PODKARPACKIE VOIVODESHIP
SITUATION ANALYSIS REPORT
within the project Inter Ventures

Rzeszów
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INTRODUCTION

Podkarpackie Voivodeship is located in south-eastern Poland and is one of the EU's outermost regions with an area of over 17,800 km^2. From the south it borders with Slovakia and from the east with Ukraine, constituting the external border of the EU and the Schengen area. The capital of the district is Rzeszów. Podkarpackie is a region extremely attractive in terms of nature, as well as with a rich history and culture. The cross-border location offers great opportunities for socio-economic development.

This Situation Analysis Report was aimed to examine the current socio-economic situation in the region with a particular focus on small and medium-sized enterprises (SMEs). The analysis presents the possibilities of internationalization of SMEs in the context of current legal solutions and support systems and programmes, institutions supporting SMEs in their internationalization as well as preliminary conclusions and recommendations. The report was based on, among others publicly available data, a survey conducted among SMEs, as well as interviews with local stakeholders, whose experience in supporting internationalization processes is a significant contribution to planning further activities.

The report was prepared as part of the INTER VENTURES project *"Policies to promote the internationalization of SMEs for more competitive regional ecosystems in border areas of the EU"* co-financed by the Interreg Europe Programme.

Nine partners from six European countries (Poland, Hungary, Spain, Lithuania, Italy and Germany) are involved in the project, sharing their knowledge and using each other's experience in designing possible solutions. The project also involves regional stakeholders from the public, private and non-governmental sectors.

The Association of the Carpathian Euroregion Poland, which is a Polish partner in the project together with the Rzeszów Regional Development Agency, aims to develop the area of the Podkarpackie Voivodeship which, due to its location, has a great potential for internationalization of SMEs to EU and non-EU countries (especially Ukraine).

The report is to be used to improve the existing instruments supporting SMEs (regional policies related to EU funds) and to develop recommendations for the next programming period adapted to the needs and specificity of the region, aimed at bringing about change and implementing solutions strengthening the competitiveness of local SMEs and improving the processes of their internationalization.

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CHAPTER 1: METHODOLOGY

The report contains current results of a survey of micro, small and medium-sized enterprises in the Podkarpackie Voivodeship against previous years. The report analyzes the socio-economic situation in the region shaping SME growth, presents the most important aspects such as: location, settlement network, demographic changes, changes in the labour market, potential and condition of enterprises, including SMEs, as well as innovation.

Monitoring the socio-economic phenomena is particularly important during integration and disintegration processes of countries and regions. Systematic observation of these phenomena indicates the complex nature of both social and economic changes in a given region.

The demographic situation shapes important determinants of economic development, including consumer demand and supply of labour resources. Ageing of society, deteriorating structure of labour resources or migration processes taking place in the voivodship are the important areas that translate into the labour resources in enterprises. Scientific and technical achievements and their practical implementation in the economy increasingly determine the competitive position of enterprises. Technological changes stimulate economic development that promotes technological development, which is the most important factor of productivity. An important research area also includes the transport accessibility in the region and the infrastructure network. Its adaptation to the needs of the region affects development processes, including internationalization processes taking place in the region. European funds were and will still be a strong stimulus for the modernization of the region. Their proper use contributes significantly to building solid foundations for development. Providing high quality education thanks to the above-mentioned funds, as well as raising the qualifications of the population regardless of their place of residence and material status have a positive impact on the release of society's activity and the dynamically developing economy.

Publications on the situation in the region drawn up to date, as well as publications presenting regional development and the condition of SMEs were used for the purposes of the study. Official statistics data and information were used as a base. In addition to the analysis of existing data, the study also includes on-line surveys, as well as telephone interviews with the enterprises undertaking activities on the international market. In addition, 10 in-depth interviews with stakeholders were conducted.

The study has been enriched with a number of maps (cartograms and thematic maps) and charts. Selected information will be presented for voivodships and poviats separately. Statistical data were presented in a static and dynamic viewpoint.

1.1. DESK RESEARCH

The research based on analysis of available data sources, mainly from Polish statistics, as well as from the databases of other institutions. Such analysis will be the basis for drawing up conclusions about the studied issue. It will allow us to analyse trends of basic features related to the subject of the study. The result of this analysis is a statistical analysis containing a description of socio-economic phenomena occurring in the region in the years 2010-2019. The analysis was enriched with graphic presentation of results. The basic tools include a map, pie chart, bar chart, etc. The description of the distribution measures will be based on various types of values calculated on the basis of the data obtained, e.g. arithmetic average, dynamics of increase / decrease, etc. The interpretation of the values of these measures will provide information on the nature of the distribution of the feature. The statistical analysis was supplemented by the analysis of secondary sources, i.e. reports, analyzes, conclusions from previous studies, publicly available information from sources such as book publications, websites of ministries and entities dealing with economic development. All materials before being included in the description were checked for their integrity, reliability and accuracy (if necessary, some of them were verified empirically).

1.2. ONLINE SURVEY

The survey was prepared and conducted in May 2020. The research sample was selected in a targeted manner. The selection of enterprises was based on a survey constructed on the basis of commercial databases of enterprises from the Podkarpackie Voivodeship dealing with export / import. Also those, which in the activity reports for previous years showed any activities related to foreign operations were selected from the general population of enterprises The research sample also includes enterprises that in recent years benefited from funds aimed at internationalization and those located in PNNT, as well as beneficiaries of recruitment for SME development from the base of the Marshal's Office of the Podkarpackie Voivodeship and beneficiaries of Swiss grants.

The number of enterprises selected for the study was 250. Out of this group, 98 entities refused to answer or did not provide feedback. Therefore, 152 enterprises located in the border region, located in economic zones, were examined, broken down into micro, small and medium-sized entities and diversified in terms of economic sectors (agriculture, industry, trade, services). 100 companies confirmed that they were active in the field of internationalization, while 52 companies replied that they were not operating abroad.Due to the fact that the study concerned companies with experience in internationalization, it was therefore targeted at identified enterprises, and not at the randomly selected ones from the general population. Controlling of the feature - "conducting business abroad" in the selection, allowed for obtaining reliable results of the study.

1.3. INTERVIEWS

In-depth interviews with the participation of experts who served to develop conclusions and recommendations regarding the directions in which regional policy should follow in creating good conditions for internationalization. Interviews were conducted during meetings with experts with extensive knowledge and many years of experience related to internationalization issues, as well as representatives of services, institutions and organizations representing important bodies in the region that have an impact on shaping the socio-economic development of the voivodship. The meetings were also attended by representatives of universities and research institutions.
The SWOT analysis will be a summary and systematization of the data and information collected in the study, which will allow to obtain a valuable analytical result by determining the strengths / weaknesses of the internationalization process and the opportunities and threats of its socio-economic development. Individual institutions and activities that they conduct in the Podkarpackie Province for the development of entrepreneurship are presented in subchapter 3.2.

CHAPTER 2. PORTRAIT OF THE REGION

2.1. GENERAL INFORMATION ON THE PODKARPACKIE VOIVODESHIP

The Podkarpackie Voivodeship is located in a temperate climate zone with transitional features, at the abutment of the sea and continental climate. Three major climatic regions can be distinguished in the voivodship: mountain (Bieszczady, Low Beskids region, Sanok-Turka Mountains), foothills (the Carpathian Foothills) and foothill valleys (Sandomierz Basin). In some parts of the Low Beskids there is a mountain recess climate (Rymanów-Zdrój).

Map 1. The administrative division of Poland

Podkarpackie Voivodship is located in the south-eastern Poland. From the north and west it borders the following Voivodships: Małopolskie, Świętokrzyskie and Lubelskie; Slovakia in the south, and Ukraine in the east. It covers three separate physiographic regions. In the northern part there is the Sandomierz Basin, in the middle - the Carpathian Foothills and Beskids in the south, divided into the Low Beskids and the Bieszczady. The most north-eastern part of the Voivodship is located within Roztocze.

The geodetic area of the Podkarpackie Voivodship in 2019 (as of January 1) was 1784.6 thousand. ha, i.e. 5.7% of the country's area. Agricultural lands constituted 54.0% of the total area of the voivodship, forest land together with trees and shrubs constituted 39.0%, built-up and urbanized land - 5.0%, and others - 2%.

The average population density of the voivodship in 2019 was 119 people per 1 km^2 (average in Poland - 123). This indicator showed significant spatial diversity - from the highest in Rzeszów and in Przemyśl: 1550 and 1314 people/km^2, respectively, to the lowest in the Bieszczady and Lesko poviats - 19 and 32 people/km^2. In cities of the voivodship there were average 713 people per 1 km^2, while in the villages - 75 people. The population structure by sex did not change significantly for several years. In the total number of inhabitants, women slightly dominated and constituted 51.0% of the voivodship's population.

Out of 16 voivodships, Podkarpackie belongs to the least urbanized regions in Poland. However, the even distribution of medium-sized urban centres with similar socio-economic functions favours the polycentric development of this region.

Voivodship settlement network

The settlement network of the voivodship is characterized by a system with a regular and uniform distribution of cities in terms of size. Former provincial cities: Krosno, Przemyśl and Tarnobrzeg, and the cities: Stalowa Wola, Mielec, Dębica, Jarosław, Sanok and Jasło form a kind of ring around Rzeszów, the largest centre in the voivodship. The ring is complemented by medium and small towns. The size structure of the cities is dominated by very small cities, with less than 5,000 inhabitants. residents, which constitute 40% of all cities in the Voivodship. Poviat cities are characterized by diverse demographic potential (Rzeszów - 189.7 thousand, Lesko - 5.5 thousand inhabitants). As at 31.12.2019, 51 cities and 1666 villages were located in the Podkarpackie Voivodeship, forming 21 rural districts, 4 urban districts and 160 municipalities, including 16 urban municipalities, 109 rural and 35 urban-rural ones. Compared to 2014, the number of rural municipalities decreased in favour of urban-rural municipalities, as on January 1, 2014, the town of Zaklików obtained the city status. The basic elements of the Voivodship's settling network currently comprise:

– Rzeszów - a national centre performing some metropolitan functions, the largest city in the voivodship with 196,000 residents.

– In addition to Rzeszów, there are 9 large cities in Podkarpacie - with over 30,000. residents, i.e. Przemyśl, Stalowa Wola, Mielec, Tarnobrzeg, Krosno (sub-regional cities), Dębica, Jarosław, Sanok, Jasło,

– 7 medium-sized cities - between 10,000 and 30,000 residents, i.e. Łańcut, Przeworsk, Nisko, Ropczyce, Leżajsk, Lubaczów, Nowa Dęba,

– small cities with a population between 5,000 and 10,000 (14 centres),

– very small cities - up to 5,000 (20 centres)

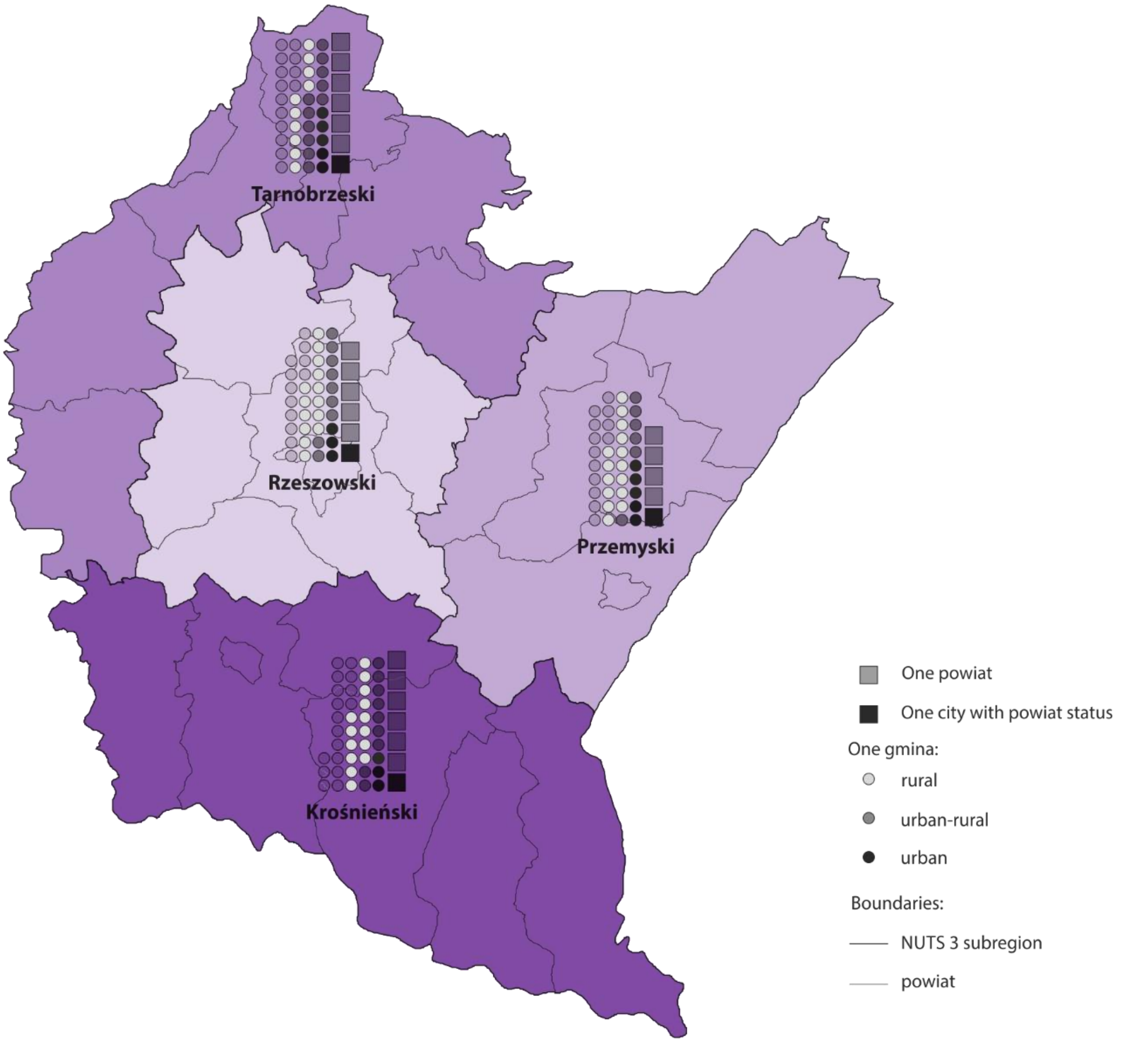
Rzeszów, as the capital of the Voivodship plays a key role in the economic development of the region. Its impact is very strong both on the functional area and in relation to other growth poles. The city's position is also stable compared to other voivodship cities of south-eastern Poland. In 2019, Rzeszów had 196,208 inhabitants.

From January 1, 2018, 97 NUTS units have been operating in Poland:

- NUTS 1 macroregions (grouping voivodships) - 7 units
- NUTS 2 regions (voivodships or their parts) - 17 units
- NUTS 3 subregions (grouping powiats) - 73 units

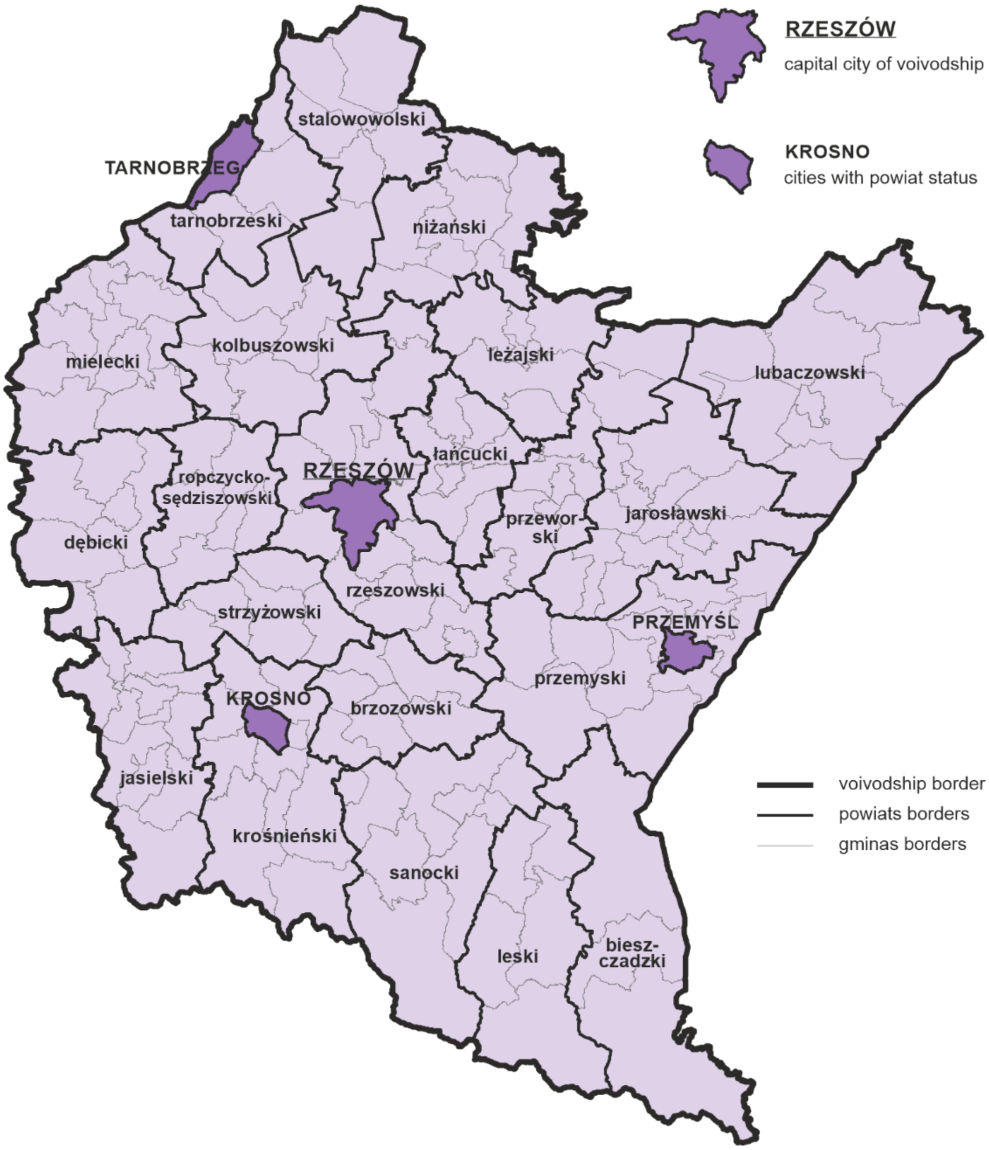
NUTS 3 units are divided into local administrative units (LAU). In the case of Poland, communes were indicated as local administrative units. The Podkarpackie Voivodeship is divided into 4 subregions (NUTS3): Tarnobrzeski, Przemyśl, Krosno and Rzeszów. The administrative division of the voivodship is presented on the maps below:

Map 2. The administrative division of podkarpackie voivodship on subregions and poviats w 2018 r.



Source: own study based on CSO data

ADMINISTRATIVE DIVISION OF PODKARPACKIE VOIVODSHIP IN 2018
As of 31 XII



Source: own study based on CSO data

The most important cities in Podkarpackie voivodship

Rzeszów

At the end of December 2019, Rzeszów had 196,208 inhabitants. Contrary to other cities of similar size, the population of Rzeszów is growing every year, both in the years of changes in its area and in periods when they were not carried out, eg 2010–2017. The Podkarpackie Science and Technology Park was established in the city. The basis of this venture is the aerospace and pharmaceutical industries. The PPNT established and operates plants including MTU Aero Engines, Borg Warner, Ultratech (aviation industry). Valeant Pharmaceuticals International (formerly ICN Polfa Rzeszów) operating in the city is an exporter of drugs. Sanofi-Aventis and Chema-Elektromet - drug manufacturers operate in Rzeszów. Alima Gerber SA - a company of the Novartis concern, is also based there. It is a producer of food and juices for babies and children. Entrepreneurs operating in the IT sector established the Informatyka Podkarpacka Association. After the merger of the companies "Asseco" and Softbank, Rzeszów is the headquarters of an IT company - Asseco Poland.

There are two large state universities in the city, the University of Rzeszów and the Rzeszów University of Technology, several non-public, including the University of Engineering and Economics, WSPiA Rzeszów University, University of Information Technology and Management and the Higher Theological Seminary. Rzeszów has an international airport, and there are three honorary consulates in the city: Germany, Slovakia and Ukraine. Rzeszów is also a member of the Union of Polish Metropolises and the Eurocities Association (associating European cities). There are three special economic zones in the city, in which several companies have already invested.

Rzeszów is one of the cities with the highest commercial space saturation per 1,000 inhabitants. This is undoubtedly related to the fact that Rzeszów is focused largely on business partners and buyers mainly from across the eastern border. A large target group are residents, entrepreneurs from smaller cities of the voivodeship, who buy supplies in Rzeszów due to the large supply - compared to other cities in Podkarpacie.

Przemyśl

Przemyśl, which is one of the oldest Polish cities, is located in the eastern part of the Podkarpackie Voivodeship in the San River Valley, approx. 78 km southeast of Rzeszów and 12 km from of the border with Ukraine. The city covers an area of 46 km² and in 2019 was inhabited by 60,689 people. Przemyśl serves as an industrial centre, shopping centre, important communication hub, cultural and scientific centre, and tourist centre with significant saturation with historic buildings and complexes. The role of Przemyśl as a centre of higher education development is also significant. The sub-zone of Tarnobrzeg Special Economic Zone EURO-PARK WISŁOSAN plays a special role in the economic development of the city, where the largest plants in the city operate.

Krosno

Krosno is located in the southern part of the Podkarpackie Voivodeship, at the mouth of the Lubatówka River to the Wisłok River. It is located in the Krosno Valley which is part of the Central-Beskids Foothills. Krosno covers an area of 44 km² and in 2019 was inhabited by 46,291 people. In recent years, the birth rate has shown a trend from negative to positive. The migration balance has decreased, but it still remains negative. The industrial function of Krosno is associated with the potential of large, medium and small production and service enterprises with a high degree of adaptation to market economy conditions. The best developed industry sectors are: automotive, glass, aviation ("Aviation Valley" centre), furniture and plastic processing. The city's asset is the local airport, the subzone of the EURO-PARK MIELEC Special Economic Zone and Krakow Technology Park.

Krosno, due to its nodal location, is an important service and commercial centre. Due to the potential arising from the possession of numerous monuments, organization of cultural events and the location on the communication route leading to the Low Beskids and the Bieszczady Mountains, the city is predisposed to the development of cultural and transit tourism.

Tarnobrzeg

Tarnobrzeg is located in the north-western part of the Podkarpackie Voivodeship, on the right bank of the Vistula River, it occupies a fragment of the Vistula Valley and the area of the plateau called the Tarnobrzeg Hummock on the border of the Kotlina and Sandomierz Uplands. The area of the city of Tarnobrzeg is 85 km^2 and the population in 2019 was 46,745 people. A positive demographic trend, despite the still negative value, is an increase in the birth rate and a decrease in the migration balance per 1000 inhabitants. Tarnobrzeg, in addition to the potential for the development of enterprises related to industry, has the opportunity to develop recreational functions and use human capital for the development of knowledge-based services. The current economic structure of Tarnobrzeg was created as a result of processes related to the liquidation of the sulphur industry. The largest companies in the city are located in the Tarnobrzeg Special Economic Zone EURO-PARK WISŁOSAN. In the city, the Tarnobrzeg Industrial and Technology Park (TPP-T) also operates on preferential terms, creating ample opportunities for investors, offering an extremely attractive space for the development of modern economic initiatives. In recent years, the city also stared to play a tourist and recreational role which keeps developing based on the created Tarnobrzeskie Lake. Tarnobrzeg also has a favourable location on the axis of economic relations Rzeszów-Warsaw, and in terms of improving socio-economic development, the possibility of creating a multipolar system together with Stalowa Wola and Sandomierz.

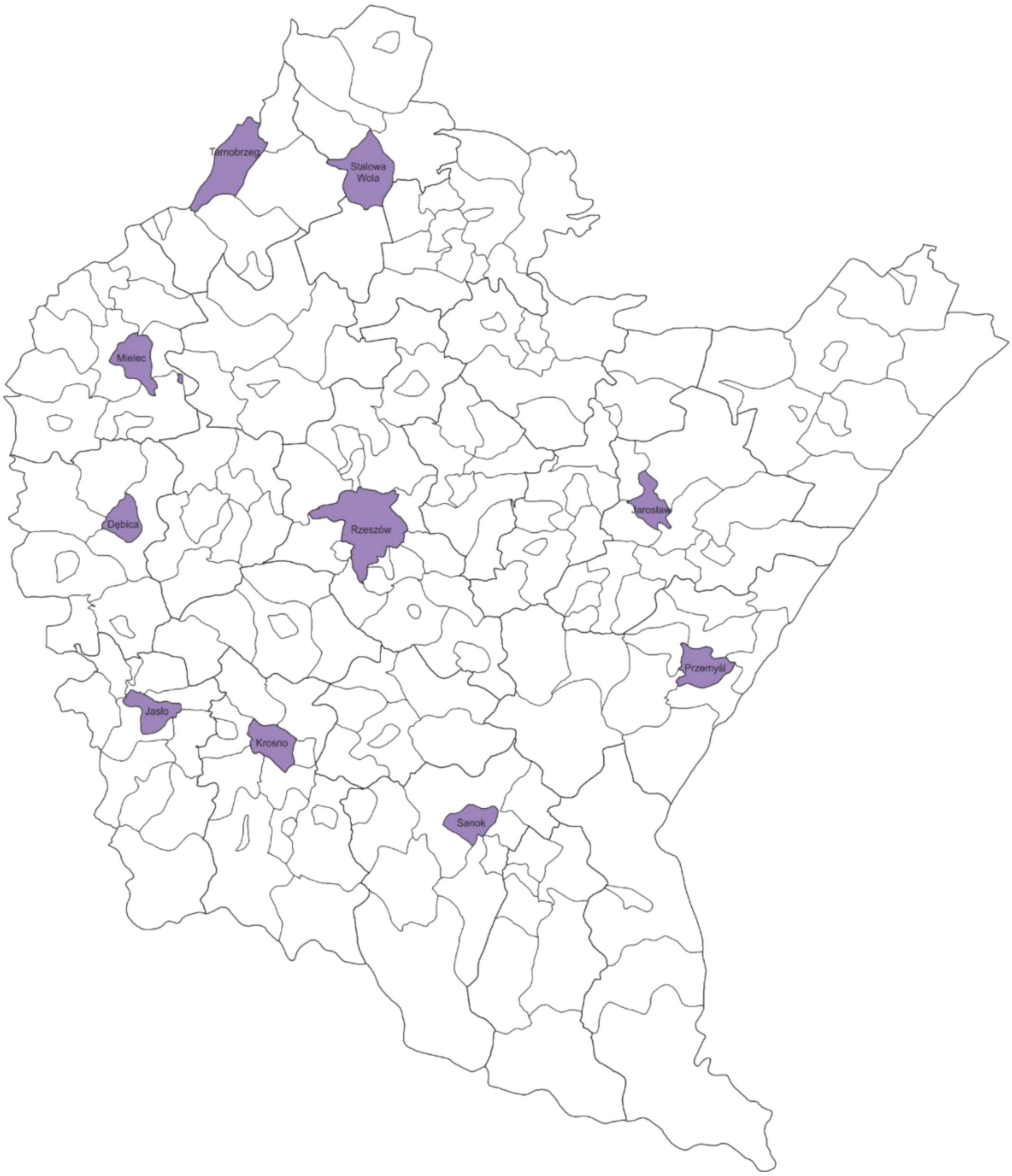
Mielec

Mielec is located in the north-western part of the Podkarpackie Voivodeship, within the Tarnobrzeg subregion. The area of the city is 46.89 km². The population of Mielec in 2019 was 60,323. Mielec maintains a positive birth rate and a negative migration balance per 1000 inhabitants. The basic industry of Mielec is the aviation industry, which is a natural consequence of the existence of aviation plants in the city since 1938. A significant role is also played by companies focused on the automotive, metal, plastic, furniture and building materials industries. Business entities in Mielec operate within the first nationally Special Economic Zone , SEZ EURO-PARK MIELEC, and on the basis of the facilities of the liquidated "PZL Mielec" Communication Equipment Factory. In order to create an attractive area for doing business in the city, the Mielec Industrial Park was created, which is covered by a special economic zone, which makes it possible to benefit from income tax exemptions. There is also a civil airport of public use entered in the register of civil airports. Compared to 2014 increased the number of business entities per 10,000 residents registered in the REGON register. The number of employed persons per 1000 inhabitants also increased. The EURO-PARK MIELEC Special Economic Zone operating in the city, the Mielec Industrial Park and the "In-Tech" New Technology Incubator as well as the exemption system affect the development of large, medium and small enterprises. In the Podkarpackie Voivodship Development Strategy - 2020, the city was selected as a growth pole with potential for the development of the aviation industry, business-related services and facilities in the form of locations of large international companies conducting research and implementing innovations, as well as to create the Mielec-Dębica-Ropczyce multipolar system.

Stalowa Wola

Stalowa Wola is located in the south-eastern part of Poland, in a wide belt of the San river plain, on the edge of the Sandomierz Forest, covers an area of 82.5 km2, in 2019 it was inhabited by 60,466 inhabitants. In Stalowa Wola there was a change in the value of the birth rate from negative to positive. However, a large negative migration balance per 1000 inhabitants is observed. The city has a favourable geographical location. The proximity of large urban centres, such as Lublin, Kraków and Rzeszów, is important for Stalowa Wola. Stalowa Wola, while maintaining the traditions of COP, is an important industrial centre in the voivodship and the Polish armaments centre of the army, represented by Stalowa Wola Steelworks. Many companies and plants operating in the city benefit from tax exemptions within the EURO-PARK WISŁOSAN Special Economic Zone located in the Tarnobrzeg Subzone. In comparison with 2014, the number of economic entities registered in the REGON register in Stalowa Wola remains at a similar level, while the number of employed persons per 1000 inhabitants increased. In addition to the economic potential, the city of Stalowa Wola also has conditions for the development of tourism: located in the Sandomierz Basin, it can provide accommodation, catering and commercial and service facilities. In the Voivodship Development Strategy - Podkarpackie 2020, Stalowa Wola was recognized as a growth pole with high industrial potential, especially in the scope of implementing innovation and the possibility of creating a multipolar urban system together with Tarnobrzeg and Sandomierz.

Map 3. The most important cities in the Podkarpackie Voivodeship in 2019



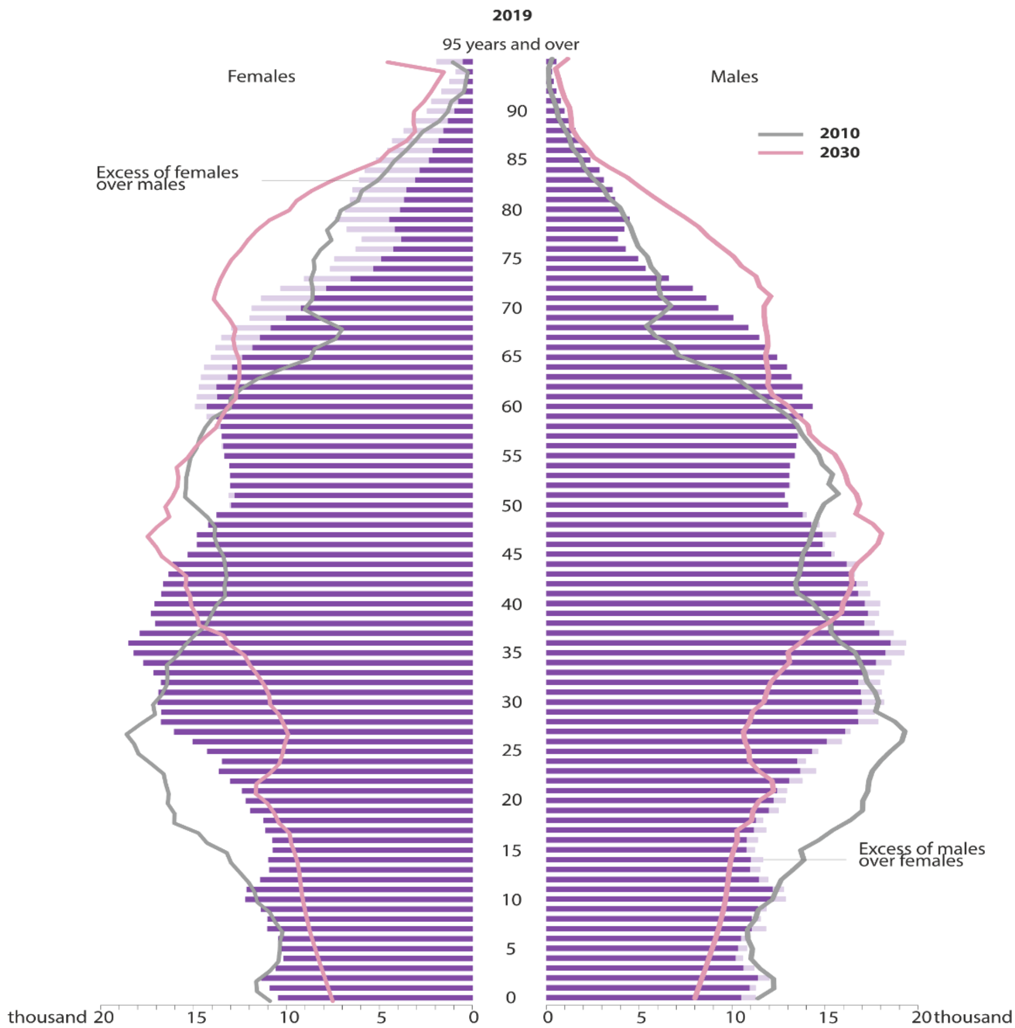
Source: own study based on CSO data

Demographic changes

The population in the Podkarpackie Voivodeship in 2019 was 2 million 127 thousand, which represents 5.5% of the country's population. Urban population constituted 41.4% of the total population and it was the lowest urbanization rate among voivodships (nationally the share of urban population was 60.0%).

In the years 2015-2019, the Podkarpackie voivodship experienced a slight decrease in population. Positive birth rate was recorded throughout this period. The number of people in the pre-working and working age decreased, while it increased in the post-working age. The number of marriages decreased. The average number of children per woman decreases, with the value below the renewal rate of 2.1, necessary to stabilize the population. The population of Podkarpackie as well as the country is ageing systematically. The negative migration balance observed in Podkarpackie is mainly caused by a significant outflow of young people.

