CENTRE FOR REGIONAL
AND LOCAL ANALYSES

REGIONAL INVESTMENT ATTRACTIVENESS 2013

Warmian-Mazurian 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 (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: *county*. 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: www.caril.edu.pl. as well as in numerous scientific publications and expert opinions.

1. The profile of regional economy of Warmian-Masurian voivodship

Warmian-Masurian voivodship is situated in the north-eastern part of Poland and as the only voivodship it borders on the Kaliningrad Oblast (the Russian Federation), which gives huge opportunities of cooperation with the markets of Eastern Europe, including Russia. In the voivodship there are also huge opportunities of developing the manufacture of high-quality food, which is determined by the favourable structure of farm size and the presence of unoccupied production space in agriculture.

The main advantages of the voivodship are:

- favourable natural conditions (lake districts, forests) for the development of tourism, agritourism as well as 'clean' (green) industry using renewable energy,

- the planned A1 and Via Baltica routes that give opportunities to develop very good connections in the future,

- in the voivodship there is a sea port in Elbląg, which is located on the Vistula lagoon. Currently a project of building a shipping canal through the Vistula Spit with the cooperation with the Ukraine, which additionally raises the advantages of the region in terms of transport,

- there are high ranked scientific establishments and courses of study connected with agriculture and food processing: the Institute of Animal Reproduction and Food Research of the Polish Academy of Sciences in Olsztyn and Warmian-Masurian University in Olsztyn: the Faculty of Animal Bioengineering, the Faculty of Environmental Protection and Fishery, the Faculty of Veterinary Medicine, the Faculty of Environmental Management and Agriculture, the Faculty of Food Sciences,

The voivodship's largest cities are Olsztyn and Elbląg. Olsztyn is the main centre of food industry, the manufacture of tyres, timber industry and tourism. Elbląg is an important centre of heavy industry and tourism. It is also a sea port.

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

Table 1. General characteristics of the economy of Warmian-Masurian voivodship

Feature		Warmian-Masurian voivodship	Poland	Share [%]
Market Potential				
GDP per capita 2010. (PLN/person)		27,228	37096	-
Population (persons) on 31 December 2012		1,450,697	38533299	3.8%
Human Resources Potential				
Higher education institutions graduates (persons) in 2012		15,036	484,999	3.1
Secondary schools graduates (persons) in 2012		16,300	421,317	3.9
Number of employed persons on 31 December 2012		422,880	13,911,203	3.0
Structure of employed persons 2012		agriculture 16.5% industry 29.9% services 53.6%	agriculture 17.1% industry 27.4% services 55.5%	
Investment outlays and capital of companies with foreign capital participation in the voivodship				
Investment outlays (PLN m) in 2011		309.8	73,704.4	0.4
Capital of companies (PLN m) in 2011		1,653	194,160.6	0.9
Special economic zones (SEZs) in the voivodship*				
– Suwałki SEZ, subzone: m. Ełk, gm. Gołdap – Warmian-Masurian SEZ, subzone: gm. Barczewo, gm. Bartoszyce, gm. Dobre Miasto, gm. Iłowo-Osada, gm. Morąg, gm. Nidzica, gm. Olecko, gm. Olsztynek, gm. Orzysz, gm. Pasłęk, gm. Piecki, gm. Pisz, gm. Szczytno, gm. Wielbark, m. Bartoszyce, m. Elbląg, m. Iława, m. Lidzbark Warmiński, m. Mrągowo, m. Nowe Miasto Lubawskie, m. Olsztyn, m. Ostróda				
Distinguishing investment attractiveness ratings PAI _2 and RAI (class A, B and C)				
Potential investment attractiveness PAI_2		Tourism Class C		
Real investment attractiveness RAI				
Counties and communes distinguished according to the Potential Attractiveness Index for the national economy (PAI1_GN)				
Counties	Class A	Elbląg, Olsztyn		
	Class B			
Communes	Class A	Działdowo (1), Iława (1), Lubawa (1), Ostróda (1), Elbląg (1), Ełk (1), Giżycko (1), Bartoszyce (1), Górowo Iławeckie (1), Kętrzyn (1), Lidzbark Warmiński (1), Mrągowo (1), Stawiguda (2), Szczytno (1), Olsztyn (1)		
	Class B	Braniewo (1), Nowe Miasto Lubawskie (1), Olecko (3), Gołdap (3), Węgorzewo		

		(3), Mikołajki (3), Nidzica (3), Biskupiec (3), Dywity (2)

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 Warmian-Masurian voivodship made a contribution of 2.7 % to the GDP of Poland. Calculated per capita, it amounted to PLN 27,228 with the average for Poland PLN 37,096. With this result the voivodship takes the 13th place in the country. The GDP growth rate in the voivodship in the years 2003-2010 amounted to 157% 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 (53.6%) whereas shares of the agricultural and industrial sectors are respectively 16.5% and 29.9% (Central Statistical Office, Regional Data Bank 2013).

The number of inhabitants of the voivodship amounts to 1,450,697 (as of 2013), which is 3.8% of the population of Poland. The age structure in the voivodship in 2012 was as follows: 19.3% of the population at pre-productive age, 65% at productive age and 15.7% 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 20.4% in August 2013, compared to 13% in Poland. The average monthly gross wages and salaries in enterprises sector in the first half-year of 2013 amounted to PLN 3045.3, which is 80.8% of the average for Poland.

The main potential for human capital creation in the voivodship lies in 9 higher education institutions in which there are 45 thousand students studying, which makes up 2.7% of all students in Poland. Moreover, 4.4% of the secondary school students in the voivodship attend vocational schools and 4% attend technical schools.

The voivodship's strategic sectors mentioned in the strategy of regional development include above all: agri-food industry, manufacture of furniture, tourism, manufacture of sports goods and manufacture of rubber goods.

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

– Suwałki SEZ, subzone: m. Ełk, gm. Gołdap,
– Warmian-Masurian SEZ, subzone: gm. Barczewo, gm. Bartoszyce, gm. Dobre Miasto, gm. Iłowo-Osada, gm. Morąg, gm. Nidzica, gm. Olecko, gm. Olsztynek, gm. Orzysz, gm. Pasłęk, gm. Piecki, gm. Pisz, gm. Szczytno, gm. Wielbark, m. Bartoszyce, m. Elbląg, m. Iława, m. Lidzbark Warmiński, m. Mrągowo, m. Nowe Miasto Lubawskie, m. Olsztyn, m. Ostróda.

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

Warmian-Masurian voivodship is characterised by a low level of overall investment attractiveness, which is indicated by its rank (class E) [1] according to the main potential investment attractiveness index calculated for the whole regional economy PAI 2_GN (see Chart 1 in the Appendix). However, the region was ranked positively in terms of potential investment attractiveness for potential projects concerning tourism, which is indicated by C Class for complex index of investment attractiveness (PAI2_I) and the simple index of potential investment attractiveness (PAI1_I). The preliminary analysis based on PAI1_G index allows to distinguish this voivodship as a favourable place for investments in trade and repair with traditional characteristics.

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. Basing on these indices, the voivodship was ranked D for the whole regional economy, and for the individual sections E or F.

