POLISH REGIONAL ANALYSIS

BUILDING REGIONAL RESILIENCE TO INDUSTRIAL STRUCTURAL CHANGE

Podkarpackie Region - Poland

Polish Partner
Rzeszow Regional Development Agency

Managing Authority
Marshall Office of Podkarpackie Voivodeship

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Introduction

FOUNDATION is an Interreg Europe funded SME Competitiveness project that brings together nine partners in a consortium led by Cork Institute of Technology from 1/08/2019 to 31/07/2023. Presently, across Europe, public bodies are pressed by an increasing need to provide preparatory support to the economic ecosystem in advance of the closure of anchor firms in their region which act as significant employers. The impacts of a closure of course go beyond direct employees and ripple, wave like throughout the regional services sector and economy. Management of such anticipated structural change requires proactive renewal of business approaches and policy supports. Regions are encouraged to introduce pilot projects based on their own strengths and to provide appropriate business supports for the re-alignment of the regional industrial base. This proactive approach by regional stakeholders is critical to building the resilience of these regions and enabling them to adapt to change.

The importance of SMEs and start-ups to the regional economy is widely recognised in terms of the provision of employment, contribution to GDP, driving innovation and supporting regional resilience. It is imperative that the relevant regional stakeholders keep informed, inspired and equipped to provide the appropriate SME and start-up supports, particularly in regions anticipating structural change.

FOUNDATION links its project partners to develop Regional Action Plans and an overall Framework and Roadmap for Anticipated Structural Change. It is imperative that industry players, business support organisations and policy makers understand how their ecosystems work and when faced with shocks (firm closures) to collaboratively develop alternative growth and employment through supportive policies and programmes to boost SME competitiveness. Key project activities included the exchange of experience and learning through interregional events (4 workshops, 4 seminars and 9 study visits).

Foundation Project Partners

Summary

At the end of 2019, Podkarpackie Voivodship (Region) had a population of 2127.2 thousand, accounting for 5.5% of Poland's population. In Podkarpackie Voivodship, as in all of Poland in recent years, the process of aging of the population is progressing. The percentage of population in the pre-productive age has decreased in the pre-productive age - to 18.2% in 2019, while the proportion of the population in the post-productive age increased - to 20.4% in 2019. The number of people of working age has also decreased.

The average population density of the Voivodship in 2020 will be 119 persons per 1 km^2 (in Poland - 123). Podkarpackie belongs to the least urbanized regions in the country among 16 Voivodships. However, an even distribution of medium-size urban centres performing similar social and economic functions favours a polycentric development of the region. The settlement network of the Voivodship is characterised by a regular and even distribution of towns in terms of their size.

A given region has a competitive advantage in a given field when there is an above-average concentration of these factors in its area, compared to the values observed in a given country

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or a group of countries. Such an example, repeatedly emphasized, in the Podkarpackie Voivodeship is the aviation industry and the sectors around it (defense, electromechanical, foundry, production of composite materials).

What distinguishes Podkarpackie Voivodship from other regions of Poland is its specialisation in aviation. The influence of aviation and space industries on practical sectors and branches of economy is very important. Generated technologies, materials and other solutions very quickly find application in other areas of the economy - aviation and aerospace are therefore the engine driving the growth of the region's economy. The region is characterised by a high concentration of aviation industry companies, pilot training centres, and many research and development institutions, as well as developed educational and training facilities.

The aviation industry is characterized by a high share of export sales. It oscillates around 70% and although its slight decrease can be noticed in recent years, it is still much higher than the average for enterprises in the voivodship.

The second important branch developing dynamically is the automotive industry. It includes all enterprises and organisations involved in the design, development, production, marketing and sale of motor vehicles, including the production of parts for them. In turn, the automotive industry does not include the sector associated with the ongoing maintenance and repair of vehicles or the network of petrol stations. The smart specialisation adopted by the Voivodship is a set of activity areas and solutions related to the production of motor vehicles.