Chart 1. Population in the Podkarpackie voivodship in 2019



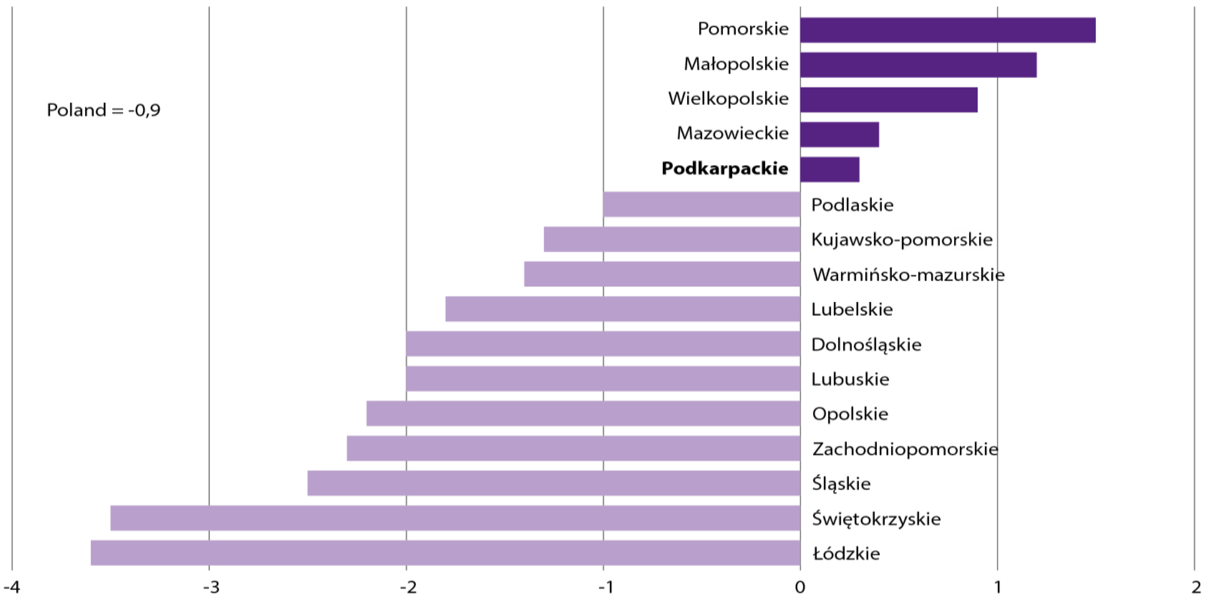
Source: own study based on CSO data

Over the period 2015-2019, there was a gradual decrease in the share of children and youth (0-17 years) in the total population of the voivodship, with a simultaneous increase in the number of people in post-working age (men aged 65 and more and women aged 60 and more) . The percentage of pre-working age population dropped from 20.3% in 2010 to 18.2% in 2019 (nationally from 18.8% to 18.1%) - mainly due to the decreasing number of births. The share of the working age population also decreased from 63.9% to 61.4% (nationwide - from 64.4% to 60.0%). At the same time, the share of people in post-working age increased - from 15.9% in 2010 to 20.4% in 2019 (nationwide - from

16.8% to 21.9%). In 2019, there were 63 non-working (pre-working and post-working age) people per 100 working age population (men aged 18-64 and women aged 18-59), 57 in 2010, and in 2018 - 61 people. In the voivodship, the percentage of the population in the pre-working and working age is higher than the nationwide average, and in the post-working age - lower than nationwide average. The ageing process of the population is the result of a decrease in the share of younger age-groups, and an increase in the share of older age-groups in the population. One of the measures of this process is, among others the old age index, which defines the relation of the generation of grandparents and grandchildren, (number of people aged 65 and more per 100 people aged 0-14).

Podkarpackie was one of the five voivodships in which a positive birth rate was recorded in 2019, which means that the number of deaths was lower than the number of births. In 2019, Podkarpackie Voivodeship took the 5th place in Poland in terms of population growth per 1000 people, which was 0.3 (nationwide -0.9). A higher increase per 1000 people was recorded in the Pomorskie (1.5), Małopolskie (1.2), Wielkopolskie (0.9) and Mazowieckie (0.4) voivodships. The smallest increase occurred in the Łódź voivodship (-3.6). In 2019, calculated per 1000 people, a positive birth rate occurred in 10 poviats (in 2018 in 17 poviats), including the highest in Rzeszów (3.3) and the lowest in Krosno and Przemyśl (after -3.0).

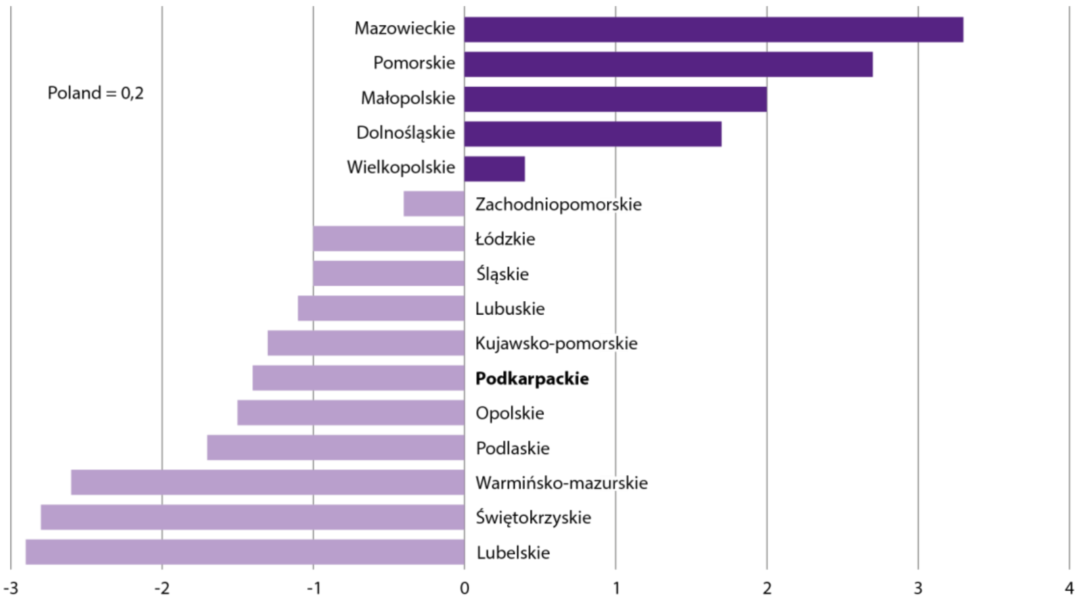
Chart 2. Birth-rate per 1000 people by voivodships in 2019



Source: own study based on CSO data

The second, next to the birth-rate factor having significant impact on the population status are population migrations. In 2019, in the Podkarpackie Voivodeship - as in previous years - the outflow of population (de-registration from permanent residence) exceeded the inflow of population (registration for permanent residence). The size and direction of migration and their intensity are most often determined by the degree of economic development and the economic situation of the region. In 2019, the outflow of population for permanent residence was 26.2 thousand (in 2018 - 24.3 thousand), while the inflow - 23.2 thousand people (in 2018 - 21.6 thousand). The value of the negative balance of permanent migration increased from minus 2,741 in 2018 to minus 2,950 in 2019. The main share in the negative balance of migration in Podkarpackie in 2019 was held by urban residents (minus 1853), while the balance of migration for rural areas was lower (minus 1097). Calculated per 1000 people, the migration balance coefficient in 2019 reached a value of minus 1.4 and was 0.1 pp higher than in 2018, which placed the Podkarpackie Voivodship 11th in the ranking of Voivodships (nationwide 0.2 ‰). A positive value of this coefficient in 2019 was recorded only in five voivodships (the largest in the Mazowieckie voivodship - 3.3 ‰). The analysis of changes in the level of this indicator by poviats of the Podkarpackie Voivodship shows that in 2019 a positive migration balance indicator was recorded in Rzeszów - 7.5 ‰ and Rzeszów poviat - 5.9 ‰. The worst situation was in Przemyśl (minus 7.1 ‰). In 2019, 22.2 thousand permanent residents were registered in the Podkarpackie Voivodeship (taking into account internal migration) - by 7.2% more than in 2018. At the same time, the number of de-registrations from permanent residence amounted to 25.6 thousand people - 7.7% more than in 2018.

Chart 3. Migration rate per 1000 people by voivodships in 2019.



Source: own study based on CSO data

When analyzing the emigration of the Podkarpackie Province population to European countries, it can be noticed that a sharp increase in permanent emigration to Great Britain took place in 2006. These emigrants accounted for 42.2% of the total emigration. In 2009, emigration to Great Britain decreased to 17.1%, to increase in 2012 to 22.2% and in 2019 to 26.7%.Traditionally, Podkarpacie has a high percentage of permanent emigration to the United States, often resulting from the reunification of immigrant families of many generations. In 2019, this share was 21.2%, while it should be noted that, for example, in 2009, this share was even 39.9%. Among the other countries to which the inhabitants of Podkarpacie most often emigrated in 2019, one should mention Germany, France, Spain and the Netherlands.

2.2 ECONOMY

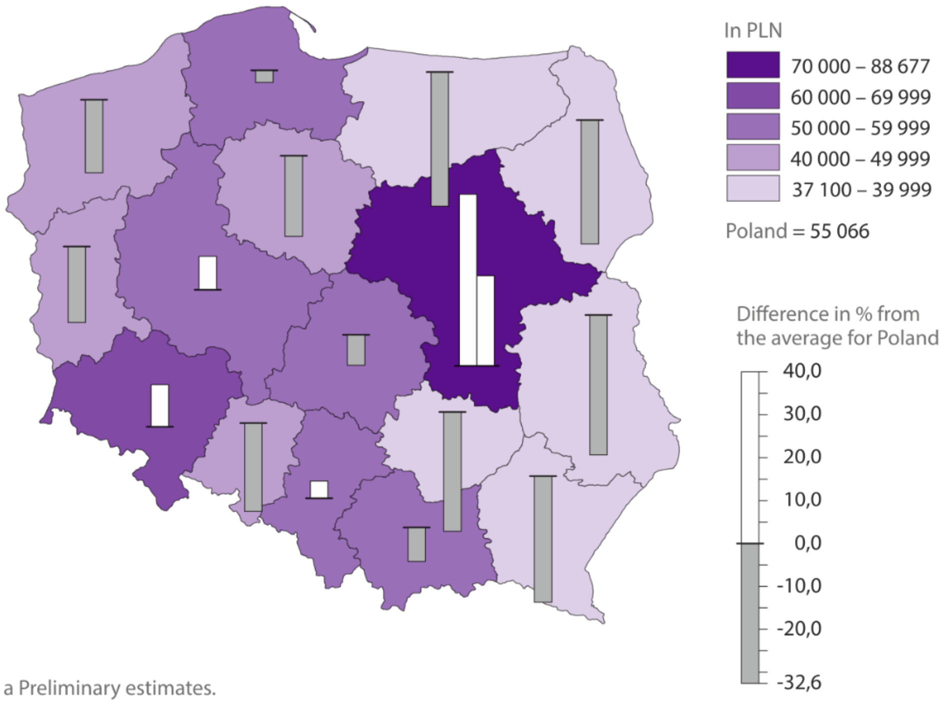
The most important economic data of the region

Chart 4. Economic information about the region in the years 2015-2019

Years	2015	2016	2017	2018	2019
Unemployment rate (%)	11.7	9.6	8.4	6.5	4.5
GDP per capita, EUR	7659,02	7797,61	8501,90	9121,24	x
GDP dynamics (%)	4.8	2.8	5.8	x	x
Dynamics of revenues from export sales (%)	3.0	3.2	4.4	8.4	x

Based on the preliminary estimate, the value of generated gross domestic product in 2018 in the Podkarpackie region was PLN 82,749 million (in current prices). Compared to 2017, GDP was 7.8% higher (6.3% higher in Poland). The share of the Podkarpackie Voivodeship in creating Poland gross domestic product was 3.9%. Compared to the previous year and in relation to 2014, this share remained at the same level.

Map 4. Gross domestic product by voivodships in 2018



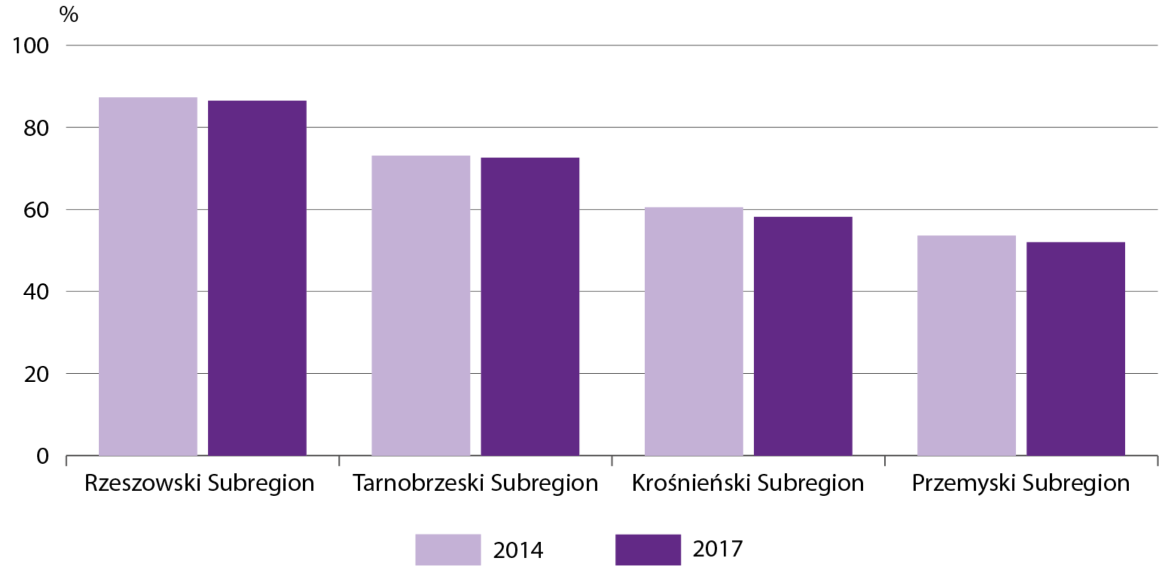
Source: own study based on CSO data

The average level of gross domestic product per capita in 2018 for the Podkarpackie region amounted to PLN 38,872 (70.6% of the national average), in 2017 - PLN 36,088 (69.7% of the national average), while in 2014 - PLN 31 644 (70.8% of the national average). The highest level of GDP per capita was recorded in the Warsaw capital region - PLN 121246 (220.2% of the national average) and it was over three times higher than the value of GDP per capita for the Podkarpackie region.

In 2018, the level of GDP per capita in the Podkarpackie region expressed in a common contractual currency - purchasing power standard (PPS), indicates a group of regions with low GDP per capita in the European Union, reaching 50% of the EU average. For comparison, in 2014 this indicator amounted to 48% of the EU average.

In 2017, the Rzeszów subregion and Tarnobrzeg region had the largest share in the creation of the Gross Domestic Product of the Podkarpackie region - 37.1% - 30.2% (in 2014 respectively: 36.4% and 30.0%). The smallest share in GDP creation of the Podkarpackie region was recorded in the Przemyśl subregion - 13.8% and Krosno subregion - 18.9% (in relation to 2014, respectively: 14.1% and 19.5%).

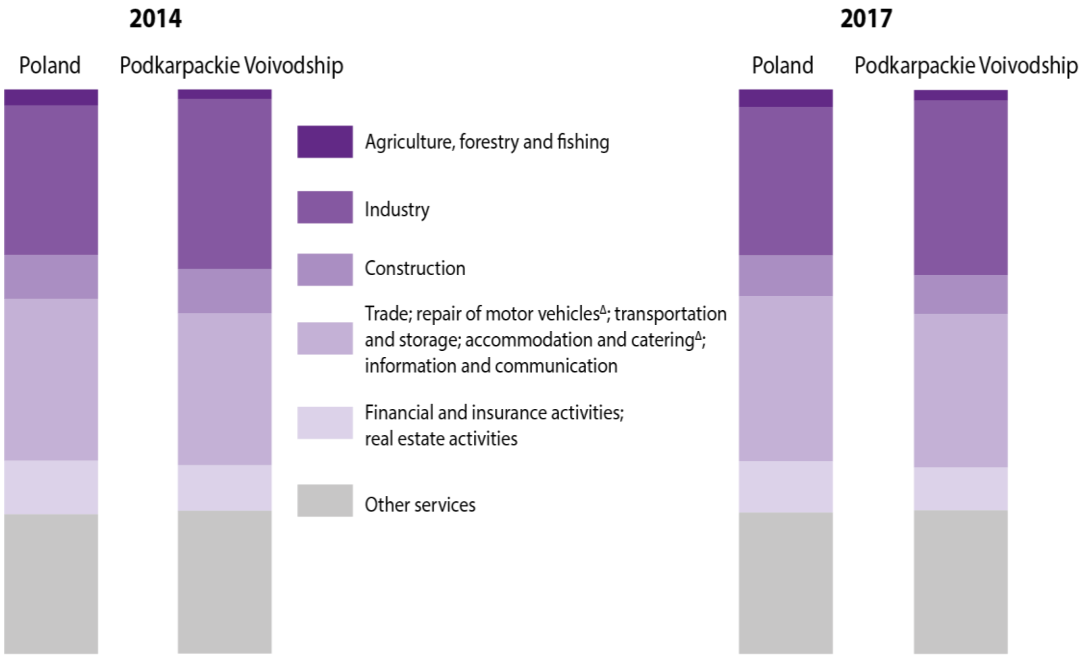
Chart 5. Gross domestic product per capita (current prices) relative deviations from the national average value



Source: own study based on CSO data

In 2017, the Podkarpackie voivodship gross value added amounted to PLN 67433 million. Compared to 2016 it was 5.2% higher at current prices. Entities operating in industry generated 31.0% of gross value added in the region. The share of other businesses in creating gross value added was at the level of 27.2% in the trade section; repair of motor vehicles; transport and storage; accommodation and gastronomy; information and communication up to 1.8% in entities operating in agriculture.

Chart 6. Gross value added by PKD section

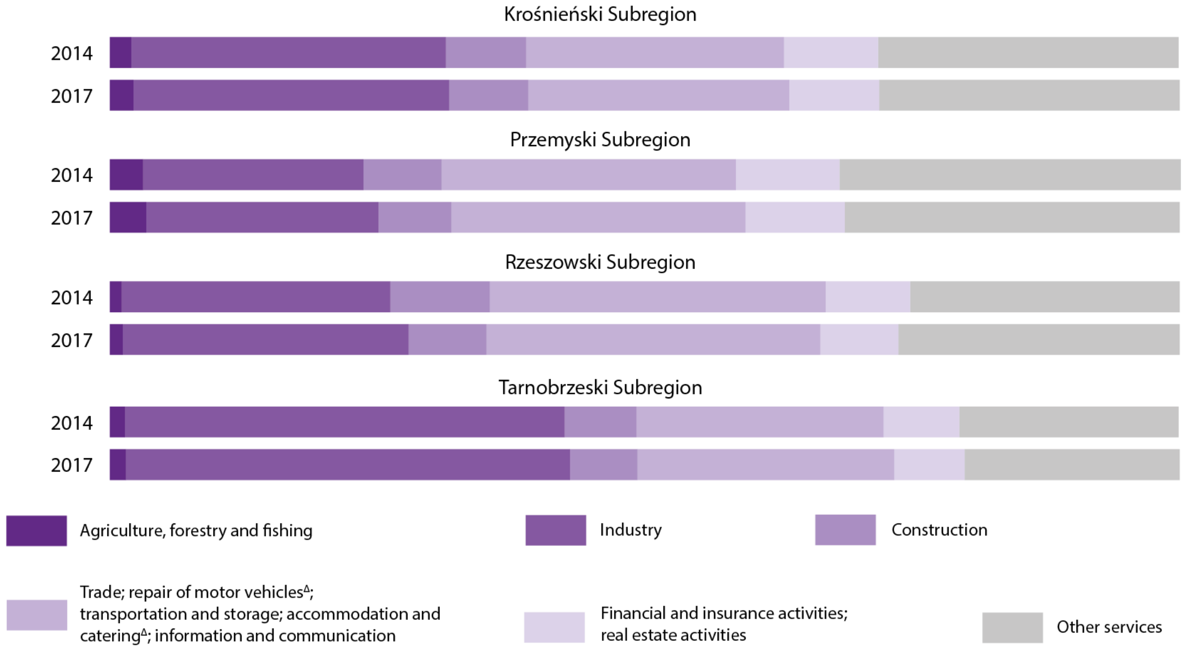


Source: own study based on CSO data

An increase in the share in 2017 in the creation of gross value added compared to 2016 occurred in entities operating in services, including trade; repair of motor vehicles; transport and storage; accommodation and gastronomy; information and communication (by 0.6 pp) and in agriculture, hunting and fishing (by 0.3 pp). On the other hand, declines were recorded in entities operating within industry (by 1.0 pp) as well as in entities dealing with construction (by 0.1 pp).

In relation to 2014, a decrease was recorded in the share of entities conducting activity in construction (by 1.0 pp), as well as entities conducting financial and insurance activity; real estate market services (by 0.5 pp). On the other hand, the increase in the share was from 0.9 pp in entities conducting activity in industry up to 0.1 pp in entities conducting activity in the field of other services.

Chart 7. Gross value added by PKD section and subregions (NUTS3)

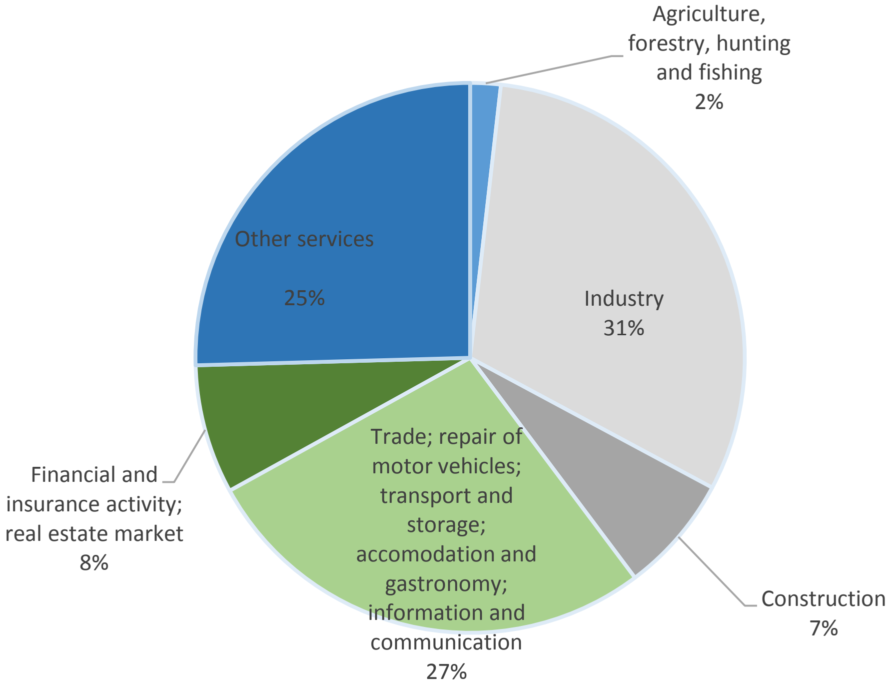


Source: own study based on CSO data

Gross value added per one employed person in the Podkarpackie region in 2017 amounted to PLN 87,409 (74.1% of the national average), and in 2014 - PLN 81,157 (73.8% of the national average). Compared to 2014 at current prices it was 7.7% higher. In 2017, the Rzeszów subregion and Tarnobrzeg subregion had the largest share in the creation of the gross value added of the Podkarpackie region - 37.1% - 30.2% (in 2014 respectively: 36.4% and 30.0%). The smallest share in GDP creation of the Podkarpackie region was recorded in the Przemyśl subregion - 13.8% and Krosno subregion - 18.9% (in relation to 2014, respectively: 14.1% and 19.5%).

Entities operating in industry generated 31.0% of 2017 gross value added in the region. In comparison with 2014, a decrease in the share of industry in generating gross value added by 0.9 percentage points was recorded. In 2017, a significant diversification of the share of industry was observed in 2017 by subregions - from 9.6% in the Przemyśl subregion to 40.4% in the Tarnobrzeg subregion. Compared to 2014, in 3 subregions there was a decrease in the share of those entities - from 1.7 pp. in the Rzeszów subregion to 0.6 pp in the Tarnobrzeg subregion. However, in the Przemyśl subregion the share of those entities remained unchanged.

Chart 8. Gross value added by type of business in the Podkarpackie Voivodeship in 2017



Source: own study based on CSO data

In 2017, 27.2% of the region's gross value added was generated by entities operating in services, including trade; repair of motor vehicles; transport and storage; accommodation and gastronomy; information and communication (0.3 pp more than in 2014). In individual subregions, the share of these entities in generating gross value added in 2017 ranged from 13.9% in the Przemyśl subregion to 42.5% in the Rzeszów subregion (in 2014 from 14.3% to 42.4% in the same sub-regions).
A decrease in the share of the discussed entities in relation to 2014 occurred in the Krosno subregion (by 0.5 pp) and Przemyśl (by 0.4 pp). On the other hand, the increase occurred in the Rzeszów (by 0.1 pp) and Tarnobrzeg subregions (by 0.9 pp).

Entities conducting financial and insurance activities; real estate market services in 2017 generated 7.6% of the voivodship's gross value added - decrease of 0.5 pp compared to 2014. In individual subregions the share of entities conducting financial and insurance activities; servicing the real estate market in creating gross value added in 2017 ranged from 16.8% in the Przemyśl subregion to 35.9% in the Rzeszów subregion (in 2014 from 16.8% to 35.6% in the same subregions).
In comparison with 2014, only in the Rzeszów subregion there was an increase of 0.3 pp in the share of the discussed entities. A decrease in the share of the discussed entities by 0.2 pp was recorded in the Tarnobrzeg subregion. However, in 2 subregions the share of these entities remained unchanged, i.e. in Krosno and Przemyśl.

Main sectors - engines of the Podkarpackie Voivodship

Podkarpackie Voivodeship is distinguished by its specialization in aviation. Although the aviation industry companies are also located outside the voivodship, Podkarpacie is recognized as an unrivalled region in Poland. At the same time, it is a unique field that had been designated as the leading specialization in only one region of Poland (Regional Innovation Strategy of the Podkarpackie Voivodeship for the years 2014-2020 for smart specialization).

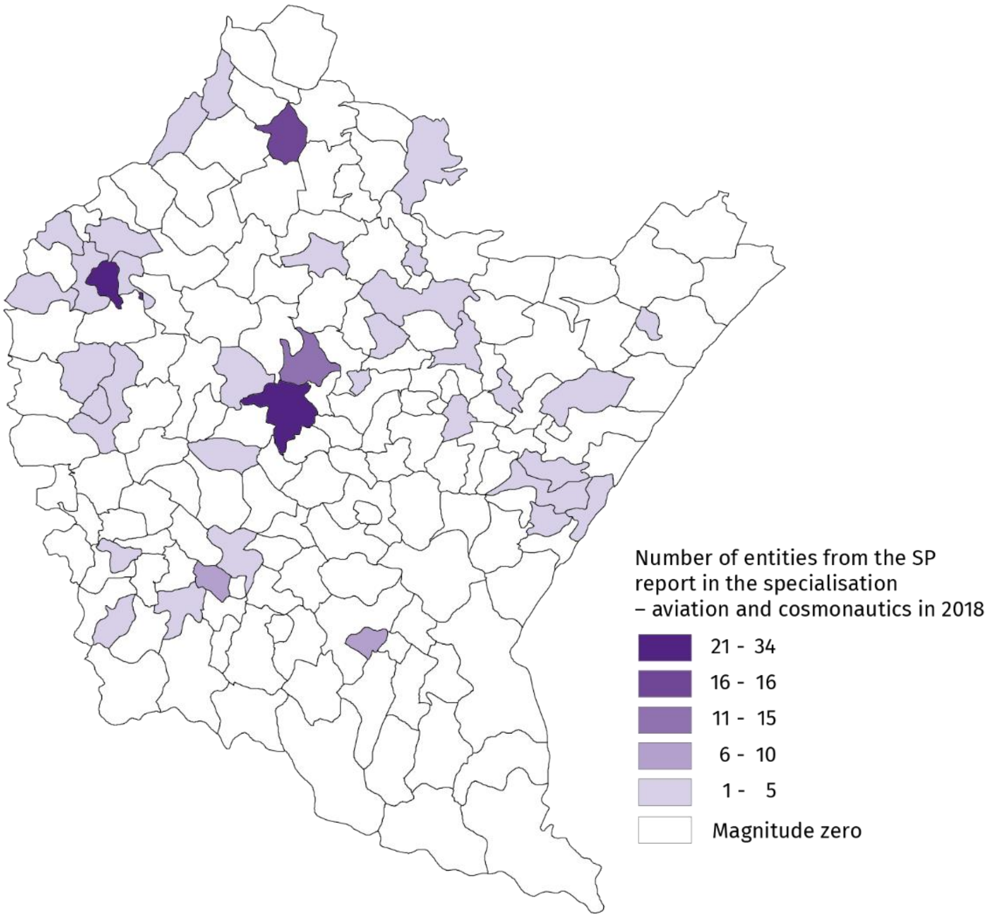
It is generally recognized that a region has a competitive advantage in a given area when there is an above average concentration of these factors compared to the values observed in a given country or group of countries. Such an example, already emphasized many times, in the Podkarpackie Voivodship is the aviation industry and the sectors concentrated around it (defence, electromechanical, foundry, composite materials production).

The impact of the aviation and space industries on virtually all sectors and industries of the economy is very important. Generated technologies, materials and other solutions are quickly used in other areas of the economy - aviation and space science are therefore the driving force behind the growth of the region's economy.

The region is characterized by a high concentration of aviation industry companies, pilot training centres, and many research institutes as well as developed education and training facilities.

In the Podkarpackie Voivodship, the cluster - the Aviation Valley Enterprise Group Association, located its registered office. The founding members of the cluster were over a dozen aviation enterprises from Podkarpacie and Bielsko-Biała, as well as Rzeszów University of Technology and two regional development agencies - RRDA (Rzeszów Regional Development Agency) and MRDA (Mielec Regional Development Agency). To maintain the leading role of industry as a driving force for cluster development, all newly admitted members represent aviation companies.

Map 5. Enterprises in the aviation industry in the Podkarpackie Voivodeship by location



Source: own study based on CSO data

Polish research on the aviation industry is managed by the Centre of Advanced Technologies AERONET-Aviation Valley, which brings together 13 scientific and research institutions, over 100 companies from the aviation industry, and its offices are located at the Rzeszów University of Technology. This university has the most modern Materials Research Laboratory for the Aviation Industry, and the company Pratt & Whitney Rzeszów S.A. (former WSK "PZL-Rzeszów" S.A.) built its own strong research and development centre. Between all of these organizations, which is a phenomenon noticed and highlighted throughout the country, there is real cooperation in science and research.

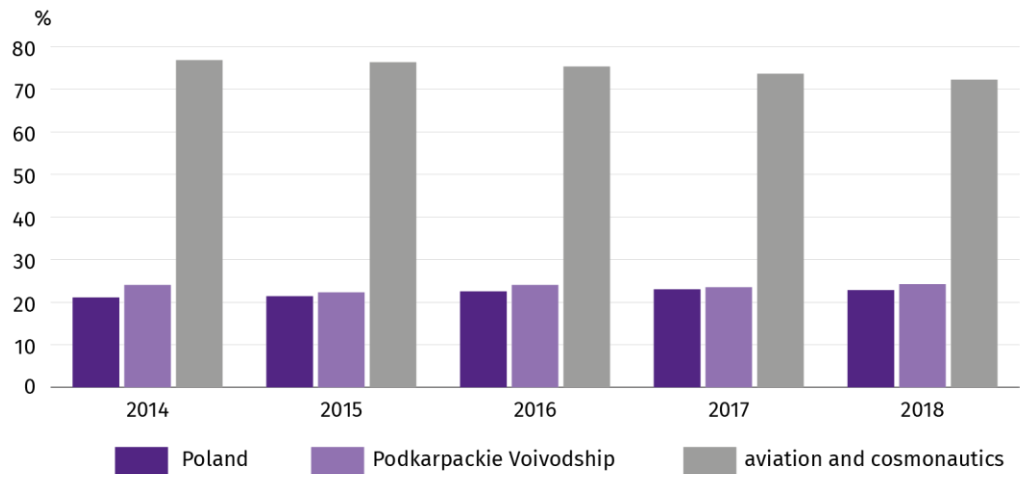
The Aviation Valley companies are full participants in the global supply chain. Aviation products from Podkarpacie are assembled in the most modern passenger aircraft of Boeing, Airbus, Canadian Bombardiers, Japanese Mitsubishi, and Brazilian Embraers. They are mounted on the most modern American F-35 fighter aircraft, Lockheed Martin.

The Podkarpackie aviation industry provides: airplanes, helicopters, aircraft engines, APU auxiliary engines, aircraft landing gears, aircraft gears, turbine modules, as well as hundreds of other complex components and assemblies, using the latest technologies and materials, such as mono crystals, composite materials, recognized as technologies priority in the development of the industry and the region. The Podkarpackie Aviation Valley Cluster obtained the status of a National Key Cluster, ranking first among the seven most important Polish clusters. The location of the registered office of the Branch of the Polish Space Agency POLSA in Rzeszów, which, apart from the head office in Gdańsk, has branches in Warsaw and in Rzeszów, is a confirmation of the importance of the Podkarpackie Voivodeship for the aviation and space industry.

It is estimated that over the next five years the aviation industry of the Podkarpackie Voivodship will create over 4,000 new, highly specialized jobs. The inflow of new investments and new investors can also be expected.

The aviation industry is characterized by a high share in export sales. It oscillates around 70% and although in recent years a slight decrease can be seen, it is still much higher than the average for enterprises in the voivodship. In the region, the share of exports fluctuated in the analysed period within 22.3% -24.2%, while nationally in the range of 21.1% -23.0%.

