate Administration/Government Class |
| Self-financing of self-government units Class B | D  |
| Investment outlays Class C                      | Microclimate Innovativeness Class F          |

Source: Authors on the basis of the results of research of the Institute of Enterprise of the Warsaw School of Economics.

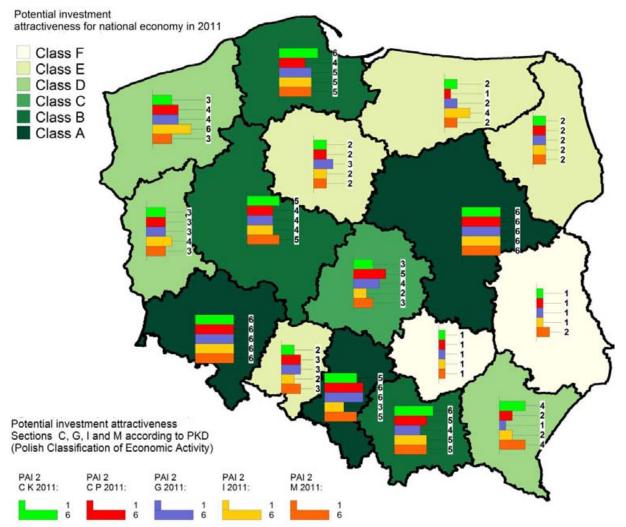
#### Summary

The engines of economic development of Lower Silesian voivodship are the counties: Opole (city) Kędzierzyn-Koźle, Krapkowice and Brzeg as well as the special economic zones in the region.

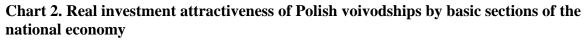
Opole voivodship has predispositions to **create interregional clusters**, especially basing on competitive medium and big enterprises in sectors such as: manufacture of rubber and plastic products, manufacture of machinery and equipment n.e.c., manufacture of grain mill products, starch and starch products, manufacture of articles of concrete, cement and plaster, manufacture of structural metal products. It can also develop **intelligent specializations** based on competitive big and medium enterprises in **the medium high-tech sectors** such as manufacture of machinery and equipment n.e.c., and in the **low-tech sectors**: manufacture of rubber and plastic products. The voivodship is also characterised by competitiveness of the **knowledge-based services sectors** such as architecture and engineering activities and technical research and analyses.

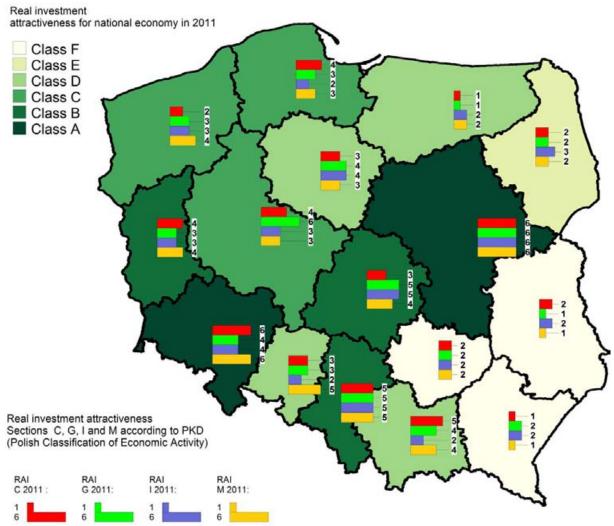
#### **APPENDIX**

Chart 1. Potential investment attractiveness of Polish voivodships by basic sections of the national economy



Source: Authors' own materials based on the research.





Source: Authors' own materials based on the research.

