

Warsaw School of Economics



REGIONAL INVESTMENT ATTRACTIVENESS 2016

Warmian-Masurian Voivodship

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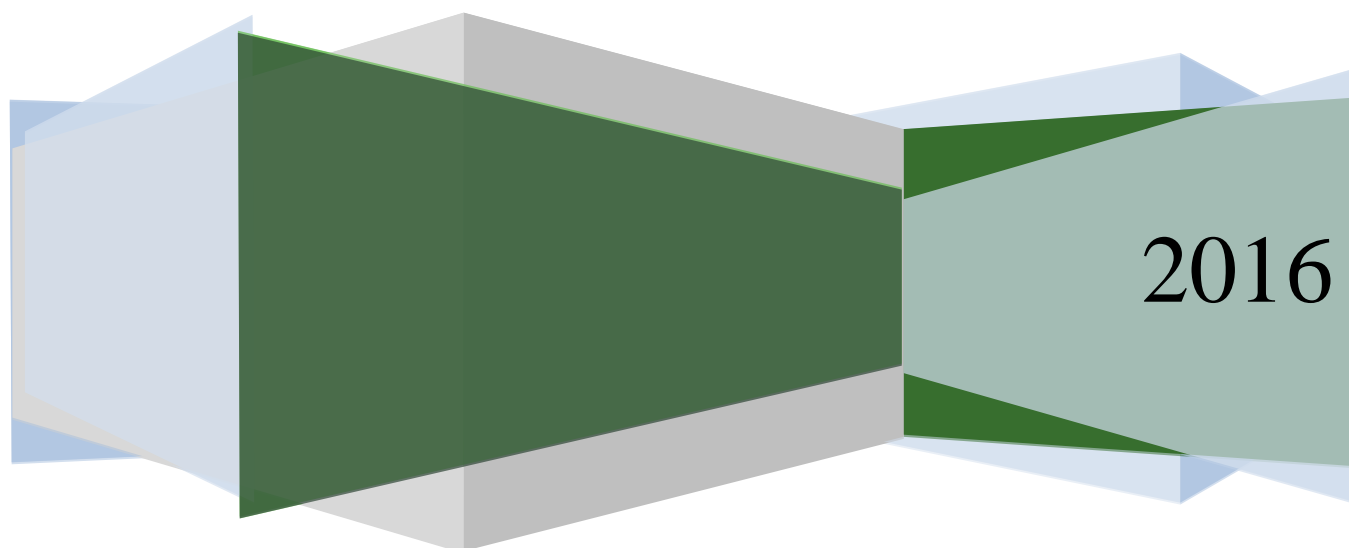
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Invest
in Poland

POLISH INFORMATION AND
FOREIGN INVESTMENT AGENCY

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Polish Information and Foreign Investment Agency works to increase inflow of investments to Poland, development of Polish foreign investments and intensification of Polish export.

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

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

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INTRODUCTION

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

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

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

In the third part of the report the main business environment institutions in the voivodship are presented, taking into consideration kinds of support which they offer to investors. This part also includes information on location of the Special Economic Zones (SEZs) in the voivodship and information on the results of their activities.

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

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

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

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

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

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

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

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

1. THE PROFILE OF REGIONAL ECONOMY OF 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,
- agro tourism 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 tires, 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 2014 (PLN/person)	31 955	44 686	-
Population (persons) on 31 December 2015	1 439 675	38 437 239	3.7%
Human resources potential			
Higher education institutions graduates (persons) in 2015	10 214	394 987	2.6%
Secondary schools graduates (persons) in 2015	10 941	284 187	3.8%
Number of employed persons in 2015 (in thousands)	556	16 084	3.5%
Structure of employed persons in 2015	agriculture 13.5% industry 30.1% services 56.4%	11.5.0% 30.5% 58.0%	
Investment outlays and capital of companies with foreign capital participation in the voivodship			
Investment outlays (PLN m) in 2014	431.5	78 823.1	0.5%
Capital of companies (PLN n) in 2014	1 565.7	215 594.8	0.7%
Special Economic Zones (SEZs) in the voivodship*			
<ul style="list-style-type: none"> - Suwałki - Warmian-Masurian 			
Distinguishing investment attractiveness ratings PAI_2 and RAI (class A, B and C)			
Potential investment attractiveness PAI_2		-	
Real investment attractiveness RAI		-	
Counties and communes distinguished according to the Potential Attractiveness Index for the national economy (PAI_GN)			
Counties	Class A	city of Elbląg, city of Olsztyn	
	Class B	Bartoszyce (u), Działdowo (u), Elbląg (u), Ełk (u), Giżycko (u), Górowo Iławeckie (u), Iława (u), Kętrzyn (u), Lidzbark Warmiński (u), Lubawa (u), Mrągowo (u), Nowe Miasto Lubawskie (u), Olecko (u-r), Olsztyn (u), Ostróda (u), Stawiguda (r), Szczytno (u)	

Notice: (u) – urban commune, (r) – rural commune, (u-r) – urban-rural commune, PAI – potential investment attractiveness, RAI – real investment attractiveness * For more information see Table 4 in the Appendix.