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

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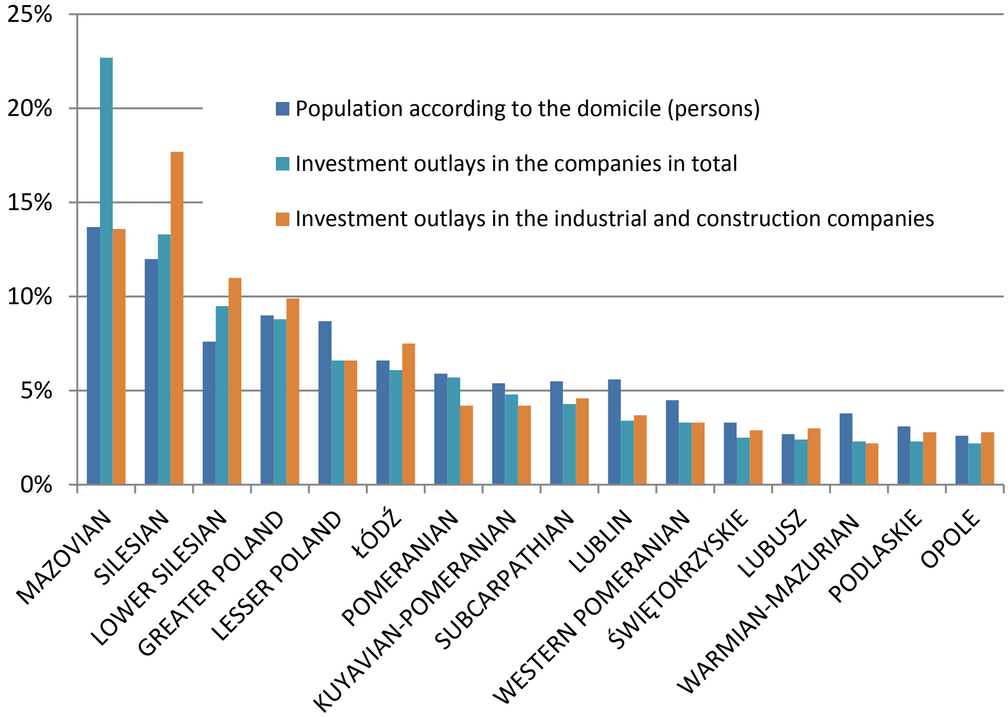
[1] Section C – manufacturing industry, section G – trade and repair, section I – hotels and restaurants, section M – professional, scientific and technical activities. Methodological description of calculation of investment attractiveness of Polish regions, counties and communes can be found on the website of Institute of Entrepreneurship, Collegium of Business and Administration, Warsaw School of Economics: http://kolegia.sgh.waw.pl/pl/KNoP/struktura/IP/publikacje

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

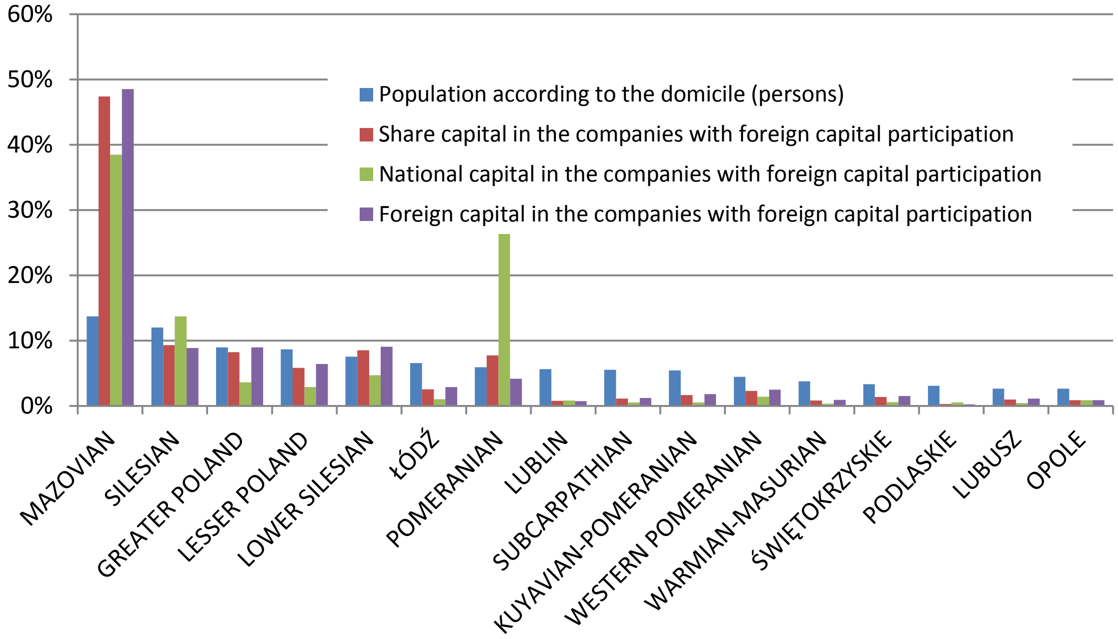


Note: these are the most up-to-date data.
Source: Authors on the basis of the Local Data Bank (downloaded 13 November 2013).

In 2011 Warmian-Masurian region took the 14th place in Poland in terms of accumulated share capital in the companies with foreign capital participation (an 8.6% share of its total value in all voivodships). The voivodship's share in Poland's population amounts to 3.8% while its share in the investment outlays of domestic companies was only 2.3%. This also applies to investment outlays in industry and construction enterprises. This indicates that the investors undervalue the market potential of the region. However, this applies mainly to Polish entrepreneurs.

The same conclusion can be drawn from analysis of value of capital in the companies with foreign capital participation – see Chart 2.

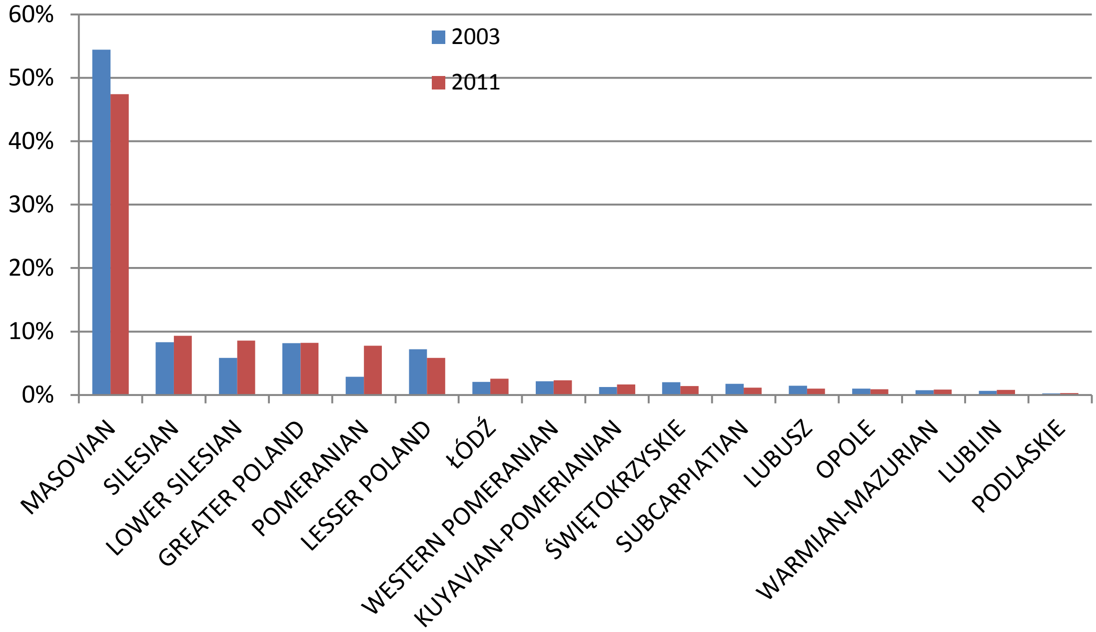
Chart 2. Regional structure of capital in the companies with foreign capital participation in comparison with a share in population



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

The voivodship's share capital in companies with foreign capital participation in all the analysed sectors only amounts to 0.9% of the national level. This is not much compared to the 3.8% share in Poland's population. In the years 2003-2011 the voivodship's competitive position on the foreign direct investments market slightly increased as its share in the total value of share capital of companies with foreign capital participation in Poland – from 0.75% to 0.85% - 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 Warmian-Masurian voivodship might be investment sites thoroughly prepared by self-government territorial units, utilizing location's advantages.