| Voivodship     | LOWER SILESIAN | KUYAVIAN-POMERANIAN | LUBLIN | LUBUSZ | ŁÓDŹ | LESSER POLAND | MAZIOVIAN | OPOLE | SUBCARPATHIAN | PODLASKIE | POMERANIAN | SILESIAN | ŚWIĘTOKRZYSKIE | WARMIAN-MASURIAN | <b>GREATER POLAND</b> | WESTERN POMERANIAN |
|----------------|----------------|---------------------|--------|--------|------|---------------|-----------|-------|---------------|-----------|------------|----------|----------------|------------------|-----------------------|--------------------|
| PAI1 GN        | А              | D                   | F      | D      | D    | С             | А         | Е     | D             | Е         | В          | А        | F              | D                | В                     | В                  |
| PAI2 GN        | А              | Е                   | F      | D      | С    | В             | А         | Е     | D             | Е         | В          | А        | F              | Е                | В                     | D                  |
| RAI GN         | А              | D                   | F      | В      | В    | D             | А         | D     | F             | Е         | С          | В        | F              | D                | С                     | С                  |
| PAI1 C         | А              | D                   | F      | D      | С    | С             | А         | D     | Е             | F         | В          | А        | F              | Е                | В                     | В                  |
| PAI2 C CAPITAL | А              | Е                   | F      | D      | D    | А             | А         | Е     | С             | Е         | А          | В        | F              | Е                | В                     | D                  |
| PAI2 C LABOUR  | А              | Е                   | F      | D      | В    | В             | А         | D     | Е             | Е         | С          | А        | F              | F                | С                     | С                  |
| RAI C          | А              | D                   | Е      | С      | D    | В             | А         | D     | F             | Е         | С          | В        | Е              | F                | С                     | Е                  |
| PAI1 G         | А              | F                   | F      | В      | Е    | В             | А         | D     | D             | F         | А          | С        | F              | С                | С                     | В                  |
| PAI2 G         | А              | D                   | F      | D      | С    | С             | А         | D     | F             | Е         | В          | А        | F              | Е                | С                     | С                  |
| RAI G          | С              | С                   | F      | D      | В    | С             | А         | D     | Е             | Е         | D          | В        | Е              | F                | А                     | D                  |
| PAI1 I         | В              | Е                   | F      | С      | Е    | В             | А         | Е     | Е             | Е         | А          | С        | F              | С                | С                     | А                  |
| PAI2 I         | А              | Е                   | F      | С      | Е    | В             | А         | Е     | Е             | Е         | В          | D        | F              | С                | С                     | А                  |
| RAI I          | С              | С                   | Е      | D      | В    | Е             | А         | Е     | Е             | D         | Е          | В        | Е              | Е                | D                     | D                  |
| PAI1 M         | А              | Е                   | F      | D      | D    | С             | А         | D     | D             | Е         | В          | А        | F              | D                | В                     | В                  |
| PAI2 M         | А              | Е                   | Е      | D      | D    | В             | А         | D     | С             | Е         | В          | В        | F              | Е                | В                     | D                  |
| RAI M          | А              | D                   | F      | С      | С    | С             | А         | В     | F             | Е         | D          | В        | Е              | Е                | D                     | С                  |

#### Table 1. List of investment attractiveness indices for voivodships

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

| Table 2. Potential investment attractiveness of Polish voivodships according to the EU |
|--|
| potential investment attractiveness index PAI _UE in 2011                              |

|                     | Microclimate<br>Human<br>Capital | Microclimate<br>Market | Microclimate<br>Innovativeness | Composite index |  |
|---------------------|----------------------------------|------------------------|--------------------------------|-----------------|--|
| Lower Silesian      | B                                | D                      | D                              | D               |  |
| Kuyavian-Pomeranian | В                                | E                      | F                              | E               |  |
| Lublin              | В                                | F                      | E                              | F               |  |
| Lubusz              | А                                | F                      | E                              | E               |  |
| Łódź                | А                                | Ε                      | E                              | E               |  |
| Lesser Poland       | С                                | Е                      | E                              | Е               |  |
| Mazovian            | А                                | С                      | В                              | В               |  |
| Opole               | С                                | F                      | E                              | F               |  |
| Subcarpathian       | С                                | F                      | E                              | F               |  |
| Podlaskie           | В                                | F                      | E                              | F               |  |
| Pomeranian          | В                                | D                      | D                              | D               |  |
| Silesian            | В                                | D                      | E                              | D               |  |
| Świętokrzyskie      | А                                | F                      | F                              | F               |  |
| Warmian-Masurian    | В                                | F                      | E                              | F               |  |
| Greater Poland      | А                                | E                      | E                              | E               |  |
| Western Pomeranian  | С                                | E                      | Е                              | E               |  |

Source: Authors' own materials based on calculations of H. Godlewska-Majkowska and M. Czernecki, made in the course of statutory research *Investment attractiveness and enterprise localization in the global economy* (the team: H. Godlewska-Majkowska, Ph.D., university professor at the Warsaw School of Economics – head of research, P. Bartoszczuk, Ph.D., P. Zarębski, Ph.D., M. Typa, M.A., M. Czernecki, M.A.).