Source: Authors' own calculations.

The number of inhabitants of the voivodship amounts to 1 439 675 (as of 2015), which is 3.7% of the population of Poland. The age structure in the voivodship in 2015 was as follows: 18.5% of the population at pre-productive age, 63.7% at productive age and 17.7% at post productive age (for Poland it was 18%, 62% and 20% respectively).

The main potential for human capital creation in the voivodship lies in 7 higher education institutions in which there are 33000 students studying, which makes up 2.4 % of all students in Poland. According to a report prepared by the Committee for Evaluation of Research (KEJNA) for the Ministry of Science and Higher Education in the Warmian-Masurian 7 faculties of universities has received scientific category A; 11 faculties received a category - B; and 1 faculty category - C. It is also worth mentioning that six universities had not received any category awarded by KEJNA (appendix, Tab. 5). In addition, 12.3% of the secondary school students in the voivodship attend vocational schools and 31.1% attend technical schools.

The registered unemployment rate in the voivodship amounted to 13.9% in August 2016, compared to 8.57% in Poland.² The average monthly gross wages and salaries in enterprises sector in the first half-year of 2016 amounted to PLN 3 417.93, which is 88% of the average for Poland.

In 2014 Warmian-Masurian voivodship made a contribution of 2.7% to the GDP of Poland. Calculated per capita, it amounted to PLN 31 955 with the average for Poland PLN 44 686. With this result the voivodship takes the 14th place in the country. The GDP growth rate in the voivodship in the years 2004-2014 amounted to 176% while the average for Poland amounted to 181%.

In comparison with the whole country the structure of employment in the voivodship is characterized by a share of the service sector at the level of 56.4% whereas a share of the agricultural and industrial sectors are respectively 13.5% and 30.1% (Central Statistical Office, Local Data Bank 2016).

Warmian and Masurian voivodship is specialized in the production of food. In 2015 the food industry accounted for as much as 37% of the value of sold production of industry in whole voivodship. Noteworthy industries are also: furniture (10%), products of wood and cork, straw and wicker (6%) and metal products (6%).

Warmian and Masurian voivodship is an important producer of furniture (8% of the national value of production sold in 2015). Moreover reaches about 6-percent share in the domestic production of food, wood, cork, straw and wicker products.³

² Unemployed and unemployment rate by voivodships, sub-regions and counties (as of the end of August 2016). Central Statistical Office.

³ Calculations based on Statistical Bulletin of Warmian and Masurian voivodship, second quarter of 2016 and first quarter of 2016 in Statistical Bulletin , www.stat.gov.pl (26/10/2016).

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

The information on sectors that are found as strategic by the region's authorities can be important for the investors. The voivodship's strategic sectors mentioned in the strategy of regional development include above all:

- water economy
- high-quality food
- wood and furniture.

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

Investments of this kind can be located on preferential conditions in the specially prepared places in the Special Economic Zone: **Suwałki and Warmian-Masurian, in subzones:**

- **SEZ Suwałki, subzones:** Elk (u), Gołdap (u-r), Olecko (u-r),
- **SEZ Warmian-Masurian, subzones:** Barczewo (u-r), Bartoszyce (u), Bartoszyce (r), Biskupiec (u-r), Dobrze Miasto (u-r), Elbląg (u), Iława (u), Iłowo-Osada (r), Kętrzyn (u), Kurzętnik (r), Lidzbark Warmiński (u), Morąg (u-r), Mrągowo (u), Nidzica (u-r), Nowe Miasto Lubawskie (u), Olecko (u-r), Olsztyn (u), Olsztynek (u-r), Orzysz (u-r), Ostróda (u), Pasłęk (u-r), Piecki (r), Pisz (u-r), Szczytno (r), Wielbark (r).

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

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

Warmia and Mazury is the region with high growth potential, especially for areas requiring a high quality environment and tourism and gastronomy. This voivodship is particularly attractive for eco-innovative investments. Based on the methodology prepared by the team of the Enterprise Institute while conducting statutory research in Collegium of Business Administration at the Warsaw School of Economics, calculations of European regions' investment attractiveness have been made for two

years. They are based on measurements of attractiveness of human resources, market and innovativeness.⁴

Among all the EU regions Warmian-Masurian voivodship is taking 247th place. In this year's study region it has a very low investment attractiveness (class F). The strength of the region is human capital (Class A).