The analysis of the economy of Podkarpacie shows that the automotive industry is characterized by one of the highest shares in production and employment, growth dynamics exceeding the average for the voivodship, as well as a high level of expenditure on innovative activities. Share of net revenues from the sale of products, goods and materials for export

in the period 2014-2018, it recorded slight fluctuations in net revenues from the sale of products, goods and materials in the automotive industry. The automotive sector shows the share of exports at a level almost three times higher than in the voivodship and the country.

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Another important industry in the region is the information and communication industry. Podkarpackie Voivodship belongs to the regions with outstanding scientific and research potential in the field of information and communication technologies.

There are especially many IT companies in Podkarpacie, and Asseco, a global leader, remains such a flagship. There is also an IT cluster which currently gathers around 100 companies.

At the end of 2019 about 181 thousand entities of national economy, i.e. legal persons and organisational units without legal personality with their registered office in Podkarpackie Voivodship and natural persons conducting economic activity residing in this area, were registered in the REGON register.

Most entities of the national economy operated in the trade section; repair of motor vehicles - 41.5 thousand (22.9% of the total), then construction - 26.5 thous. (14.6%), manufacturing - 17.2 thous. (9.5%) and professional, scientific and technical activities - 16.2 thous. (8.9%). A similar structure was present in the case of natural persons who conducted business activity also mainly in the field of trade and repair of vehicles - 24.6%, then construction - 17.7%, professional, scientific and technical activities - 12.0% and in the field of industrial processing - 10.2%.

The average employment in Podkarpackie Voivodship in 2019 amounted to 450.6 thousand persons and it increased by 14.3% in comparison to 2010, of which the employment in industrial processing was 14.3%. At the same time, this section had the largest share in total employment of industry.

The largest share of employment in 2019 in the Voivodship, excluding manufacturing, occurred in the sections: wholesale and retail trade, repair of motor vehicles, including motorbikes, education and health care and social assistance, public administration and defence, compulsory social security and construction.

Average employment in aviation sector units recorded a steady increase between 2014 and 2016, while provincial employment declined between 2014 and 2015 and recorded an increase in 2016. In 2017, employment in both the sector and the Voivodship declined from the previous year, while in 2018, employment in both the aviation sector and the Voivodship increased.

Average employment in the automotive sector increased in 2014-2016, while in 2017 employment decreased compared to the previous year. In the voivodship, after decreases in 2014-2015, in the following year it increased by 1.9% per year.

In 2107, similarly to the automotive industry, employment decreased, while in 2018, both in the automotive industry and in the region as a whole, employment increased accordingly by 8.6% and by 3.7%.

Average employment in units specializing in energy security and mobility, after a slight increase in employment in 2014, recorded declines in subsequent years compared to the previous year (the highest in 2015 by 6.9%). A new increase was recorded in 2018 (by 1.4%). In the voivodship, in 2014-2015, employment was falling, in the following year it increased, and in 2017 it fell again. In the last year of the analyzed period, employment in the voivodship increased by 3.7%.

The development of industry in the lands currently belonging to the Podkarpackie Province should be sought at the time of the establishment of the Central Industrial District (COP). It was a heavy industry center built in 1936-1939 in the south-central districts of Poland. Many investments made at that time are currently being continued. The aim of the COP was to increase the economic potential of Poland, expand the heavy and armaments industry, and reduce unemployment caused by the effects of the Great Depression.

In terms of attractiveness for industrial activity, the sub-regions of Tarnobrzeg and Rzeszów were classified as areas of high attractiveness, while the sub-regions of Przemyśl and Krosno were classified as sub-regions of lowest attractiveness for industrial activity. The industrial leader of the region continues to be the Tarnobrzeg sub-region, whose sales of industrial products accounted for half of the total sold production of the Voivodship in 2019. The region's runner-up is the Rzeszów sub-region, where the industry of Rzeszów and the Rzeszów powiat produces more than two-thirds of the sub-region's total sold value.