Warmian-Masurian 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 243rd place of 270 regions in the EU and was ranked Class F – see Table 2 in the Appendix.

The voivodship has competitive advantage when it comes to human capital, ranked class B. Although its position in the ranking is low, the voivodship can compete with the following lower-ranked regions: **in Spain**: Region Murcia; **in Bulgaria**: Severen tsentralen, Yugoiztochen, Yuzhen tsentralen and Severozapaden; **in Greece**: Peloponnisos; **in Italy**: Calabria, Basilicata; **in Slovakia:** Stredné Slovensko, Východné Slovensko; **in Portugal:** Norte, Alentejo, Região Autónoma dos Açores and Centro (PT); **in Romania**: Vest, Nord-Vest, Centru, Sud-Est, Sud-Vest Oltenia, Nord-Est and Sud - Muntenia; **in Hungary**: Dél-Alföld; Észak-Alföld.

3. Internal diversification of regional investment attractiveness

Counties

The following counties are considered the most attractive in Warmian-Masurian voivodship: Elbląg, Olsztyn – see Table 2.

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

County	PAI1_GN	PAI1_GN	PAI1_C	PAI1_G	PAI1_I	PAI1_M
Olsztyn	0.348	A	A	A	A	A
Elbląg	0.300	A	A	B	C	A
Ełk	0.257	C	C	C	B	C
Mrągowo	0.253	C	C	C	A	C
Węgorzewo	0.241	C	C	D	B	D
Giżycko	0.240	C	C	C	B	C

Source: Authors' own calculations.

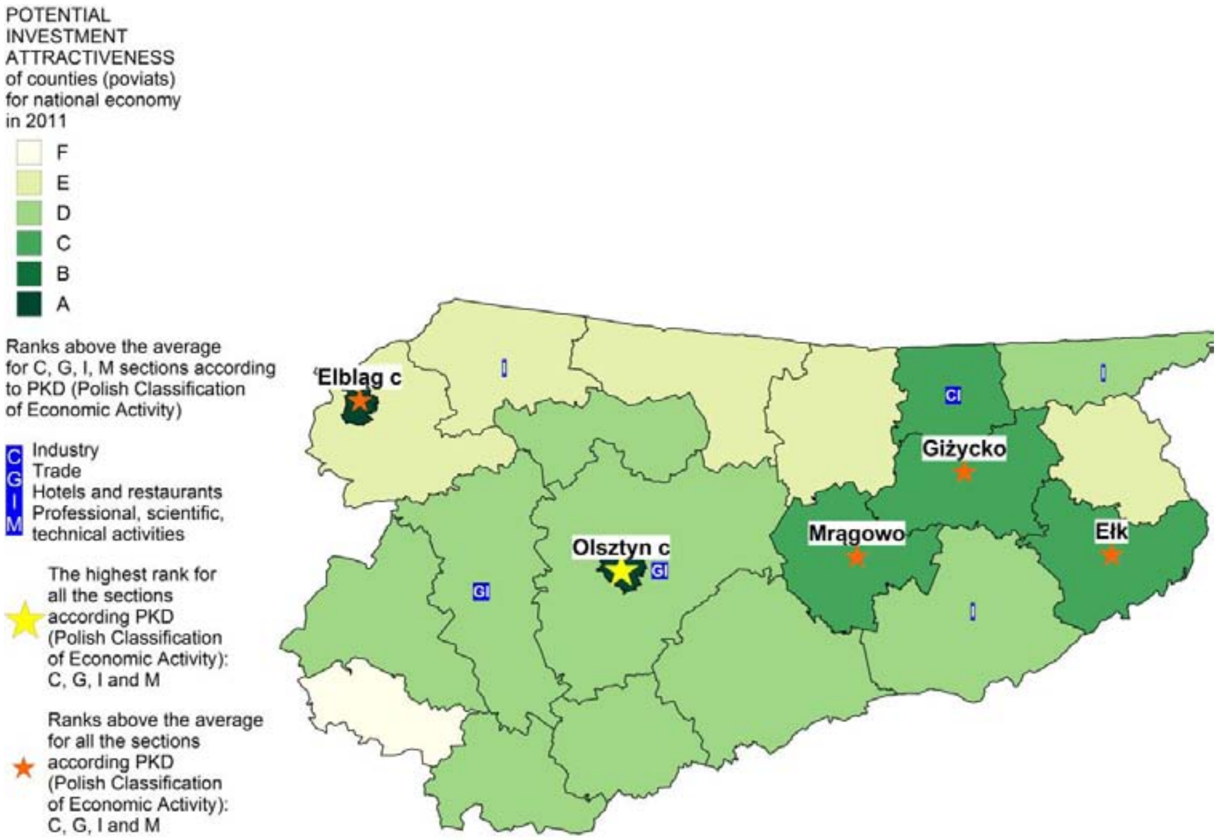
The counties mentioned above (excluding Ełk, Mrągowo, Węgorzewo, Giżycko) are characterized by high investment attractiveness. City of Olsztyn should be distinguished as this unit was ranked class A in its potential investment attractiveness for all sections of the national economy analysed in this research.

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

- Ełk, Mrągowo, Węgorzewo, Giżycko (Class C) for section C,
- Ełk, Mrągowo, Giżycko, Olsztyn, Ostróda (Class C) for section G,
- Elbląg, Olsztyn, Ostróda, Gołdap, Pisz, Braniewo (Class C) for section I and Ełk, Mrągowo, Giżycko for section M.

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

Chart 4. Potential investment attractiveness of counties of Warmian-Masurian voivodship for the national economy and selected sections



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

Communes

Like counties, the Warmian-Masurian communes are also very much diversified in terms of investment attractiveness. The highest ranked communes are: Działdowo (1), Iława (1), Lubawa (1), Ostróda (1), Elbląg (1), Ełk (1), Giżycko (1), Bartoszyce (1), Górowo Iławeckie (1), Kętrzyn (1), Lidzbark Warmiński (1), Mrągowo (1), Stawiguda (2), Szczytno (1), Olsztyn (1). It is also reflected in their high ranks (class A or B) for all the analysed sections – see Table 3.