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

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

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

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

3. INTERNAL DIVERSIFICATION OF REGIONAL INVESTMENT ATTRACTIVENESS

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

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

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

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

Market conditions informs on market absorptive power that means the number of potential customers and indirectly on their wealth that means ability to buy goods and services. Environment conditions were rated as they are a basic factor influencing tourism development and citizens' life quality.

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

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

When it comes to counties, the highest ranked city county was city of Olsztyn (**distinguished with a golden star**) and city of Elbląg (**distinguished with an orange star**).

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

- **distinguished with a golden star:** Elbląg (u), Ełk (u), Giżycko (u), Iława (u), Lidzbark Warmiński (u), Mrągowo (u), Olsztyn (u), Ostróda (u),
- **distinguished with an orange star:** Braniewo (u), Działdowo (u), Górowo Iławeckie (u), Kętrzyn (u), Lubawa (u), Nowe Miasto Lubawskie (u), Szczytno (u).

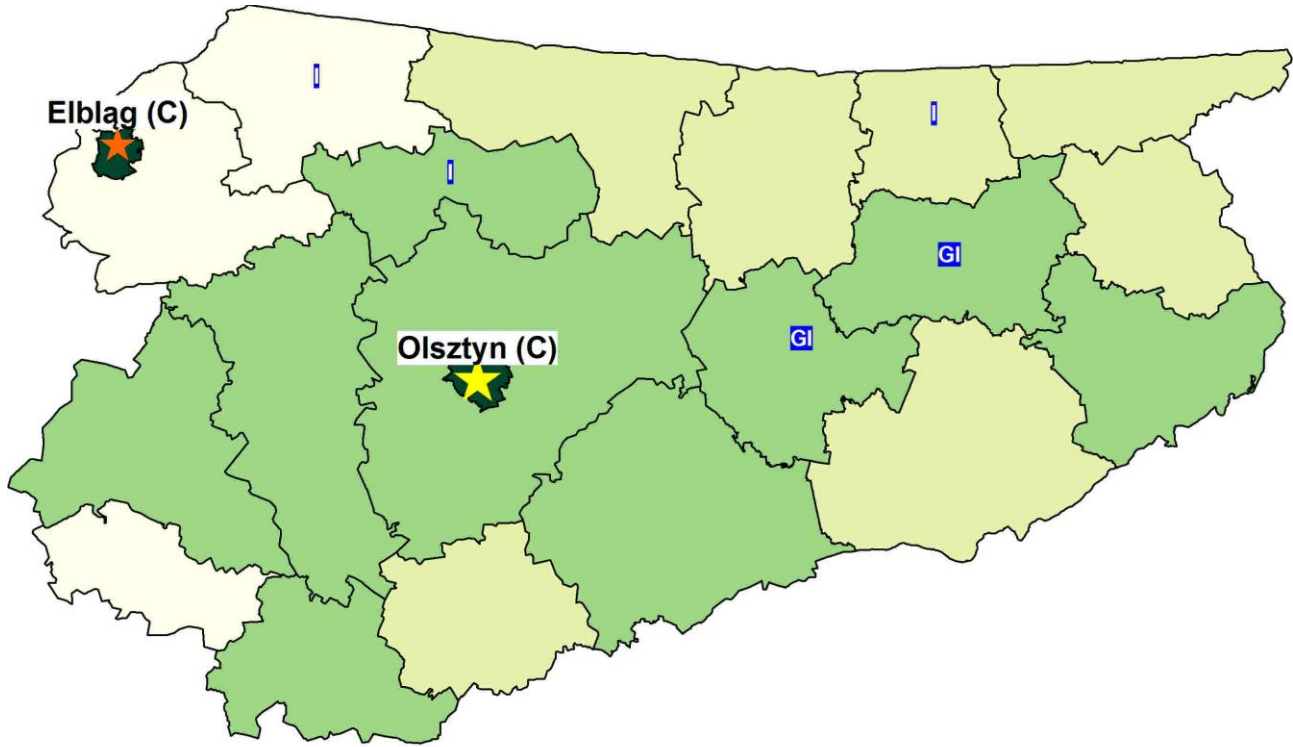
Among rural communes the highest rank communes include:

- **distinguished with a golden star:** Stawiguda (r),
- **distinguished with an orange star:** Dywity (r), Gietrzwałd (r), Giżycko (r), Iława (r).