In another approach, it looks like that in 2019 the value of sold production in the Tarnobrzeg subregion was almost the same as that produced and sold by the other three subregions taken together. The economic strength of Podkarpacie is created by the western and north-western poviats of the voivodship, which are part of the Tarnobrzeg subregion. The potential of this sub-region, and especially of the counties comprising it: Dębicki, Mielecki, Stalowowolski, Tarnobrzeg and the city of Tarnobrzeg, constitute the value of the industry of the entire voivodeship. Without them, its potential would be half that.

The second place in the region in terms of sold industrial production is the Rzeszów subregion, where the industry of Rzeszów and the area of Rzeszów district generates over two-thirds of the sold value of the entire subregion.

Most of the companies located in this zone operate in the aviation industry. Pratt and Whitney Rzeszów (formerly WSK), which is part of the Aviation Valley, has its headquarters.

In Rzeszow. The Aviation Valley also includes companies located in Mielec (Sikorsky Aircraft), Rzeszów, Świdnik, Kraśnik, Kalisz and Wrocław, but most of them are based in Podkarpacie. This industry has a huge impact on the increase in the value of sold production.

The indicator of the general climate of the economic situation is an indicator of the current and forecast economic situation of the enterprise. In the Podkarpackie voivodship, an attempt to study the economic situation amounted to 1008 units, including those belonging to the sections: industrial processing - 229, construction - 291, trade - 337 and services - 151.

In most of the analyzed areas, entrepreneurs in the Podkarpackie Voivodeship in December 2020 assess the economic situation less pessimistically than in November 2020. Of course, more pessimistic, however, than in December 2019. In the voivodeship, the indicator of the general economic situation in industrial processing in April-September ranged from minus 40.8 to minus 1.2. After a slight improvement in sentiment in Podkarpackie in October, the indicator again turned negative in the following months.

The epidemic state introduced in March and a number of restrictions that were associated with it rapidly affected the results of sold production of industry. In April 2020, industrial output sold recorded a deep decline, both on an annual and monthly basis. In the Podkarpackie Voivodship, industrial output sold was (at constant prices) 35.0% lower than in April 2019, and compared to March it decreased by 32.5%. From May to October, an increase in dynamics can be seen both in the country and in the Voivodship. In contrast, the last two months of 2020 saw a slowdown in this growth.

In Podkarpacie, the decline in industrial processing was recorded in most divisions, including three with the largest share of sold production, ie in the production of other transport equipment, machinery and equipment, and the production of chemicals and chemical products. The phenomenon of a very strong differentiation of companies' results is invisible in the aggregated data. Some companies lost in the crisis, for others it opened up new perspectives.

For the whole of 2020, industrial output sold was 6.4% lower, (nationally by 1.0%) than in 2019, including a 6.7% decline in manufacturing. The decrease in production occurred in 16 departments of industry (out of 31 occurring in the Voivodship), including in three departments with the largest share of sold production i.e. the production of other transport equipment, machinery and equipment and the production of chemicals and chemical products.

In April 2020, more than 10% of business entities in Podkarpackie Voivodship that submitted a DG-1 report indicated COVID-19 pandemic as a factor causing significant changes in the conduct of business. At the same time, the percentage of entities reporting changes caused by COVID-19 has been declining since April and was about 2% in December 2020.

Sold production in January-February 2020, in units of the enterprise sector (with more than 9 employees) in Podkarpackie Voivodship, increased by 6.5% compared to the corresponding month of 2019. An increase in production also occurred in February 2020, by 3.9% and this was an increase in sold production on an annual basis recorded continuously since August 2016. However, the situation changed in the month of March, where, for the first time, production sold decreased on an annual basis. Production was 4.1% lower compared to the corresponding month of 2019. Sixteen powiats had lower revenues, of which twelve did not exceed the provincial average.

In January-September 2020, the indicators of profitability of sales, assets, capital and the share of income from sales of products, goods and materials for export in net income from sales of products, goods and materials in total and enterprises were lower in Podkarpackie Voivodship, compared to the same period of the previous year.