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

Commune	PAI1_GN	PAI1_GN	PAI1_C	PAI1_G	PAI1_I	PAI1_M
Ostróda (1)	0.289	A	A	A	A	A
Kętrzyn (1)	0.278	A	A	A	B	A
Działdowo (1)	0.278	A	A	A	B	A
Szczytno (1)	0.271	A	A	A	C	A
Ełk (1)	0.265	A	A	A	A	A
Iława (1)	0.264	A	A	A	A	A
Olsztyn (1)	0.264	A	A	A	A	A
Mrągowo (1)	0.263	A	A	A	A	A
Bartoszyce (1)	0.260	A	A	A	C	A
Giżycko (1)	0.253	A	A	A	A	A
Górowo Iławeckie (1)	0.251	A	A	A	B	A
Elbląg (1)	0.248	A	A	A	A	A
Lidzbark Warmiński (1)	0.248	A	A	A	A	A
Lubawa (1)	0.235	A	A	A	B	A
Stawiguda (2)	0.234	A	A	A	A	A
Nowe Miasto Lubawskie (1)	0.214	B	B	A	B	B
Nidzica (3)	0.214	B	B	C	C	A
Węgorzewo (3)	0.210	B	B	C	C	B
Braniewo (1)	0.210	B	B	B	D	A
Dywity (2)	0.209	B	B	B	B	A
Biskupiec (3)	0.206	B	B	C	C	A
Mikołajki (3)	0.201	B	B	C	A	C
Gołdap (3)	0.200	B	C	C	C	B
Olecko (3)	0.199	B	C	C	D	B

(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: Braniewo (1), Nowe Miasto Lubawskie (1), Olecko (3), Gołdap (3), Węgorzewo (3), Mikołajki (3), Nidzica (3), Biskupiec (3), Dywity (2). 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: Będzino (2), Borne Sulinowo (3), Połczyn-Zdrój (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:

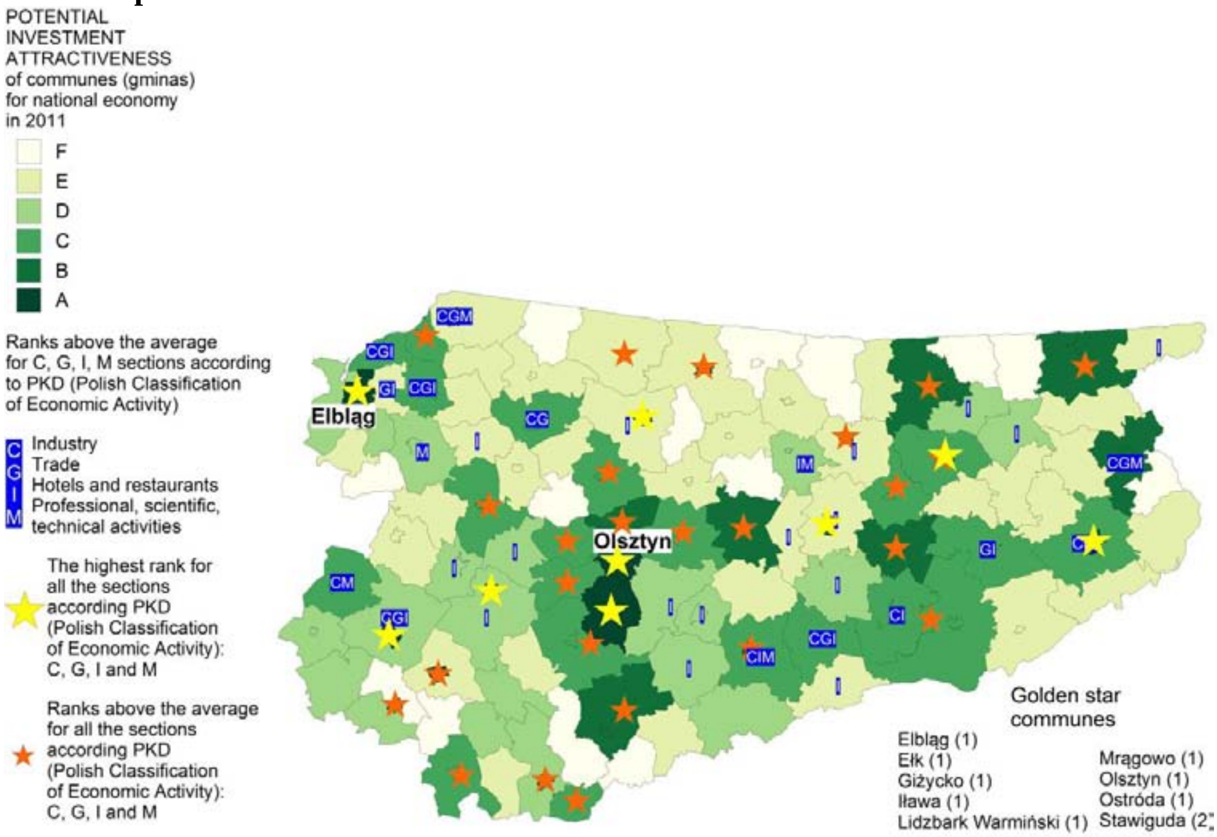
- Iłowo-Osada (2), Lidzbark (3), Młynary (3), Tolkmicko (3), Iława (2), Susz (3), Morąg (3), Ełk (2), Giżycko (2), Ryn (3), Olecko (3), Pisz (3), Ruciane-Nida (3), Gołdap * (3), Orneta (3), Barczewo (3), Dobre Miasto (3), Gietrzwałd (2), Jonkowo (2), Olsztynek (3), Szczytno (2), Świętajno (2) - for section C,
- Frombork (3), Lidzbark (3), Milejewo (2), Młynary (3), Tolkmicko (3), Iława (2), Morąg (3), Giżycko (2), Ryn (3), Olecko (3), Orzysz (3), Pisz (3), Gołdap (3), Węgorzewo (3),

Orneta (3), Mikołajki (3), Nidzica (3), Barczewo (3), Biskupiec (3), Dobre Miasto (3), Jonkowo (2), Olsztynek (3), Świętajno (2) - for section G,

- Iłowo-Osada (2), Lidzbark (3), Godkowo (2), Młynary (3), Iława (2), Morąg (3), Ostróda (2), Ełk (2), Ryn (3), Orzysz (3), Pisz (3), Gołdap (3), Pozezdrze (2), Węgorzewo (3), Bartoszyce (1), Kętrzyn (2), Reszel (3), Lidzbark Warmiński (2), Piecki (2), Sorkwity (2), Nidzica (3), Biskupiec (3), Olsztynek (3), Szczytno (1), Jedwabno (2), Pasym (3), Rozogi (2), Szczytno (2), Świętajno (2) - for section I,
- Frombork (3), Iłowo-Osada (2), Lidzbark (3), Pasłęk (3), Susz (3), Morąg (3), Ełk (2), Giżycko (2), Ryn (3), Reszel (3), Mikołajki (3), Barczewo (3), Olsztynek (3), Szczytno (2) - for section M.

Synthetic evaluation of potential investment attractiveness of communes of Warmian-Masurian voivodship is presented in Chart 5.