Among urban-rural communes the highest rank communes include:

- **distinguished with an orange star:** Barczewo (u-r), Mikołajki (u-r), Morąg (u-r), Nidzica (u-r), Olsztynek (u-r), Pisz (u-r), Węgorzewo (u-r).

Chart 1. Potential investment attractiveness of counties of Warmian-Masurian voivodship, considering the most attractive sections



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

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

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

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

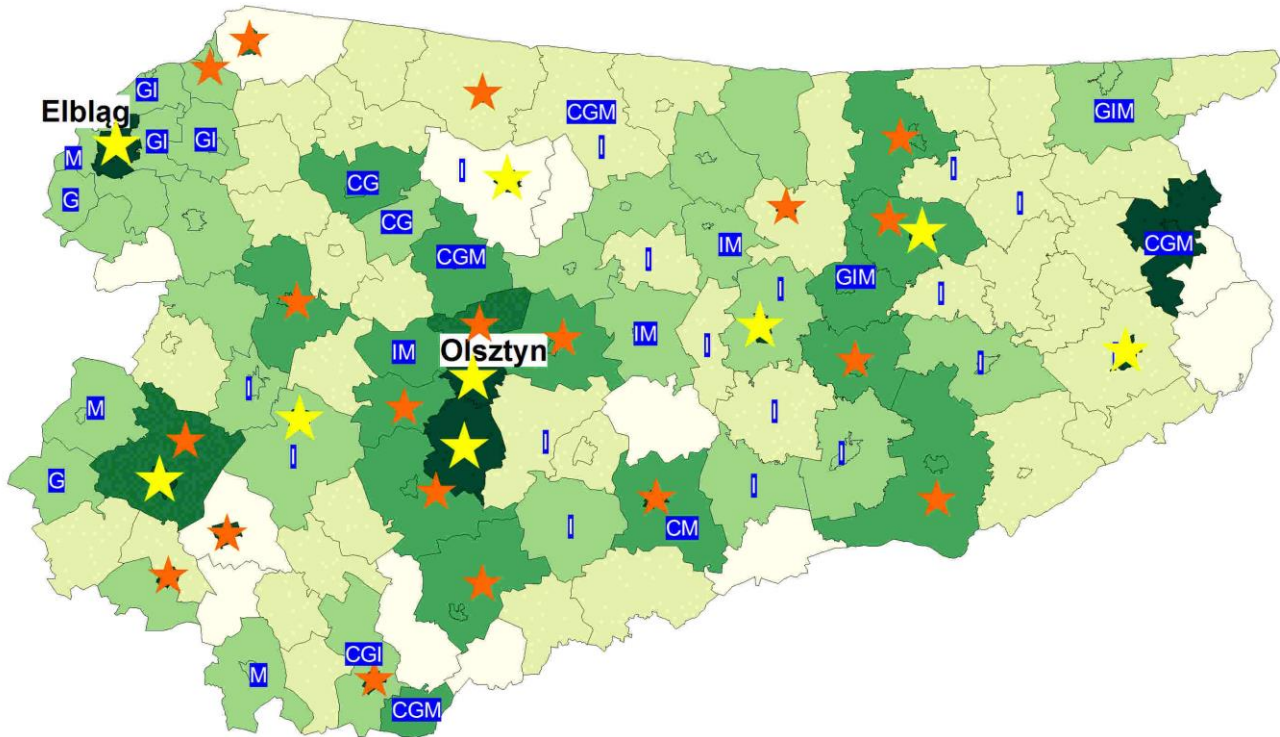
- C Industry
- G Trade and repairs
- I Accommodation and catering
- M Professional, scientific, technical activities

County distinguished with a golden star:

Olsztyn

Source: Author's own work.

Chart 2. Potential investment attractiveness of communes of Warmian-Masurian voivodship, considering the most attractive sections.



POTENTIAL INVESTMENT ATTRACTIVENESS of communes (gminas) for national economy in 2015

- | | | |
|--|---|--|
| <ul style="list-style-type: none"> A B C D E F | <ul style="list-style-type: none"> The highest rank for all the sections according PKD (Polish Classification of Economic Activity): C, G, I and M Ranks above the average for all the sections according PKD (Polish Classification of Economic Activity): C, G, I and M | <ul style="list-style-type: none"> Ranks above the average for C, G, I, M sections according to PKD (Polish Classification of Economic Activity) C Industry G Trade and repairs I Accommodation and catering M Professional, scientific, technical activities |
|--|---|--|

Communes distinguished with a golden star:
 Elbląg (u), Ełk (u), Giżycko (u), Iława (u), Lidzbark Warmiński (u), Mrągowo (u), Olsztyn (u), Ostróda (u), Stawiguda (r)

Source: Author's own work.