Table 3. Potential investment attractiveness of counties of Opole voivodship for the national economy and selected sections

| County           | PAI1_GN | PAI1_GN<br>_classes | PAI1_C_<br>classes | PAI1_G_<br>classes | PAI1_I_<br>classes | PAI1_M_<br>classes |
|------------------|---------|---------------------|--------------------|--------------------|--------------------|--------------------|
| Opole            | 0.337   | А                   | А                  | А                  | А                  | А                  |
| Kędzierzyn-Koźle | 0.255   | С                   | С                  | D                  | D                  | С                  |
| Krapkowice       | 0.254   | С                   | С                  | С                  | С                  | С                  |
| Brzeg            | 0.243   | С                   | С                  | С                  | D                  | С                  |

Source: As in Table 1.

## Table 4. Potential investment attractiveness of communes of Opole voivodship for the national economy and selected sections

|                      |         | PAI1_GN_ | PAI1_C_ | PAI1_G_ | PAI1_I_ | PAI1_M_ |
|----------------------|---------|----------|---------|---------|---------|---------|
| Commune              | PAI1_GN | classes  | classes | classes | classes | classes |
| Brzeg (1)            | 0.275   | А        | А       | А       | В       | А       |
| Opole (1)            | 0.256   | А        | А       | А       | А       | А       |
| Kędzierzyn-Koźle (1) | 0.252   | А        | А       | А       | А       | А       |
| Zdzieszowice (3)     | 0.241   | А        | А       | А       | С       | А       |
| Tułowice (2)         | 0.223   | А        | А       | В       | В       | В       |
| Namysłów (3)         | 0.223   | А        | А       | А       | В       | А       |
| Skarbimierz (2)      | 0.221   | А        | А       | А       | С       | В       |
| Dobrzeń Wielki (2)   | 0.218   | А        | А       | А       | В       | А       |
| Nysa (3)             | 0.215   | В        | В       | В       | D       | А       |
| Gogolin (3)          | 0.215   | В        | А       | А       | А       | В       |
| Kluczbork (3)        | 0.211   | В        | В       | В       | С       | А       |
| Chrząstowice (2)     | 0.209   | В        | В       | В       | В       | В       |
| Krapkowice (3)       | 0.208   | В        | В       | В       | С       | А       |
| Prudnik (3)          | 0.207   | В        | В       | В       | D       | В       |
| Bierawa (2)          | 0.205   | В        | В       | В       | В       | В       |
| Niemodlin (3)        | 0.200   | В        | В       | С       | В       | С       |
| Ujazd (3)            | 0.198   | В        | В       | В       | С       | С       |
| Komprachcice (2)     | 0.196   | С        | В       | С       | D       | В       |
| Tarnów Opolski (2)   | 0.196   | С        | В       | В       | С       | В       |
| Popielów (2)         | 0.196   | С        | В       | С       | А       | С       |
| Łubniany (2)         | 0.195   | С        | В       | В       | С       | С       |
| Lubsza (2)           | 0.194   | С        | В       | В       | С       | С       |
| Ozimek (3)           | 0.194   | С        | С       | С       | В       | В       |
| Jemielnica (2)       | 0.193   | С        | С       | С       | С       | С       |
| Leśnica (3)          | 0.193   | С        | С       | С       | С       | С       |
| Zawadzkie (3)        | 0.192   | С        | В       | В       | С       | С       |
| Lewin Brzeg (3)      | 0.191   | С        | С       | C       | Е       | С       |
| Kolonowskie (3)      | 0.190   | С        | С       | С       | С       | С       |
| Grodków (3)          | 0.189   | С        | С       | С       | D       | С       |
| Olesno (3)           | 0.188   | С        | С       | С       | В       | В       |

| Praszka (3)           | 0.188 | С | С | С | D | С |
|-----------------------|-------|---|---|---|---|---|
| Polska Cerekiew (2)   | 0.187 | С | В | С | С | D |
| Głubczyce (3)         | 0.185 | С | С | С | D | С |
| Głuchołazy (3)        | 0.185 | С | C | D | D | С |
| Strzelce Opolskie (3) | 0.185 | С | С | В | В | С |
| Paczków (3)           | 0.184 | С | С | D | Е | С |
| Walce (2)             | 0.183 | С | С | C | Е | D |
| Turawa (2)            | 0.181 | С | С | D | D | С |
| Izbicko (2)           | 0.180 | С | С | D | D | D |
| Głogówek (3)          | 0.179 | С | С | D | D | С |
| Dąbrowa (2)           | 0.178 | С | С | D | D | С |

Source: As in Table 1.

Note: All the indices in the report have been calculated on the basis on the most up-to-date data from the Regional Data Bank (RDB), 2013.