Chart 5. Potential investment attractiveness of communes of Warmian-Masurian 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: Warmińsko Mazurska Izba Rzemiosła i Przedsiębiorczości in Olsztyn, Morąska Izba Gospodarcza in Morąg, Iławska Izba Gospodarcza, Warmińsko-Mazurska Okręgowa Izba Inżynierów Budownictwa in Olsztyn, "Izba Gospodarcza in Ełk" Ełckie Forum Gospodarcze, Regionalna Izba Gospodarcza Żywności Naturalnej i Tradycyjnej in Olsztyn, Polska Izba Turystyki Oddział Warmińsko – Mazurski in Olsztyn, Warmińsko-Mazurska Izba Przemysłowo-Handlowa in Lidzbark Warmiński, Olsztyńska Izba Budowlana,
- associations (including business centres): Stowarzyszenie „Centrum Rozwoju Ekonomicznego Pasłęka", Giżyckie Stowarzyszenie Gospodarcze, Naczelna Organizacja Techniczna - Federacja Stowarzyszeń Naukowo-Technicznych w Elblągu, Stowarzyszenie Kupców Nowomiejskich Nowe Miasto Lubawskie, Międzynarodowe Centrum Biznesu i Administracji Publicznej in Olsztyn, Gołdape Centrum Biznesu Ośrodek Informacyjno – Konsultacyjny,
- business incubators: Akademicki Inkubator Przedsiębiorczości przy UWM in Olsztyn, EINTI – Elbląski Inkubator Nowoczesnych Technologii Informatycznych, INQBE Inkubator Przedsiębiorczości in Olsztyn, Ełckie Forum Wspierania Samozatrudnienia Bezrobotnych - Inkubator Przedsiębiorczości,
- Technology parks, science parks, industrial parks: Elbląski Park Technologiczny, Olsztyński Park Naukowo-Technologiczny, Park Naukowo-Technologiczny in Ełk,
- consulting centres (including personal consulting and agricultural consulting): Okręgowy Ośrodek Rzeczoznawstwa i Doradztwa SITR Sp. z o.o. in Olsztyn, Warmińsko-Mazurski Ośrodek Doradztwa Rolniczego in Olsztyn,
- financial institutions (guarantee funds): Regionalny Fundusz Pożyczkowy WMARR S. A. w Olszynie, Warmińsko Mazurski Fundusz „Poręczenia Kredytowe" sp. z o.o. (Olsztyn, Działdowo), Działdowska Agencja Rozwoju S.A. (Fundusz Pożyczkowy, Fundusz Poręczeniowy, Fundusz Gwarancyjny), Iławska Fundacja Rozwoju Gospodarczego – Fundusz Poręczeń Kredytowych, Fundusz Poręczeń Kredytowych przy Związku Gmin „Barcja" in Kętrzyn, Fundusz Rozwoju Przedsiębiorczości (Fundusz Pożyczkowy) in Pasłęk, Nidzicka Fundacja Rozwoju „NIDA", Fundusz Poręczeń Kredytowych przy Fundacji Rozwoju Przedsiębiorczości ATUT in Ostróda, Fundusze Pożyczkowe Fundacji Rozwoju Regionu Łukty, Fundacja Wspierania Przedsiębiorczości Regionalnej in Gołdap (Fundusz Pożyczkowy),
- others: Centrum Innowacji i Transferu Technologii Uniwersytetu Warmińsko-Mazurskiego in Olsztyn, Warmińsko-Mazurska Agencja Rozwoju Regionalnego S.A. in Olsztyn, Warmińsko-Mazurska Regionalna Organizacja Turystyczna in Olsztyn, Zrzeszenie Prywatnego Handlu i Usług in Olsztyn, Fundacja Rozwoju Regionu Gołdap, Fundacja Rozwoju Regionu Łukta.

Warmia-Mazury Chamber of Craft *(Warmińsko Mazurska Izba Rzemiosła i Przedsiębiorczości)* **in Olsztyn** represents craft's interests towards public administration and foreign institutions, promotes regional craft enterprises offers trainings, information and consulting, supervises vocational education in crafts, confirms craftsmen and journeyman qualifications. Within the Centre of Vocational Education the vocational trainings and courses are offered, enabling to improve or get new skills. (http://izbarzem.olsztyn.pl/, 7 November 2013)

„Pasłęk Economic Development Centre" Association *(Stowarzyszenie „Centrum Rozwoju Ekonomicznego Pasłęka")* aims at supporting economic development, including development of entrepreneurship, promotion of employment and activization of the unemployed. Within the association a Entrepreneurship Development is operating (Loan Fund) – an instrument of external financing for micro- and small enterprises, enabling entrepreneurs to acquire capital support in the form of preferential loans. The Training Centre operating within the association offers trainings and workshops for MSEs, the unemployed, young people, staff of job market institutions, self-governments representatives (the trainings concern gaining new skills and changing profession). The Consultation Point offers free of charge information services for persons planning to start business activity and for micro-, small and medium enterprises, concerning running a business. (http://www.screp.pl/news.php, 7 November 2013)

Elbląg Technology Park *(Elbląski Park Technologiczny)* offers office, service and laboratory space (Advanced Environmental Analysis Laboratory, Working Environment and Emission Research Laboratory, Metal Centre Laboratory, IT Transfer Centre, Wood and Furniture Technology Centre), conference and training rooms and leasing of other areas located in the SEZ. Businesses located in the Park are able to benefit from a wide range of consulting services related to technology transfer and assistance in acquiring funding from EU and other sources. (www.ept.umelblag.pl/, 7 November 2013)

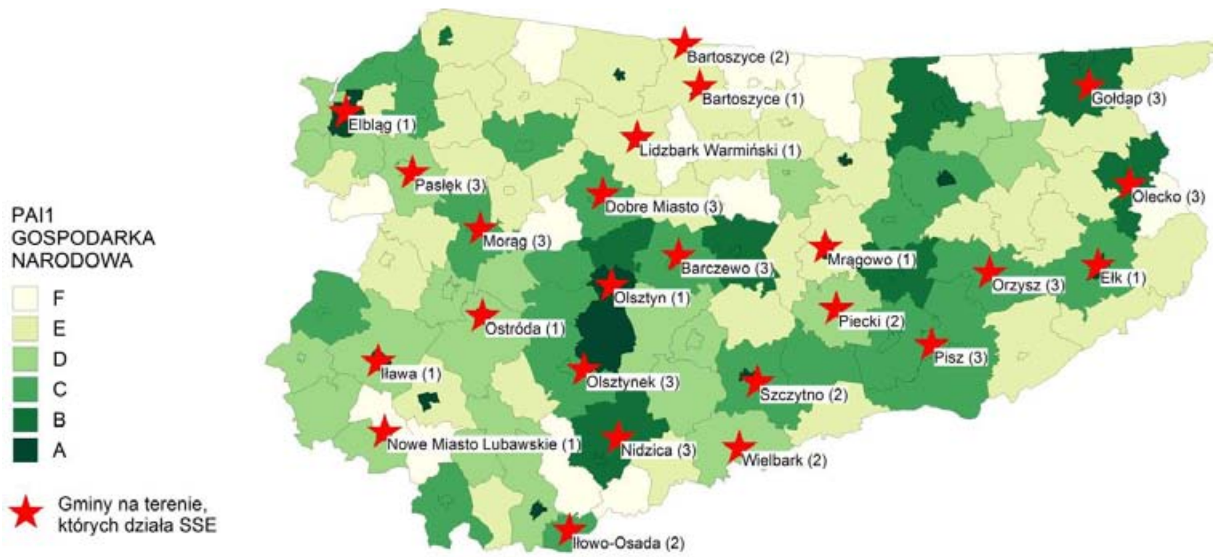
Innovation and Technology Transfer Centre of Warmian-Masurian University in Olsztyn (*Centrum Innowacji i Transferu Technologii Uniwersytetu Warmińsko-Mazurskiego in Olsztyn)* offers information, consulting, training services and intermediary at setting up cooperation and technology transfer for scientists, students and entrepreneurs from the region. Support of cooperation between business and science is implemented i.a. by information and consulting services on sources of financing of innovative projects (including common projects of entrepreneurs and scientists), organizing fairs, conferences and trade missions and gathering information of such initiatives in Europe organizing seminars with academic workers of the university and Warmian-Masurian entrepreneurs. The centre offers technology audit, support at preparing technological offer or inquiry and at technology transfer. It also helps at seeking for cooperation partners (suppliers of technologies or receiver of innovative solutions both in Poland and abroad). This is facilitated by access to university's databases (technology and services, experts, dissertations databases and search engines) as well as by access to the Enterprise Europe Network (EEN), which contains information on technology offers and demands of European institutions. Bothe entrepreneurs and scientists can publish their cooperation offer in a database. The centre offers support academic entrepreneurship and commercialization of research results by organizing internships in enterprises for academic workers and internships at the university for companies' workers, trainings and consulting on setting up and running a business based on research achievements (start-ups and spin-offs). The centre offers trainings for regional MSEs, university's and other research units academic workers and university's students and graduates, concerning knowledge and technology transfer and commercialization. (www.uwm.edu.pl/ciitt/, 7 November 2013)