Chart 9. Share of net revenues from the sale of products, goods and materials for export in the net revenues from the sale of products, goods and materials



Source: own study based on CSO data

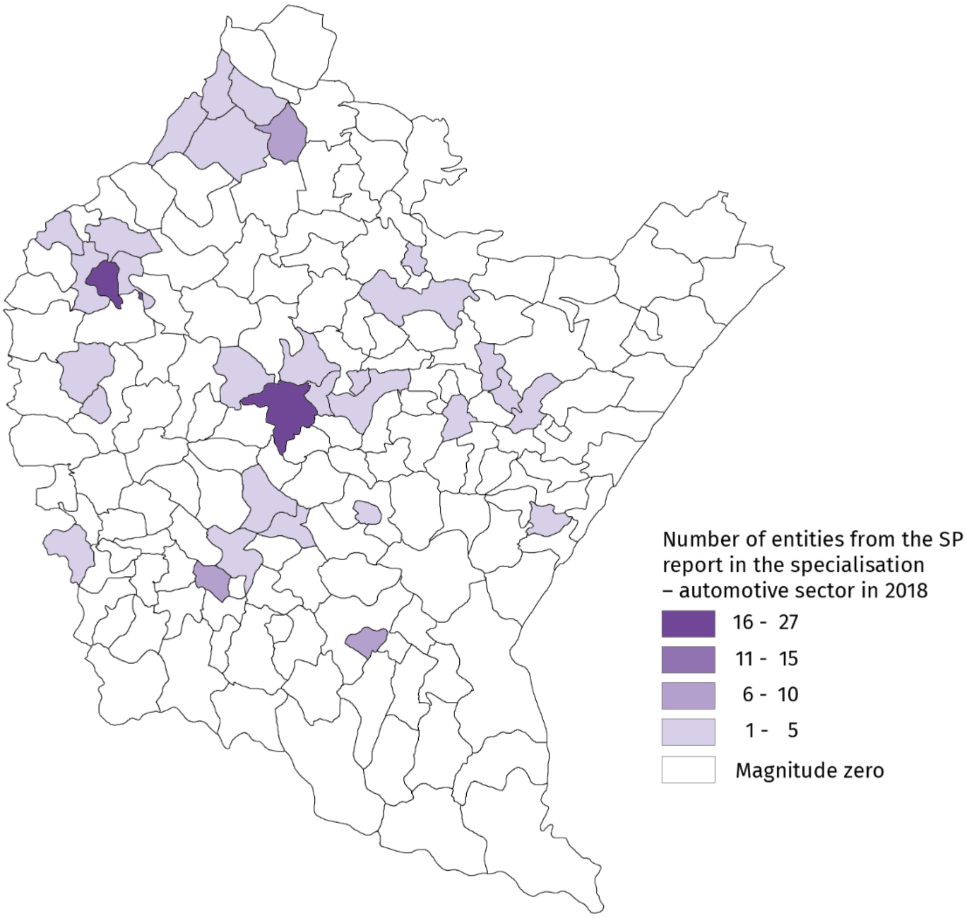
In 2015-2016, revenues from the sale of products, goods and materials for export grew significantly more dynamically in companies from the aviation industry than the average in the Podkarpackie Voivodship or the country. In 2017, the growth rate of export revenues in the aviation sector was lower than in previous years and was below the level of growth for Podkarpackie and Poland. In 2018, the dynamics of revenues from export of the aviation industry was higher than recorded for

Poland, but lower than for Podkarpackie. Average employment in the aviation sector units in 2014-2016 recorded a systematic increase, while in the voivodship employment decreased in 2014-2015, and in 2016 it increased. In 2017, both in the sector and the voivodeship, employment decreased compared to the previous year, while in 2018, both in the aviation industry and the voivodeship, employment increased (by 6.3% and 3.7%, respectively).

The automotive industry is another important branch that grows dynamically. It includes all enterprises and organizations involved in the design, development, production, marketing and sale of motor vehicles, including the production of spare parts. The automotive industry, in turn, does not include the sector related to ongoing vehicle servicing and repair or gas stations network.

Adopted by the voivodship as an intelligent specialization, it constitutes the whole area of activity and solutions related to the production of motor vehicles.

Map 6. Spatial distribution of enterprises from the automotive sector in the Podkarpackie Voivodeship



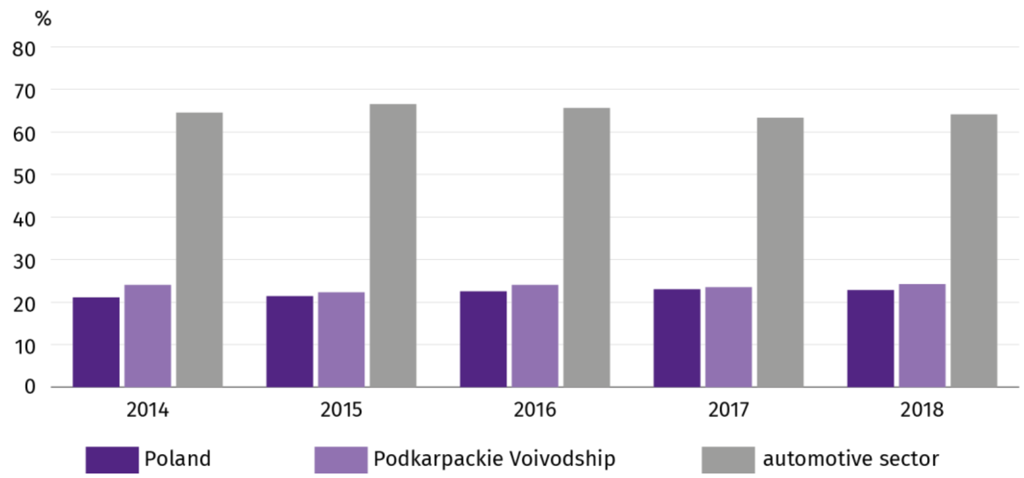
Source: own study based on CSO data

The automotive sector is created by enterprises and other production, scientific and service organizations that operate within traditionally understood supply chains in this sector. Companies within the existing supply chains in the automotive sector should be limited to this level in the Tier n1 classification, at which the manufactured product has features (including design, utility, functional, exploration) that place this product as closely adapted to the automotive industry. In the case of companies producing products that enable their use in various industries (including the automotive industry), the criterion for classifying them as part of the automotive sector is in this situation the majority share of production sold to the automotive sector. In the case of companies providing automotive services, the criterion for classifying them into the automotive sector for the needs of RSI is the provision of services tailored to the business customer (B2B type).

The largest concentration of automotive sector entities in the Podkarpackie Voivodeship can be observed in the vicinity of Mielec, along the A4 motorway lane from Dębica to Rzeszów and in the vicinity of Sanok.

The analysis of the Podkarpackie economy shows that the automotive industry is characterized by one of the higher shares in production and employment, growth dynamics exceeding the average for the voivodship, as well as a high level of expenditure on innovative activities.

Chart 10. Share of net revenues from the sale of products, goods and materials for export in the net revenues from the sale of products, goods and materials



Source: own study based on CSO data

The share of net revenues from sales of products, goods and materials for export in the net revenues from sales of products, goods and materials in the automotive industry in the years 2014-2018 recorded slight fluctuations. The automotive sector shows an export share almost three times higher than in the voivodship and the country. After an increase in the share in 2014-2015, it decreased in the next two years. In 2018, there was a slight increase in the share of exports in the automotive sector to 64.1%. In the voivodship, the change in the share of export revenues in total revenues showed trends similar to the sector, while nationally after a gradual increase in 2014-2017, in the last year of the analysed period it decreased to 22.8%.

Net revenues from sales of products, goods and materials for export in the automotive sector in 2014 were lower than in the year preceding the analysis. In the next two years, export sales revenues increased significantly and the dynamics amounted to 106.9 in 2015 and 105.6 in 2016, respectively. In 2017, there was a decrease, while at the end of the analysed period an increase was recorded again. Both in the Podkarpackie Voivodeship and in Poland in the analysed period, net revenues from sales of products, goods and materials were steadily increasing. Faster growth was recorded in entities in the Podkarpackie Voivodeship (the highest in 2016 – by 11.4%).

The **information and communication industries** are also the important industries in the region. Podkarpackie Voivodship belongs to the regions with outstanding resources of scientific and research potential in the field of information and communication technologies.

It is worth emphasizing the fact that Asseco Poland the largest IT company nationally, which has already obtained the statute of a large international corporation is present in the region. It is the largest Polish software producer listed on the Warsaw Stock Exchange. For over 25 years, it has been developing technologically advanced software for companies from key economic sectors. It creates jobs in all places of the location, but it should be added that it is registered in Rzeszów.

Noteworthy is the fact that in December 2010, 8 companies from the Podkarpackie and Lubelskie voivodships established the Eastern Poland IT Cluster with the registered office in Rzeszów. Currently, it associates companies related to the telecommunications and IT industry and business environment institutions from five voivodships of Eastern Poland.

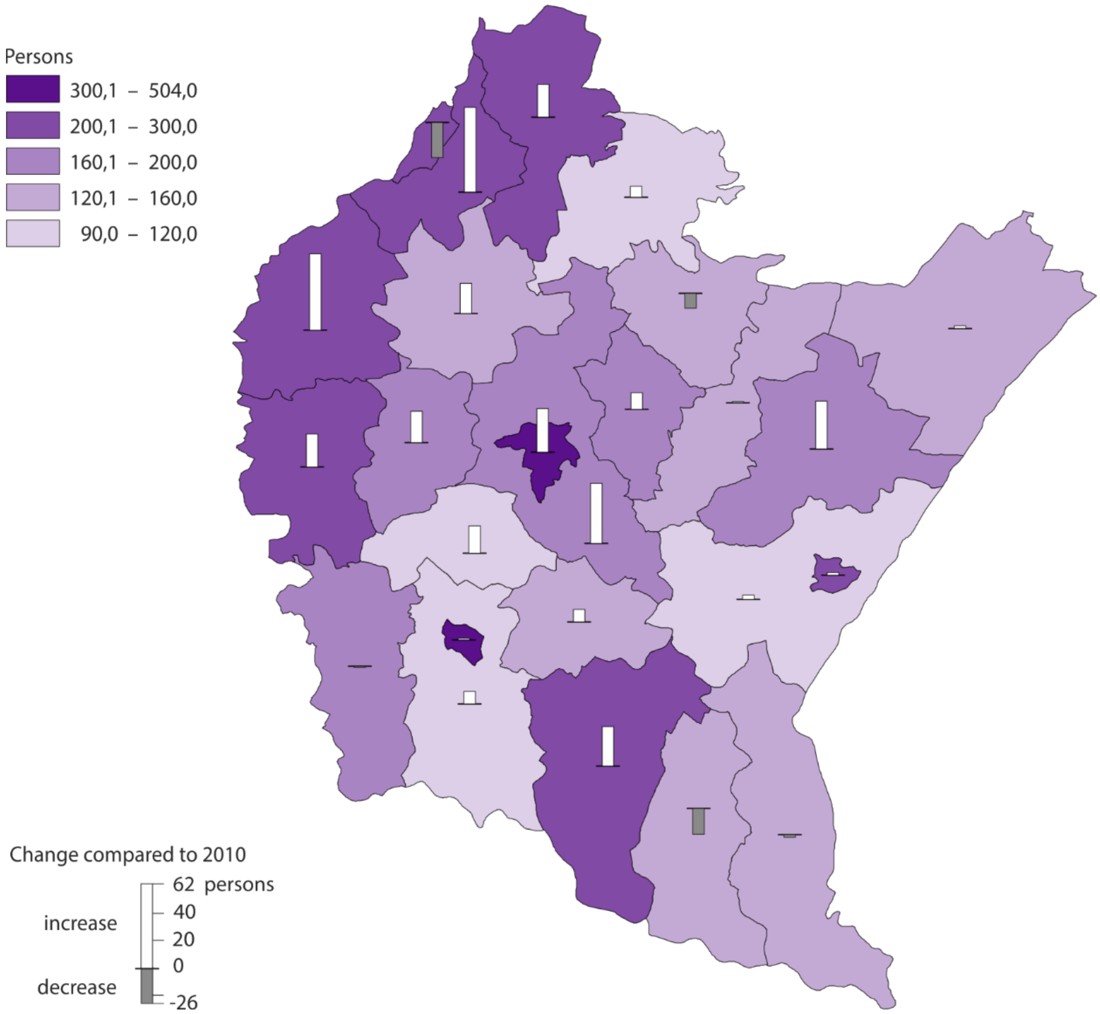
The organization supports the exchange of experiences and business cooperation within the ICT industry. The main goal of the cluster's activity is to increase the competitiveness of ICT companies and establish cooperation with universities and administrative units. Net revenues of companies associated in the Cluster reach the level of 1 billion / year.

Every year, the Cluster also increases the number of its members. In 2012 - 24 members, 2013 - 49, 2014 - 67, 2015, there were 84, in 2016 - 90, while as at 31.12.2017, the Cluster already had 108 members.

Employment in business entities in Podkarpacie

At the end of 2018, the number of employees in Podkarpackie amounted to 462.9 thousand (according to the actual workplace; excluding economic entities employing up to 9 persons and individual farms in agriculture) and compared to the previous year increased by 9.9 thousand persons (by 2.2%), and in relation to 2010 it was higher by 45.4 thousand people (by 10.9%). The private sector gathered 66.3% of the employees, and the public sector 33.7%. At the end of 2018, most people worked in: manufacturing - 31.7% (at the end of 2017 - 31.4%), trade; repair of motor vehicles - 14.0% (14.1%), education - 12.7% (12.8%) and health care and social assistance - 9.1% (similarly a year earlier).

Map 7. Employed person per 1000 population in Podkarpackie voivodship in 2018



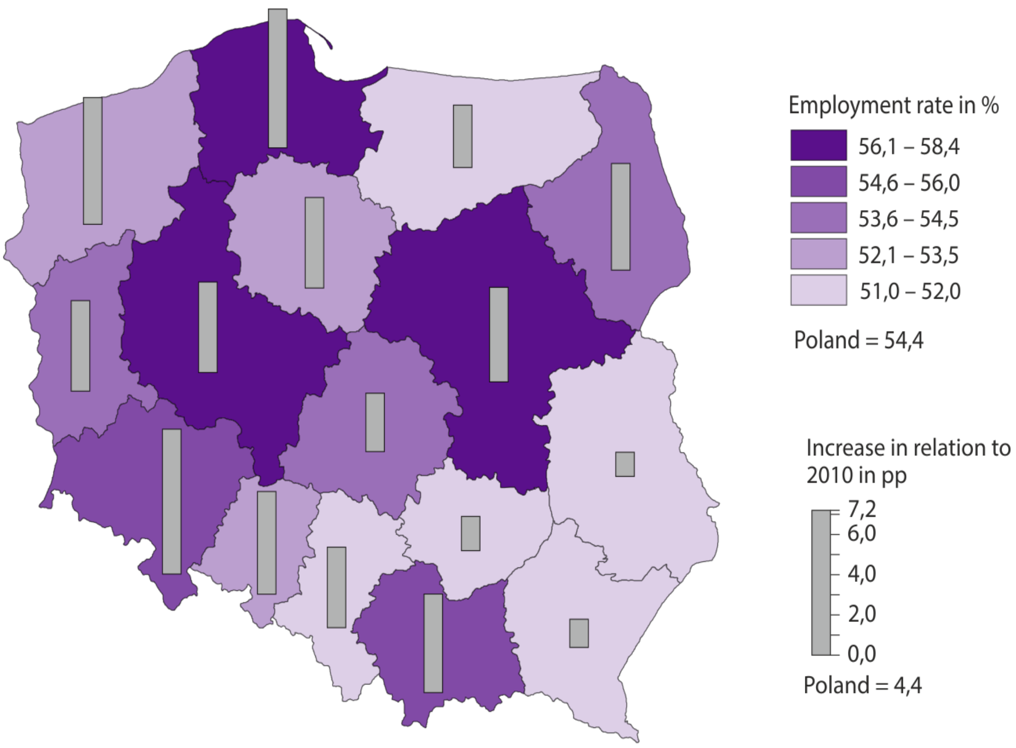
Source: own study based on CSO data

The number of employed compared to 2017 increased in twenty-one poviats, including most in the Rzeszów (by 6.1%), Przemyśl (by 5.5%) and Tarnobrzeg (by 5.2%) poviats. On the other hand, a decrease in the number of employed was observed in four poviats, including the largest in Nizańsk (by 1.2%) and Lubaczów (by 1.1%)

The employment rate used to measure the use of labour resources in the fourth quarter of 2019 was 51.9%. This means that for every 100 people over 15, there were 52 people working. In relation to Poland, the discussed indicator was lower by 2.5 pp, and in terms of the value of this indicator in the ranking of voivodships, Podkarpackie was ranked 12th nationally (in the 4th quarter of 2018, it was 11th, while in 4th quarter of 2010 - 8th).

The value of the employment rate indicates that in the years 2010-2015 in Podkarpackie Voivodship less than half of the population aged 15 years and more worked, while in 2016-2019 this value remains above 50.0% (from 50.9% in the fourth quarter of 2016 to 51.9% in the fourth quarter of 2019). In the fourth quarter of 2019, people not working and not looking for work, i.e. the population of the economically inactive in the Podkarpackie Voivodeship, amounted to 740 thousand persons and constituted 45.7% of the population aged 15 years and more and 5.6% of the total economically inactive nationally. Women (62.2%), as well as rural residents (60.0%) dominated among the economically inactive persons.

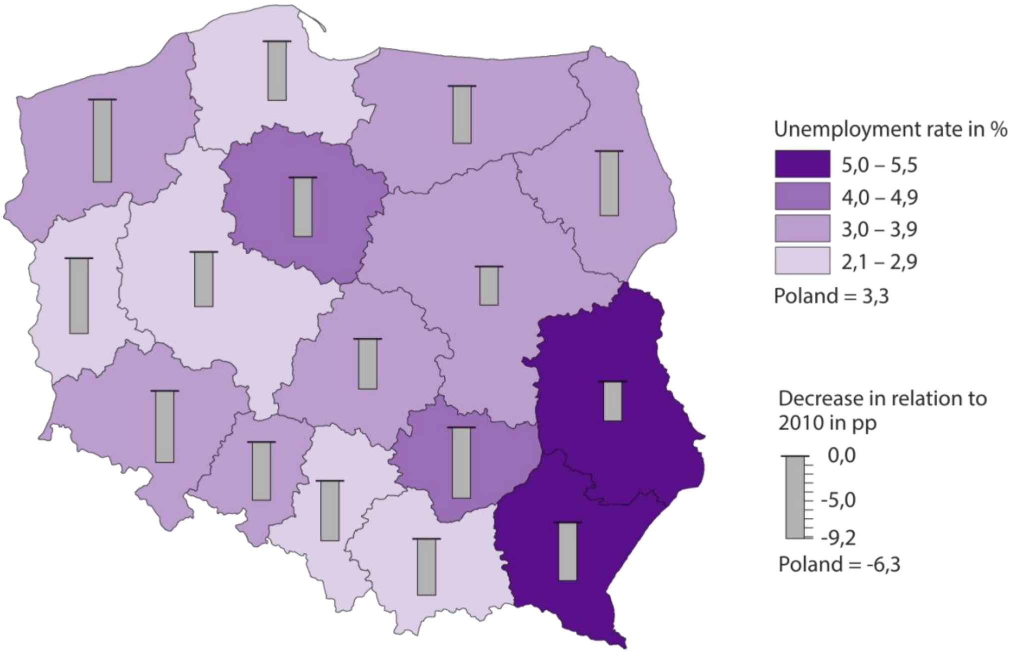
Map 8. Employment rate in 2019



Source: own study based on CSO data

Analysing the economically inactive population by age in the fourth quarter of 2019, both in the voivodship and nationally, one can notice a significant dominance of two groups. The economically inactive group includes mainly older people, i.e. aged 55 and over, who constituted 61.9% of the economically inactive (66.1% nationally). The second largest group constituting the professionally inactive population were young people, i.e. people aged 15-24, who accounted for 20.4% of the economically inactive population (17.1% nationally).

Map 9. Unemployment rate by voivodships in 2019

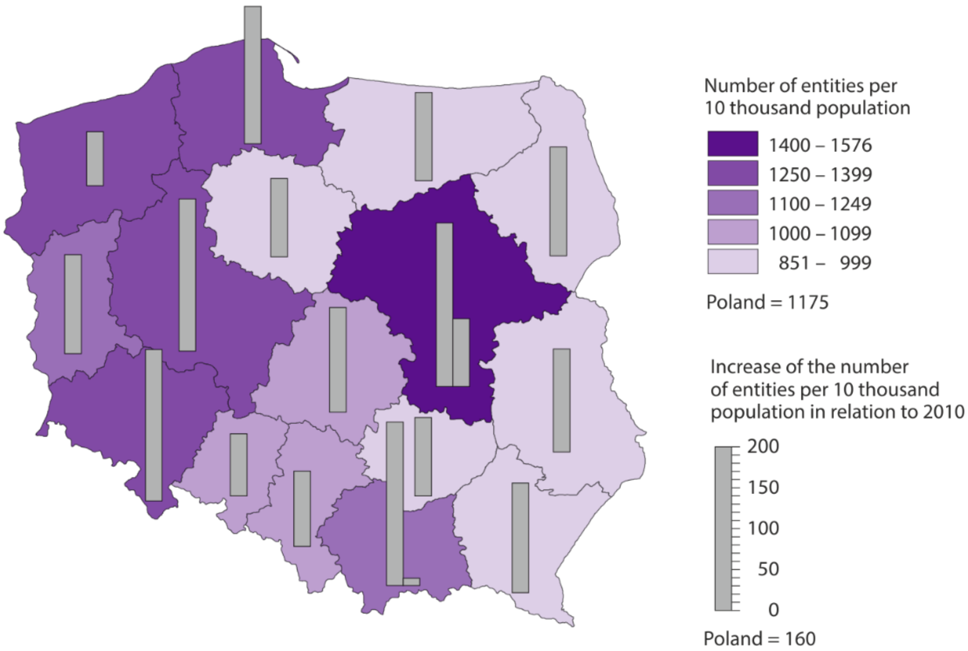


Source: own study based on CSO data

Entities of the national economy registered in the REGON register. Entrepreneurship in the region.

At the end of 2019, 181.1 thousand entities of the national economy were registered in the REGON register., i.e. legal entities and organizational units without legal personality with registered offices in the Podkarpackie Voivodeship, as well as natural persons conducting business activities residing in this area. Compared to 2010, an increase of 18.7% was recorded. Entities from the Podkarpackie Voivodeship constituted 4.0% of the total number of entities registered in the REGON - national official register of entities of the national economy. The vast majority of entities - 173.9 thousand, i.e. 96.0% - belonged to the private sector, while public sector entities, in the number of 5.3 thousand, constituted 2.9%. Compared to 2010, the number of private sector entities increased by 18.7%, and the public sector decreased by 13.1%

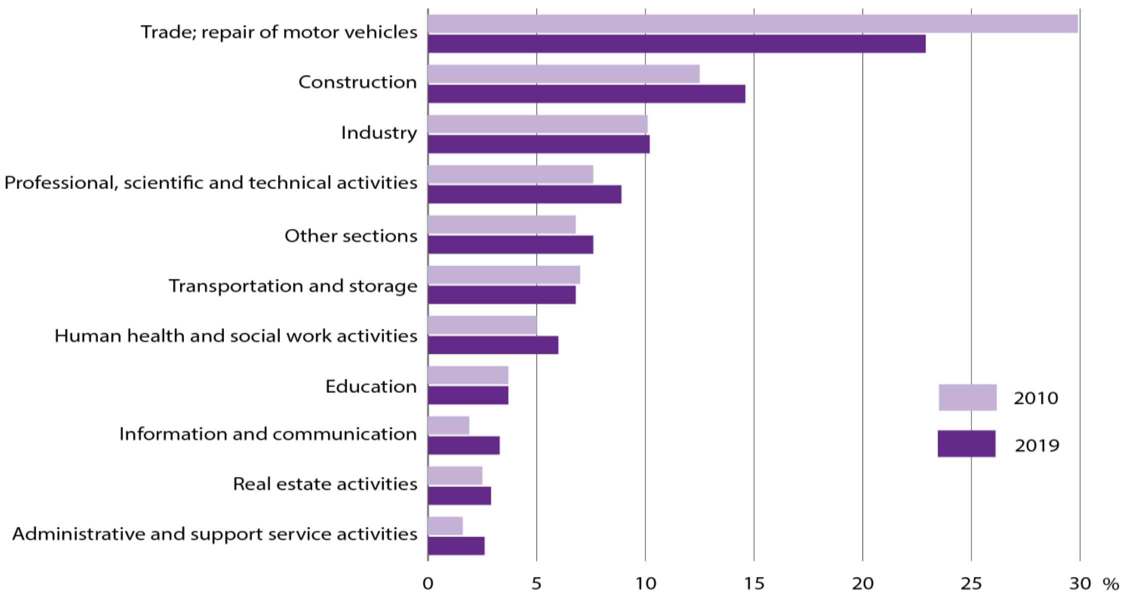
Map 10. Entities of the national economy in 2019



Source: own study based on CSO data

The most public sector entities conducted activities related to education - 46.6% in 2019, followed by real estate services - 16.2%, public administration and national defence; compulsory social security - 11.8% and health care and social assistance - 9.1%. The majority of private sector entities - 77.5% (134.8 thousand) - were natural persons conducting business activity. Compared to 2010, their number decreased by 3.5%. In 2010, natural persons conducting business activity constituted 81.0% (118.6 thousand) of private sector entities.

Chart 11. Entities of the national economy according to selected sections



Source: own study based on CSO data

Natural persons conducted business mainly in the field of trade and repair of motor vehicles - 23.7%, construction - 15.1%, industrial processing - 9.8% and professional, scientific and technical activity - 9.1% Micro-enterprises, i.e. entities employing up to 9 persons, constituted 99.1% of natural persons conducting business activity.

In 2019, in Podkarpackie Voivodship there were 85 entities of the national economy per 1000 people (82 a year earlier), while nationally 117 (114 a year earlier). The largest number of entities per 1000 people was registered in cities with poviat rights: in Rzeszów - 150 (previously 146), Krosno - 122 (119), Przemyśl - 107 (105) and Tarnobrzeg - 106 (103) and in the Leski poviat - 123 (117), and the least in the poviats: Brzozowski - 63 (61), Przemyśl - 64 (60) and Przeworsk - 64 (62).

In 2019, 15.2 thousand new entities of the national economy were registered, including 12.7 thousand natural persons conducting business activity and 1.5 thousand commercial companies, including 9 commercial companies with foreign capital. The largest number of new entities was registered in the sections: construction - 3.9 thousand (25.9% of the total newly registered) and trade; repair of motor vehicles - 2.4 thousand (16.0%), as well as professional, scientific and technical activities - 1.2 thousand (8,2%). Compared to 2018, the number of new entities registrations decreased by 1268 (by 7.7%).

In the year under review, 8.3 thousand entities were removed from the REGON register, including 7.2 thousand natural persons conducting business activity and 525 commercial companies, including 104 commercial companies with foreign capital. Most entities were deleted in the sections: trade; repair of motor vehicles - 2.3 thousand (28.1% of all deregistered), construction - 1.4 thousand (17.4%), other services - 530 (6.4%). Compared to 2018, fewer entities were deregistered - 3,930 (32.1%).

The largest number of entities of the national economy operated in the trade; repair of motor vehicles - 41.5 thousand (22.9% of total), followed by construction - 26.5 thousand (14.6%), industrial processing - 17.2 thousand (9.5%), as well as professional, scientific and technical activities - 16.2 thousand (8.9%). A similar structure occurred in the case of natural persons who also conducted business activity mainly in the field of trade and repair of vehicles - 24.6%, then construction - 17.7%, professional, scientific and technical activity - 12.0% and in the field of industrial processing. - 10.2%.
In 2019, the vast majority of entities conducting business activity - 77.5% (134.8 thousand) - were natural persons. Compared to 2010, their number decreased by 3.5%. At the end of 2019 there were 15,200 commercial companies (twice as many as in 2010) and they constituted 8.4% of the total number of entities in the voivodship, while in 2010 - 4.9%. The vast majority of commercial companies were corporations - 12.6 thousand (82.8% of all commercial companies) and these were mainly limited liability companies - 12.4 thousand From among commercial partnerships, of which

there were 2.6 thousand (17.2%), the most frequently chosen legal form was general partnership - 1.4 thousand (6.5% of all commercial companies) and limited partnerships - 1.0 thousand (3,9%).

At the end of December 2019, the number of registered civil law partnerships was 10,700, similar to the year before. Their largest increase was recorded in the following poviats: Łańcut (by 2.3%), Strzyżów (by 2.0%), Brzozówand Niżańsk (by 1.5% each) and in Leżajsk (by 1.4%). However, the largest decrease was recorded in the Bieszczady poviat (by 4.9%). Compared to 2010, the number of civil law partnerships increased by 1245 (by 13.1%), while their share in the total number of entities in the Podkarpackie voivodship decreased from 6.2% to 5.9%.

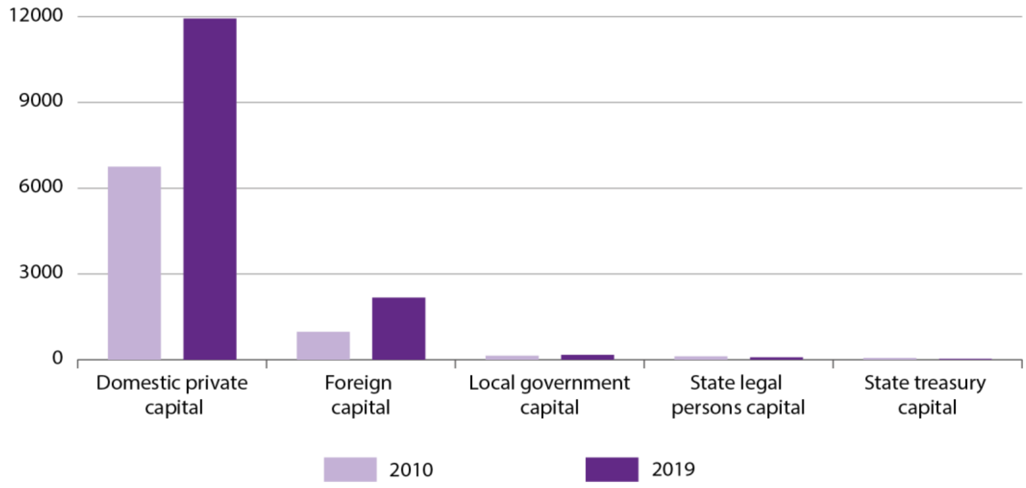
As at December 31, 2019, the number of registered associations and social organizations was 7,151, which means an increase of 3.0% compared to the previous year. The highest increase was recorded in the following poviats: Przeworsk (by 7.9%), Lesko (by 6.4%), and Brzozów (by 4.2%). However, no decline was recorded in any poviat or city with poviat status.

The number of registered foundations also increased (by 12.0% per annum) and at the end of December 2019 it amounted to 700 (in 2010 there were 256). The highest increase was recorded in the following poviats: Lubaczów (by 66.7%), Strzyżów (by 40.0%), and Ropczyce-Sędziszów (by 33.3%). However, the decrease in the number of associations and organizations took place only in the Jarosław poviat (by 3.8%). Compared to 2010, their number increased by 27.5%.

571 cooperatives were registered in the Podkarpackie voivodship, i.e. by 2.4% less than in the previous year. The largest decrease took place in the following poviats: Stalowa Wola (by 11.1%), Przeworsk (by 6.7%), Sanock (by 6.2%) and Jarosław (by 6.1%). The increase was recorded only in the Leżajsk poviat (by 5.0%). The number of cooperatives decreased from 731 in 2010 to 571 in 2019, i.e. by 21.9%.

In the group of commercial companies, by type of capital, there were 84 state-owned legal entities (compared to 2018 an increase of 7.7%), companies with domestic private capital 11939 (an increase of 7.2%), and companies with foreign capital 2,172 (increase by 5.7%). On the other hand, there were 31 State Treasury companies (a decrease of 8.8% compared to the previous year) and 168 with the participation of local government (a decrease of 2.3%).

Chart 12. Commercial companies by type of capital



Source: own study based on CSO data

Similarly, taking the number of commercial companies, the largest increase compared to 2010 was recorded: in companies with foreign capital (by 123%), with private domestic capital (by 76.7%) and with the capital of local government (by 23.5%). A decrease compared to 2010 was recorded in the case of companies with the capital of State Treasury (by 49.2%) and with the capital of state-owned legal persons (by 27.6%).

In comparison with the previous year, the largest increase in companies with the capital of state-owned legal entities occurred in cities with poviat rights: Krosno (by 40%), Tarnobrzeg (by 20%), Rzeszów (by 12.5%) and Rzeszów poviat (by 33.3%). The decrease was recorded only in the Mielec poviat (by 13.3%). In companies with domestic private capital, in most poviats there was also an increase: in Bieszczady (by 12.7%), Kolbuszów (by 11.3%), Rzeszów (by 10.4%) and Jarosław (by 10.3%). The decrease was recorded only in the Stalowa Wola poviat (by 1.2%).

Among the companies with foreign capital, the largest increase occurred in the following poviats: Niżańsk (by 42.9%), Jarosław (by 16.8%) and Bieszczady (by 14.3%), the largest decrease was observed in the following poviats: Przemyśl (by 11.3) %), Strzyżów (by 8.3%) and Dębica (by 7.0%).

Compared to the previous year, in companies with the local government capital only in Krosno poviat there was an increase (by 33.3%), while the largest decreases occurred in the poviats: Przeworsk (by 14.3%) and Jasielsk (by 12.5%) and Sanok (by 11.1%).

In companies with State Treasury capital, a decrease was recorded in three poviats: Brzozów (by 50.0%), Krosno (by 33.3%) and the city of Rzeszów (by 14.3%), while in other poviats it remained unchanged.

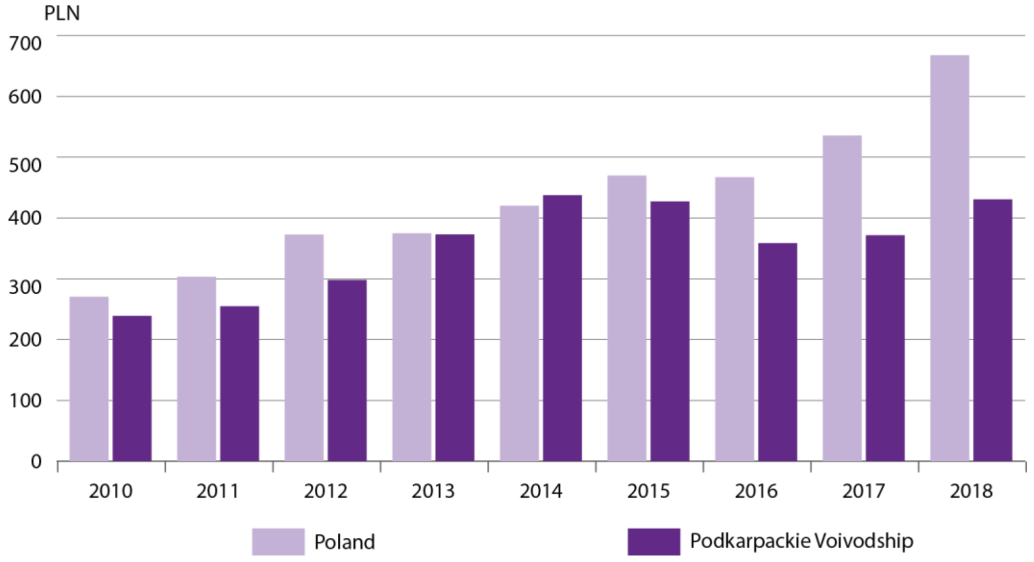
Innovation. Research and development

In 2018, expenditure on research and development in the Podkarpackie Voivodship amounted to PLN 916.6 million, which accounted for 3.6% of expenditure on R&D nationally. In Podkarpackie, compared to the previous year, the value of outlays increased by 16.0%. Over the years 2010-2018, the amount of internal expenditure on R&D has fluctuated, while compared to 2010, it increased by 80.3%.

In 2018, in Podkarpackie Voivodship, the value of internal expenditure on research and development per capita amounted to PLN 431, while nationally this ratio reached PLN 668. In comparison with 2017, the value of internal expenditure on R&D per capita in the voivodship increased by 15.9%, while compared to 2010 - by 80.2%.

In 2018, in the Podkarpackie voivodship, the share of enterprise sector expenditure on R&D in total R&D expenditure amounted to 68.9% (which placed Podkarpackie in 1st place nationally), while this indicator nationwide reached 53.3%. Compared to 2010, this share increased by 20.9 pp in Podkarpackie Voivodship, while compared to 2017 - it decreased by 2.1 pp. In 2018, in the Podkarpackie Voivodeship, the indicator showing the number of people working in research and development (in EPC) per 1000 professionally active people was 6.4. Nationally this indicator reached the value of 7.7. Compared to 2017, the value of this indicator in the Podkarpackie Voivodship increased by 10.3%.