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.⁵

3.1. BUSINESS SUPPORTING INSTITUTIONS

Among business environment institutions (excluding R&D institutions) that influence region's economic development are: chambers of commerce, associations, business incubators, technology parks, technology transfer centres, consulting centres, financial institutions and development agencies.

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

In Warmian-Masurian voivodship such centre is:

Investor Assistance Centre operating within the structure of **Warmian - Masurian Regional Development Agency**
www.investinwarmiaandmazury.pl



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

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

Below some chosen business environment institutions are presented that operate for

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

entrepreneurship development by supporting development of new technologies and cooperation of enterprises.

These institutions are among others:

Warmian-Masurian Chamber of Craft and Entrepreneurship in Olsztyn (izbarzem.olsztyn.pl)

The Chamber is an organization of economic self-crafts and small and medium enterprises. The mission of the Chamber is to prepare well-trained staff for crafts and small businesses, partnerships supporting SME development, improvement and development of professional skills of employees of SMEs, improving the competitiveness of SMEs by providing them with a comprehensive range of high quality services. The offer includes: representing the interests of crafts from the public administration, government and international institutions, to promote the craft of Warmia and Mazury, instructional support, advice and information, broadcasting apprentice and master skills in the profession, training services.

Scientific and Technological Park in Olsztyn (<http://opnt.olsztyn.pl/>)

OPNT is a place for businesses and scientific institutions, which stimulates and manages the flow of knowledge and technology between universities, R & D institutions, companies and markets, supports the creation and development of innovative companies with incubation processes. The park consists of three functional parts: the Technology Park (office buildings and office and conference for companies with an established position in the market), Business Incubator (place of business for the newly established, innovative companies and support their development), and the Centre for Technology Transfer (office and laboratory facilities for scientific research into new technologies, their use and implementation). Park offer also includes business consulting and "Virtual Office" service. Within the park operates Radio Wave Propagation Centre in the ionosphere, Geomatics Center and New Technology Satellite, as well as the Laboratory of food for children.

Technology Park in Elbląg (<http://www.ept.umelblag.pl>)

The main task of Technology Park in Elbląg is to guarantee good conditions for making business, investment and research. Modern technological complex gives entrepreneurs the opportunity to lease investment areas and office space, as well as the use of infrastructure and consulting services, technology transfer and assistance in obtaining funds (including EU funds). The park is located Business Centre, Development and Innovation posing favourable conditions for the development of innovative activity, which houses the Centre for Research - Development providing services for companies (Centre of Environmental Quality, Centre of Metal, Wood Technology Centre and Furniture, Information Technology Transfer Centre, Laboratory of Work Environment and Emissions Laboratory for Advanced Environmental Analysis). The Park also operates Business Incubator and Training and Conference Centre. Park is part of the area within the Warmia-Mazury SEZ.

Science and Technology Park in Elk (<http://www.technopark.elk.pl/>)

The offer of the Park includes: rental of office space (including the possibility of renting office hours), workshops, exhibition halls - conference, as well as training, counselling, legal advice. Park also provides virtual office. The park offers a fully developed investment areas that are included in the sub-zone area of the Suwałki Special Economic Zone in Elk. The Park Business Incubator and Technology Incubator. Preferences in the selection of companies carrying out their activities in the Science and Technology Park in Elk are directed to companies operating in sectors that offer innovative and technologically advanced products or services.

Warmian-Masurian Regional Development Agency (www.wmarr.olsztyn.pl)