Warmian-Masurian Regional Development Agency Plc. in Olsztyn (Warmińsko-Mazurska Agencja Rozwoju Regionalnego S.A) offers direct support for businesses by means of subsidies and loans for development (Regional Loan Fund). It offers loans for micro-, small and medium enterprises. Within the Warmia-Mazury Investor Assistance Centre offers services for investors and exporters, including looking for investment locations, assistance at contacts with government and self-government administration, organizing cooperation with foreign partners, information services (e.g. investment incentives and sources of financing cooperation). On the centre's website there is a database on investment offers and cooperation offers. The agency is a member of Enterprise Europe Network that offers free of charge services for entrepreneurs. The agency also offers free of charge information services within the Regional System of Innovation Support that concern operating a business and programmes and forms of support for MSEs. (www.wmarr.olsztyn.pl/, 07 November 2013)

Special economic zones in voivodship – effects

There are 2 special economic zones (SEZs) in Warmian-Masurian voivodship: Warmia-Mazury SEZ and Suwałki SEZ. At the end of 2012 the areas of the SEZs were parts of 9 cities and 15 communes – see Chart 6.

Chart 6. The location of SEZs in Warmian-Masurian 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. The investment outlays made by SEZ companies operating in the communes of Mazovia by the end of 2012 amounted to PLN 2.8 billon, which made 3% of all investment outlays made in the Polish SEZs. In the same time the SEZ companies in the region created 7.2 thousand new jobs which made 4% of all jobs created in the Polish SEZs (see Table 4).

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

SEZ / Subzone	County, Commune	Leading industries (at least 20% share of revenue or employment	Cumulated capital expenditure in million PLN (end of 2012)	Jobs number (end of 2012)
Warmia-Mazury /Iłowo Osada	Działdowo, Iłowo-Osada (2)	no investors yet		
Warmia-Mazury /Pasłęk	Elbląg, Pasłęk (3)	no investors yet		
Warmia-Mazury /Iława	Iława, Iława (1)	other non-metallic mineral products	0.23	
Warmia-Mazury /Nowe Miasto Lubawskie	Nowe Miasto Lubawskie, Nowe Miasto Lubawskie (1)	furniture	49.00	224
Warmia-Mazury /Ostróda	Ostróda, Ostróda (1)	no investors yet		
Warmia-Mazury /Morąg	Ostróda, Morąg (3)	furniture	19.23	130
Warmia-Mazury /Elbląg	.Elbląg (city), Elbląg (1)	furniture	106.08	385
Suwałki /Ełk	Ełk, Ełk (1)	printing and reproduction of recorded media, fabricated metal products (except machinery and equipment),	334.58	1,246
Warmia-Mazury /Olecko	Olecko, Olecko (3)	no investors yet		
Warmia-Mazury /Orzysz	Pisz, Orzysz (3)	no investors yet		
Warmia-Mazury /Pisz	Pisz, Pisz (3)	no investors yet		
Suwałki /Gołdap	Gołdap , Gołdap (3)	paper and paper products, rubber and plastic products, fabricated metal products (except machinery and equipment)	136.50	793
Warmia-Mazury /Bartoszyce	Bartoszyce, Bartoszyce (1)	other non-metallic mineral products, furniture,	50.60	403
Warmia-Mazury /Bartoszyce	Bartoszyce, Bartoszyce (2)	no investors yet		
Warmia-Mazury /Lidzbark Warmiński	Lidzbark Warmiński, Lidzbark Warmiński (1)	other non-metallic mineral products	1.01	
Warmia-Mazury /Mrągowo	Mrągowo, Mrągowo (1)	fabricated metal products (except machinery and equipment)	74.70	287
Warmia-Mazury /Piecki	Mrągowo, Piecki (2)	no investors yet		
Warmia-Mazury /Nidzica	Nidzica, Nidzica (3)	fabricated metal products (except machinery and	1.51	

		equipment), furniture,		
Warmia-Mazury /Barczewo	Olsztyn, Barczewo (3)	no investors yet		
Warmia-Mazury /Dobre Miasto	Olsztyn, Dobre Miasto (3)	chemicals and chemical products, furniture,	81.05	603
Warmia-Mazury /Olsztynek	Olsztyn, Olsztynek (3)	no investors yet		
Warmia-Mazury /Olsztyn	Szczytno, Szczytno (2)	foods	88.63	492
Warmia-Mazury /Wielbark	Szczytno, Wielbark (2)	furniture	260.84	1,181
Warmia-Mazury /Szczytno	Olsztyn (city), Olsztyn (1)	rubber and plastic products	1,620.62	1,435

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

The largest investments has been made by Olsztyn Michelin Polska S.A., a producer of tires in Olsztyn. There is also a concentration of furniture producers in the region: Fabryka Mebli SZYNAKA sp. z o.o., DFM sp. z o.o. Fabryka Mebli Taranko Aleksander Taranko.

The SEZ development plans for Warmian-Masurian voivodship are aimed at attracting investors:

- utilising the labour and resource pool of the voivodship, especially in projects strengthening the furniture cluster and implementing innovative production and services projects that enhance the competitiveness of the region – in Suwałki SEZ.
- from the wood, machinery, electronic, biotechnology industries that will ensure creation of jobs in branches, in which the voivodship has a potential and which are supported by local institutions, supporting especially the development of beef processing cluster, window-making cluster and development of business interested in technology transfer – in Warmia-Mazury 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 8 are situated in Warmian-Masurian voivodship (see Table 5).

Table 5. Communes in Warmian-Masurian voivodship distinguished as 'A' Communes

Place in the ranking (for the whole country)	Commune	Evaluation of websites (score)	Evaluation of e-mail contact in Polish (score)	Evaluation of e-mail contact in English (score)	Sum
8	Lubawa (1)	6.5	13.0	9.0	28.5
65	Giżycko (1)	12.0	9.0	0.0	21.0

Source: Authors' own materials based on the research.

What distinguishes the above-mentioned communes' websites, is their presence in social media and foreign-language versions (in the case of Giżycko) and well-structured information for investors (Lubawa). Also the level of correspondence is high - both offices sent detailed information in answer to the inquiry and offered help. In the case of Lubawa the willingness to personal contact was also confirmed in English e-mail.

5. Region's strengths and weaknesses

Świętokrzyskie 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.