Chart 13. Internal expenditure on research and development



Source: own study based on CSO data

In 2016-2018 in the Podkarpackie Voivodeship, 29.0% of industrial enterprises introduced product innovations or business process innovations. Compared to the period 2015-2017, this share in industrial enterprises increased by 9.6 pp. Nationally, the share of industrial enterprises that introduced product innovations or business process innovations in 2016-2018 was 24.0%. In Podkarpackie Voivodship the share of service enterprises that introduced product or business process innovations in 2016-2018 was 10.3% Nationally, this indicator during the period considered amounted to 19.6%. Compared to the period 2015-2017 in Podkarpackie, the share of service enterprises that introduced product or business process innovations in 2016-2018 decreased by 0.8 pp.

In 2018, in Podkarpackie Voivodship, the share of revenues of industrial enterprises from the sale of new or improved products introduced to the market in 2016-2018 in total sales revenues was 9.0%, while nationally this indicator reached the value of 9.1%. Compared to 2010, the value of this share in Podkarpackie increased by 0.5 pp, while nationally in the same period a decrease of 2.2 pp was recorded.

In 2018, the share of net revenues from sales of exported innovative products in the total net revenues from sales of industrial enterprises operating in Podkarpackie amounted to 2.40%. The value of this indicator for the Podkarpackie Voivodeship was higher than nationally where it reached the level of 1.70%. In terms of the share of net revenues from the sale of innovative products for export in total net revenues from sales in 2018, the Podkarpackie Voivodeship was ranked 3rd nationally.

In 2019, 97.3% of enterprises in the Podkarpackie voivodship used computers in their activities. Over the years 2012-2019, the value of this indicator was systematically increasing. Nationally, the share of enterprises using computers was slightly lower and in 2019 amounted to 96.8%.

In 2019, 96.8% of enterprises had access to the Internet (broadband) in Podkarpackie Voivodship, while access to mobile broadband - 70.4% of enterprises. Nationally, the share of enterprises with broadband Internet access was slightly lower (96.3%), while the share of enterprises with mobile broadband access was higher and amounted to 75.7%.

Compared to 2018, the share of enterprises with both broadband Internet access and mobile broadband access in Podkarpacie increased (by 6.4 pp and by 8.7 pp, respectively).

The share of industrial enterprises cooperating under a cluster initiative or other formalized cooperation in innovation-active enterprises in 2018 in Podkarpackie amounted to 32.8% and was by 11.8 pp higher than in Poland. Compared to 2014, this share in the Podkarpackie Voivodship increased by 20.8 pp. Compared to other voivodships, Podkarpackie in 2018 it ranked 3rd (after Podlasie and Lubelskie voivodships).

In the Podkarpackie Voivodeship, 28.2% of enterprises used social media in their activities in 2019, while nationally this share was 36.6%. Compared to 2018, the value of this indicator increased by 5.5 pp in Podkarpacie and 6.3 percentage points in Poland.

In 2018, 14.7% of enterprises in Podkarpackie received orders via computer networks. Over the years 2010-2018, this indicator fluctuated, however, in comparison with 2010 and 2017 its value increased (by 7.6 pp and by 3.1 pp respectively). Nationally, the share of enterprises receiving orders via computer networks in 2018 was 15.7%.

In 2018, 96.1% of enterprises in the Podkarpackie Voivodeship used e-government services. In Poland, this share was lower and amounted to 95.7%. Compared to 2017, this indicator increased both in the voivodship and nationally.

In 2018, in Podkarpackie, the percentage of enterprises using open public data also increased (by 0.7 pp) and amounted to 15.1%. Nationally, this indicator reached the value of 16.9%, and compared to 2017 increased by 0.5 percentage point.

In 2019, the share of enterprises employing ICT specialists in the Podkarpackie voivodship increased significantly (by 15.2 pp) - compared to 2018 - reaching the value of 24.2%. Nationally, the percentage of enterprises employing ICT specialists amounted to 23.5% and also recorded an increase (by 10.3 pp) compared to 2018.

The region's level of innovation can be determined by many different factors. A number of methods and indicators are used to determine the degree of innovation of specific areas. One of the most popular of them is the European Innovation Scoreboard, which is used to assess the functioning of national innovation systems in Europe. The regional equivalent of this table is the Regional Innovation Scoreboard. The latest, ninth edition of this board - RIS 2019 - presents a comparative assessment of the results of innovation systems in 238 regions of 23 Member States of the European Union.

As with the European Innovation Scoreboard, European regions have also been classified according to four different innovation groups:

- regional innovation leaders - 38 regions,
- regional strong innovators - 73 regions,
- regional moderate innovators - 97 regions,
- regional modest innovators - 30 regions.

Regional innovation leaders are those regions that reach 20% or more above the European Union average. Regional strong innovators are regions with 90% to 120% of the EU average. In turn, regional moderate innovators are regions reaching between 50% and 90% of the EU average, while regional modest innovators perform below 50% of the EU average.

In addition, RIS 2019 uses three subgroups in each of these groups, to allow better differentiation at the regional level: regions at the top of the group (+), regions at the centre of the group and regions at the bottom of the group (-).

In Poland, 8 regions were in the group of regional moderate innovators, while 9 regions including Podkarpackie - in the group of regional modest innovators.

According to the above grouping, the Podkarpackie Voivodship was among the regions at the bottom of the group of regional moderate innovators.

The Innovation Index RII (Regional Innovation Index) used to measure the innovation of European regions consists of 17 partial indicators, including percentage of the population aged 30-34 with higher education, expenditure on research and development in the public sector expressed as a percentage of GDP, the percentage of enterprises that introduced product or process innovations in enterprises.

According to this indicator, Podkarpackie Voivodship with a value of 58.3 out of 238 EU regions occupied 179th place. Nationally, Podkarpackie was in 3rd place - only the Warsaw Capital region and the Małopolskie Voivodship had a higher value.

In Podkarpackie, the IT sector and the aviation industry play a key role in the development of innovation. Aviation is not only a carrier of modern technologies and innovations, but also closely cooperates with other sectors of the region, such as the mentioned IT sector or foundry, as well as with the broadly understood electromechanical industry. It has a significant impact on the development of scientific research and innovation in the region, which is confirmed by statistical data.

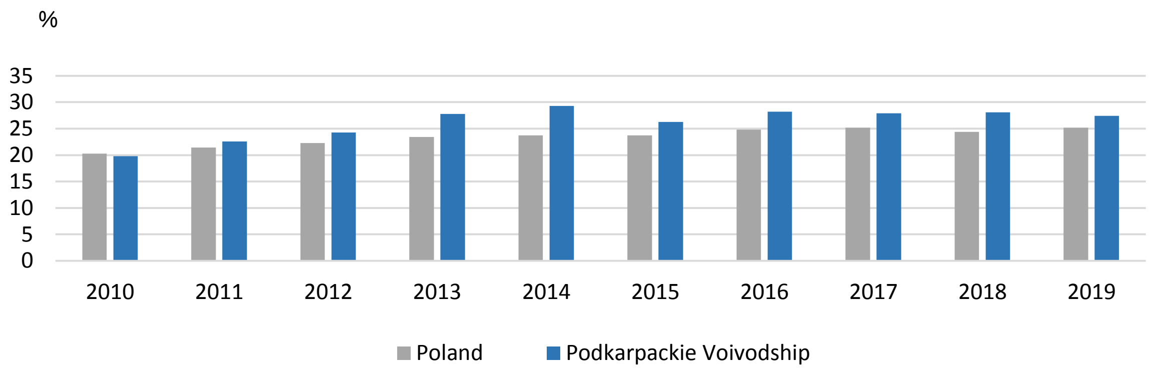
In terms of total expenditure on research and development (R&D) in relation to GDP in 2017, the Podkarpackie Voivodship with a result of 1.03% ranked 4th in Poland (after the Małopolskie, Mazowieckie and Pomorskie Voivodships). Compared to 2013 in Podkarpackie, this indicator decreased by 0.19 pp, while compared to 2016 - by 0.02 pp. For Poland, the value of this indicator in 2017 was 1.03%.

Financial results of non-financial enterprises

Revenues from total operations in 2019 reached the value of PLN 108,858.1 million and were by 7.0% higher than in 2018 (they increased both compared to 2010 - by 74.4% and 2015 - by 28.3%). Net revenues from sales of products, goods and materials increased by 6.1% and reached the value of PLN 106,182.8 million. Increases in net revenues from sales of products, goods and materials were recorded, among others in transport and storage (by 8.7%), construction (by 6.4%), trade; repair of motor vehicles (by 3.9%), industrial processing (by 3.8%) and water supply; sewerage and waste management; reclamation (by 2.8%).

Revenues from sales of products, goods and materials intended for export in 2019 amounted to PLN 29,138.5 million and were higher by 5.5% than those achieved in 2018. The share of these revenues in net revenues from sales of products, goods and materials of all surveyed entities decreased from 28.1% to 27.4%. In the structure of revenues from export sales, export sales of products accounted for 87.4%, and export sales of goods and materials - 12.6%.

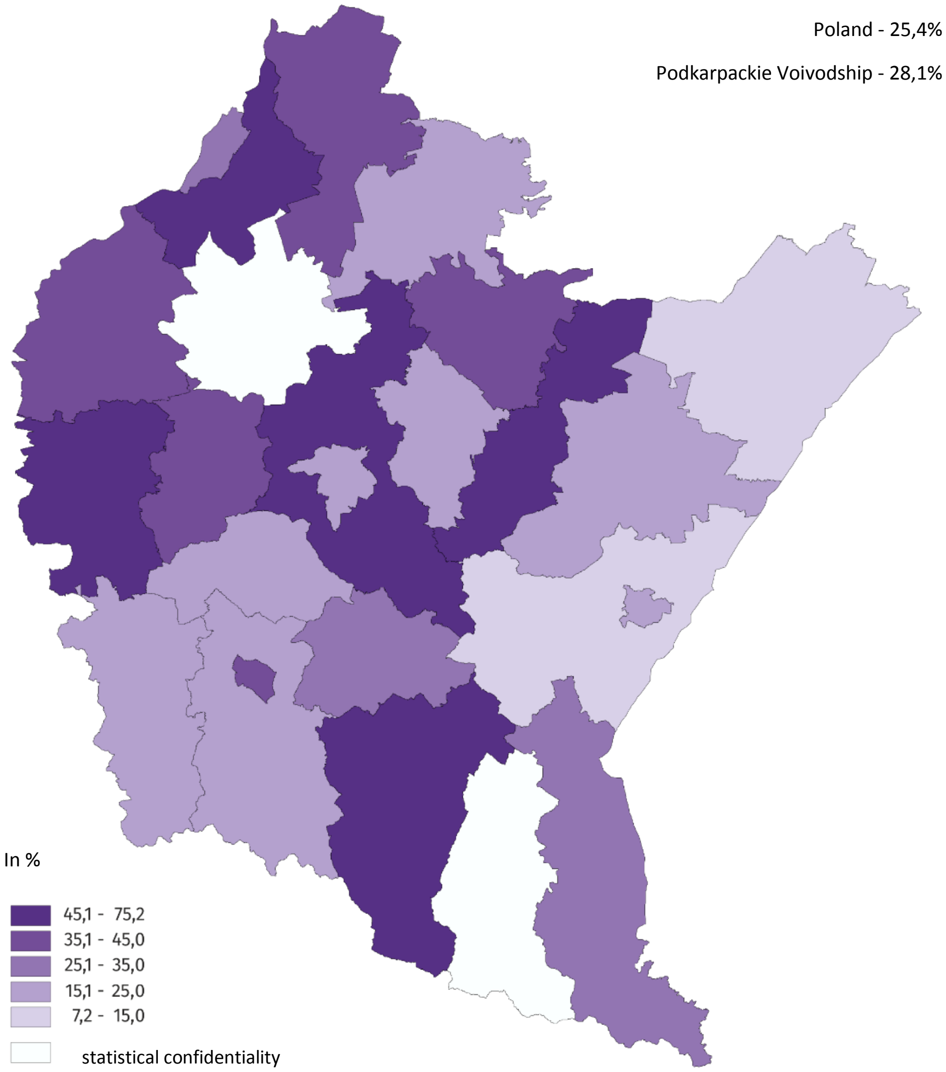
Chart 14. Share of revenues from the sale of products, goods and materials for export in the revenues from the sale of products, goods and materials



Source: own study based on CSO data

The tax-deductible expenses from total operations in 2019 amounted to PLN 10,3731.1 million and were higher than those incurred in 2018 by 5.9% (increased both compared to 2010 - by 74.2% as well as 2015). - by 27.6%). In the structure of costs by type, where total costs in 2019 amounted to PLN 5,450.3 million, consumption of materials and energy accounted for 49.7%, external services - 18.8%, salaries - 16.9%, depreciation - 5.1% , taxes and fees - 3.5%, social security and other provisions - 3.9%, and other costs - 2.1%.

Map 11. The share of exports in the sale of products, goods and services in 2019



Source: own study based on CSO data

Own costs of products sold and the value of goods and materials sold increased by 6.5% and reached the value of PLN 10,1684,6 million.. The highest increases were recorded, among others in transport and storage (by 8.4%), construction (by 5.7%), trade; repair of motor vehicles and industrial processing (3.7% each) and water supply; sewerage and waste management; reclamation (by 2.7%).

The lower increase in revenues from the sale of products, goods and materials in 2019, along with the increase in the costs of operations, resulted in a decrease in the financial result from the sale of products, goods and materials on an annual basis to PLN 4,498.2 million (by 3.0%). The result on other operating activities increased significantly and reached PLN 486.4 million (minus PLN 323.4 million in 2018). Higher financial revenues (by 64.2%) compared to 2018, with a decrease in financial costs (by 31.5%), resulted in an increase in the result on financial operations to PLN 142,4 million (in 2018 - minus PLN 473,5 million).

The gross financial result in 2019 reached the value of PLN 5,127.0 million and was higher by PLN 1,284.3 million (i.e. by 33.4%) than in 2018. Income tax decreased by 4.4% to PLN 588.7 million. The ratio of corporate income tax and natural persons' income tax to gross profit decreased from 12.9% to 10.0%. After a high increase in dynamics in 2016 (by 84.7%) and declines in the next two years (by 27.2% in 2017 and by 23.2% in 2018 respectively), the net financial result in 2019 amounted to PLN 4,538.2 million and was higher by PLN 1,111.6 million (i.e. by 40.6%) than in 2018. Net profit increased by 24.9%, and the loss decreased by 26.8% .

The increase in the net financial result compared to 2018 was recorded in almost all sections, including the highest in transport and storage (over 2.5 times). An increase in net financial results was recorded by enterprises operating, among others in the manufacturing section (by 26.4%), trade; repair of motor vehicles (by 19.7%), water supply; sewerage and waste management; reclamation (by 6.9%) and construction (by 5.5%).

The surveyed enterprises based in the Podkarpackie Voivodeship recorded increases in basic economic and financial indicators. Increase in revenues from operations with a lower increase in expenses resulted in an improvement of the cost level indicator by 0.9 pp per year, to the level of 95.3% (nationally it improved by 0.1 pp and amounted to 95.4%). Annual gross and net turnover profitability ratios increased (by 0.9 pp and 1.0 pp respectively) as well as first and second-degree liquidity ratios (by 7.4 pp and by 6, 1 pp respectively). On the other hand, a decrease was recorded in the rate of return on sales of products, goods and materials (by 0.4 pp). Nationally, the gross turnover profitability ratio (0.1 pp) and the first- and second-degree liquidity ratios (1.9 pp and 0.5 pp respectively) were higher than in the previous year. Return on sales and return on net turnover remained at the level in 2018.

The value of current assets of the surveyed enterprises at the end of December 2019 amounted to PLN 36,183.3 million and was higher by 9.0% than at the end of December 2018. Short-term investments were higher - by 31.6%, inventories - by 5, 6%, short-term prepayments - by 3.3% and short-term receivables - by 3.0%. In the tangible structure of current assets, the share of short-term investments increased (from 17.9% to 21.7%), while the share of short-term receivables declined (from 46.8% to 44.2%) and inventories (from 32.3% to 31.3%) and short-term prepayments (from 3.0% to 2.8%). The share of goods in the structure of inventories increased (from 30.1% to 33.8%), while the share of materials declined (from 31.1% to 28.5%), semi-finished products and work-in-progress (from 20, 1% to 19.1%) and finished products (from 15.3% to 15.2%). Compared to 2018, the ratio of trade payables to trade receivables increased by 4 pp to 80.8%.

Compared to 2018, slight changes were recorded in the efficiency of enterprises. The cycle of turnover of trade receivables (by 5 days to 45 days) and the cycle of repayment of trade payables (by

2 days to 36 days) decreased. However, the inventory turnover ratio has not changed compared to 2018 and was 38 days.

The value of investment outlays in 2018, incurred by enterprises employing more than 9 people, for investments located in the Podkarpackie Voivodeship increased compared to 2017 by 26.9% to the level of PLN 7888.4 million (compared to 2010 - by 90.9%, and 2015 - by 35.3%). Increases were recorded in 14 out of 18 sections examined, including the highest in water supply; sewerage and waste management; reclamation (by 139.6%). From the sections with the largest share in total expenditure, the increase was recorded by enterprises operating in the sections: transport and storage (by 44.3%), generation and supply of electricity, gas, steam and hot water (by 28.1%), industrial processing (by 21.4%) and trade; repair of motor vehicles (by 1.1%).

Investment outlays incurred in the Podkarpackie Voivodeship constituted 4.3% of outlays incurred in Poland (in 2010 - 3.6%, in 2015 - 3.5%, and in 2017 - 3.9%). The largest outlays were incurred by industrial enterprises (68.6% of total outlays). The annual share of this group of enterprises decreased by 0.7 pp. Expenditure of enterprises operating in transport and storage accounted for 9.4% of total expenditure (by 1.1pp more than in 2017), and in trade and repair of motor vehicles - 7.9% (by 2.0 pp less than in 2017).

Investment outlays on new property and improvement of existing ones, incurred by the surveyed enterprises employing more than 49 people having their registered office in the Podkarpackie Voivodeship, in 2019 reached the value of PLN 4,225.2 million and were (at current prices) by 9.6% higher than in the corresponding period of the previous year (compared to 2010, it increased more than twice, and 2015 - by 41.7%). Nationally, investment outlays increased annually (in current prices) by 12.4%.

From the total amount of expenditure of enterprises from Podkarpackie on buildings and structures, PLN 1435.1 million (an increase of 56.5% compared to 2018) was allocated to means of transport - PLN 329.9 million (an increase of 1.6%), and for machines, technical devices and tools - PLN 2443.8 million (a decrease of 6.2% compared to 2018). The value of investment purchases amounted to PLN 2,773.7 million and, compared to the previous year, decreased by 5.3%, and the share of these purchases in total expenditure decreased by 10.4 percentage points YoY[1].

Higher outlays, compared to 2018, were incurred by enterprises operating in the following sections: trade, repair of motor vehicles (by 76.8%), transport and storage (by 30.2%), water supply; sewerage and waste management; reclamation (by 22.6%), manufacturing (by 2.2%) and real estate market services (by 2.0%).

[1] YoY – abbreviation of ”year-over-year”

In the year under review, main investors included enterprises operating in the field of manufacturing (which accounted for 70.5% of total expenditure), trade; repair of motor vehicles (12.3%), water supply; sewerage and waste management; reclamation (5.0%) as well as transport and storage (2.9%).

In 2019, 1501 investments were launched (by 6.4% less than in the previous year) with a total estimated cost of PLN 1424.1 million and it was 5.6% higher than in 2018. In Poland, in the discussed period, 253185 investments were launched (by 9.7% more than a year earlier) with an estimated cost of PLN 68054.8 million (higher by 15.7% compared to 2018). The improvement (i.e. reconstruction, extension, redevelopment or modernization) of existing fixed assets accounted for 14.9% of the estimated cost of all investments commenced (in 2018 - 19.8%). The YoY estimated cost of investments commenced by enterprises operating, among others, in manufacturing, increased by 41.4%. The estimated cost was lower, among others, in trade; repair of motor vehicles (by 38.5%) and water supply; sewerage and waste management; reclamation (by 57.9%).

The industrial production sold in the Podkarpackie Voivodship in 2019 reached the value (in current prices) of PLN 5,394.7 million and was higher (in constant prices) by 7.3% compared to last year (in 2018 it increased by 9.8 %). In all quarterly periods of 2019, cumulatively, production increased compared to the same periods of previous year. The highest growth was achieved in the first quarter (by 9.9%). The value of production sold in the years 2015-2019 systematically increased, but the pace of this growth started to slow down in 2018. Nationally, production sold in 2019 was by 4.0% higher than a year earlier (against an increase of 5.8% in 2018). The production sold of the Podkarpackie Voivodeship industry accounted for 3.5% of domestic revenues (3.4% in previous year). In terms of the value of industrial production sold, the Podkarpackie voivodship, similarly to previous year, ranked 9th in Poland, with high dynamics of growth in production sold (second place in Poland, and the first place a year earlier).

The industrial processing section had a decisive impact on the dynamics of industrial production sold, the share of which in total production amounted to 95.8% (nationally 87.2%) and remained at a similar level of the previous year. In this section, industrial production sold amounted to PLN 5,1674,6 million and, compared to 2018, increased (in constant prices) by 7.7%. An increase in production also occurred in water supply; sewerage and waste management; reclamation (by 1.1%).

In 2019, an increase in production sold occurred in 20 industry sectors (out of 31 in the voivodship). Taking into account areas with a significant share in industrial production sold, the highest increase was recorded in the production of products from other non-metallic mineral raw materials (by 28.9%), and increases in this industry were recorded since 2016. The production of computers, electronic and optical products (by 24.4%) and other transport equipment (by 19.9%) was higher than a year earlier. The production of motor vehicles, trailers and semi-trailers increased significantly (by 16.7%) and rubber and plastic products (by 7.6%) throughout the year. Lower growth dynamics than the average for the voivodship was recorded, among others in metal production (by 7.2%), food products (by 5.8%) and metal products (by 2.1%). After the growth recorded for the cumulative five years, furniture production decreased (by 10.4%). Smaller decreases were recorded in the production of electrical equipment (by 3.1%), products made of wood, cork, straw and wicker as well as machinery and equipment (2.1% each).

The largest share in the structure of industrial production sold had the production of other transport equipment (12.8% compared to 10.9% a year before), motor vehicles, trailers and semi-trailers (12.5% compared to 11.7%), rubber and plastic products (11.7% compared to 11.9%) and metal products (10.6% compared to 11.0% in 2018).

The average employment in industry in 2019 was 134.1 thousand persons and increased by 1.4% compared to previous year (in 2018 it increased by 3.9%), including industrial processing by 1.5%. At the same time, this section had the largest share in total employment in industry (92.4% against 92.3% a year earlier). In Poland, employment in industry was higher by 1.9% (in 2018, it increased by 2.6%).

In 2019, labour productivity in industry, measured by the value of production sold per one employee (in current prices) amounted to PLN 402.2 thousand and increased (in constant prices) compared to the previous year by 5.9% (nationally by 2.1%), with a simultaneous increase in salaries by 5.3%. Labour productivity in industrial processing increased by 6.1% throughout the year.

Production sold of construction industry in 2019 reached the value of PLN 9,115.4 million and was (in current prices) higher by 21.2% than in 2018, when an increase of 24.8% was recorded. Compared to 2010, an increase of 76.1% was recorded. In Poland it increased by 10.6% (against an increase of 25.2% in 2018) throughout the year. The share of production sold of construction industry in the Podkarpackie Voivodship amounted to 3.4% of domestic production and increased compared to last year by 0.3 pp. The voivodship ranked 8th in the country in terms of the value of production sold of construction industry (9th place year earlier).

The value of sales of construction and assembly production realized by enterprises included in the construction section amounted to PLN 4,577.8 million and was (in current prices) higher by 10.5% compared to the previous year (while in 2018 it increased by 29, 4%). Compared to 2010, an increase of 37.6% was recorded. In the period under review, construction and assembly production in Poland was higher by 6.0% (compared to an increase of 21.3% a year before). In Podkarpackie Voivodeship, construction and assembly production accounted for 50.2% of total revenues generated by entities in the construction section. In terms of the value of construction and assembly production, the voivodship ranked 9th in Poland (similarly to the year before), while in terms of the dynamics index in relation to the previous year ranked 5th (similarly to the previous year).

An increase in construction and assembly production was recorded in all three construction sectors, the largest in entities dealing mainly with specialised construction activities (by 22.7%), and smaller in entities in which the basic type of activity is the construction of buildings (by 10.2%) and in entities specializing in the construction of civil engineering structures (by 1.8%).

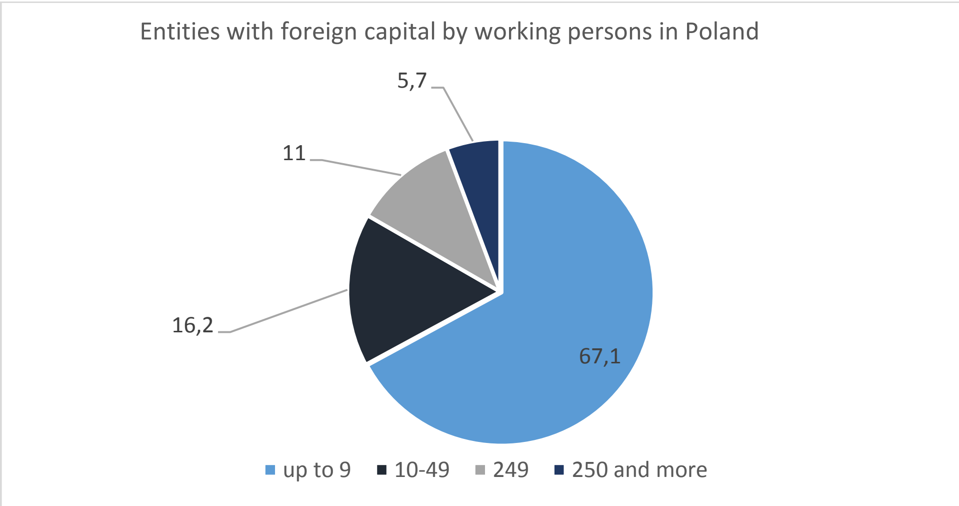
In the structure of construction and assembly production, in comparison with 2018, the share of entities dealing mainly with specialised construction activities increased (by 3.1 percentage point to 31.2%). On the other hand, the share of entities specializing in the construction of civil engineering facilities decreased (by 3.0 pp to 34.6%) and in those in which the core business is the construction of buildings (by 0.1 pp to 34.2%). In relation to 2010, an increase of 10.0 pp was recorded in entities mainly carrying out specialized construction activities, while entities specializing in civil engineering structures recorded decrease in sales by 8.8 pp.

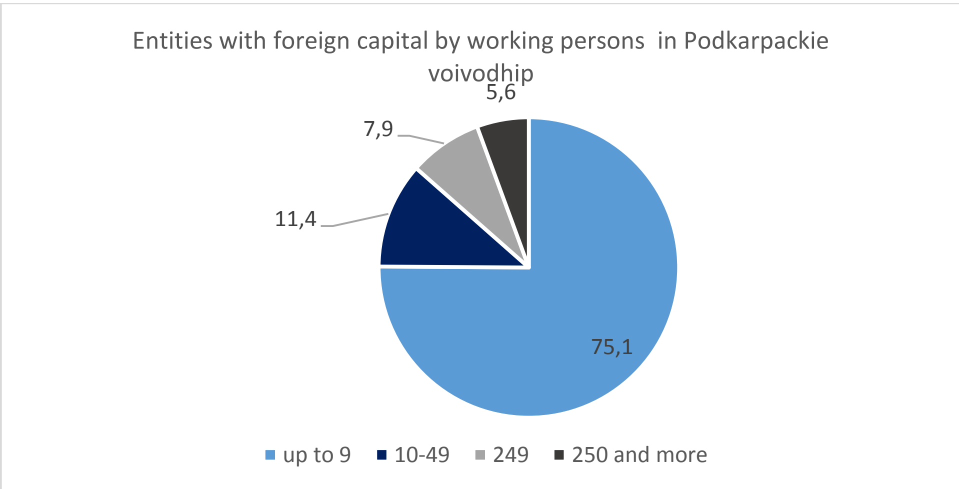
In 2013-2016, average employment in construction industry followed a downward trend. Since 2017, the employment growth rate was constantly rising, reaching the highest level in 2019. The increase in production sold of construction industry was accompanied by an increase in average employment, which in the discussed year amounted to 18.3 thousand persons and increased by 5.8% compared to 2018 (nationally by 4.0%). In 2019, labour productivity in construction industry measured by production sold per one employee (at current prices) amounted to PLN 499.0 thousand and was 14.5% higher compared to last year (compared to an increase of 21.1% in 2018), with higher salaries of 9.1%. In 2019, 9213 dwellings were completed in Podkarpackie Voivodship, i.e. 18.5% more than in a previous year and 85.6% more compared to the number of dwellings completed in 2010. Nationally, 12.1% more dwellings were completed compared to the previous year and 52.7% more compared to 2010. The total usable floor space of apartments completed in the Podkarpackie Voivodeship in 2019 amounted to 938.7 thousand sqm and was 11.7% higher than a year before (in Poland it increased by 10.0%).

Entities with foreign capital

In Poland in 2018, the group of entities with foreign capital comprised 26 787 entities. Entities up to 49 employees dominated, they constituted 83.3% of the total number of enterprises analysed (micro-enterprises employing up to 9 persons constituted 67.1% of the whole group). Medium-sized entities (50-249 working people) constituted 11.0% of the whole group, while large enterprises employing 250 and more employed - 5.7%. Most of the entities were involved in trade-related activities; repair of motor vehicles (30.7%), manufacturing (18.5%), professional, scientific and technical activities (9.5%) and activities related to real estate market services (7.9%). Most entities with foreign capital had their registered offices in the Mazowieckie voivodship (40.4%). The share capital of entities with foreign capital amounted to PLN 211 383.3 million. In its structure, foreign capital accounted for 92.9%, while domestic and dispersed capital accounted for 5.0% and 2.1%, respectively. The value of foreign capital in 2018 amounted to PLN 196 399.3 million. 57.5% of the total value of foreign capital was invested in large entities, 26.5% in micro and small employing up to 49 people (including 20.1% in micro-enterprises) and 16.0% in medium-sized enterprises. The highest percentage of foreign capital (37.8%) was engaged in entities conducting activity related to industrial processing. A high share of foreign capital was also observed in entities conducting trade-related activities; repair of motor vehicles - 22.8% of the total value of this capital and with real estate services - 9.7%. Almost half of the foreign capital was invested in Mazowieckie Voivodship (45.3%).

Chart 15. Entities with foreign capital in Poland and the Podkarpackie Voivodship in 2018



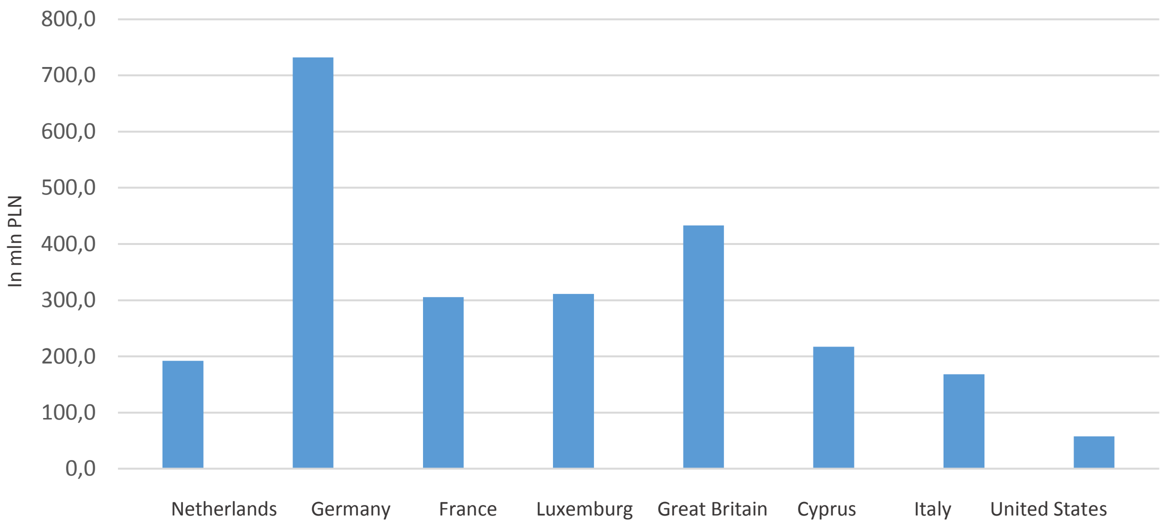


Source: Own study based on CSO data

At the end of 2018, foreign capital in Poland originated from 118 countries. Over 90% of foreign capital originated from EU countries. The countries that had invested the largest capital in Poland include the Netherlands (23.2% of total foreign capital), Germany (16.6%), France (12.8%) and Luxembourg (11.5%). The value of Dutch capital at the end of 2018 amounted to PLN 45 511.1 million. Over half of this capital was involved in industrial processing and trade; repair of motor vehicles (55.1%). The value of German capital invested in Poland amounted to PLN 32 542.6 million and the majority (73.7%) was invested in trade; repair of motor vehicles and in industrial processing. The value of French capital invested in Poland at the end of 2018 amounted to PLN 25,226.7 million. Almost a third of French capital was invested in industrial processing and trade; repair of motor vehicles. The capital from Luxembourg amounted to PLN 22,478.4 million, 44.2% of this capital was invested in industrial processing. At the end of 2018, entities with foreign capital employed 2,033.3 thousand people.

In the Podkarpackie Voivodeship a significant share in foreign capital was held by: Germany (PLN 711.9 million), Great Britain (PLN 433.3 million), Luxembourg (PLN 311.3 million) and France (PLN 305.7 million) Also significant share was held by: Cyprus (PLN 217.1 million), the Netherlands (PLN 192.1 million) and Italy (PLN 168.3 million). Foreign capital also originated from the United States, Spain, Austria, Sweden and Denmark.