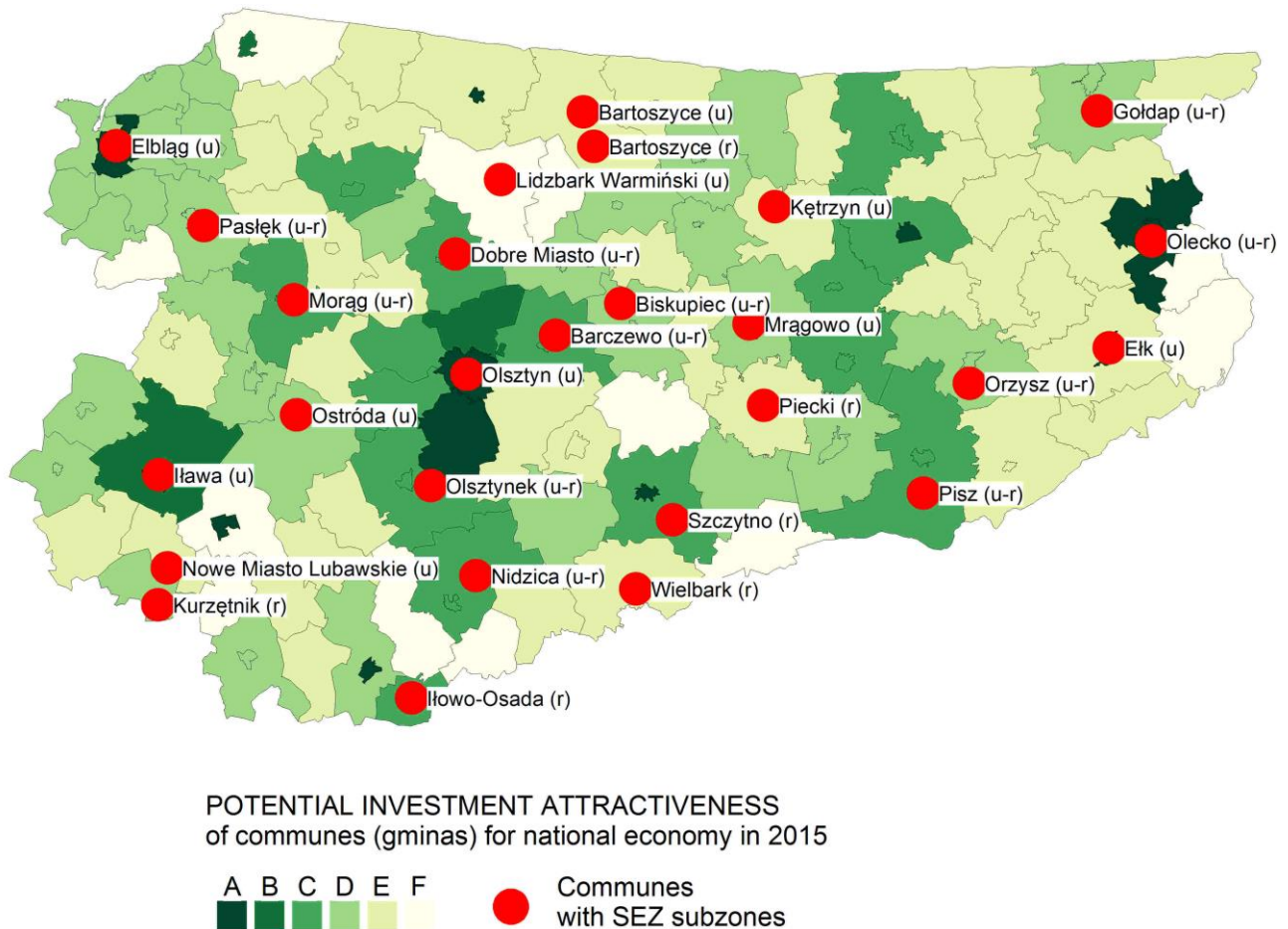
The Agency's mission is to promote the economic development of Warmia and Mazury, in particular by supporting small and medium enterprises. This is accomplished through a variety of activities related to the direct support of enterprises in the form of grants, lending for business development (Regional Loan Fund), consulting services in various forms and scope, organization and implementation of training and information activities. Agency inspires relationships between domestic and foreign entities in the area of business development. Activity of WMARR SA is associated with the handling of EU aid programs. The structure of the Agency's work Warmia and Mazury Investor Assistance Centre and the Centre for the Promotion of Innovation and Implementation in Olsztyn.

3.2. SPECIAL ECONOMIC ZONES IN THE VOIVODSHIP – EFFECTS

There are two SEZ operating in the voivodship: Warmian-Masurian and Suwałki. At the end of 2015 the areas of the SEZ were parts of 11 cities and 17 communes – see Chart 3.

The first zone areas were established in 1996. Companies operating in the region at the end of 2015 invested a total amount of 3.5 billion PLN, which is 3% of the total capital expenditure in SEZ in Poland. In the same period, companies created 17.3 thousand. new jobs in the region, which accounts for 6% of all new jobs created in the zones (Table. 4 in the Appendix).

The largest investment in terms of the value has been made in Olsztyn by Michelin Poland SA, the tire manufacturer. The region also focused furniture industry: Furniture Factory SZYNAKA sp. Lubawskie in New Town, Furniture Factory Taranko Taranko in Morag Alexander, Wojcik Furniture Factory Ltd Elblag, Comfort Collection Ltd in Piecki, SWEDWOOD Poland Ltd in Wielbark.

Chart 3. The location of SEZs in Warmian-Masurian voivodship

Source: Authors' own work.