Table 6. Strengths and weaknesses of Świętokrzyskie voivodship

Strengths of the region according to the microclimates by the Institute of Enterprise of the Warsaw School of Economics	Weaknesses of the region according to the microclimates by the Institute of Enterprise of the Warsaw School of Economics
National economy	
Microclimate Human Resources Class C Social Microclimate Class C Returns on tangible assets Class C	Microclimate Technical Infrastructure Class D Microclimate Sociall Infrastructure Class D Mikroklimat rynkowy Class F Microclimate Administration/Government Class D Microclimate InnovativenessClass E Productivity of enterprises Class D Profitability of enterprises Class E Self-financing of self-government units Class E Investment outlays Class D
Capital-intensive industry	
Microclimate Technical Infrastructure Class C Microclimate Sociall Infrastructure Class C Social Microclimate Class B	Microclimate Human Resources Class E Mikroklimat rynkowy Class F Microclimate Administration/Government Class D Microclimate InnovativenessClass E Returns on tangible assets Class E Productivity of enterprises Class F Self-financing of self-government units Class E Investment outlays Class F
Labour-intensive industry	
	Microclimate Human Resources Class E Microclimate Technical Infrastructure Class E Microclimate Sociall Infrastructure Class D Social Microclimate Class D Mikroklimat rynkowy Class F Microclimate Administration/Government Class D Returns on tangible assets Class E Productivity of enterprises Class F Self-financing of self-government units Class E Investment outlays Class F
Trade	
Microclimate Human Resources Class B Microclimate Sociall Infrastructure Class C	Microclimate Technical Infrastructure Class E Social Microclimate Class D Mikroklimat rynkowy Class E Microclimate Administration/Government Class D Returns on tangible assets Class D Productivity of enterprises Class F

<table>
<tr><td></td><td>Self-financing of self-government units Class E
Investment outlays Class F</td></tr>
<tr><td colspan="2">Tourism</td></tr>
<tr><td>Social Microclimate Class B
Microclimate Administration/Government Class B</td><td>Microclimate Human Resources Class D
Microclimate Technical Infrastructure Class D
Microclimate Sociall Infrastructure Class D
Mikroklimat rynkowy Class E
Returns on tangible assets Class F
Productivity of enterprises Class D
Self-financing of self-government units Class E
Investment outlays Class D</td></tr>
<tr><td colspan="2">Professional, science and technical activities</td></tr>
<tr><td>Microclimate Human Resources Class C
Social Microclimate Class C
Microclimate Administration/Government Class C
Returns on tangible assets Class C</td><td>Microclimate Technical Infrastructure Class D
Microclimate Sociall Infrastructure Class D
Mikroklimat rynkowy Class F
Microclimate InnovativenessClass D
Productivity of enterprises Class F
Self-financing of self-government units Class E
Investment outlays Class E</td></tr>
</table>

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

Summary

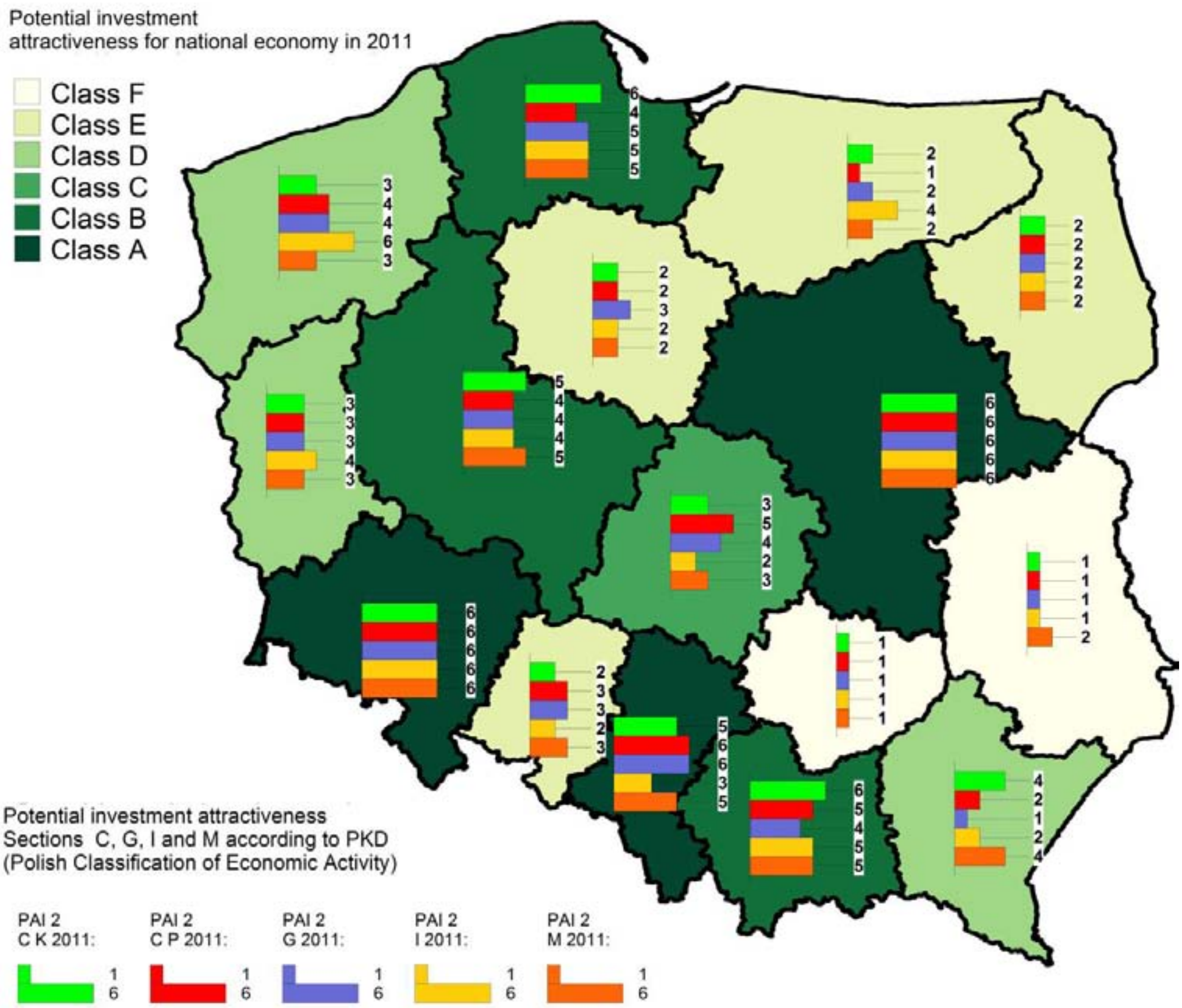
The engines of economic development of Warmian-Masurian voivodship are the city counties: Olsztyn and Elbląg and land counties: Ełk, Mrągowo, Węgorzewo and Giżycko as well as the special economic zones in the region.

Warmian-Masurian voivodship has predispositions to **create interregional clusters**, especially in sectors such as: manufacture of food products, manufacture of wood and cork products,; manufacture of articles of straw and plaiting materials, manufacture of machinery and equipment n.e.c., manufacture of furniture, manufacture of plastic products.

It can also develop **intelligent specializations** in the medium-high-tech sectors, basing on the competitive big and medium-sized companies in the **sectors of medium-low technology**: manufacture of machinery and equipment n.e.c. and in **sectors of low technology:** manufacture of furniture, manufacture of manufacture of wood and cork products,; manufacture of articles of straw and plaiting materials, manufacture of plastic products.