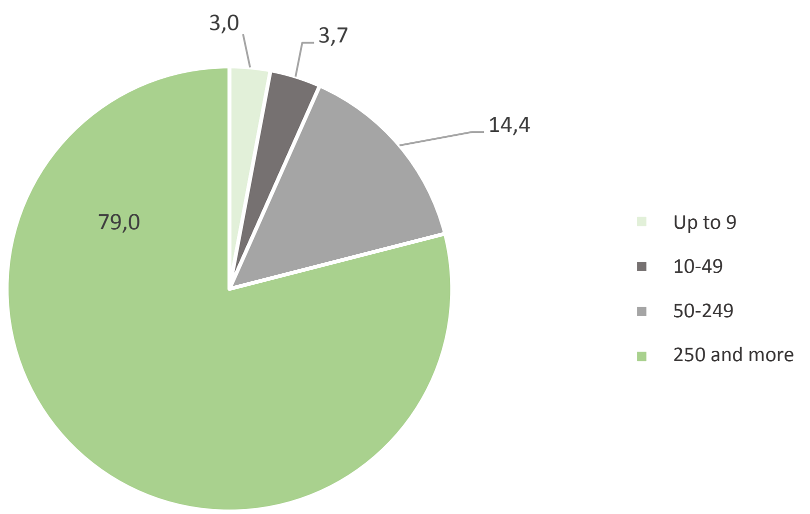
Chart 16. Foreign capital in the Podkarpackie Voivodship by selected countries of origin in 2018



Source: own study based on CSO data

In Poland, large entities, constituting 5.7% of all entities with foreign capital, were the workplace for 76.1% of the total working population in the surveyed population. Entities involved in the industrial processing employed 45.7% of the total number of people working in entities with foreign capital, in trade; repair of motor vehicles - 24.3%. Almost 68% of the total number of people working in entities with foreign capital were employed in entities located in four voivodships: Mazowieckie (32.2%), Wielkopolskie (15.6%), Śląskie (10.8%) and Dolnośląskie (9, 2%). The average entity with foreign capital employed 76 people, the average large entity with foreign capital - 1020 people, the medium entity - 116 people, the small entity - 23 people, and the micro entity - 2 people. In 2018, 12,354 entities with foreign capital recorded revenues from the sale of products, goods and materials for export, which constituted 46.1% of the analysed group of entities with foreign capital. The highest percentage of entities recording export sales revenues was in industrial processing (74.0%), information and communication (64.0%) as well as in transport and storage (61.4%). Revenue from export sales generated by all entities amounted to PLN 543 183.4 million. The structure of revenues from export sales was dominated by export of products , constituting 68.2% of total export revenues. The remaining part of revenues was generated by export of services as well as goods and materials (18.9% and 12.9%, respectively). Entities from the industrial processing section had the largest share in export sales revenues (75.6%), and 87.6% of the total value of exports in this section was export of products. Revenue from export sales of entities dealing with trade; repair of motor vehicles accounted for 11.0% of total exports (mainly exports of goods and materials constituting 71.6% of exports in this section).

Chart 17. Structure of employees in entities with foreign capital in the Podkarpackie Voivodeship in 2018



Source: own study based on CSO data

In Podkarpackie, most of workers were employed in large entities (in enterprises exceeding 250 people). They constituted 79% of employees in entities with foreign capital.

In Poland, micro entities, although they are the largest group, contribute one-fifth of the total foreign capital, and the number of persons employed by those entities constitutes 2.2% of the total number of persons employed in entities with foreign capital. Large entities employing 250 and more persons hold almost two-thirds (57.5%) of foreign capital and employ over three-quarters (76.1%) of persons working in all entities with foreign capital.

As in 2017, the largest number of entities with foreign capital was based in the Mazowieckie Voivodship - 40.4%. In the Śląskie Voivodeship, 8.8% had their registered offices, in Dolnośląskie - 8.6%, and in Wielkopolskie - 8.3%.

In the structure of each voivodship micro entities constituted the dominant group, their share fluctuated from 49.1% in the Opolskie Voivodeship to 75.1% in the Podkarpackie Voivodeship. Large entities constituted the least numerous group in each voivodship, with the highest percentage in the Świętokrzyskie (14.4%) and Kuyavian-Pomeranian (9.3%) voivodships. The lowest share of large entities in the total number of entities was recorded in the Małopolskie Voivodship (3.9%).

Over 80% of foreign capital was located in five voivodships, as in the previous year, almost half in the Mazowieckie Voivodship (45.3%), and more than a third (37.1%) in the following four voivodships: Wielkopolskie (12.0%) , Śląskie (8.7%), Dolnośląskie (8.5%) and Małopolskie (7.9%). The share of foreign capital in none of the remaining 11 voivodships did not exceed 4% of the value of this capital invested in Poland. The largest increase in foreign capital compared to the previous year was recorded in the Świętokrzyskie (by 24.9%) and Podlaskie (by 18.0%) voivodships. A decrease was recorded in 3 voivodships, in Małopolskie (by 5.5%), Mazowieckie (by 2.6%) and Dolnośląskie (by 2.5%).

Entities with registered offices foreign units

At the end of 2018, 1,859 entities with the registered offices in Poland showed involvement in 3,849 entities abroad. Entities with foreign subsidiaries were mainly limited liability companies and joint-stock companies, which constituted 65.7% and 27.8% of all entities with foreign entities in 2018, respectively. The surveyed population of enterprises based in Poland with foreign subsidiaries was dominated by micro and small entities, i.e. with the number of employees at the end of the year not exceeding 49 people, and their share increased from 41.7% in 2017 to 42.3% in 2018 . The voivodships in which the largest number of entities with foreign subsidiaries had their registered offices at the end of 2018 were Mazowieckie (536 entities that showed involvement in 1,084 foreign subsidiaries), Śląskie (229 and 338 respectively), Małopolskie (186 and 416) and Wielkopolskie (168 and 345). Entities with the registered offices in Poland with foreign subsidiaries are mainly enterprises conducting business activity in the field of industrial processing (622 entities demonstrated involvement in 1,191 foreign companies), trade; repair of motor vehicles (422 and 794, respectively) and construction (188 and 236). The number of employed in 3,849 foreign entities amounted to 194.3 thousand people in 2018, 1.5% less than in 2017. Total net revenues from sales of products, goods and materials of foreign entities amounted to PLN 250,094.6 million in 2018 and increased by 36.2% compared to 2017. The value of net revenues from sales of products, goods and materials for export of foreign entities was PLN 52 059.0 million in 2018 compared to PLN 44 125.0 million in 2017 (an increase of 18.0%). In 2018, there was an increase (by 17.1%) in the value of imported purchases made by foreign entities (PLN 77,633.9 million compared to PLN 66,288.5 million in 2017). Expenditures on property, plant and equipment incurred in 2018 by foreign entities amounted to PLN 11 373.8 million and were higher by 33.0% compared to 2017 (PLN 8 549.6 million). In 2018, foreign entities belonging to entities based in Poland were located in 114 countries. Most foreign entities had their registered offices in countries bordering Poland: Germany, Czech Republic, Ukraine, Russia - at the end of 2018 it was 579, 291, 266 and 215 foreign entities respectively. At the end of 2018, foreign entities were located in 27 European Union countries - a total of 2,424 entities (63.0% of all foreign entities). In 2018, the largest number was employed by foreign entities with the registered offices in Germany, Russia, the Czech Republic and Ukraine, respectively 33.7 thousand, 21.0 thousand, 18.5 thousand and 14.3 thousand persons, which together constituted 45.1% of persons employed in all foreign entities. Taking into account the location of the data base of surveyed foreign entities, high net revenues from sales of products, goods and materials in 2018 were achieved by foreign entities with the registered offices in Germany and the Czech Republic, respectively PLN 48,111.1 million (19.2% of net revenues from sales of products, goods and materials of all foreign entities) and PLN 31 891.2 million (12.8%). In 2018, 61.1% of all foreign entities conducted the same type of business as the parent company with a registered office in Poland. A high share of foreign entities with the same type of activity as the parent company with the registered offices in Poland was recorded in the field of transport and storage (91.7%) as well as information and communication (88.3%). Most foreign units were involved in trade; repair of motor vehicles - 1 207 entities and industrial processing - 671 entities. The number of persons employed in 2018 in industrial processing was 81.7% higher than the number of persons employed in entities conducting trade activities; repair of motor vehicles (respectively 65.4 thousand people and 36.0 thousand people). The highest net revenues from sales of products, goods and materials in 2018 were generated by foreign entities conducting trade activities; repair of motor vehicles - PLN 100 312.6 million. Net revenues from sales of entities dealing with industrial processing amounted to PLN 86,450.4 million. The highest values of net revenues from sales of products, goods and materials for export were recorded by foreign entities dealing with industrial processing and trade; repair of motor vehicles (PLN 36,680.1 million and PLN 4,207.7 million, respectively). Imports of foreign entities involved in industrial processing and trade; repair of motor vehicles accounted for 95.4% of total import value in the period under review (PLN 53 317.9 million and PLN 20 758.3 million, respectively)

Foreign entities having their registered offices in Poland

In 2017, 808 Ultimate Controlling Institutional Unit (UCI) operated in Poland, i.e. 44.0% of all entities that participated in the survey. Within the UCI, the largest percentage, as in the case of all surveyed entities, were enterprises operating in the field of industrial processing, trade; repair of motor vehicles and construction (274, 174 and 129 entities). The number of foreign subsidiaries belonging to UCI in 2017 with their registered offices in Poland amounted to 2,141 entities. Foreign subsidiaries of UCI constituted 54.3% of all foreign entities owned by foreign entities based in Poland. The largest number of foreign subsidiaries of UCI in 2017 was in Germany - 383 entities, in the Czech Republic - 168, in Ukraine - 147 and Russia - 120, which represented respectively 17.9%, 7.8%, 6.9% and 5.6% of all foreign subsidiaries in 2017. The most net revenues from sales of products, goods and materials in 2017 were generated by subsidiaries with the registered offices in Germany and the Czech Republic, respectively PLN 35,825.6 million and PLN 33,274.2 million. The basic directions of investing of entities based in Poland differed from the main countries of origin of the capital of entities with foreign capital in Poland. The most important countries in terms of the number of foreign entities are Germany, the Czech Republic, Ukraine and Russia, while the main countries of foreign capital origin in Poland are the Netherlands, Germany, France, Luxembourg and the United Kingdom. The structure of the type of business conducted by both groups of entities was similar, with the dominant role of industrial processing and trade; car repairs. Entities with the registered offices in Poland, which conducted operations abroad through their branches, companies and other entities located abroad, in which they held shares, constituted a small percentage of the total surveyed enterprises conducting business in Poland. In the group of 71,546 entities employing more than 9 employees conducting business in Poland in 2018, 1.3% were entities with foreign entities, but without the participation of foreign capital (911 entities), while entities with foreign capital having foreign entities constituted 0.8 % (587 entities). The share of the number of persons employed in the above two groups of entities amounted to 6.0% and 5.0%, respectively, of the total number of persons employed in entities employing more than 9 persons, while the share of their net revenues from sales of products, goods and materials, respectively 12.6% and 6.6% in general net revenues from sales of products, goods and materials of all entities employing more than 9 persons.

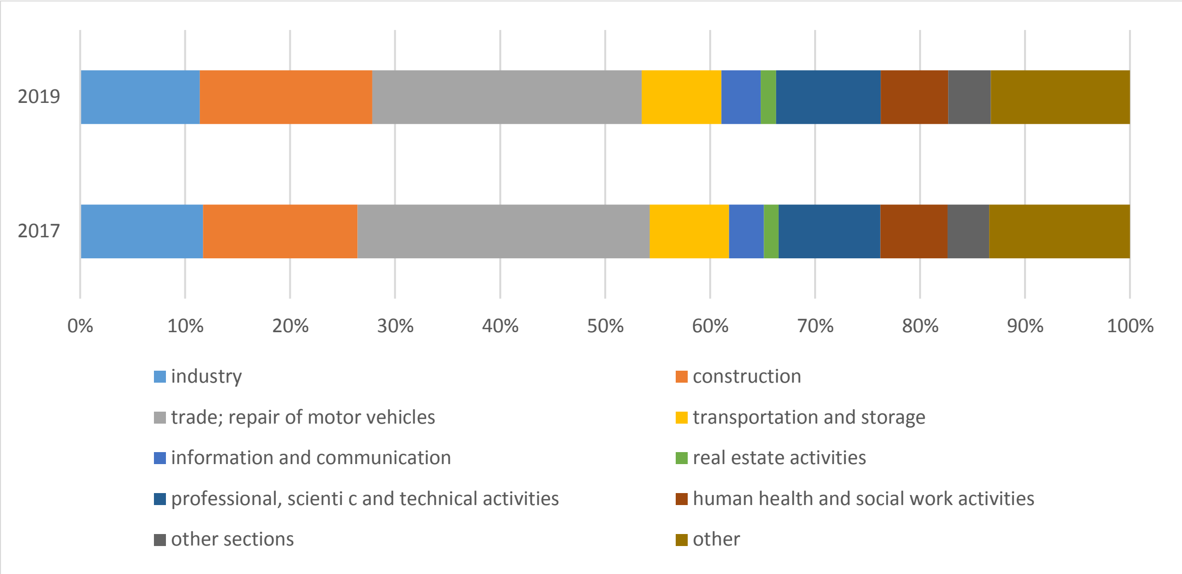
Unfortunately, there is little detailed data about situation of SME sector with the division to voivodships. More extensive research on this subject is only conducted at the national level. Due to the confidentiality of these data, it is no possible to collect them at the voivodship level. Data obtained at the national level are often not reliable when it comes to the statistics of individual voivodships. Available and reliable data on the SMEs in Podkarpacie are presented in the next chapter.

2.3. SMES IN THE REGION

In this report, micro, small and medium-sized enterprises (SMEs) in the Podkarpackie Voivodship are presented according to the applicable classification of the Polish Classification of Activities.

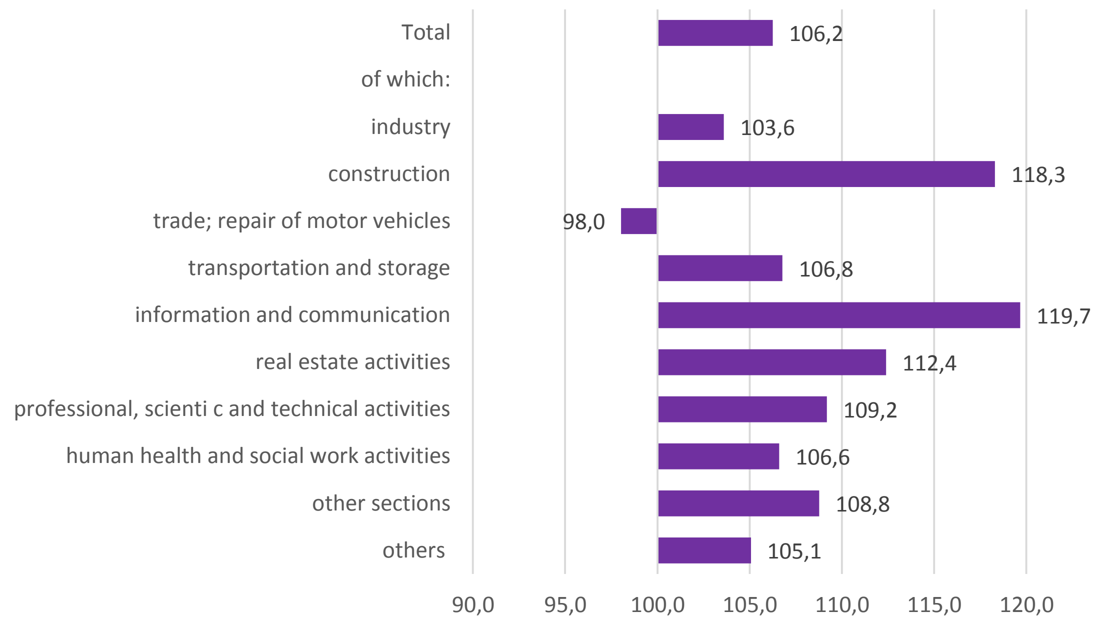
The individual percentages of enterprises belonging to SMEs are presented in the following table.

Chart 18. Individual percentages of enterprises belonging to SMEs



Source: own study based on CSO data

Chart 19. Dynamics of the number of enterprises by PKD sections in Podkarpackie voivodship in 2019 (2017 = 100)



Source: own study based on CSO data

In 2019, the number of micro, small and medium-sized enterprises in the Podkarpackie Voivodeship amounted to 161357. These enterprises constituted 99.9% of the total number of enterprises in the region.

Map 12. Spatial distribution of enterprises in Podkarpackie in 2019

Source: own study based on CSO data

Among SMEs, micro-enterprises were most numerous: 157 203 (97.4%), with only 480 (2.2%) small entities and 674 (0.4%) medium-sized ones. Small entities, although they constitute the majority of enterprises in the region employ only about 40% of the persons employed. Most of them (approx. 90%) are natural persons conducting business activity. Changes in the years 2017-2019 in the number of micro, small and medium enterprises in Podkarpackie are presented in the following sheet:

Chart 20. Changes in the number of micro, small and medium enterprises in Podkarpackie in the years 2017-2019

Specification	2017	2018	2019
Micro-enterprises	147613	151334	157203
Small enterprises	3577	3483	3480
Medium-sized enterprise	667	675	674
SME s Total	**151857**	**155492**	**161357**
Share of SMEs in total enterprises	**99,9%**	**99,9%**	**99,9%**

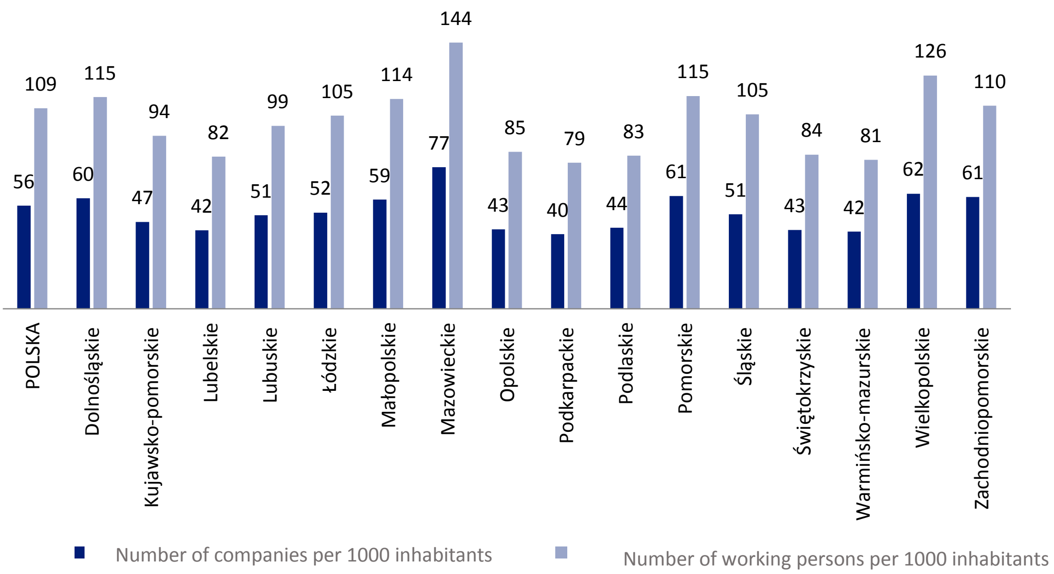
The largest share in the SME sector in Podkarpackie Province belonged to entities in which commercial activity was conducted (28% of entities, 28% of employees, 47% of revenues of all small and medium-sized enterprises). Trade played an even greater role in the group of micro-enterprises: nearly half of all people working in the smallest entities found a job there. A very strong fragmentation of trade is also indicated by the percentage of employees and revenues generated in the SME sector (80% and 70% respectively). Considerable competition as well as poor financial condition were the main reasons why trade units were not able to successfully counter the barriers they encountered. In the period under discussion, only the remaining small entities were in good condition, allowing - despite unfavorable conditions - further development, while in the other two classes downward trends were recorded, both in terms of the number of units and employees and revenues.

Construction also had a large share in the SME sector (approx. 13% of units), although if we take other criteria into account, it played a much smaller role than trade (12% of employees, 9% of revenues). In the construction industry itself, the role of the SME sector was even greater than that which characterized trade: 80% of all people working in this area of the economy worked in small and medium-sized units, and the revenues they earned - 75% of total revenues. On the other hand, it was an area in which small and medium-sized entrepreneurs were much more negatively affected by the deteriorating socio-economic environment, especially in the second part of the period under review. The construction industry was also characterized by the unstable situation and downward trends in enterprises of all size classes, and to a lesser extent in other small entities. 6. The share of industrial processing units in the SME sector was different. Although activity in this field was conducted in about 10% of entities in this sector, 22% of all employees worked in them, and the obtained revenues constituted 19% of total revenues. The share of industrial processing was significant, especially among medium-sized units, where 42% of the employed found work in enterprises from this area. In the discussed period, the situation of units of individual size classes was also different: its deterioration took place only in micro-enterprises, while in the remaining small and medium-sized, there were no downward trends. Nearly half of small and medium-sized enterprises are entities in which service activities were carried out. In the SME sector, 36% of the employed were involved in all types of service activities, and their revenues accounted for 21% of total revenues. The specificity of some services means that the activity is carried out on a small scale, which influences a more significant share of micro entities than in other types of activity. Among all service enterprises, the largest share in the SME sector was held by entities with professional, scientific and technical activities in the field of transport and warehouse management, as well as in the field of health care and social assistance. The situation in each of these areas was slightly different over the period under review. In professional, scientific and technical activities, only micro-enterprises recorded an upward trend, while in the other two classes there was a decrease in the number of entities, employees and revenues. In transport and storage, the deterioration of the situation in the SME sector took place after 2012, and it did not concern the group of other small enterprises. One of the best and fastest growing groups were entities with activities in the field of health care and social assistance. These growing tendencies concerned units of all size classes. The second fastest developing area of service activities was the group of entities in which activities in the field of information and communication were carried out. This area was also characterized by a rapid increase in the number of entities, employees and revenues, slightly slower in medium-sized units than in the other two classes.

Taking into account the smallest companies (micro-enterprises), of which Poland is the most, we can notice that in 2018, there were 2,146.0 thousand businesses in Poland employing up to 9 people (micro enterprises), which means an increase by 3.5% year/year and by 25.0% compared to 2010. Total revenues of the surveyed population increased by 17.9% y/y (in 2010-2018 they increased by 73.8%), and the number of employed increased by 2.0% y/y (in 2010-2018 by 19.9 %, i.e. by 693.9 thousand people). By type of business, the largest percentage in the analysed group of micro-enterprises were: entities in the section of trade and repair of motor vehicles - 21.9% (decrease by 1.2 pp y/y), construction industry - 13.8% (an increase in the share by 0.7 pp y/y) and units conducting professional, scientific and technical activities - 13.6% (an increase in the share by almost 0.5 pp compared to the previous year). In 2018, 4,173.2 thousand employees worked in micro-enterprises, i.e. by 83.4 thousand (2.0%) more than a year earlier. For 85.6% of people it was the main workplace (increase by 1.8 pp y/y). As in the previous year, the largest number of people worked in entities dealing with the trade and repair of motor vehicles (26.2%) and construction (14.2%). 3,430.3 thousand people were employed in entities owned by natural persons (i.e. 82.2% of the total number of persons employed in micro-enterprises), and in corporations and organizational units without legal personality - 742.9 thousand persons (i.e. 17.8%).

Calculated per 1000 inhabitants, the largest number of enterprises employing up to 9 persons was recorded in the following voivodships: Mazowieckie (77 enterprises per 1000 inhabitants) and Pomorskie (61 enterprises per 1000 inhabitants), while the smallest in Podkarpackie and Warmian-Masurian voivodships (respectively 40 and 42 entities).

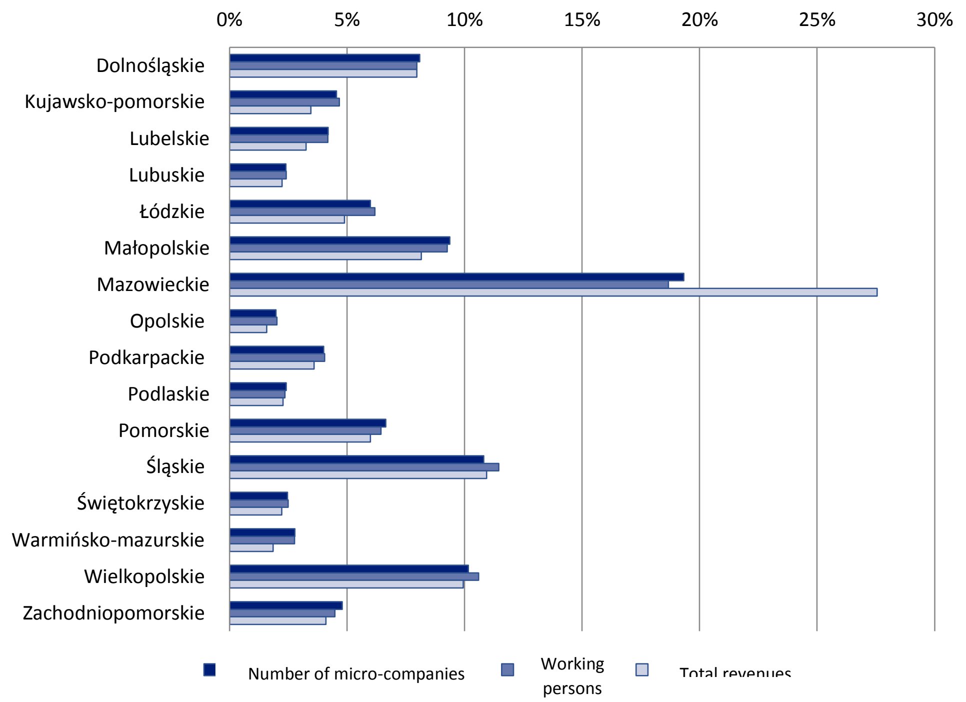
Chart 21. Number of microenterprises and employed per 1000 inhabitants by voivodship in 2018



Source: Own study based on CSO data

In the surveyed group of entities, the largest number of employees in 2018 worked in micro-enterprises based in the Mazowieckie and Śląskie Voivodships (18.7% and 11.4% of the total number of employees in the surveyed entities, respectively).

Chart 22. Structure of the number of micro-enterprises, employees and total revenues by voivodships in 2018



Souce: Own study based on CSO data Working persons

Calculated per 1000 inhabitants, the number of employed in the smallest entities ranged from 79.2 people (in the Podkarpackie voivodship) to 144.3 (in the Mazowieckie voivodship).

Business management of SMEs

In micro, small and medium-sized enterprises, the majority of which in Podkarpacie is the owner - entrepreneur. The role of planning in such an enterprise is almost nonexistent. The owner's intuition is decisive, and group decision-making is hardly ever involved. The structure of a micro and small enterprise is most often functional, the way of transferring information is short and direct formalized. Giving instructions and controlling orders most often takes place through direct personal contact. Formalized system of transmitting instructions and controlling orders. The management powers are handed over to a limited extent and to a very broad scope of responsibilities. The flexibility of the organizational structure in micro and small enterprises is high. The SME sales market in Podkarpacie is usually geared to the individual needs of customers. The position on the market depends on the profile of the companies. The type of production carried out by SMEs is labor-intensive and capital-intensive. The type of materials and devices used is rather universal, and the possibility of reducing costs along with the increase in the amount of production is small. As a rule, SMEs do not have research departments, they do not conduct scientific research, and the development of new products is oriented only to the needs of consumers captured by basic research. Small businesses are not just a "down-scaled" version of a large corporation and therefore they should be treated differently from large corporations and should be developed with separate behavioral concepts in the modern economy.

The specificity of managing micro, small and medium-sized enterprises is directly related to their quantitative and qualitative characteristics. In the sphere of organization and management, the dominant role of the owner-manager is emphasized here, the limited use of information systems and the limited role of formalized strategic planning in favor of intuition. On the other hand, smaller entities can use their inherent dynamic abilities, emphasize flexibility in the process of formulating an action strategy, or the importance of being flexible, pro-innovative and focused on using the effects of cooperation. Significant differences also apply to the organizational structure, which in the conditions of SME sector companies is simplified, most often functional and affects the transfer of information, control, the possibility of introducing managerial improvements, and also limits the degree of formalization and bureaucratic solutions. The area of supply and materials management as well as sales and sales is associated rather with a weak market position and low bargaining power against contractors. The activities of SMEs are directed towards individual customer needs and are based more often on specific orders than on long-term contracts ensuring high stability and continuity of operation. The specificity of managing small and medium-sized enterprises also results from limitations in the field of human resources, which is related to both the small number of staff and - often low qualifications of employees. The process of managing a small company is also strongly determined by the financial area, which is usually characterized by resource shortages, with limited access to the offer from the capital market. These spheres also significantly affect the scope and possibilities of undertaking research and development activities, which in the case of small companies are often intuitive in nature, carried out by organizational units appointed by design. Proper management is in many respects even more important in small enterprises than in large ones. Large corporations can easily make up for high financial losses, for example, while small firms may not recover from even the smallest losses.

<u>Microeconomic and macroeconomic determinants conditioning the course of the management process in micro, small and medium-sized enterprises.</u>

The basic distinguishing features at the microeconomic level include:

- features, skills and predispositions of the owners-managers, who largely determine the functioning and development of the smallest business entities. The basic predispositions of entrepreneurs include: visionary, the ability to set goals, creativity, readiness to take calculated risks, the power of persuasion, the ability to deal with stress, the ability to organize own work and subordinate employees, as well as self-consultation, expressed through the improvement of oneself and the surrounding environment,
- a management system that should take into account the variability resulting from the organisation's life cycle. During the growth of the enterprise, there is a transition from a direct supervision system, through delegation of powers, towards a system based on functional and even divisional solutions. Grows also formalization, and the role of the entrepreneur-owner is moved to the background in relation to the company's development,
- company resources, including both material resources (e.g. material, financial, human resources, organizational and management resources, technical and technological resources), as well as intangible resources, including: licenses, contracts, relations with contractors, intellectual property, patents , copyrights and many others. The resources that play a key role in the process of managing a small and medium-sized enterprise are the size, the ability to obtain and use financial capital, knowledge, potential, skills and quality of employees and managers, as well as biographical and professional factors, temperament, personality and motivations of owners – managers, contractors and competitors, and the intensification of competition in the sector and industry. These groups of the closest stakeholders and the relations between them and the enterprise significantly determine the functioning and development possibilities of the smallest economic entities,
- local conditions understood as the integration of the company with the market and non-market environment, which not only allows for the acquisition of resources and necessary

supplies, but also more and more places it in a given local neighborhood. A unique climate becomes an important component here, usually resulting from a smaller economic space, greater knowledge of material and human resources, emotional cultural ties, respect for tradition or the possibility of individual use of entrepreneurial entities, etc.

The management of small and medium-sized enterprises is also determined by macroeconomic factors, up to which may include: the level and dynamics of economic development, inflation and unemployment indicators, economic, fiscal and social policy, the scope of foreign direct investment, as well as technical progress, globalization and a number of other factors, the source of which is the further environment of the SME sector. A characteristic feature of the management of small and medium-sized enterprises is the considerable sensitivity of these entities to internal and external operating conditions, which are often unfavorable and hinder the operation and development of the enterprise. It is related to the emergence of numerous barriers to the management of companies in the SME sector. In the literature, two groups of these threats are often identified, determined from the point of view of the criterion of the direction of action: external barriers, the source of which is a variable and complex environment, as well as relations between the company and the environment, and internal limitations resulting from the company's weakness, including above all, resource shortages or competency limitations. The result of the impact of these barriers is the presence of certain weaknesses of small and medium-sized enterprises, which include, first of all:

- basing the competitive advantage on a low price, and not on the quality of products and services,
- often insufficient scope of innovative solutions and innovations implemented by companies from the SME sector,
- - low economic potential and resource shortages (especially in the sphere of financial, material and human resources),
- quantitative domination of micro-enterprises characterized by limited possibilities of operation and low bargaining power,
- concentration on the local market, low export capacity and limited scope of internationalization of activities,
- low the level of cooperation between enterprises, both within the SME sector, as well as frequent reluctance to cooperate with other partners (e.g. large companies, public administration, with scientific, research and development institutions or non-profit organizations), action strategy and focus on current activities,
- failure to perceive the potential, knowledge and intellectual capital of employees.

The further operation and development of small and medium-sized enterprises will largely depend on limiting the negative impact of external conditions and minimizing weaknesses. For this purpose, the advantages of companies from the SME sector should be used, which include, first of all: a relatively low level of production costs, high flexibility of operation manifested in the potential for a quick change of the type of activity and adaptation to market conditions, as well as the specific ability to imitate products, services and solutions in the sphere of organization and management. The strengths of the smallest economic entities also include great dynamism and opportunities for rapid development, strong motivation to work both for entrepreneurs and employees, as well as the ability to quickly learn and acquire skills, which are then used in business practice.

CHAPTER 3: INTERNATIONALIZATION ENVIRONMENT

The turn of the 70s led to the popularization of one of the more recognizable scenarios of the future of capitalism, i.e. the concept of the economy and post-industrial society, dominated by the service sector, struggling with the problem of deliberate reduction in (over)consumption; attention was also paid to the protection of the planet's natural environment and limited natural resources during this period. A lot has also been written about the transformation of societies that had at the same time been subject to trends such as globalization of companies and enterprises. At the same time, wide social changes caused by the generation of knowledge and its distribution could be observed, as well as a significantly increasing percentage of society completing university studies, as well as insignificant innovations mainly in the field of computer technology and communication. This created favourable conditions for companies that could apply a philosophy based more on satisfying consumer needs *(consumer – driven)* (in principle, these companies were forced to do so) (Løwendahl and Revang 1998:756).

The entire current management and operating philosophy has changed from a traditional approach to the enterprise and strategy, which characterized the organization (e.g. SMEs) as a mechanism in which resources are transformed into products, and the strategy of operation as an instrument for positioning organizations in industry and on the market. In post-industrial competition, the differences between organizations do not result from the market strategies used, nor do they result from the characteristic continuum of entries and exits (which occurs in a relatively isolated (open) system with two properties), the whole environment affects it through "entry" routes while its second property is to influence the surrounding world through "exits".

The environment of the system consists of all objects outside - not related to it, but the very fact of their existence makes their properties affect the system, while undergoing its influence at the same time (Gomółka 2000:13).

Therefore, the differences mainly result from the uniqueness of organizing consumers and assets and from the approach of continuous improvement of relationships built in this context (Løwendahl and Revang 1998:757). Characterizing the types of market relations, it should be mentioned that the structure of relations formed is very complex, because each company is connected through a network of interactions (e.g. international) with the suppliers, distributors, consumers and a group of market players supporting its development (or not) (Iacobucci and Hibbard 1999:15). This led to a change in philosophy in the process of achieving goals and a kind of game in post-industrial society between people (Bell, 1973, p. 127).

The network of connections created in this way consists of a system of nodes and their connections. These nodes can be companies, departments, people, policies, machines or knowledge nodes (Iacobucci, 1998, p. 11). The development of post-industrial society depends on the development of communication methods, which determines the socio-economic processes of exchange, also affects the creation of knowledge, the nature of work and the involvement of society (Artandi 1982:302). In addition, information and theoretical knowledge constitute a strategic resource of a post-industrial society that has several important dimensions (Forester, 1980, p. 500–501):

- change of philosophy from the production of goods to services,
- centralized knowledge codification method,
- creating new intellectual technology.

The increasingly faster spreading of the achievements of subsequent technological revolutions led to an increase in the significance of physical capital, qualitative features of work, i.e. human capital accumulated in the form of knowledge - a new theory of values was formulated, which was based on knowledge (Bell 1973:190), skills acquired from experience, motivation to innovate, scientific discoveries and empirical research. The trends observed in practice show that today economic development (technology development coincides with socio-economic development) is primarily determined by human and material capital (Woźniak 2004:23).

A. Toffler at the beginning of the last decade of the twentieth century came to the conclusion that the environmental conditions are changing significantly towards increasing the importance of human resources, which is directly related to increasing competitiveness and efficiency (Korol 2010:51).