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

- using natural resources and human resources of the region, projects that contribute to the development of the furniture cluster, as well as implementing innovative manufacturing and service projects, enhancing the competitiveness of the Suwałki SEZ,
- from the timber, machinery, electronics and biotechnology, that guarantee job creation in areas where the region has a lot of potential human resources and business-related and scientific facilities, supporting the development of beef processing cluster and window frames, and companies interested in innovative knowledge transfer to industry in Warmian-Masurian SEZ.

APPENDIX

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

Voivodship	PAI1_GN	PAI1_GN	PAI1_C	PAI1_G	PAI1_I	PAI1_M
	National economy	National economy	Industry	Trade and repairs	Accommodation and catering	Professional, scientific and technical activities
Voivodships						
LOWER SILESIAN	0,868	A	A	A	B	B
KUYAVIAN-POMERANIAN	0,556	C	C	E	E	D
LUBLIN	0,131	F	F	F	F	F
LUBUSZ	0,296	E	E	D	D	E
ŁÓDŹ	0,636	C	B	E	E	D
LESSER POLAND	0,759	B	B	A	A	B
MAZOVIAN	1,000	A	A	A	A	A
OPOLE	0,243	E	E	E	F	E
SUBCARPATHIAN	0,314	E	E	D	E	D
PODLASKIE	0,210	E	E	E	D	E
POMERANIAN	0,716	B	C	A	A	B
SILESIAN	0,988	A	A	C	C	A
ŚWIĘTOKRZYSKIE	0,000	F	F	F	F	F
WARMIAN-MASURIAN	0,291	E	E	C	C	D
GREATER POLAND	0,618	C	C	B	D	B
WESTERN POMERANIAN	0,693	B	C	D	A	C

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

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

County	PAI1_GN	PAI1_GN	PAI1_C	PAI1_G	PAI1_I	PAI1_M
	National economy	National economy	Industry	Trade and repairs	Accommodation and catering	Professional, scientific and technical activity
Counties						
city of Olsztyn	0,348	A	A	A	A	A
city of Elbląg	0,270	A	A	A	B	A

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

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

Commune	PAII_GN	PAII_GN	PAII_C	PAII_G	PAII_I	PAII_M
	National economy	National economy	Industry	Trade and repairs	Accommodation and catering	Professional, scientific and technical activity
Urban communes						
Olsztyn (u)	0,237	A	A	A	A	A
Działdowo (u)	0,231	A	A	A	C	A
Kętrzyn (u)	0,228	A	A	A	B	A
Ostróda (u)	0,222	A	A	A	A	A
Szczytno (u)	0,219	A	A	A	B	A
Lidzbark Warmiński (u)	0,216	A	A	A	A	A
Iława (u)	0,214	A	A	A	A	A
Mragowo (u)	0,212	A	A	A	A	A
Elk (u)	0,210	A	A	A	A	A
Bartoszyce (u)	0,210	A	A	A	D	A
Górowo Iławeckie (u)	0,208	A	A	A	B	A
Giżycko (u)	0,208	A	A	A	A	A
Elbląg (u)	0,201	A	A	A	A	A
Lubawa (u)	0,187	A	A	A	B	A
Nowe Miasto Lubawskie (u)	0,180	A	A	A	C	B
Braniewo (u)	0,162	B	B	B	C	B
Rural communes						
Stawiguda (r)	0,189	A	A	A	A	A
Iława (r)	0,174	B	B	B	C	B
Dywity (r)	0,165	B	B	B	C	A
Iłowo-Osada (r)	0,152	C	C	B	D	C
Gietrzwałd (r)	0,150	C	C	C	A	B
Giżycko (r)	0,146	C	C	C	C	C
Szczytno (r)	0,145	C	C	D	D	C
Jonkowo (r)	0,142	C	D	D	C	C
Urban-rural communes						
Olecko (u-r)	0,179	A	B	A	D	A
Morąg (u-r)	0,156	C	C	C	A	B
Mikołajki (u-r)	0,156	C	C	B	A	C
Węgorzewo (u-r)	0,151	C	C	C	C	B

Nidzica (u-r)	0,151	C	C	C	C	B
Olsztynek (u-r)	0,148	C	C	C	C	B
Ryn (u-r)	0,147	C	D	C	B	C
Dobre Miasto (u-r)	0,147	C	C	C	D	C
Pisz (u-r)	0,146	C	C	C	C	C
Barczewo (u-r)	0,145	C	C	C	B	C
Orneta (u-r)	0,143	C	C	C	D	D