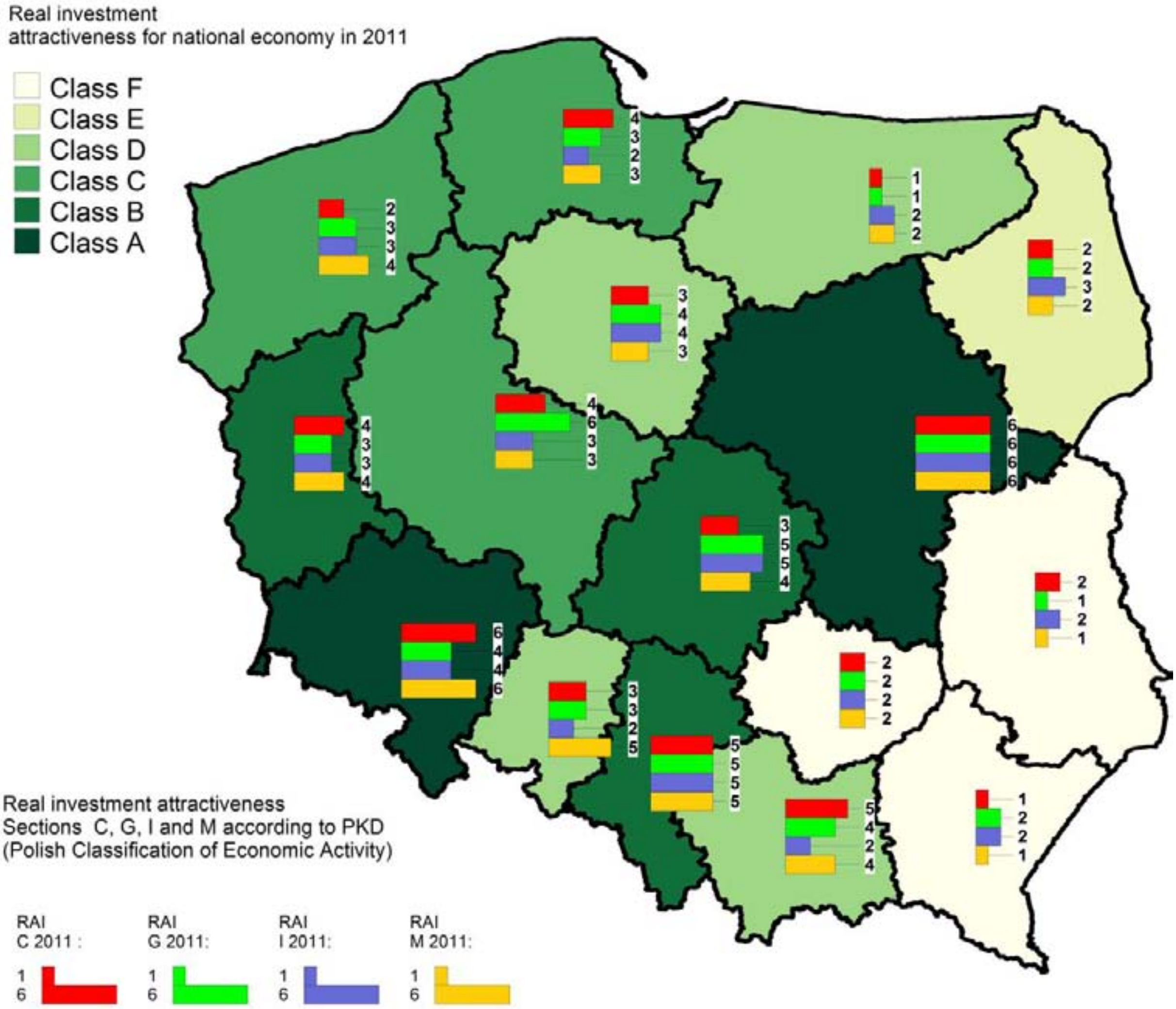
APPENDIX

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



Source: Authors' own materials based on the research.

Chart 2. Real investment attractiveness of Polish voivodships by basic sections of the national economy



Source: Authors' own materials based on the research.

Table 1. List of investment attractiveness indices for voivodships

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

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 Human Capital	Microclimate Market	Microclimate Innovativeness	Composite index
Lower Silesian	B	D	D	D
Kuyavian-Pomeranian	B	E	F	E
Lublin	B	F	E	F
Lubusz	A	F	E	E
Łódź	A	E	E	E
Lesser Poland	C	E	E	E
Mazovian	A	C	B	B
Opole	C	F	E	F
Subcarpathian	C	F	E	F
Podlaskie	B	F	E	F
Pomeranian	B	D	D	D
Silesian	B	D	E	D
Świętokrzyskie	A	F	F	F
Warmian-Masurian	B	F	E	F
Greater Poland	A	E	E	E
Western Pomeranian	C	E	E	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 Warmian-Masurian voivodship for the national economy and selected sections

County	PAI1_GN	PAI1_GN_classes	PAI1_C_classes	PAI1_G_classes	PAI1_I_classes	PAI1_M_classes
Olsztyn	0.348	A	A	A	A	A
Elbląg	0.300	A	A	B	C	A
Ełk	0.257	C	C	C	B	C
Mrągowo	0.253	C	C	C	A	C
Węgorzewo	0.241	C	C	D	B	D
Giżycko	0.240	C	C	C	B	C

Source: As in Table 1.

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

Commune	PAI1_GN	PAI1_GN_classes	PAI1_C_classes	PAI1_G_classes	PAI1_I_classes	PAI1_M_classes
Ostróda (1)	0,289	A	A	A	A	A
Kętrzyn (1)	0,278	A	A	A	B	A
Działdowo (1)	0,278	A	A	A	B	A
Szczytno (1)	0,271	A	A	A	C	A
Ełk (1)	0,265	A	A	A	A	A
Iława (1)	0,264	A	A	A	A	A
Olsztyn (1)	0,264	A	A	A	A	A
Mrągowo (1)	0,263	A	A	A	A	A
Bartoszyce (1)	0,260	A	A	A	C	A
Giżycko (1)	0,253	A	A	A	A	A
Górowo Iławeckie (1)	0,251	A	A	A	B	A
Elbląg (1)	0,248	A	A	A	A	A
Lidzbark Warmiński (1)	0,248	A	A	A	A	A
Lubawa (1)	0,235	A	A	A	B	A
Stawiguda (2)	0,234	A	A	A	A	A
Nowe Miasto Lubawskie (1)	0,214	B	B	A	B	B
Nidzica (3)	0,214	B	B	C	C	A
Węgorzewo (3)	0,210	B	B	C	C	B
Braniewo (1)	0,210	B	B	B	D	A
Dywity (2)	0,209	B	B	B	B	A
Biskupiec (3)	0,206	B	B	C	C	A
Mikołajki (3)	0,201	B	B	C	A	C
Gołdap (3)	0,200	B	C	C	C	B

Olecko (3)	0,199	B	C	C	D	B
Gietrzwałd (2)	0,195	C	C	B	A	B
Pisz (3)	0,195	C	C	C	C	B
Giżycko (2)	0,194	C	C	C	B	C
Morąg (3)	0,193	C	C	C	C	C
Frombork (3)	0,192	C	B	C	A	C
Świętajno (2)	0,191	C	C	C	C	D
Iłowo-Osada (2)	0,191	C	C	B	C	C
Olsztynek (3)	0,190	C	C	C	C	C
Barczewo (3)	0,190	C	C	C	B	C
Dobre Miasto (3)	0,189	C	C	C	B	B
Lidzbark (3)	0,187	C	C	C	C	C
Jonkowo (2)	0,186	C	C	C	B	B
Ryn (3)	0,185	C	C	C	C	C
Tolkmicko (3)	0,185	C	C	C	B	D
Ełk (2)	0,183	C	C	D	C	C
Młynary (3)	0,182	C	C	C	C	D
Orneta (3)	0,180	C	C	C	D	D
Ruciane-Nida (3)	0,179	C	C	D	B	D
Susz (3)	0,179	C	C	D	D	C
Orzysz (3)	0,179	C	D	C	C	D
Szczytno (2)	0,178	C	C	D	C	C

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.