Based on the concept of rapid knowledge-based development, which is related to the development of electronics and information exchange, all countries in the world have become dependent on electronics, which changed the rules of competition and enriched it with sophisticated ways of stopping opponents This led to a situation where knowledge became a key resource for the growth and development of economies. Among the many approaches and definitions of the knowledge-based economy (KBE), two approaches to defining it can be distinguished: narrower, related to the role of enterprises as beneficiaries of knowledge and as active entities creating it and a broader approach, which takes into account all participants of the market play (Pluta-Olearnik 2006:53). There are also two ways of analysing this phenomenon: static (it consists in assessing what is related to the measurement, the economy as a whole or the areas highlighted, have reached the state of the knowledge-based economy) and dynamic (where the KBE is characterized as the benchmark model of effective economy which uses knowledge to the greatest extent possible) (Kukliński 2003:124).

Currently, economics needs four forms of capital to function properly: human capital (work and intelligence, culture and organization); financial capital (money, investments and financial instruments); manufactured capital (infrastructure, machinery, tools, factories) and natural capital. The industry uses the first three forms to transform natural capital into everyday items (Hawken, A. Lovins, and L. Lovins 2008:4). The foundations of the economy have changed from a *stricte* industrial to a knowledge-based economy, so the form of work and the employment relationship have also changed. Work becomes less functional and task-oriented, less linearly characterized, employees are encouraged to possess many skills and reduce the boundaries between tasks that traditionally accompany mass production in managerialism from the industrial era.

The new economy can be considered from the perspective of three mutually integrated elements of the free market, globalization, development of new technologies that increase productivity (known as ICT) (Kudyba and Diwan 2002:9). The idea of globalization is inextricably linked to the attempt to extend the market to the whole world and is based on the belief that the market system will be responsible for the increase of prosperity all over the world As well as another very popular word - sustainable development, mainly used to promote the particular interests of specific stakeholder groups. Therefore, globalization is understood differently by people, in industrialized countries it is treated as an opportunity to extend the lifestyle of the rapid flow of a large number of goods, work and capital across blurred borders (which for international corporations means achieving significant profits). From a different perspective, it is a force forcing social change and levelling the differences between industrialized countries and to those which strive for industrialization with all consequences associated (transferring culture, ideas, institutions, values, etc.). However, in non-industrialized countries it raises emotions and fears (especially in the environment of conservative elites), they are associated with the destructive power of modern colonization and the burden that lies on colonizers the so-called *white man's burden*. The very rapid development of globalization processes is directly caused by two phenomena: the flow of capital through international corporations and technology (computers, telecommunications).

New information technologies are singled out from existing mass production (where used in mass production were called low technologies), but the situation has changed so much that technologies containing computers, software, optical fibres, satellites and the Internet are today called high technologies. They are inextricably linked to increasing productivity by reducing excess capital, labour, and inventory storage.

These factors caused that the role of trade in globalization increased significantly also through the development of institutions intermediating in international exchange, This means that commercial activities can be carried out by a trade link or another participant in the value chain (for example, a producer can complete batches of goods), and activities considered as belonging to the sphere of production, such as product design can be carried out by a retailer or even a consumer (the production of products for individual orders of buyers who participate in their creation via Internet technology is becoming increasingly popular (Śmigielska, 2013, p. 31–32). The effects of globalization and regionalization should be considered in several economic, social, cultural, religious and political areas (Żyżyński 2004:9–37); the significance of the triad of conditions and effects of globalization, which is treated as "a change in the rules of functioning of the global market economy" are underlined. Everything in the context of the so-called economic growth (this is one of the most important concepts of economics).

The importance of KBE is directly related to the greater involvement of knowledge in economic activities as well as the context of globalizing economies should be emphasized. The importance of knowledge is the result of progress in data processing and communication techniques in all areas of economic life, it is directly related to the processing, storage and transmission of significant amounts of information. Therefore, information technologies change the process of managing limited resources and allow network participants to coordinate economic processes. The value of knowledge comes mainly from the processes of sharing it(Brinkley, 2006, p. 5–6). For knowledge to become a source of long-term success, it must be constantly developed. This problem is raised by the resource-competence theory of creating lasting competitive advantage (Śmigielska 2013:36).

The economy based on global knowledge (based on the processes of internationalization and networking of economic entities) gives new tools and is directly related to the possibility of building lasting competitive advantages based primarily on knowledge (and knowledge built as a result of international relations). However, not all knowledge has to be at the disposal of the company for it to function, because knowledge is scattered all over the world. However, this gives direct opportunities to build new types of competitive advantages, given that the cost of access to goods and information has significantly decreased (Doz, Santos & Williamson, 2001, p. 2).

Three levels of global competition in knowledge economics can be characterized. *Sensing* is the first identified level - access to appropriate technology, competences, knowledge about leading emerging markets where consumers experiment using new technology. *Mobilizing* is the second very important level of competition i.e. efficiency and speed in combining globally dispersed knowledge and using it in creating innovative products, services and processes. The third level, *Operations*, is directly related to the optimization and efficiency of sales, distribution, marketing and supply chains created by enterprises (Doz at al., 2001, p. 5–7).

The customer's economy is associated with the process of learning how to function and succeed in new conditions. Companies are distinguished by conducting business with the customer in mind. The existing concept associated with reducing costs is replaced not by reducing them, but by increasing the value added of the product. They operate and are managed by using new methods: they introduce strict procedures, assess their activities in a disciplined and matter-of-fact manner, and replace the hierarchy with teamwork. These enterprises place emphasis on the details of their activities, on the methods of performing work and creating added value (Hammer and Bakalarz 2006:14).

The development of information and communication technologies (ICT) has an impact on the growth of Gross Domestic Product. Studies on this issue, initiated in the second half of the 1990s, emphasized the increase in labour productivity, as well as highlighted the importance of ICT in industry and macro- and micro-scale. The subject of research was also the contribution of ICT to the convergence of developing and highly developed countries. Along with the development of technology, labour productivity (productivity) increases, thus the efficiency of management processes increases, and it can be measured by productivity. Many studies are characterized by the positive impact of ICT on the strong increase in profits and economic development of highly developed countries (Piatkowski, 2006, p. 39–40), (Oliner and Sichel 2002). However, transition economies are characterized by a significantly lower rate of return on capital invested in ICT solutions (Dewan and Kraemer 2000:552), (Pohjola 2001). Adequate knowledge resources by increasing the efficiency of information processes play a special role in the process of adapting to changes in a competitive environment. They increase the company's ability to adapt and innovate as conditions for survival on the market and achieving competitive advantage.

It should be noted, however, that there are many factors that affect the above-mentioned processes regarding the implementation of ICT solutions in the organization and its proper use by employees. They mainly include (Bouwman et al. 2005:15):

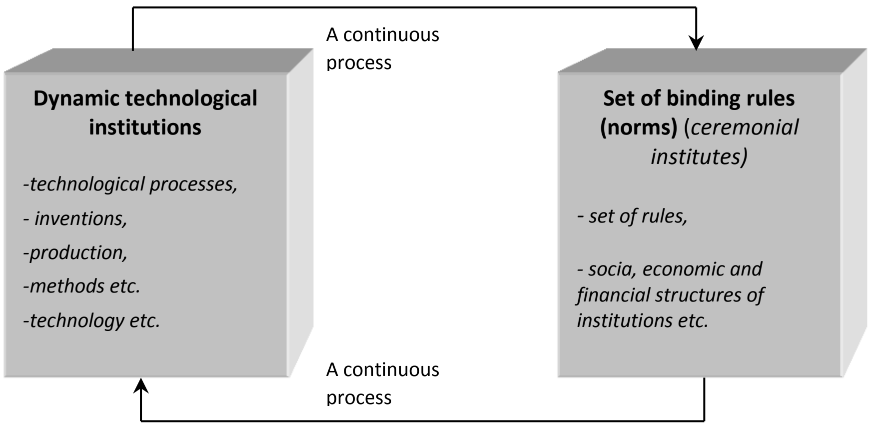
- organizational factors - all factors related to the nature of the organization and the business environment in which the company operates,
- technological - all elements of activity related to information and communication technology (software, devices, networks or standards used)
- economic - cost and profit related factors that are significant in the ICT decision making process and have a direct impact on them,
- end user perspective, variables characterizing an employee in an organization using technology, his position, tasks as well as his psychological conditions related to making decisions in the field of ICT in the context of using these solutions in the company.

The techno-economic paradigm changed the current understanding of economics by introducing new principles and vocabulary; one of them is the "new economy" appearing as a *buzzword* fashionable word with many interpretations. Generally, however, understanding this concept refers to a change in understanding of economics in the context of changes in information technology. These changes are particularly significant from the perspective of the current understanding of mass production economics prevailing in the 1980s of the 20th century (Kudyba and Diwan 2002:6).

In the 1980s, some manufacturers in the United States of America were categorized as *High-Tech* and characterized as flexible production, *flexible manufacturing* (FM), different from mass production (Kudyba and Diwan 2002:98).

Figure 1 characterizes the processes (described by Thorstein Veblen) associated with the concept of economic change. His concept is directly related to the evolution of economic sciences based on constantly changing institutions (technological institutions and ceremonial institutions). Describing a dichotomous set of institutions that is confronted with unchanging human nature (Ekelund & Hébert, 1997, p. 415).

Figure 1. Correlation of technological institutions and a set of standards based on the invariability of human nature and an anthropological and historical process



Source: (Ekelund and Hébert 1997:415).

Information technologies are very closely linked to creativity (Mitchell, Inouye, Blumenthal, & National Research Council (U.S.), 2003, p. 27–28). However, economic changes such as innovations related to the absorption of technological solutions (diffusion of innovations) would not be possible or their spread would be unsatisfactory without the quality of human capital.

This process is inseparable from education; you can look at it as an investment in people who are "carriers" of human capital, able to adapt knowledge from the outside world (Nelson and Phelps 1966:75). The accumulation of appropriate quality of human capital guarantees the development and proper use of technological achievements, which mainly come from abroad (especially in relation to transition economies) and give a chance to improve the quality of life in less developed countries. Some channels related to technological diffusion are directly related to international trade and FDI Foreign Direct Investment (Keller, 2004, p. 752–753). The spread of knowledge is of global importance as well as local in relation to regions and cities, and may also lead to the creation of geographically limited economic clusters in this respect. In this wider, global scope, the spread of technology and knowledge through foreign trade, the development of telecommunications and the Internet provides access to the same range of knowledge (Keller, 2002, p. 120–121).

3.1. LEGAL BACKGROUND

On the day of joining the European Union, Poland became part of the so-called The EU Single Market. The basis of the Common Market is the free movement of goods, people, services and capital, which was made possible by the introduction of the common commercial policy on taxes and customs. Polish law has been adjusted to the EU regulations. At the national level, the basic act regulating customs issues is the Act of 19 March 2004 Customs Law. On March 11, 2004, the Sejm also passed the Value Added Tax Act, which currently regulates trade between VAT payers in Poland and taxpayers from other EU countries. Upon joining the European Union, Poland became a member of the customs union. According to Art. 28 of the Treaty on the Functioning of the European Union, the customs union consists in the prohibition of import and export duties between Member States and any charges having equivalent effect, the adoption of a common customs tariff in relation to third countries. Pursuant to the above regulations, Poland may trade in goods without customs barriers and controls at border crossing points with other EU Member States. In trade with third countries, a common commercial policy, including a customs tariff, applies. All information on this subject can be found in the Integrated Tariff of the European Communities. It includes, among others preferential tariffs, tariff suspensions, quotas and tariff ceilings, measures on agricultural goods, measures restricting the movement of goods (e.g. quantitative restrictions) and measures to capture statistical data.

When operating in foreign markets, an entrepreneur must take into account various types of administrative burdens. Entities operating in more than one Member State are subject to various documentation and information obligations. An example is the obligation to comply with the laws of each country in the field of personal data processing and protection. The processing of personal data in the territory of the Community should be carried out in accordance with the law of the Member State in which the controller responsible for that processing is established.

Rich and extensive content on the possibility of operating on international markets by Polish enterprises within one website and service by one editorial team is provided by the Export Promotion Portal, created as part of the project by the then Ministry of Economy (website of the portal https://www.trade.gov.com/en/).

Enterprises starting export activity and already operating on foreign markets can count on substantive and financial assistance from Polish institutions. These are entities that have their representative offices abroad (Foreign Trade Offices) and in Poland (Chambers of Commerce and Trade, Polish Chamber of Commerce, Polish Chamber of Commerce for Importers, Exporters and Cooperation, Polish Investment and Trade Agency, Investor Assistance Centers, Polish Agency for Enterprise Development. , Regional Investors and Exporters Assistance Centers, Association of Polish Exporters, Export Credit Insurance Corporation, Polish Development Fund, Bank Gospodarstwa Krajowego).

Increasing the range of dissemination and promotion of export support instruments, largely targeted at companies from the SME sector. Various organizations help entrepreneurs in this regard, including:

Trade and Investment Promotion Departments at embassies and Consulates General of the Republic of Poland, cooperating with other domestic and foreign entities supporting entrepreneurship and business internationalization.

Polish Agency for Enterprise Development (PARP), which helps WPHiI in the promotion of cooperation events, seminars, stands at trade fairs and offers from foreign companies. PARP also helps in establishing cooperation with local centers of Enterprise Europe Network.

Polish Information and Foreign Investment Agency S.A., whose mission is to create a positive image of Poland in the world and to promote Polish products and services.

As well as many independent information and advisory centers (eg the Institute of Export Promotion and Cooperation in Warsaw, Poland-Export.com, the Association of Polish Exporters, BiznesPolsska.pl).

A good example of a regional institution in Poland is the Business in Małopolska Center (CeBiM) - a unique initiative on a Polish scale, the purpose of which is to improve the service of investors and exporter and economic promotion of the Małopolska region. The project is an example of effective cooperation of various entities: regional development institutions - Małopolska Regional Development Agency S.A., regional self-government - Małopolskie Voivodeship and one of the most important institutions supporting foreign direct investments - Krakow Technology Park LLC (Krakowski Park Technologiczny Sp. z o.o.) and Małopolska Industry Parks (Małopolskie Parki Przemysłowe Sp. z o.o.)

The Business and Małopolska Center (CeBiM) supports the development of entrepreneurship in the region through, inter alia, effectively building a positive image of Polish companies abroad, promoting Małopolska's business and using the knowledge and experience to help Małopolska entrepreneurs to appear on foreign markets. The offer includes: presentation of the company in the Małopolska Export Offer catalog, available to potential business partners online on the website and in multimedia materials.

The use of the CeBiM model of operation is recommended for use in other provinces in Poland. There is no single entity in the Podkarpackie Voivodship that would provide comprehensive support to enterprises willing or running a business abroad. The entities supporting entrepreneurs in internationalization activities in the region are the institutions listed in subchapter 3.2

National and regional strategy

Europe 2020 strategy

The first priority of this strategy is smart growth, pointing to the need to develop an economy based on knowledge and innovation, which is a condition for smart economic growth. This Strategy emphasizes the need to improve the quality of education, improve the results of research activities, support the transfer of innovation and knowledge in the European Union, make full use of information and communication technologies, and ensure that innovative ideas turn into new products and services, and contribute to increased growth. , creating new jobs and solving social problems in Europe and in the world. Another priority of the Europe 2020 Strategy is sustainable development understood as supporting the economy that uses resources more efficiently, is more environmentally friendly, has a low emission and is competitive. The Strategy sets out measures to build an economy based on the principle of sustainable development, clearly indicating that environmental goals should be complemented by measures for a sustainable and competitive economy that strengthens economic, social and territorial cohesion. As the third priority, the Europe 2020 Strategy indicates development conducive to social inclusion, i.e. supporting the economy with a high level of employment, ensuring social and territorial cohesion. This means empowering citizens by ensuring a high level of employment, investing in skills, fighting poverty and modernizing the labor market, training and social protection systems.

The implementation of the Europe 2020 Strategy is to be an economy based on knowledge, low-emission, promoting environment-friendly technologies, economically using resources, creating new "green" jobs, and at the same time preserving the care for social cohesion. In order to monitor the progress in the implementation of the above assumptions, a set of indicators has been defined assigned to specific development goals to be achieved in 2020 at the EU level. On the other hand, Poland presented national goals in the National Reform Program (NRP), which is the main tool for implementing the Europe 2020 Strategy at the level of a Member State.

Strategy for Responsible Development

There are a number of strategies in place in Poland - the most important of which is the Strategy for Responsible Development.

Strategy for Responsible Development (adopted in 2017, SRD) - the most general and current development strategy for Poland. It sets medium and long-term goals in various areas crucial for the socio-economic development of the country. It is the starting point for new detailed strategies and for updating the documents currently in force, created before 2016.

In addition to it, there are the following strategies:

- **Human Capital Development Strategy** (adopted in 2013, SRKL) - which is a detail of the general strategy (at the time of its establishment - National Development Strategy 2020),
- **Sustainable Transport Development Strategy 2030**,
- **Strategy for Sustainable Rural Development, Agriculture and Fisheries 2030**,

- **Innovation and Efficiency Strategy Of Economy**,
- **Efficient State Strategy**,
- **Social Capital Development Strategy**,
- **Energy Security and Environment**,
- **State Ecological Policy** - development strategy in the area of environment and water management.

In terms of regions, two strategies are important: the **National Strategy of Regional Development 2030** and the **Development Strategy of the Podkarpackie Voivodeship 2030**. The goal of the voivodship strategy is responsible and effective use of the region's endo and exogenous resources, ensuring sustainable, balanced and territorially even economic development and a high quality of life for the inhabitants of the region. The individual specific objectives are as follows:

1. Economy and science. Strengthening the potential of the regional economy and increasing the share of science and research for innovative and sustainable socio-economic development of the voivodeship.
2. Human and social capital. Strengthening human and social capital as the basis for the development of the region and raising the standard of living of the inhabitants.
3. Infrastructure for sustainable development and the environment. Expansion of infrastructure for development and optimization of the use of natural resources and energy while maintaining care for the condition of the natural environment.
4. Service availability. Increasing the access of citizens to public services and raising the standard of their provision in order to improve the quality of life and strengthen development processes.
5. Territorial dimension of the Strategy. Strengthening the territorial cohesion of the Podkarpackie Voivodeship.

National programs supporting the development of internationalization of SMEs.

In the years 2007-2013, the **Passport to export** activity (OP IE 6.1) operated in Poland under the Innovative Economy Operational Project. During its operation, almost 4,000 contracts were signed for the implementation of projects, both in terms of the development of an export development plan (first stage), and the implementation of activities related to the implementation of the export development plan (second stage). The total budget of the implemented / implemented projects amounted to PLN 480.7 million, of which the total value of co-financing was PLN 247.1 million (PLN 210.1 million from the ERDF funds and the remaining part from the state budget). This means that the implementation of the program generated private expenditure of the companies participating in the program at the level of PLN 233.6 million.

The Passport to Export program was an effective tool for supporting exports, assuming that at the first stage a professionally planned and reliable strategy of entering the foreign market will be created. It should be emphasized that consulting companies are very active in acquiring and implementing tasks resulting from the program. This program was not continued in the next financial perspective.

In the following years, i.e. 2014-2020, assistance in this area for SMEs was and is implemented through the Smart Growth Operational Program under sub-measure 3.3.3 **Go to Brand.PL**.

This program supports the promotion and internationalization of Polish export brands. This is the measure of the 2014-2020 financing perspective, the closest to measure 6.1 Passport to Export and sub-measure 6.5.2 of the Innovative Economy Operational Program 2007-2013. The project is aimed at the micro, small and medium-sized enterprises sector. Possible eligible costs under the Go to Brand.PL project are:

- costs related to the rental, construction and operation of an exhibition stand for the purposes of the fair;
- costs of consultancy services related to internationalization;
- training costs related to internationalization;
- costs resulting from business trips of employees of the company participating in the fair;
- costs of transport and insurance, both for employees and exhibits;
- costs of booking exhibition places;
- advertising costs in trade fair media;
- costs of organizing exhibitions, shows and tastings to promote the brand;
- costs resulting from participation in congresses and conferences;
- information and promotion costs related to promotion activities.

The support for the Go to Brand program aims to internationalize Polish companies from the SME sector. The Ministry of Development has selected 12 industries within which industry promotion programs are implemented. Entrepreneurs who can apply for funding under Measure 3.3.3 Go to Brand should conduct business activities in accordance with the following industries:

- Biotechnology and pharmaceuticals,
- Construction and finishing of buildings,
- Auto and aviation parts,
- IT / ICT,
- Yachts and boats,
- Cosmetics,
- Machines and devices,
- Furniture,
- Polish fashion,
- Polish food specialties,
- Sector of pro-health services,
- Medical equipment.

The company's eligibility in a given industry is based on the PKD codes entered in the company's registration document.

According to the schedule published by the Polish Agency for Enterprise Development, the call for applications for sub-measure 3.3.3 Go to Brand.PL was carried out at the turn of February and March 2020. The next round of the competition will be announced at the beginning of 2021. On the other hand, the call for applications for the competition promoting Poland's participation in the World Exhibition Expo 2020 has been postponed (as of 2021).

The allocation for the competition under sub-measure 3.3.3 Go to Brand.PL amounts to PLN 300,000,000 for 15 voivodeships, ie excluding the Mazowieckie voivodship. In turn, the allocation for the competition promoting Poland's participation in the World Exhibition Expo 2020 in Dubai is PLN 15,000,000 for the Mazowieckie Voivodeship and PLN 35,000,000 for the remaining 15 voivodeships. The competition promotes Poland's participation in the World Exhibition Expo 2020 and was created to strengthen Poland's economic contacts with the UAE and other countries of the Persian Gulf. An entrepreneur taking part in Expo 2020 is obliged to participate in the Polish-Emirate Economic Forum and may take part in the Polish Games Show.

Another measure of the Innovative Economy operational program implemented in 2007-2013, aimed at strengthening the internationalization processes, was the measure (OP IE 6.2.1. Support for the network of investor service centers and sellers outside Poland). The total value of COIE financing resulting from the implementation of the project under the OP IE amounted to PLN 52.7 million, of which EU funding from ERDF funds was PLN 44.8 million, and the rest from the state budget.

As part of the support financed by the Innovative Economy Operational Program (OP IE 6.2.1) in the previous programming period, the **Polish Silicon Bridge** system project was also implemented. The project was aimed at supporting Polish companies from the new technology industries in their expansion into the US market and thus accelerating their development (acceleration). The total value of the project was PLN 4.8 million, with EU funding from ERDF funds of PLN 4.1 million.

Another available project implemented under the Innovative Economy Operational Program (OP IE 6.5.1) is a system project entitled Promotion of the Polish economy on international markets. The total budget of the project implemented by the Department of Support Instruments at the Ministry of Economy was PLN 180.1 million, of which PLN 153.1 million was EU funding from ERDF, and the remaining amount, i.e. PLN 27 million, was contributed from the state budget. As part of this project, the **Polish Economy Brand** was created. The Polish Economy Brand aims to promote domestic products and Polish entrepreneurs abroad.

Logo of the Polish Economy Brand

The last measure under the Innovative Economy Operational Program was to support the participation of entrepreneurs in promotion programs (OP IE 6.5. Promotion of the Polish economy). Under sub-measure 6.5.2, the participation of entrepreneurs in industry promotion programs was supported, which constitute comprehensive promotion programs for a specific industry or product group, enabling the creation of Polish export specialties, while in general promotional programs, Poland and the Polish economy will be promoted during promotional events organized in the country and abroad. The total budget of the implemented / implemented projects amounted to PLN 119.2 million, of which the total value of co-financing was PLN 71.1 million (PLN 60.7 million from the ERDF funds and the remaining part from the state budget). This means that the implementation of the program generated private expenditure of the beneficiaries participating in the program at the level of PLN 48.1 million. In total, under priority axis 6, a total of 4122 contracts were signed for the implementation of projects with a total budget of PLN 2,312 million, total funding PLN 1,424 million, including ERDF funding of PLN 1,218 million. This means that the implemented projects generated a contribution of PLN 888.2 million made by applicants implementing projects.

In addition to typical project activities, in recent years, public funds were available for entrepreneurs to support Polish exports, granted through Bank Gospodarstwa Krajowego (BGK) in the form of loans for foreign buyers of Polish goods and services or their banks with insurance cover of Korporacja Ubezpieczeń Kredytów Eksportowych S.A. (KUKE). As part of the programs, BGK granted loans to foreign buyers of Polish goods and services with KUKE insurance cover for a total value of up to PLN 5.7 billion.

Public and private contributions to the implementation of projects supporting international activity under the Innovative Economy Operational Program were aimed at supporting international activity implemented under priority axis 6. The aim was to improve the image of Poland as an attractive economic partner, a place for establishing valuable trade contacts, locating investments, conducting business economic and development of tourism services. Under the sixth priority axis, measures were implemented both aimed at supporting the international activity of Polish enterprises (OP IE 6.1, 6.2.1, 6.5.1 and 6.5.2), as well as attracting investors from abroad: OP IE 6.2.2 Support for study and research activities - conceptual as part of the preparation of investment areas for investment projects "from scratch", 6.3 Promotion of the tourist values of Poland and 6.4 Investments in tourist products of supra-regional importance.

In the programming period 2014-2020, the **Eastern Poland Operational Program** is also available for the Podkarpackie Voivodeship.

Measure 1.2 Internationalization of SMEs under the Operational Program Eastern Poland is to contribute to the development of companies from the area of the Eastern Poland. The project serves the development and implementation of a new business model in enterprises due to the expansion of activities, especially in foreign markets. Applications for co-financing are submitted mainly by companies from the micro, small and medium-sized enterprises sector from the voivodships of Eastern Poland. Entrepreneurs from the Lubelskie, Podlaskie, Podkarpackie and Świętokrzyskie voivodeships as well as Warmińsko-Mazurskie voivodships may submit applications for co-financing by September 2020.

Eligible costs included in the regulations of measure 1.2 Internationalization of SMEs also apply to participation in international fairs and exhibitions or economic missions. Moreover, they include noteworthy consulting services to develop a new business model. Since the implementation of the enterprise on the indicated target markets is specified in the new business model, the business model is first of all presented in the application. Co-financing also covers the costs of other services complementary to the consultancy services purchased. In summary, complementary services are binding due to the services provided by specialized external entities.

The instrument is an advisory activity to support the entrepreneur in the diagnosis of its potential in terms of internationalization, preparation of the enterprise and its offer in terms of export, and active search for business partners and introduction of products on selected foreign markets. It consists of two parts consisting of:

1. developing a new business model of the company based on the internationalization of its activities.

   Scope of support - consulting services in the development of a new business model in SMEs related to internationalization and their activities, including in particular:

   - analysis of the company's export possibilities,
   - indication of target markets and their prioritization, as well as identification of potential contractors on foreign markets,
   - the concept of entering a foreign market along with the projection of the possibility of selling on the selected one foreign market,
   - selection of the most effective marketing and promotional tools and methods (including indication of trade fair events or directions of trade missions),
   - recommendations for the reorganization of the enterprise and its preparation for operation export (organization of the export department, logistics, etc.).

2. preparation for implementation of the business model developed at the 1st stage

   As part of this stage, the support was aimed at providing SMEs with access to advisory services and the purchase of intangible assets related to the preparation for implementation of the business model developed at stage I, including:

   - consultancy in the field of searching, selecting and then establishing contacts with foreign partners and bringing the interested entity to the stage of trade negotiations,
   - advice on the preparation of the product to the needs of the target market,
   - business and legal advice on building distribution channels,
   - purchase of software necessary to automate business processes in connection with preparation for internationalization of operations, up to 20% of eligible expenditure.

As part of the EU's horizontal policies, there are also programs that can be used, directly or indirectly, to support the international activities of enterprises, including SMEs. An example is the European Neighborhood Policy. The aim of the **European Neighborhood Policy** is to create privileged cooperation with the countries neighboring the EU through the strengthening of political relations and economic integration. The policy covers sixteen neighboring countries. The activities are financed by the European Neighborhood and Partnership Instrument (ENPI).

A total budget of € 12 billion for 2007-2013 has been allocated to individual programs in each country based on needs, capacity to adopt and implementation of agreed reforms. The Neighborhood Investment Fund supports, inter alia, the private sector mainly through venture capital operations targeting SMEs. The total budget foreseen for this initiative for the period 2007-2013 is EUR 745 million. This amount is topped up by direct contributions from Member States and receipts from a holding fund managed by the European Investment Bank. In order to benefit from the aid, the project had to be submitted by a European Public Finance Institution, which is recognized by the Neighborhood Investment Fund board as eligible (for example the European Investment Bank or the European Bank for Reconstruction and Development).

In the case of public expenditure allocated to supporting international activity under **Regional Operational Programs** (ROPs), it is difficult to reliably estimate the total expenditure due to the fact that there was a differentiation between individual Regional Operational Programs of the ROP in terms of the support instruments offered. For example, in 2007-2013, 11 ROPs offered direct support for the participation of entrepreneurs in fairs and missions, another 4 voivodeships offered indirect support (e.g. by co-financing projects of local government units or their organizational units, business environment institutions, non-governmental organizations, and higher education institutions). universities or public-private partnerships). In the case of the ROP for the Opolskie Voivodeship, no direct or indirect funding was offered. In the Podkarpackie Voivodeship, the Regional Operational Program of the Podkarpackie Voivodeship in 2007-2013 included Measure 1.4 "Economic promotion and investment activation of the region", scheme B - Non-investment projects, the aim of which was to increase investment attractiveness and support activity in the field of interregional and international cooperation. 171 contracts were financed for: participation of enterprises in trade fairs and missions, development of plans, promotional and advertising materials, websites, etc. by enterprises, signing of commercial contracts, promotion of enterprises for the amount of: PLN 8,455,486.92.

On the other hand, in the 2014-2020 EU Perspective, the budget from the structural funds was allocated to support regional operational programs (ROPs) divided into sixteen voivodships than in the previous perspective. Unfortunately, not all regions support internationalization activities. In the Dolnośląskie, Lubelskie, Łódzkie, Małopolskie, Mazowieckie, Warmińsko-Mazurskie, Wielkopolskie and Zachodniopomorskie voivodeships, you can finance the costs related to the development of exports. In the Podkarpackie Voivodeship in 2014-2020, no direct internationalization activities for companies were supported under the ROP.

The main goal of the ROP of the Podkarpackie voivodeship in 2014-2020 is to strengthen and effectively use the economic and social potential of the region for the sustainable and intelligent development of the voivodeship. This goal is to be achieved through activities aimed at, inter alia, strengthening the accessibility of the region, increasing its competitiveness, supporting innovation, improving the condition of the natural and cultural environment, increasing spatial and social cohesion, as well as preventing unemployment and social exclusion, social integration and raising the level of education.

In the Regional Operational Program of the Podkarpackie Voivodeship for 2014-2020, the thematic objectives set by the European Commission have been organized into 10 priority axes:

- Priority axis I Competitive and innovative economy - support covers projects in the field of: creating a business environment conducive to research and innovation.
- Priority Axis II: Digital Podkarpackie - the aim of the support are activities aimed at the implementation of the Partnership Agreement in the scope of improving the quality and availability of public services, developing electronic administration, sharing resources collected by public sector institutions.
- Priority axis III Clean energy - the implemented investments are to contribute to achieving the highest possible energy efficiency and the lowest possible emission of CO2 and other air pollutants. In order to improve the efficiency of the energy sector and neutralize its negative impact on the environment, the use of renewable energy sources in high-efficiency cogeneration systems should be supported by building new and modernization of the existing ones.
- Priority axis IV Protection of the natural environment and cultural heritage, measures taken here are to contribute to increasing the competitiveness of the economy as well as its specific objectives, ie: improving the ability to adapt to climate change and developing risk management systems, and increasing the efficiency of using natural and cultural resources and their preservation.
- Priority axis V Communication infrastructure - the intervention is to contribute to increasing the competitiveness of the economy and improving social and territorial cohesion, as well as its specific objectives, i.e. reducing the emission intensity of the economy and improving the quality and functioning of the transport system offer, as well as increasing transport accessibility in the national system.
- Priority axis VI Spatial and social cohesion - intervention within the framework of investment priorities is to contribute to the achievement of the main objectives of the Partnership Agreement, i.e. improvement of social and territorial cohesion and increasing the competitiveness of the economy, as well as its specific objectives, i.e. reducing the risk of social

exclusion caused by disproportions in access to services, inhabited communities, peripheral and degraded areas, and better human competences in the economy.

- Priority axis VII Regional labor market. The support under the axis is to contribute to the achievement of the main goal of the Partnership Agreement, i.e. increasing the competitiveness of the economy. Support will focus on helping the unemployed and jobseekers, especially those in the most difficult situation on the labor market. The axis will also support the development of entrepreneurship in the voivodeship by granting subsidies and loans on preferential terms. These activities are to contribute to the improvement of the situation on the regional labor market.
- Priority axis IX Quality of education and competences in the region - The intervention is to contribute to the achievement of the main objective of the Partnership Agreement, i.e. to increase the competitiveness of the economy and its specific objective, i.e. better competences of the economy's staff. stages. In the context of popularizing pre-school education, activities will be targeted in particular at creating additional pre-school care places, especially in rural areas.
- Priority axis X Technical Assistance.

Instruments supporting the international activity of enterprises, including entities from the SME sector, available in Poland

Active participation in international trade is both an opportunity and a challenge for the company. Firstly, export activities allow us to reach new outlets, increase the volume of production, and thus reduce the unit cost of goods. Secondly, companies are able to reduce the risk of market fluctuations, including seasonal fluctuations, especially in comparison to producers selling their products only domestically. Thirdly, the presence on the international market allows you to better understand the behavior of foreign competitors, learn more about their offer, and better match your own proposals to the expectations of buyers. The undeniable benefit is also expanding the network of contacts, establishing new trade relations, and increasing the company's prestige.

For these reasons, entrepreneurs take up new challenges and overcome new barriers to participate in international trade. Especially in the case of companies from the SME sector, in which there is often no experience in selling outside the home market and relatively low capital to support export activities, various instruments supporting the international activity of enterprises are of key importance. The analysis of support instruments was made in division into:

- ✓ A group of direct instruments, among which we can mention: tools offering co-financing for the organization of various types of industry promotional projects (exhibitions, workshops, training courses, etc.), obtaining certificates, certificates and approvals necessary on foreign markets, the organization of conferences and seminars.

- ✓ Groups of indirect instruments such as:

Internet networks and portals (they are a source of information on the conditions and possibilities of export to various markets, conditions for conducting business activity outside the country or cooperation offers of foreign entrepreneurs). The key sources of information include: Portal of Trade and Investment Promotion Departments, Portal Promocji Eksportu, Information Portal Your Europe, the Polish website of Enterprise Europe Network centers; Business environment institutions and intermediaries conducting information and advisory activities, providing services in the field of organization of cooperative exchanges, exhibition fairs, trade missions, as well as implementing a number of promotional activities. These are: Enterprise Europe centers Network, Trade and Investment Promotion Sections of Polish Embassies and Consulates, Bilateral Chambers, Industry Chambers, Chambers of Commerce and Industry, Promotion Center of the National Chamber of Commerce, Investor Assistance Centers and Exports passengers; and Innovation centers important for the creation of new innovative enterprises and supporting already existing companies. They educate entrepreneurs through consulting and training, assistance in technology transfer. They provide financial support for the creation of clusters and cooperation networks. They create an innovative environment by combining business services and various forms of technological assistance within technology, science and industrial and technological parks. The key entities in this area include: technology incubators, technology parks, industrial parks, Academic Business Incubators, clusters, Product Contact Point, the National Service System and the National Innovation Network. The list includes instruments whose primary task is to support the international activity of enterprises. Therefore, the list is less numerous than in the publication of the Ministry of Economy, which also includes a number of instruments that can indirectly (but do not have to) support internationalization (e.g. a voucher for innovation, technological loan, implementation of B2B electronic business, supporting business environment institutions, etc.).