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

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

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

SEZ	County, commune	Cumulated capital expenditure in million PLN	New jobs number	Leading industries (at least 20% share of revenue or employment)
Suwałki	Elk, Elk (u)	352	1 431	fabricated metal products, except machinery and equipment
Suwałki	Gołdapski *, Gołdap (u-r)	192	1 246	paper and paper products; rubber and plastics; fabricated metal products, except machinery and equipment
Suwałki/ Warmian-Masurian	Olecko *, Olecko (u-r)	-	-	no leading industry
Warmian-Masurian	Bartoszyce, Bartoszyce (u)	69	464	products of other non-metallic mineral; furniture
Warmian-Masurian	Bartoszyce, Bartoszyce (r)	-	-	no leading industry
Warmian-Masurian	Działdowo, Iłowo-Osada (r)	-	-	no leading industry
Warmian-Masurian	Elbląg, Pasłęk (u-r)	-	-	no leading industry
Warmian-Masurian	Iława, Iława (u)	4	5	textiles; paper and paper products; machinery and equipment nec
Warmian-Masurian	Kętrzyn, Kętrzyn (u)	6	72	electrical and non-electrical household appliances
Warmian-Masurian	Lidzbark Warmiński, Lidzbark Warmiński (u)	123	41	groceries
Warmian-Masurian	city of Elbląg, Elbląg (u)	175	807	machinery and equipment nec; furniture
Warmian-Masurian	city of Olsztyn, Olsztyn (u)	1 751	1 058	rubber and plastic
Warmian-Masurian	Mrągowo, Mrągowo (u)	94	451	fabricated metal products, except machinery and equipment
Warmian-Masurian	Mrągowo, Piecki (r)	0	-	groceries
Warmian-Masurian	Nidzica, Nidzica (u-r)	7	75	textiles
Warmian-Masurian	Nowe Miasto Lubawskie, Kurzętnik (r)	6	44	fabricated metal products, except machinery and equipment
Warmian-Masurian	Nowe Miasto Lubawskie, Nowe Miasto Lubawskie (u)	65	278	furniture

Regional investment attractiveness 2016

Warmian-Masurian	Olsztyn, Barczewo (u-r)	-	-	no leading industry
Warmian-Masurian	Olsztyn, Biskupiec (u-r)	-	-	no leading industry
Warmian-Masurian	Olsztyn, Dobre Miasto (u-r)	127	804	chemicals and chemical products; furniture
Warmian-Masurian	Olsztyn, Olsztynek (u-r)	12	45	rubber and plastics; service repair, maintenance and installation of machinery and equipment
Warmian-Masurian	Ostróda, Morąg (u-r)	104	194	wood and products of wood and cork, except furniture; articles of straw and materials of a kind used for plaiting
Warmian-Masurian	Ostróda, Ostróda (u)	-	-	no leading industry
Warmian-Masurian	Pisz, Orzysz (u-r)	-	-	no leading industry
Warmian-Masurian	Pisz, Pisz (u-r)	5	81	furniture
Warmian-Masurian	Szczytno, Szczytno (r)	93	509	groceries
Warmian-Masurian	Szczytno, Wielbark (r)	354	1 626	furniture

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

Table 5. UNIVERSITIES, FACULTIES AND ITS CATEGORIES

School name	Category of Ministry of Science and Higher Education
Elbląg College of Humanities and Economics in Elbląg	no data
Elbląska College of Humanities and Economics in Elbląg	no data
Joseph Rusiecki Olsztyn School of Higher Education	no data
State Higher Vocational School in Elbląg	no data
University of Warmia and Mazury in Olsztyn	A - Faculty of Biology and Biotechnology
	A - Faculty of of Environmental Sciences
	A - Faculty of Veterinary Medicine
	A - Faculty of Animal Bioengineering
	A - Faculty of Food Science
	A - Faculty of Theology
	B - Faculty of Social Sciences
	B – Faculty of Medical Sciences
	B – Faculty of Environment and Agriculture
	B - Faculty of Technical Sciences
	B - Faculty of Surveying and Spatial Planning
	B - Faculty of Mathematics and Computer Science
	B - Faculty of Arts
	B - Faculty of Economics
B - Faculty of Law and Administration	
B - Faculty of Humanities	
Higher School of Economics and Computer Science in Olsztyn	no data
Prof. Tadeusz Kotarbiński School of Computer Science and Management based in	no data
Wojciech Kętrzyński Centre for Scientific Research in Olsztyn	B - for the whole center
Pedagogical Science in Warsaw; Faculty of Humanities - Social Olsztyn	C - for the entire faculty
Higher Police School in Szczytno	A – Faculty of Internal Security

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

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