Instruments for supporting international activity - the Enterprise Europe Network (EEN) has been operating since January 1, 2008 and was created under the Competitiveness and Innovation Framework Program 2007 - 2013 -CIP. EEN combines the achievements and advantages of the two networks previously operating for the benefit of the SME sector: Euro Info Centers and Innovation Relay Centers. The activities of the Enterprise Europe Network are coordinated by the European Commission and its subordinate bodies. Its centers, operating on the basis of regionalization, are located in all EU countries and other European and non-European countries. The network offers small and medium-sized enterprises comprehensive services to help them fully develop their potential and innovative capacity. The services of the EEN network mainly include the provision of information on foreign markets and legal issues as well as support for establishing foreign business and technological cooperation. In addition, as part of its information activity, EEN provides publications, newsletters, organizes seminars and information stands, provides media promotion and consultations in the context of inquiries from domestic companies and foreign centers. Information provided to entrepreneurs relates to a wide range of knowledge, primarily on the specifics and conditions of operating on foreign markets, the public procurement system and other legal issues. The second important area of EEN's activity is supporting cooperative activities by organizing exchanges and trade missions, creating, promoting and distributing cooperation offers and matching partners. The purpose of cooperation services is to facilitate companies establishing business contacts, also of a nature other than direct trade (e.g. distribution agreement, franchise, subcontracting, sale or exchange of shares). The network also promotes the ideas of innovation and competitiveness as an additional effect of foreign activity adjusted to the needs and capabilities of enterprises. The Enterprise Europe Network is also an intermediary enabling the institutions of the European Union to better orientate themselves in the needs of small and medium-sized enterprises.

Public expenditure on ensuring a 40% contribution to the financing of the Enterprise Europe Network (the remaining 60% comes from the funds of the Entrepreneurship and Innovation Program). It should be emphasized that as part of the operation of the program in Poland, funding was obtained by 30 in the initial year of the network's operation in Poland (2008). In 2008, contracts were signed for a total amount of EUR 13.62 million, of which EIP co-financing was EUR 8.17 million, and from the state budget EUR 5.45 million (contracts were signed for a period of 36 months). In turn, in 2012, the total budget for the operation of the EEN in Poland amounted to EUR 7.59 million, of which co-financing from the EIP amounted to EUR 4.56 million, and from the state budget to EUR 3.04 million 173. Obtaining complete data is difficult.

There are currently many network centers in Poland, grouped in four consortia. The coordinator of one of the consortia as well as the institution financing and monitoring the operation of the network in Poland is the Polish Agency for Enterprise Development. Other institutions running the Enterprise Europe Network centers are regional development agencies, technology transfer centers, entrepreneurship development foundations and others. In 2008-2013, the estimated annual allocation for network operation in Poland was over PLN 18 million. Over a year, their services are used by several thousand entrepreneurs, research centers and business support institutions.

In the period 2014-2020, the activity of the Enterprise Europe Network was financed by the COSME program (Competitiveness of Enterprises and Small and Medium-sized Enterprises),
Support for international activities was carried out under one of the objectives entitled Improving Access to markets, under which there were three actions:

- Enterprise European Network (EUR 424 million).

- Supporting SMEs abroad through research, information centers, cooperation platforms, organization of events and promotional activities (99.2 million EUR).
- Support for international industrial cooperation in the form of the organization of workshops and meetings (EUR 12.4 million).

The further operation of the network in Poland will be supported from the state budget (in the form of a 40% subsidy).

An important advantage of the Enterprise Europe Network is the close cooperation of individual centers. All offices can communicate with each other, which ensures quick transfer and obtaining accurate information, and they also have access to common databases containing profiles of companies looking for foreign partners. The Enterprise Europe Network helps companies from the SME sector to take advantage of the opportunities of the pan-European market through activities such as:

- Information and advisory activities in the field of European Union law and policies, conducting business activity abroad, access to financing sources, technology transfer and participation in EU framework programs. It is worth emphasizing that network consultants try to advise companies in choosing the most appropriate forms of support and minimize the risks associated with international activity (e.g. in the case of entrepreneurs not prepared to start foreign operations, without sufficient capital or an innovative product / service, they receive reliable information and recommendations on not taking action in this area, especially when it would not bring them tangible benefits).
- Help in finding partners for economic cooperation and technology transfer. • Organizing trips of Polish companies to cooperation events (fairs and missions) co-financed by the European Commission, aimed at reviving cooperation between regions and countries.
- Providing answers to questions asked via the network of entrepreneurs from European Union countries regarding the formal and legal conditions of business activity in Poland and the possibility of cooperation with Polish enterprises and institutions.
- Organization of trainings, workshops and seminars in the field of international cooperation.
- Services in the field of technology transfer, including technological audits, exchange of technological offers, assistance in searching for technological partners and matching entrepreneurs with scientific units.
- Supporting the participation of SMEs in the 7th Framework Program for research and technological development. It is worth mentioning that all services offered by EEN are free for enterprises.

The number of SMEs participating in promotional and information events - 225 thousand. (1,150 thousand).

Number of SMEs subscribing to the newsletter - 2 million (number of subscribers at the end of the period).

Number of serviced inquiries from SMEs - 125 thousand. (622.8 thous.).

Number of specialist advisory services provided - 62 thousand. (337.6 thousand).

The number of signed cooperation agreements between SMEs from different countries - 1.9 thousand. (9.2 thous.).

When analyzing the qualitative effects of the EEN network operation, it is worth mentioning:

- Increasing the competences of network employees to support SMEs through participation in various types of training and working groups.
- High assessment of the services provided in the evaluation studies carried out on a sample of SMEs.
- Diversified and extensive range of services provided.
- The use of modern and diverse communication channels in the field of associating enterprises.
- Raising the competences of managerial staff of enterprises in the field of international activity. It is worth emphasizing that using the services of the EEN network requires entrepreneurs to put in a lot of effort to improve their operations (preparation of cooperation profiles, preparation for business meetings, promotion and implementation of newly established contacts). In this way, companies are educated and mobilized to be independent, while at the same time being able to use free help in certain situations and to a certain extent.

National Contact Points National Contact Points - NCPs - are points established by countries that have committed themselves to the Organization for Economic Co-operation and Development (OECD) Guidelines for multinational enterprises. They act as a forum for discussing all issues related to the Guidelines, while promoting and ensuring compliance with them. The task of the NCP is to investigate complaints against the actions of multinational enterprises in breach of the adopted guidelines. In Poland, the KPK has been operating since 2001 at the Polish Information and Foreign Investment Agency S.A. There are National Contact Points in all 34 OECD countries and 10 non-members (Argentina, Brazil, Colombia, Egypt, Lithuania, Latvia, Morocco, Peru, Romania, Tunisia, Jordan and Costa Rica). Despite the lack of the NFP, Jordan and Costa Rica also declare that they have followed the guidelines. As for the content of the Guidelines, they are recommendations on standards of responsible business conduct addressed by governments to enterprises whose activities extend in any way beyond the borders of one country.

<u>The functioning of the internet databases</u>

Europa.eu (http://europa.eu) - is the official website of the European Union. There you can find basic information on the functioning of the EU, the latest EU news and information on events in the EU, hyperlinks to information provided on the websites of the EU institutions and agencies, but also information on running a business in Europe. In this section you can find information on taxes, import and export of goods, financial support for enterprises and on topics such as:

- European standards,
- employment and social matters of employees,
- environmental protection regulations,
- public procurement in the EU - rules and guidelines.

Market Access Database (http://madb.europa.eu) - a free EU database containing information on access conditions to over 100 third-country markets. There you can find information on customs rates and procedures, import formalities, statistical data enabling market analysis at the EU and national level, and a description of barriers faced by EU exporters. There is also a tool dedicated to entrepreneurs for reporting trade barriers, which allows the European Commission to follow comments and complaints about restrictions in trade with third countries. The database is advertised as "the key to better results in global exports."

Export Helpdesk (http://exporthelp.europa.eu) - EU database for exporters from developing countries, which allows you to search for detailed information on specific products that the entrepreneur wants to export to the EU. A useful tool for exporters, importers, trade associations or public authorities. It includes, among others useful links and contact details for international trade promotion organizations. In addition, you can find there information and data on:

- EU and national tax regulations,
- import requirements,
- import tariffs,
- statistical data showing the trade turnover inside and outside the Union.

The tool contains a contact form that allows you to submit inquiries to the entity acting on behalf of "Export Helpdesk", ie "Europe Direct Contact Center".

The European Commission portal YourEurope (http://europa.eu/youreurope/business) - this is the EU's Citizens Advice Bureau, providing services in all official EU languages, operating under a contract concluded with the European Commission. It is composed of legal experts from the European Citizen

Action Service (ECAS), specializing in EU law and the legal regulations of the Member States. The website answers not only the questions of individuals, but also companies based in the EU. There you can get an explanation of the EU rules that apply in a specific case, including, for example, cross-border movement of workers or, for example, find out how to exercise your rights in the EU. In addition, the section for entrepreneurs includes information on the principles of running a business in Europe, including advice on how to set up a business, product requirements, information on importing, exporting or providing services abroad.

3.2. MAIN NATIONAL AND REGIONAL STAKEHOLDERS

RZESZÓW REGIONAL DEVELOPMENT AGENCY S.A

Rzeszów Regional Development Agency S.A. (RRDA) is a member of the **Enterprise Europe Network,** which is currently the largest European network of institutions supporting the technological development of enterprises. RRDA supports companies:

- in identifying potential business partners and developing foreign contacts for SMEs.
- provides assistance to SMEs in the development of new products, reaching new markets and sharing information within the European Union.
- provides information, cooperation and internationalization services for enterprises.

Services for SMEs within the network are provided free of charge.

RRDA tries to increase the awareness of smaller enterprises about Internationalization, especially from Podkarpackie. For example, on November 27, 2019, we organized conferences "Innovations and internationalization of enterprises" for entrepreneurs, which aimed to present the internationalization process and answer the questions on how to successfully enter foreign markets and how to attract foreign partners. In addition, how international negotiations between commercially related partners to achieve the assumed economic goal should be carried out.

RARR together with the Carpathian Euroregion Association Poland is a partner in the INTER VENTURES project co-financed within INTERREG EUROPE Program under which this analysis is being prepared.

The **Investor Assistance Centre** operates under RRDA. The Centre was established in 2001 to support the development of the Podkarpackie Voivodeship by stimulating the inflow of external investments. It is the place of first contact for those interested in investing in the region.

Employees of the Investor Assistance Centre have specialist knowledge in the field of legal regulations, industry indicators, current investment offers, data on the standing and offer of enterprises. Thanks to close cooperation with local government and central government institutions, good knowledge of local realities and experience in negotiations, the Centre employees provide quick and professional assistance in making investment decisions.

The investor service centre is the first contact place for those interested in investing in the Podkarpackie Voivodeship and supports the region's development by stimulating the inflow of foreign investment. In particular, it encourages domestic and foreign investors to cooperate, for them it has a description of the investment process procedures and provides information on the current state of investments in the region.

WYŻSZA SZKOŁA INFORMATYKI I ZARZĄDZANIA W RZESZOWIE (in English *University of Information Technology and Management in Rzeszów*)

The Centre of Innovation and Entrepreneurship is one of the University's units specializing in supporting and creating entrepreneurship in the region. The Centre implements various activities addressed to students and graduates of UITM and other people from the Podkarpackie region, seeking help at various stages of implementing their own business idea.

For authors of ideas for innovative business ventures, the Centre offers the organization of business training and workshops as well as consultancy at various stages of business idea development. It also provides mentoring and acceleration support, including in the form of cooperation with external experts. It also offers financing for innovative start-ups from the InnoFund, created as part of the Innovative Economy Operational Program. Thanks to numerous contacts established, the Centre mediates in cooperation with external investors and venture capital funds, providing innovative start-ups with funds for development. Representatives of the Centre also actively participate in start-up events in the region (including Start-up Weekend Rzeszów, Start-up Mixer, TechnoparkBiznesHub).

The centre’s offer also includes specialized services addressed to functioning, mature enterprises, consisting in the development of economic and financial analyzes, strategic plans, restructuring plans, recovery programs, business plans and applications regarding the acquisition of commercial financing and subsidies for investment projects. As part of this segment of the Centre’s operations, several opinions on innovation were prepared.

MARSHAL'S OFFICE OF THE PODKARPACKIE VOIVODESHIP - VOIVODESHIP SELF-GOVERNMENT

PODKARPACKIE
przestrzeń otwarta

The voivodeship self-government determines the voivodeship development strategy, taking into account in particular the following goals:

1) nurturing Polishness and developing and shaping national, civic and cultural awareness of the inhabitants, as well as nurturing and developing local identity,
2) stimulating economic activity,
3) increasing the level of competitiveness and innovation of the voivodeship economy,
4) preserving the value of the cultural and natural environment, taking into account the needs of future generations,
5) shaping and maintaining spatial order.

The voivodeship self-government conducts the voivodeship development policy, which consists of:

1. creating conditions for economic development, including creating the labor market,
2. maintenance and development of social and technical infrastructure of voivodeship importance,
3. acquiring and combining financial resources, public and private, in order to perform public utility tasks,
4. supporting and conducting activities aimed at raising the level of citizens' education,
5. rational use of natural resources and shaping the natural environment, in accordance with the principle of sustainable development,
6. supporting the development of science and cooperation between the sphere of science and economy, supporting technological progress and innovation,
7. supporting the development of culture and taking care of cultural heritage and its rational use,
8. promotion of the values and development opportunities of the voivodeship.

The voivodeship development strategy is implemented through voivodship programs.

Investor and Exporter Service Centre - operates within the structures of the Marshal's Office**.**

The main goal of the establishment of IESC was caused by the need to increase the internationalization of entrepreneurship in Podkarpackie. Its operation is intended to facilitate access to information of strategic importance in the planning, organization and operation of foreign companies in our region as well as Polish entrepreneurs outside our country, which in both cases is to contribute to increasing economic growth.

All IESC branches are located within the structure of Marshal's Offices and work with the substantive support of Trade and Investment Promotion Departments of Polish Embassies and Consulates.

The Podkarpackie Centre has its registered office in Rzeszów Regional Development Agency. The Marshal's Office of the Podkarpackie Voivodeship through IESC provides free support as part of two services: "Pro-export" (export and investment abroad) and "Pro-biz" (addressed to foreign investors). Within both there is a wide range of activities that allow investors to familiarize themselves with the specificity of a given market, economic and social conditions, legal solutions, characteristics of instruments for supporting entrepreneurship development or information on potential economic partners.

The main tasks of the IESC are: providing information on training related to the market on which the company wants to enter (depending on whether the IESC previously organized training or information meeting on export issues for a given country), organization of information meetings on export covering issues related to export or focusing on specific countries and exporting to their markets, preparing databases of potential contractors, directing to institutions offering co-financing for entering the foreign market, organization of B2B meetings and business missions, sending information about trainings and industry events.

An entrepreneur wanting to get help offered by the Podkarpackie IESC must contact the Podkarpackie IESC by phone or email and specify the type of information he wants to obtain. No additional formalities are required. Regarding the generation of databases of potential contractors, the entrepreneur can arrange a meeting and use a special stand with access to the database where it can generate databases of potential customers by its own criteria.

The Marshal's Office is also implementing the project "Economic promotion of the Podkarpackie Voivodship" http://www.podkarpackie.pl/index.php/promocja/promocja-gospodarcza The project includes the implementation of activities consisting in the economic promotion of the region, including through participation in business fairs, economic missions, conferences, symposia, forums (including their organization). The aim of the project is to strengthen the role of the regional economy through economic promotion of the voivodship and economic activity zones (investment areas) in the national and international dimension. The implementation of the project consists mainly of the organization and participation in economic and promotional events, such as fairs, conferences, seminars, economic missions and study visits. Events in which the voivodeship participates are selected taking into account the key industries of the region. Many of the projects implemented under the project are dedicated to micro, small and medium-sized enterprises from the Podkarpackie Voivodeship, which may apply for co-financing of participation in organized missions and fairs, granted in the form of de minimis aid. Information on events is posted on a regular basis on the voivodship self-government website.

The Małopolska Economic Institute in Rzeszów (MIG)

The Małopolska Economic Institute is an association whose aim is:

- Conducting training, advisory, research, consulting, marketing and publishing activities

- Mutual exchange of experiences between members of the association
- Cooperation with regional, national and international centers dealing with economic development and training entrepreneurs
- Cooperation with administrative and local authorities, social and professional organizations, other associations and institutions
- Creating a system of financial support for the development of entrepreneurship and economy
- Participation in marketing and restructuring projects conducive to economic development.

THE POLISH ECONOMIC SOCIETY IN RZESZÓW

The Polish Economic Society in Rzeszów (PTE) is an independent, professional, nationwide association of economists associating both practitioners and theoreticians. It is one of the oldest social associations in the country, it comes from regional scientific societies established in the 19th century. The Provincial Branch in Rzeszów is one of 24 regional branches with legal personality. It has been operating since 1964 and covers the Podkarpackie Voivodship.

The statutory objectives of PTE are implemented, among others through: active participation in the process of reforming the economy by organizing congresses, conferences and scientific seminars, organizing the Economic Knowledge Olympiad for youth from secondary schools, publishing scientific publications, conducting consulting, advisory and information activities in the field of economics for various economic entities, developing expert opinions and economic analyzes.

In the field of internationalization of SMEs, these associations provide training, consulting and financial services.

In order to effectively support the internationalization of SMEs, the Associations:

- analyse current training and consulting needs in the field of internationalization of enterprises,
- analyse international activity of enterprises from the Podkarpackie region,
- analyse changes in regulations in the system of international exchange organization in the European Union and the World Trade Organization,
- they prepare a new training and consulting offer,

- attract specialists in the field of internationalization of enterprises,
- analyse the available European funds available for the internationalization of SMEs.

Thanks to the services offered by SME associations, enterprises have gained access to training and consultancy in the field of internationalization of enterprises in such areas as: principles of operation of enterprises on the European Union market; economic policy of the European Union; legal aspects of international exchange; marketing research supporting the internationalization process of enterprises; rules for the implementation of the export contract; rules for establishing business entities in the European Union and other selected regions of the world; financial services for exporters and importers; Export Credit Insurance Corporation offer for exporters; offers of insurance companies for companies operating on the international market.

The main benefits for MIG and PTE in providing internationalization services to SMEs are:

- implementation of statutory objectives,
- possibility to attract new customers,
- possibility to obtain funds for services rendered and their partial allocation for the implementation of the statutory purposes of associations,
- expanding knowledge about enterprises, in particular regarding issues related to various aspects of enterprise internationalization,
- expanding cooperation with specialists dealing with internationalization of enterprises,
- creating a new training, consulting and financial offer for enterprises in the field of internationalization of enterprises,
- the ability to obtain source data and information for training and consulting materials and publications prepared by the Associations.

3.3. MEASURES OFFERED TO SME INTERNATIONALIZATION SUPPORT

Sources of financing for enterprises, both in the country and in the voivodship, can be divided in several ways, the simplest of which is definitely the division into own and external sources of financing, and among foreign sources - returnable and non-returnable. Own sources of financing are usually savings and profit generated by the company - these funds can be spent on carrying out investments or the current operations of the company. Foreign sources of financing include credits, loans, leasing or factoring (returnable sources), as well as subsidies and subsidies (non-returnable sources). The purpose for which external financing sources may be allocated differs depending on the product.

The sources of financing can be divided into three groups: financing with the use of public funds, financing by commercial entities and financing enterprises from their own funds.

In Poland, it is possible to obtain subsidies from public funds at the very beginning of the entrepreneur's path - pursuant to Art. 46 (1) (2) of the Act on Employment Promotion and Labor Market Institutions, the starost of the Labor Fund may grant an unemployed person or a jobseeker one-off funds to start a business, to establish a social cooperative or to join it after its establishment. According to the information available on the website of the Ministry of Family, Labor and Social Policy, over PLN 4.3 billion has been allocated from the Labor Fund in the last five years to start up a business. Another form of financial assistance for people starting a business is a loan program for starting a business called "Support in the start". It is a government program and is implemented by Bank Gospodarstwa Krajowego. The funds granted under this loan program also come from the Labor Fund.

A powerful source of financing entrepreneurs from public funds is, of course, money granted under EU funds. As you can read on the website www.funduszeeuropejskie.gov.pl, in the years 2014 - 2020, i.e. in the current financial perspective, a total of EUR 20 billion is to be allocated to the development of enterprises, which will make entrepreneurs the largest - apart from local governments - beneficiaries EU funds27. The funds from the funds are to be allocated primarily to the development and implementation of innovative solutions and investing in research and development, computerization of companies, as well as the implementation of ecological solutions and export support. As for the first of these categories, the Smart Growth Operational Program is currently the most important. As part of it, you can receive funds, among others on:

- R&D projects within a specific company or consortium (mainly industrial research and experimental development - the aim is to develop new or significantly improved solutions),
- sectoral R&D projects, i.e. those that are important for the development of the entire industry (therefore it is not about work at the level of a single enterprise or even a group of them, but a solution serving the entire sector of the economy),
- creation and development of R&D infrastructure (investments in equipment and infrastructure to create innovative products and services),
- obtaining a patent or non-patented technical knowledge and implementation of an investment based on the acquired technology - in this case the support is directed to enterprises from the SME sector,
- advisory services aimed at internationalization of the enterprise's activity - again the instrument is dedicated to enterprises from the SME sector.

In terms of European funds, special attention was paid to enterprises operating in Eastern Poland - a large part of a separate program Eastern Poland, called Entrepreneurial Eastern Poland, is dedicated to them. Within this part of the program, four activities are distinguished, intended for start-ups and enterprises from the SME sector (internationalization of SMEs, formula for competition, creation of network products by SMEs, start-up platforms).

Companies can also obtain funds from regional programs carried out within individual voivodeships. In their scope, it is possible to implement primarily IT projects, such as, for example, the development of e-commerce. The tools used to implement the programs differ between regions - grants are available in some, and loans on preferential terms in others.

Obtaining financing from the European Union funds is also possible through the EU framework programs for the years 2014 - 2020, i.e. COSME or Horizon 2020. In their case, support is not provided under subsidies, but through financial instruments in the form of preferential investment loans and working capital, leasing or loans. The offer is available to a wide range of entrepreneurs - it can be used by both start-ups and already operating entrepreneurs from the SME sector, but also large companies.

It should be assumed that commercial entities financing business are primarily banks. In an appropriate assessment of the situation of entrepreneurs seeking financing from banks, it may help to have a look at the offers that the five largest banks in Poland (PKO BP, Pekao S.A., BZWBK, mBank and ING Bank Śląski) 46 direct to companies. All of these entities offer such products as working capital loans, investment loans, leasing and factoring.

Very few enterprises from the SME sector still use external sources of investment financing. Domestic loans and credits are used for this purpose by just over 17.5%. of them. Statistics show that in Poland approx. 30 percent. investment of micro, small and medium enterprises is financed by leasing. Polish entrepreneurs finance their activities primarily from their own funds. Depending on the study, it is estimated that this method of financing a company chooses from over 60 to 84 percent of companies. There are studies according to which as many as 52 percent companies from the SME sector do not use external financing65. According to some sources, in 2018 more than 90 percent companies intend to finance their development from their own resources. As already mentioned, Polish entrepreneurs are very cautious about foreign sources of financing. According to the survey conducted by PARP, slightly less than half of entrepreneurs declare that they would decide to go into debt with the bank only in the event of major financial problems. Additionally, micro-companies are concerned about whether they will be able to pay off such liabilities. There may be at least several reasons for this - it is certainly partly due to factors such as the still insufficiently broad offer proposed by banks and financial institutions or, in the case of newer tools than credit, such as factoring, lack of knowledge about them.

The survey shows that companies from the Podkarpackie Voivodeship failed to use almost 80% of the available financial support programs over the past 5 years. Only 8.7% of the surveyed enterprises benefited from financing participation in international trade events and exhibitions. The companies also benefited from subsidies for any stage of internationalization activities - 8.7% and subsidies for recruitment, scientists or accountants (5.4%). However, they did not use pre-shipment financing, post-shipment financing, loans and loan guarantee programs, financing of short-term exports, insurance and risk management solutions, and tax incentives.

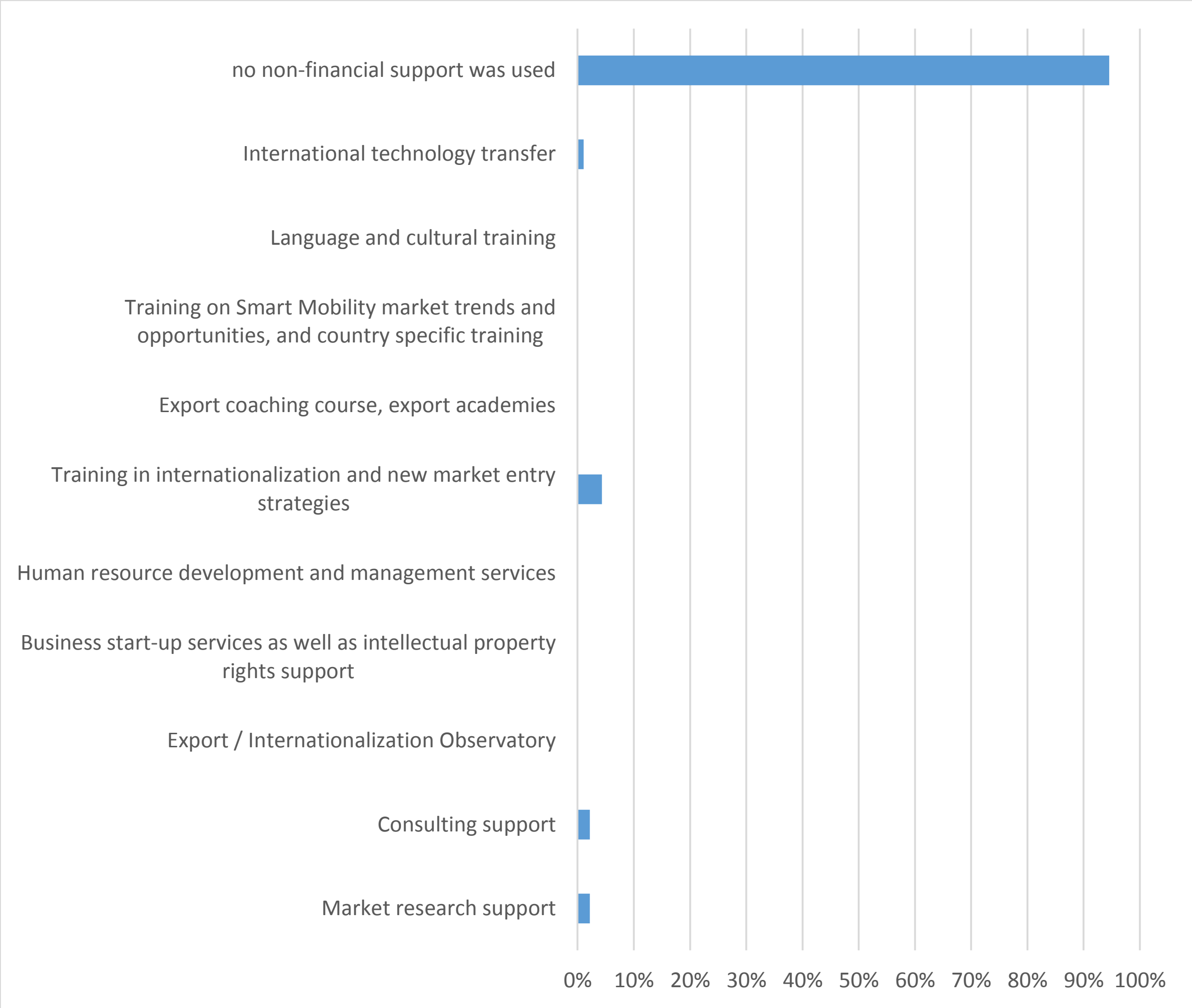
In the opinion of experts at the Rzeszów Regional Development Agency, the most popular among entrepreneurs were all kinds of loans and grants, as well as development grants. These services were used by companies in Podkarpacie (small, medium). Large companies usually have their internationalization centres.

In the opinion of experts from the Investor and Exporter Service Centre, the most popular among entrepreneurs are participation in information meetings on export and the use of databases of potential contractors. The advantage of these services is that they are provided for free and cover a wide range of data sorted by filters, which can be freely modified to obtain the desired information, the disadvantage is that the databases include only potential contractors and not contractors who are looking for a given product.

In the Podkarpackie Voivodeship, it is possible to use various types of non-financial support dedicated to enterprises. They are provided by various institutions in the region. However, their number is very limited. The typical ones that took place were training and advisory services in the field of obtaining EU funds, not necessarily related to internationalization activities, in the field of strategies for entering a new market and supporting market research and consulting.

The results of the survey show that companies make very little use of non-financial assistance, even if it is offered. 94.6% have not benefited from non-financial support programs over the past five years. Only 4.35% of the surveyed companies benefited from internationalization training and new market entry strategies, as well as market research support and consulting support - 2.2% in both cases, as well as international technology transfer - 1% of enterprises. Not all of the above-mentioned types of assistance are available in the region. The interviews with entrepreneurs show that they often have problems communicating in the language of a potential foreign partner.

Chart 23. Usage of non-financial support schemes within the last five years by surveyed enterprises (in %)



According to experts, the disadvantages of institutions interested in providing support services for the internationalization of SMEs are:

- limited training and consulting offer in the area of internationalization of SMEs,
- high dependence of training and consultancy services offered to SMEs in the field of internationalization on funds financed from various EU funds,
- a narrow offer of practical examples of the implementation of export and import projects by SMEs and case studies regarding specific markets,
- limited access to the best specialists and practitioners in the field of internationalization of enterprises.

Due to the lack of an integrated database containing the information necessary to calculate the percentage of the support offered by stakeholders in the region, the estimates were made.

In the Podkarpackie voivodship, services consisting in financial support for SMEs are dispersed among various institutions. The superior institution is the Marshal's Office of the Podkarpackie

Voivodeship. In addition, support in the field of internationalization activities is provided by institutions such as RARR or associations.

According to conversations with institutions supporting entrepreneurs, the main types of services they offer are services consisting of:

a. searching for sources of financing for entrepreneurs,
b. searching for foreign partners in international databases,
c. organization of seminars and conferences on internationalization,
d. organization and financing of participation in fairs abroad,
e. organization and participation in international cooperation exchanges,
f. preparing internationalization plans,
g. implementation of internationalization projects,
h. service and support in the field of export / import,
i. marketing on international markets,
j. support not only for ordinary enterprises but also for social enterprises (foundations, associations, social cooperatives),
k. granting loans and grants.

In order to effectively support the internationalization of SMEs, the Institutions supporting entrepreneurs:

- analyse current training and consulting needs in the field of internationalization of enterprises,
- analyse international activity of enterprises from the Podkarpackie region,
- analyse changes in regulations in the system of international exchange organization in the European Union and the World Trade Organization,
- prepare a new training and consulting offer,
- attract specialists in the field of internationalization of enterprises,
- analyse the available European funds available for the internationalization of SMEs.

On the other hand, when it comes to services used for the company's development and expansion abroad by the surveyed companies in the region, it can be seen that companies most often used partner search services (42.4% of enterprises), innovation support (32.6%), training services, educational (21.7%), market research services (13.0%) as well as comprehensive customer service (12.0%).

3.4. BARRIERS TO AND DRIVERS FOR SME INTERNATIONALIZATION

Some authors use the term "globalization" interchangeably with internationalization, international economic integration or trans-nationalisation of the economy. However, these concepts have slightly different meanings (Liberska 2002:18).

Globalization is a set of processes leading to an increasing interdependence and integration of states and societies, economies and cultures, which results in the formation of "one world", a global society; the disappearance of the category of the nation state; shrinking social space and increasing the pace of interaction through the use of information technologies, and the growing importance of supra- and international organizations, in particular multinational corporations. Internationalization, simply speaking, is the process of internationalization of the company's activity, expansion of the company's activity and the transition from the domestic market to foreign markets.

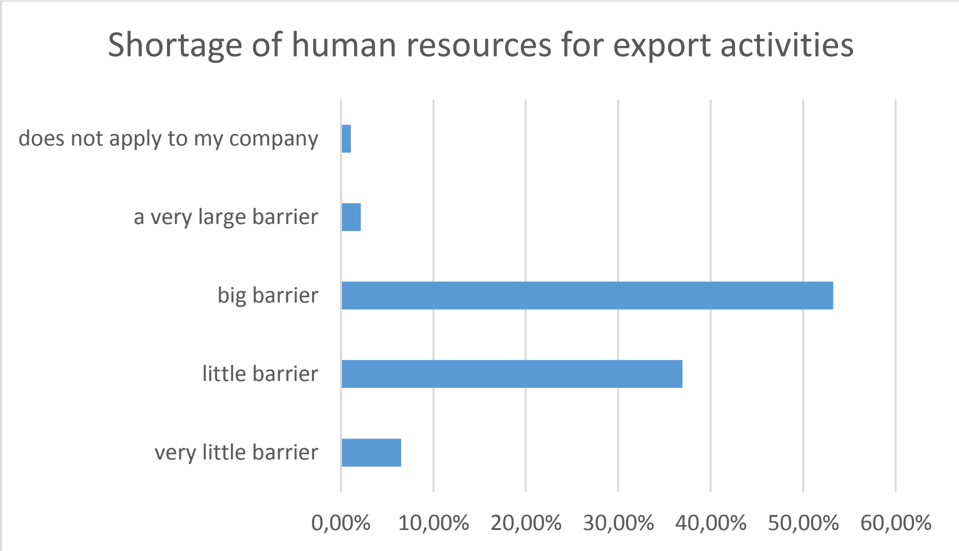
The main barriers and challenges of SMEs related to internalization - this is obviously related to the approach, perception of managers, available resources, inter-organizational relationships or knowledge. The result is an ambiguous perception of restrictions by organizations. However, the most frequent declared restrictions in the internationalization process of the enterprise include (Betz and International Association for Management of Technology 2010:362), (Crick 2007:238):

- obtaining reliable representation abroad,
- identification of the company's capabilities abroad,
- limited information resources,
- maintaining control over foreign intermediaries,
- inability to contact potential consumers abroad,
- fierce competition on foreign markets,
- no internal government protection,
- offering a satisfactory price level for consumers,
- unreliable data on the foreign market,
- credit system,
- lack of time for managers to be involved in internalization,
- shortage of working capital,
- unfavourable regulations and law,
- problem in matching prices of main competitors,
- complexity of foreign distribution channels,
- matching promotional activities related to the foreign target market.

In the case of issues about individual internal barriers, the respondents' answers varied.

Regarding most of the internal barriers presented, the companies pointed to small difficulties, while the exception was questions regarding human resources. They treated the shortage of staff dedicated to running export operations as great difficulty - 53.3% of respondents while 2.2% indicated as very difficult.

Chart 24. Shortage of human resources for export activities as an internal barrier for SMEs internationalization according to the survey respondents (in %)



It was similar with the question regarding the training of staff or having qualified staff - for 45.7% of enterprises the lack of training opportunities or the lack of suitably qualified staff is a great difficulty in conducting business on an international stage (very high difficulty - 1.1%).

Chart 25. Insufficient level of qualification and/or training of staff for internationalization as an internal barrier according to the survey respondents (in %)

Analysing companies' responses regarding external barriers, it can be seen that the greatest difficulty is for entrepreneurs to identify foreign business opportunities (63.1% indicated that it was a great difficulty and 16.3% as very difficult). The answer was similar when it came to contacting potential foreign clients. 36.7% of the respondents marked a great difficulty in such action, and 6.5% very difficult. Other external barriers that entrepreneurs were asked about were not major problems.

The main barriers indicated by the surveyed companies:

Chart 26. Difficulty in identifying foreign business opprtunites as an external barrier for SMEs internationalization according to the survey respondents (in %)

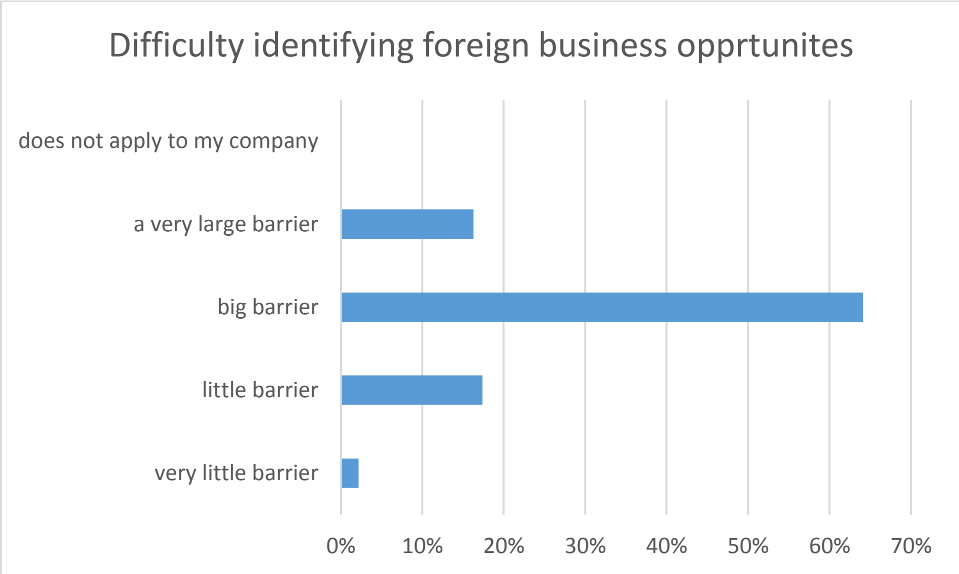
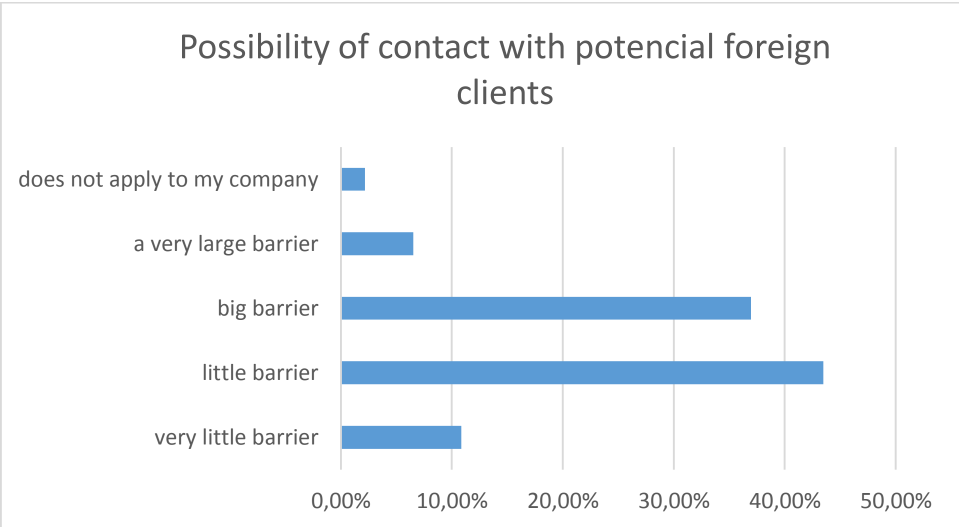


Chart 27. Possibility of contact with potencial foreign clients as an external barrier for SMEs internationalization according to the survey respondents (in %)



The barriers identified by experts / stakeholders in in-depth interviews partially overlap with the responses obtained from the survey and they are mainly::

- insufficient employee competences,

- insufficient support from public and EU funds - especially in the field of export to foreign markets,
- significant competition on the market,
- no use of cross-borderism in the case of Podkarpackie.
- limited demand on foreign markets for products offered by SMEs,
- limited financial resources of SMEs allowing to start and increase activity on foreign markets,
- legal regulations hindering the safe development of activity on foreign markets
- limited access to selected export markets due to costly regulations protecting certain markets against Polish exporters.

From the observation, the barriers that may hinder the internationalization process can be divided into:

- system barriers, incl. insufficient support from public institutions, especially dedicated to micro-entrepreneurs, lack of instruments and infrastructure in enterprises, lack of certificates and implemented quality systems - many companies are small, family companies, lack of human resources and potential,
- financial barriers, i.e. high export costs, risk bearing, incl. resulting from fluctuations in exchange rates and a lack of predictability,
- administrative barriers.

As for the main factors driving the internationalization of SMEs indicated in the surveys, as well as cited in the literature on the subject and emphasized in conversations with experts, these are mainly related to globalization of the world economy. These include, among others: ongoing processes of lowering trade barriers around the world, as well as functioning improved logistics and communication systems available to all enterprises. In the last decade, the European Union markets have opened up to SMEs from the Eastern European region. There has been a revolution in information technology that has opened the way to the exchange of technology and knowledge on a larger scale, and new types of economic transactions such as e-commerce have emerged. The Internet has become a modern tool increasing the network of connections between companies and increased access to customers all over the world. In enterprises there is economic strength and financial stabilization. In enterprises, there is an increase in economic strength and financial stabilization. Increasing level of entrepreneurial education. Increasing creativity of entrepreneurs. A factor driving the internationalization of SMEs is also training, advisory and financial support for public and non-profit institutions for SMEs in the field of internationalization of activities.

The respondents often mentioned what is important in the case of internationalization activities.

The answers are presented in the table below:

Chart 28. Most important drivers to SMEs internationalization according to the survey respondents (in %)

Anwers	%
Support for partners from abroad	44,57%
Websites adapted to foreign customers	6,52%
Search for financing opportunities	5,43%
Joint communication and promotion services	19,57%
Search for distribution channels	18,48%
Organization of network and B2B activities in a foreign country	3,26%
Representation and virtual office services	0,00%
Innovation services (intellectual property, R&D cooperation)	2,17%
Search for joint international events	0,00%

CHAPTER 4: SMES CAPACITIES FOR INTERNATIONALIZATION

Research shows that the level of internationalization and cross-border cooperation can be considered on several levels: entrepreneurship and cross-border cooperation of individual enterprises as well as at the level of foreign economic activity of the enterprise and international entrepreneurship.

The external integration of the entity with others has a direct impact on increasing competitiveness in the context of reducing process management costs and response time to emerging changes in the environment . The location of the company at the border should be a factor facilitating this process largely resulting from past experience and approach to implemented business activities. Internationalization or creation of transnational networks is a key factor in improving competitive position. The implementation of this process is conditioned by the company's ability to create and coordinate the structure of inter-organizational relations and to concentrate efforts on their maintenance.

SME development opportunities should be considered particularly in the context of globalization processes, this approach seems necessary to meet the requirements of internationalization processes. Processes taking place in this sector, among others, proper gathering of knowledge about international competition on foreign markets, obtaining information on technology, are necessary to achieve competitive advantage (Borowiecki and Siuta-Tokarska 2010:67).

According to many research, the company's ISO certification is a factor that improves the internationalization process and has a direct impact on the company's performance. It is also a factor that is assumed to be related to the integration and improvement of processes leading to the reduction of transaction costs. The internationalization process of enterprises that gives rise to innovation is not without significance.

In the case of Podkarpacie, as well as other regions, there are several important motives that cause enterprises to try to undergo the internationalization process. It is primarily related to the development of communication and information technologies, their availability and low acquisition cost are important in this context. Widely understood globalization and disappearing barriers to international trade, liberalization of markets and opening up of emerging markets are another factor favouring this process.

Internationalization of enterprises is directly related to the development of the concept of international business focused on the flow of values (goods and services). Research precursors focused on the effects of such activity (the research concerned the macro and mesoeconomic scale of industries and sectors) 19th-century economist Ricardo in the chapter *on profit* and *on foreign trade* (Ricardo, 1996) or Bertil Ohlin (Ohlin, 1933). However, a distinction should be made between activities related to the increased interest in this type of activity. The next important stage became the development of research on foreign direct investment- FDI (Dunning, 1958) while the research concerned enterprises (microeconomic level) and oscillated around the formation of international organizations (corporations) and the concept of MNE (*multinational enterprise)* (Buckley & Casson, 1976) and the theory of monopolistic advantage (Auquier and Caves 1979), (Caves 1980), (Caves, 1982), it can be assumed with some simplification that profits can be increased in two ways by increasing the margin or sales, it can be achieved through the monopolization process (Dietl 2010:48), or theory related to the product life cycle (Vernon 1966). However, the main premise related to the internationalization of the enterprise is the course of the process of gathering knowledge and experience of the enterprise on foreign markets that are the goal of expansion. One of the classic approaches was developed at Upsala University in the second half of the 70s of the last century, based on the study mainly of Swedish enterprises from the perspective of the gradual development of relations with foreign markets (Johanson and Vahlne 1977a).

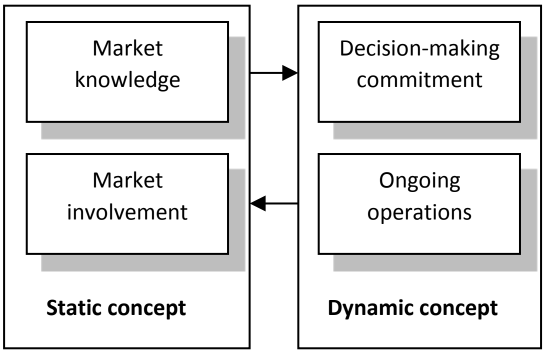
We can distinguish some stages in the internationalization process:

- expansion is preceded by success in the internal market,

- expansion usually starts from nearby markets, and only later covers remote markets - the concept of mental or cultural distance between markets has been introduced, understood as a set of factors hindering the mutual flow of information (from company to market and from market to company); this distance is associated with linguistic, cultural, political and educational factors as well as the level of economic development (Johanson and Wiedersheim-Paul 1975a)
- entering foreign markets, companies usually start with export activities, and only after some time they decide on activities requiring greater involvement.

The characteristics of building relationships based on the creation and exploration of inter-organizational relationships of organizations operating on international markets and their main determinants is presented in Figure 2.

Figure 2. Mechanism of internationalization of entities in static and dynamic terms



Source: (Johanson and Vahlne 1977b:26).

The model characterizes companies' desire to maintain long-term relationships as well as to keep risk low. The level of anticipated opportunities and risk (Figueira-de-Lemos, Johanson & Vahlne, 2011) is conditioned by the internationalization stage, which in turn influences decision-making commitment and ongoing operations. Market involvement is conditioned by two factors: (1) the amount of resources owned and involved (2) the degree of involvement in market processes. On the other hand, market knowledge and its level are related to current and future demand, as well as to the supply and arrangement of appropriate distribution channels or payments between countries. There is an important relationship between market knowledge and market involvement.

There are four stages of internationalization of enterprises (Johanson and Wiedersheim-Paul 1975a:307):

1. Irregular export activity - sporadic export .
2. Export via independent agents.

3. Establishment of a sales branch.
4. Establishment of a production branch.

Another criterion characterizing the internationalization process was the degree of enterprise involvement in foreign markets, where experimental involvement, active involvement and permanent, committed involvement were distinguished*)* (Cavusgil 1984).

Describing the impact of the strategy on the organizational structure, Chandler, through research carried out on American companies in the 1960s, came to the conclusion that the company's strategy has a significant impact on the organizational structure of entities. Internationalization and globalization can be related to the national economy, the sector of industry, products and markets, both sales and supply. These phenomena are characterized primarily by the growing mutual influence of individual states and their various institutions, and the penetration of an increasing number of products of the material and immaterial sphere between an increasing number of societies. As a result, not only production outcome, but also civilization and cultural patterns are shared around the world (Grudzewski and Hejduk 2001:12).

The internationalization of the company is associated with every form and scope of relations with foreign markets, particularly in production, marketing, sales and distribution (Pierścionek 2003:454). Polish enterprises face a big challenge, i.e. the internationalization and globalization of their activities. Undoubtedly, undertaking activities in this area gives companies great benefits, such as: reducing costs, especially production costs resulting from economies of scale, improving product quality, gaining trust and strengthening customer loyalty to the products offered to them by ensuring the highest possible (global) availability and improving competitive credibility. It also means expanding potential outlets, but also the need to compete with companies from almost all over the world. Therefore, enterprises are forced to develop and implement an appropriate strategy for international or global activity (Potocki, 2009, p. 347). Internationalization as a strategic process (Fig. 3) was characterized from the perspective of the interior of the implementing organization having its branches abroad and from the perspective of the organization (Melin 1992:100).

Figure 3. Ground of international business activity

	Inside the organization - across borders	**Between organizations - across borders**
Entry mode	A ➢ Internationalization stage	B
transactions	C • Internationalization, transaction costs • Intra-organizational trade and price transfer ➢ Technology Transfer	D • International trade • International Marketing • Foreign Direct Investment • International Enterprise Networks
coordination	➢ Global strategies E • structure • formal system control • informal social integration and coordination	F • Alliances and joint ventures • Relations with the local government

Source: (Melin 1992:100).

Considering the (A) *time-series detached critical events* internationalization process, it is a series of loose events and corresponding processes of adjusting the strategy to the structure in the context of increasing efficiency. Adjusting the strategy to the capital structure improves efficiency (Agnihotri 2014:17), adapting to the changing environment causes a change in strategy and structure, as well as the resulting increase in efficiency (Mat & Smith, 2014, p. 71) or matching the management structure with performance (Lin & Ho, 2013, p. 305–306) as well as matching the strategy related to technology with the knowledge structure that has an impact on performance (Srivastava and Laplume 2013).

In type (B) internationalization there are relatively short episodes associated with the process of pre-purchase behaviour leading to the purchase (purchase) and all resulting relationships having an impact on post-purchase behaviour having a continuity from several weeks to several years.

Type (C) of the internationalization process of the enterprise is associated with the development of a strategy having a long-term evolutionary character, however, interrupted by shorter episodes of action, these are usually activities calculated for about two decades (Schwens and Kabst 2009), (Horaguchi and Toyne 1990).

Type (D) (*biographic history*) is the period started from the establishment of the enterprise and throughout its dynamic development, it usually concerns large multinational organizations (MNE) usually lasting many decades. This approach is related to the process of international trade (and international marketing) that is implemented by the organization. The planned strategy is related to foreign direct investment and creation of transnational enterprise networks.

The type of activity (E, F) is directly conditioned by the global strategy implemented by the organization, which determines both the formal structure of the enterprise and relationships developed in the internationalization process with other entities, as well as with the local government where the enterprise operates.

The internationalization process is usually conditioned by the instruments of the global strategy (participation in the global market, owned global products / services, location, marketing conducted on an international scale - global, global market gambling) and is usually measured, among others such indicators concerning mainly large enterprises, such as (Yip, 2004, p. 452–453):

- the company's global sales volume divided by the global market volume,
- percentage share of global revenues from the sale of standardized products and services,
- international concentration indicator participation in the global market,
- degree of similarity of the marketing elements used in each country to those used in the base country.
- moves involving three or more important countries.

Propensity to internationalization (related to the international capabilities of enterprises cooperating with customers, suppliers and other organizations) and the capability to internationalize (related to three dimensions of innovation - technology; human resources; commercial capabilities) (Camisón & Villar, 2009, p. 135–136) and the ability to build foreign relations (internationalization of the enterprise). In other words, a cross-border organization should be able and be capable to create international relations in the internationalization process (Hult, Cavusgil, Kiyak, Deligonul & Lagerström, 2007, p. 78). The question should be asked whether internationalization of an enterprise is the same as globalization, sometimes these two concepts are seen as synonyms. However, a deeper understanding of this phenomenon highlights the differences where globalization is a geographically broader management process also characterized by the integration of entities scattered around the world. On the other hand, the enterprises, especially the SMEs, deserving the name of internationalization of economic activity usually refers to only a few countries and the scope of these activities is from a geographical perspective limited (Koźmiński and Latusek-Jurczak 2014:441). Control variables used in the study: years of company operation and number of employees (Kirca et al. 2011:63).

There are two groups of factors that determine undertaking the international activity of SMEs:

1. Intentional, conscious approach

- The entrepreneur decides on internationalization himself.
- The entrepreneur looks for and chooses the market.
- The entrepreneur looks for and chooses a partner or connection to support entry
- The entrepreneur is convinced by the business partner.
- Market entry.

2. Unintentional decision making

- The company that participates in the network makes efforts to get the entrepreneur involved in the internationalization process.
- The entrepreneur makes a decision based on the partner's decision (imitation process, change in perception of the situation).
- The entrepreneur spontaneously follows the developing market because he sees the development in the direction and internationalization.
- Market entry.

The internationalization process of an enterprise is related to the possibilities that a cross-border organization has, resulting from the approach to implemented business activities. Internationalization or creation of transnational networks is a key factor in improving competitive position. The approach to this process is conditioned by the ability of the enterprise to create and coordinate the resulting structure, i.e. the concentration of the enterprise over the creation of network structures and their coordination, as well as on which elements of the current activity of the enterprise is focused.

Most often, among SMEs, the medium-sized enterprises undertake activities on international markets, mainly consisting in exporting their products or goods and services. This may be due to greater staffing and financial capabilities in the case of such companies that are necessary to conduct business abroad. As a rule, the goal of companies undertaking international activities is to reach new and developing markets. It is impossible without the appropriate staff, knowledge, knowledge of international law or skills in acquiring clients, or public assistance.

Most entrepreneurs also indicated that the biggest difficulties that occurred in connection with doing business abroad were related to customer acquisition, but the language barrier or the availability of advice when entering foreign markets, as well as knowledge of law in a given country were a big obstacle.

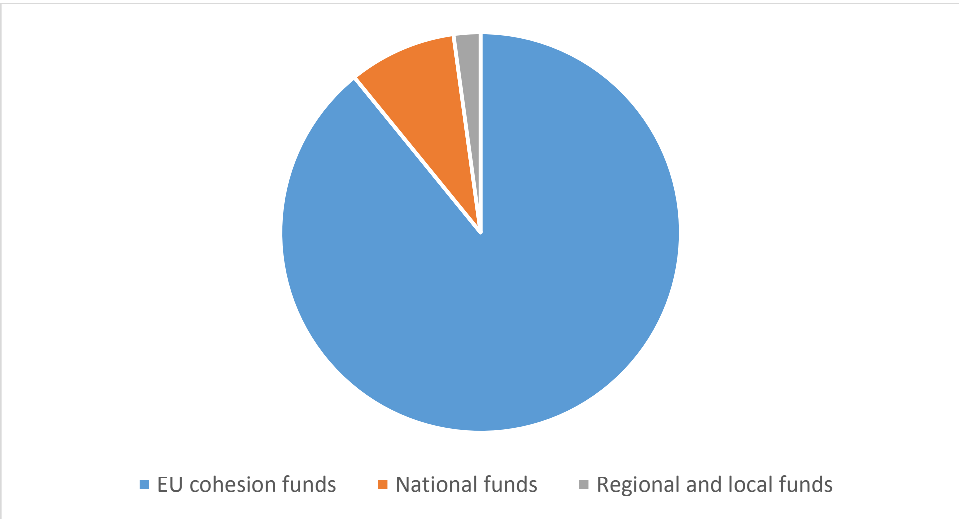
CHAPTER 5: IDENTIFIED GAPS BETWEEN POLICY INSTRUMENTS AND SMES' NEEDS

In order to overcome the barriers presented in subsection 3.4, the subject of support may be, inter alia, information and advisory activities, export financing instruments and investment programs, thanks to which companies can create infrastructure for the development of exports. According to research, interviews and observations, however, entrepreneurs' expectations related to specific, most often financial, forms of aid leading directly to real effects (e.g. financing participation in fairs, promotion costs, obtaining capital for the implementation of projects) dominate. Such activities on a national scale were in the past carried out mainly with the help of European funds, there are no special funds for this purpose in the voivodeship.

Surveys showed a considerable reluctance of companies to use advisory services, which can be interpreted as the specificity of Polish entrepreneurs, often rejecting the so-called "Planning culture" for spontaneous action based on the intuition and experience of management or owners.

In the question for enterprises to identify the most important public funds, the respondents almost unequivocally indicated EU cohesion funds (89.1%), national funds (8.7%), and regional and local funds (2.2%).

Chart 29. The most important funds used by the surveyed entrepreneurs



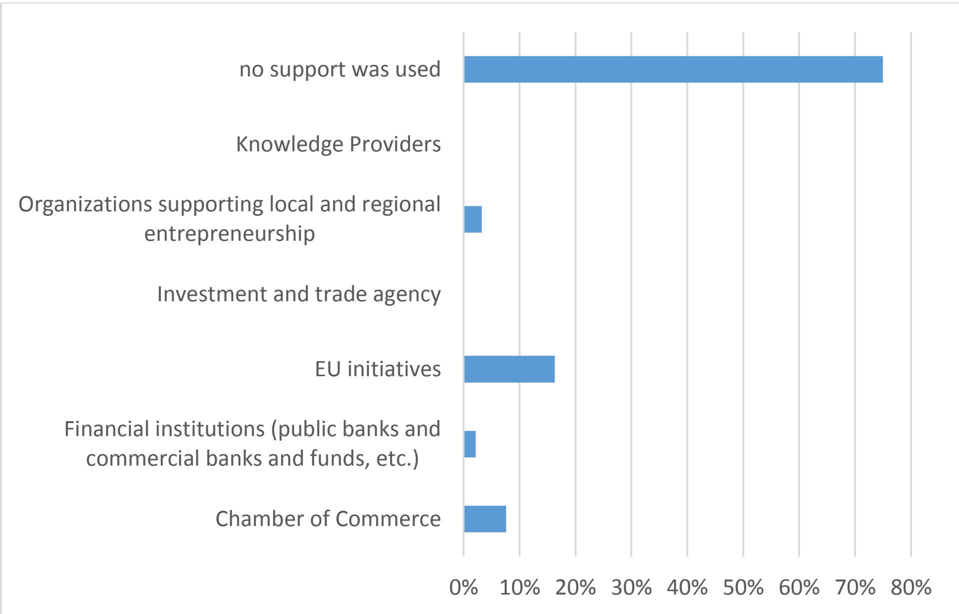
Given the characteristics of the gap between the needs of SMEs and the instruments of regional policy used, the following should be highlighted first of all :

– lack of appropriate tax conditions building the economic potential of SME enterprises,
– lack of integrated training concept for SME enterprises, consciously building competitiveness in the region and abroad,

– spatial development policy and infrastructural conditions creating development opportunities for SMEs,
– lack of regional policy focused on innovation (product, process, organizational or marketing)
– low effectiveness of financial incentives in the creation of the SME sector
– insufficient use of public aid by SMEs .

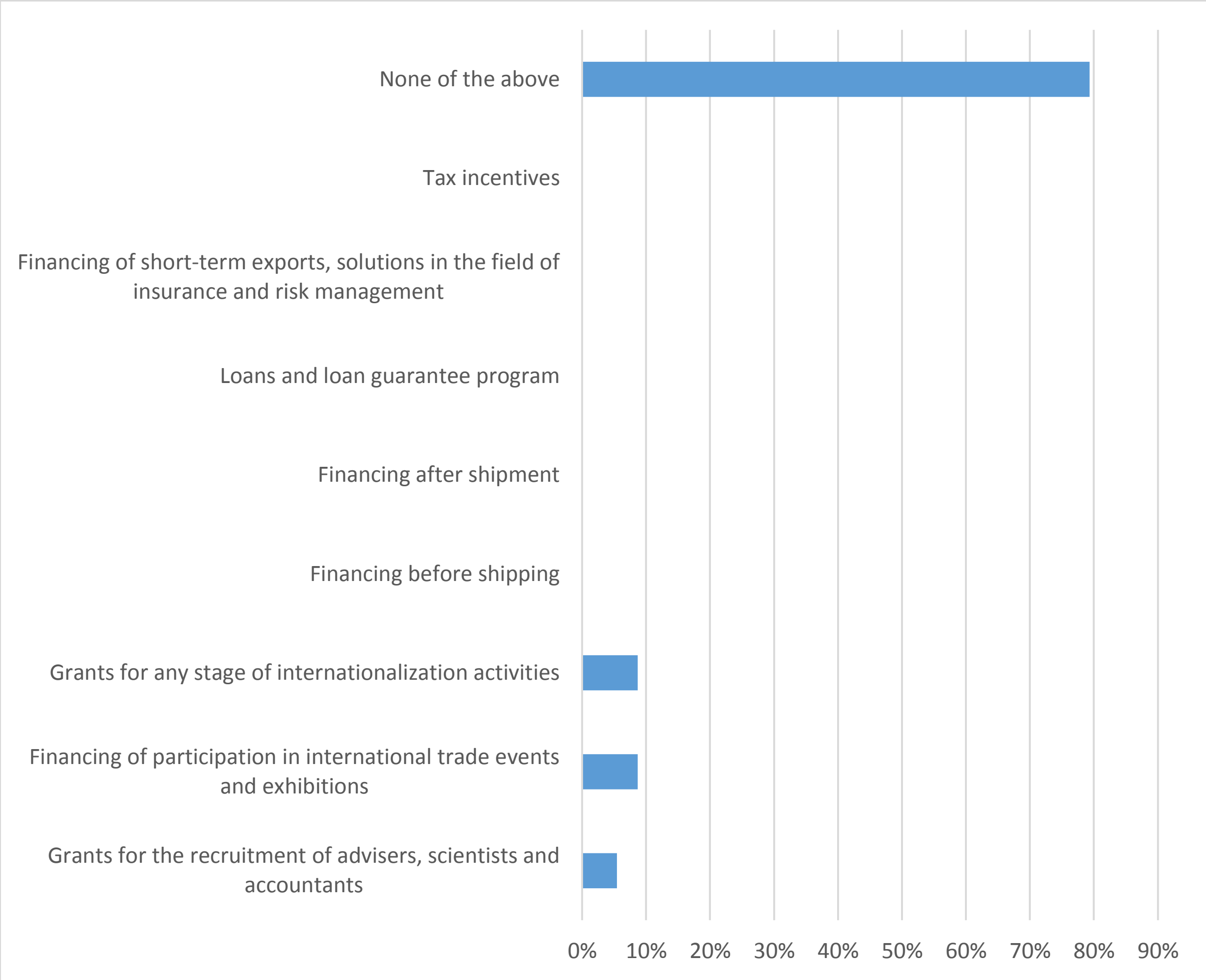
The respondents' statements show that ¾ of the surveyed enterprises did not benefit from any assistance, 16.3% said that they used the assistance under EU initiatives, as well as the one offered by the Chamber of Commerce. No enterprise in our region has benefited from the assistance of investment or trade agencies and knowledge providers. A small proportion used organizations supporting local and regional entrepreneurship (3.3%) and financial institutions (2.2%).

Chart 30. Using/ Benefiting from institutions supporting SMEs according to survey entrepreneurs (in %)



As in the previous question, the answer to the question whether the company has used any financial support programs in the last 5 years shows that almost 80% of them did not use any aid. The help that respondents used was: financing participation in international trade events and exhibitions (8.7%), subsidies for any stage of internationalization activities (8.7%), subsidies for recruitment, scientists or accountants (5.4%)

Chart 31. Activities on which surveyed entrepreneurs received financial support (in %)



According to the survey, enterprises rarely used publicly available information solutions. As much as 87% did not use any solutions. 5.4% of enterprises benefited from comprehensive customer service, 5.4% from partner search services and 4.4% from market research. 2.2% of the entrepreneurs surveyed used information on administrative rules and regulations, while only 1.1% on available analytical reports on foreign markets.

When asked what would happen if the company did not receive public support, all respondents said that nothing would happen - they would try to continue their activities abroad without it.

Experts' statements show that all forms of assistance offered to SMEs in the field of internationalization are needed for enterprises operating abroad. The specific forms of assistance obviously depend on the stage of internationalization of the enterprise. Properly selected training and consulting are important for starters. For advanced participants of international exchange, financial services improving the security and scale of international exchange becomes important.

Public support helped SMEs in their internationalization by a very large offer of various types of EU and public funds for: training and consulting in the field of internationalization of enterprises, credit support for the development of international activity of enterprises, organization of economic missions to various countries of the world, co-financing of SME participation in fairs around the world, co-financing of development investments implemented by SMEs supporting the international activity of SMEs.

CONCLUSIONS AND RECOMMENDATIONS:

The surveyed enterprises are able to build a transnational network structure that will be able to maintain local sensitivity. One of the most important factors describing the company's ability to do so is the development of a transnational market strategy that takes into account long-term cooperation with partners and the importance of the process of acquiring knowledge (learning organization) through cooperation with other companies. It is also important in the opinion of entrepreneurs that the organization has the ability to deal with obstacles, which usually occur when matching the various systems in which enterprises operate.

Characterizing the process of internationalization of the enterprise and the impact of multinationalism on improving its functioning through gaining new experience, is an important factor increasing competitiveness. As the previous considerations show, it depends on reaching information through contacts with staff from other cultures. In this context, entrepreneurs use acquired knowledge and experience mainly to diversify the product and increase the company's ability to improve the communication of the entity with the market. This is a factor that has a direct impact on sales growth on international markets. It should be noted that in today's global market, physical distances between business partners in the process of implementing the strategic goals of the organization are becoming less important.

The main benefit of cooperation is the transfer of knowledge as a strategic resource that allows building competitive advantage. An important factor increasing the access to knowledge are network connections of enterprises that directly affect the strategic orientation of the enterprise and the development of strategic advantage.

The main sources of competitive advantages developed by SMEs are their knowledge and organizational culture, i.e. the factors involved in building the identity of a cross-border organization, which is emphasized by entrepreneurs in all analysed industries. Subsequently, entrepreneurs build their advantage based on mastering technology and brand awareness.

Cross-borderism of an organization understood as economic activity implemented in the immediate vicinity of the state border should be associated with maintaining the identity of the organization at the same time by reaching knowledge resources to shape the culture of the organization functioning at the interface of various socio-economic structures. In the long run, this will allow for building a conscious learning organization that will provide the foundation for a sustainable strategic advantage using endogenous resources in development processes.

Recommendations for entrepreneurs in the field of internationalization:

According to the research, from conversations with experts and own experiences - Podkarpackie enterprises should focus more on competing in terms of quality and innovation, and not only on lower production costs. Only in this way will they be able to overcome the barrier of insufficient attractiveness of the product range, mainly on the markets of highly developed countries. In addition, they should be more proactive, looking for foreign markets (especially in Central and Eastern Europe) and abandoning the illusory belief that the company's profile does not require foreign expansion. Enterprises should also be suggested to search more intensively for information on the possibility of undertaking FDI. Greater cooperation with institutions such as the Polish Information and Foreign Investment Agency, the Ministry of Economy or international chambers of commerce or entities operating in the region offering advisory assistance in this area is recommended.

Recommendations for decision makers:

In particular, economic policy makers are advised to:

- greater activity towards concluding international agreements to facilitate Polish FDI
- more effective information campaign on the possibility of foreign expansion. Such information should particularly reach enterprises from the SME sector and be more widely disseminated, especially among micro-enterprises.
- greater incentives than before (the existing ones focused more on attracting FDI than on supporting capital exports), e.g. guarantees and insurance of loans for foreign direct investment, expanding information activities on foreign markets, especially in the SME sector, greater state activity in the field of concluding agreements to facilitate Polish FDI;
- Due to the low knowledge about internationalization processes and the functioning of foreign markets, enterprises, especially from the SME sector, are recommended to increase expenditure on training in the processes of internationalization of the enterprise.
- associations of Polish enterprises should lobby more for concluding international agreements facilitating Polish foreign direct investment. Competing in terms of quality and innovation, especially in the markets of highly developed countries, requires increased expenditure on

R&D, reorientation towards a proactive attitude, looking for opportunities to expand abroad, closer cooperation with the Polish Information and Foreign Investment Agency, the Ministry of Economy and international chambers of industry and commerce.

In addition, during the interviews, experts-stakeholders pointed to the need to introduce facilitations for entrepreneurs, which currently do not operate in their local and institutional environment, and would have an impact on the development of SMEs, e.g. facilitating procedures related to running an international enterprise. It was pointed out that the procedures should be simplified to a minimum and the possibilities of settling matters via the Internet should be increased, so as not to waste time on small things that require the presence of an entrepreneur in offices. Stakeholders also pointed to the need to ensure equal opportunities, observe and enforce the principles of healthy competition, and to increase the scope of informing the entrepreneur about the applicable laws and regulations.

Other studies in the field of internationalization also show that Polish companies, in the face of rising labor costs in the country and international competition, will more and more often use foreign direct investment, including opening new plants abroad. The main directions of expansion of Polish FDI will be EU countries (86% of respondents' answers), Eastern European countries such as Ukraine, Russia, Belarus, Bulgaria (52%), Asian countries (34%) and highly developed countries that are not EU members (like Switzerland and Norway).

In terms of helping SMEs in the region, especially the smallest companies, regional decision-makers should develop a coherent, regional program to promote SME exports and internationalization.

Such a program could be based on a concept developed for SMEs, for those companies that have the potential and ability to increase global competitiveness through innovation and internationalization, e.g. a business development program where companies would participate in the development process over a period of time.

Due to the relatively high percentage of enterprises that do not take any actions aimed at improving the level of their employees' qualifications, building awareness of the purposefulness and profitability of using it is as important as offering training support.

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List of stakeholders:

1. Marshal's Office of the Podkarpackie Voivodship, Department of ROP Management
2. Department of Regional Development, Marshal's Office
3. Exporter and Importer Service Center
4. Investor Assistance Center
5. Department of National and International Projects, RRDA
6. University of Rzeszów
7. University of Information Technology and Management in Rzeszów
8. Business Support Platform of Podkarpacie, UITM
9. Polish Economic Society
10. Malopolska Economic Institute