As at the end of April 2020, in the REGON register 21.1 thousand. entities had suspended activities (by 4.0% more than a month ago). The vast majority were natural persons running a business (95.5% as compared to 95.6% in March this year). In the February-April period, the number of suspended entities grew. In the next four months, the number of suspended activities reported in the REGON register dropped significantly. It started to grow again in

September and at the end of December this year. 20.8 thousand in the REGON register entities had suspended activities (2.5% more than a month ago). The highest increase in the second half of the year was recorded in November (by 3.3%). In the period February-April 2020, the number of newly registered entities in the REGON register decreased. In the next two months, there was a significant increase in the newly registered (in May - by 71.9% compared to April 2020). Since July, the dynamics of newly registered manure fluctuated significantly (including the largest drop in November - by 22.8%). Entities in industry sections showed similar tendencies.

In the period of January-November 2020, in all poviats of the Podkarpackie Voivodship, the number of newly registered enterprises exceeded the number of deregistered ones. Including the number of natural persons and commercial companies. On the other hand, in December there were poviats in which the number of newly registered enterprises did not exceed the number of deregistered enterprises. Dębica poviat, Tarnobrzeg and Przemyśl towns and Lesko poviat.

Units with suspended operations at the end of March 2020 were 3.5% more than a month ago. Relatively large increase in entities with suspended activity, he appeared in the sections of education, activities related to culture, entertainment and recreation, health care and social assistance and other service activities. Also in April 2020, units with suspended operations were 4.0% more than a month ago. A relatively large increase in entities with suspended activities occurred in the sections of education, health care and social assistance, other service activities and transport, warehouse management. On the other hand, in the period May-August 2020, there were less and less entities of the national economy with suspended activity than in the previous month, from 4.4% in May to 0.5% in August. A relatively large drop in entities with suspended activities was recorded in the section of accommodation and catering, other service activities, health care and social assistance, and industrial processing.

The growth of units with suspended operations started again in September 2020 and was thus observed until the end of the year.

In the period of January-December 2020, an increase in the number of dwellings completed in relation to the corresponding period of 2019 was recorded in fifteen poviats, including the largest in the Bieszczady poviat - more than 2.5 times, Przemyśl - by 70.1% and the poviat

Kolbuszowskie - by 50.0%. The drop in the number of completed dwellings occurred in ten poviats, including the largest in Tarnobrzeg - by 31.8%, Sanok - by 29.5% and Leżajsk - by 18.7%.

In the period of January-December 2020, the number of apartments for which permits were issued or applications were submitted with a construction design increased compared to the same period of 2019 in fifteen poviats, including the most in the Łańcut poviat - nearly 2.5 times, Przeworsk - by 59.5% and in Tarnobrzeg - by 42.1%.

The tourism sector is one of the sectors directly affected by the current crisis resulting from the coronavirus pandemic. All over the world, tourist accommodation establishments record lower rates of the use of tourist accommodation establishments compared to the corresponding periods of the previous year. The decrease in the number of tourists and the degree of use of tourist accommodation facilities occurred in all poviats of the voivodship in each of the analyzed months from March to December. And so, in March 2020, the highest decrease, compared to the corresponding period of the previous year, occurred in Rzeszów (by 18.2 thousand) and in the Bieszczady poviat (by 5 thousand), the smallest decrease in the number of tourists was recorded in the Brzozów poviat (at 116). In November 2020, the highest decrease was also recorded in Rzeszów (by 20.1 thousand) and in the Bieszczady poviat (by 5.7 thousand).

The number of tourists was lower in each analyzed month, compared to the corresponding month of the previous year. The biggest difference occurred in December 2020, where this decrease amounted to almost 80%.

In the Podkarpackie Voivodeship, according to the data of the General Headquarters of the Border Guard, in December 2020, 358.3 thousand people were registered at the Polish-Ukrainian land border. severance pay (68.5% less than in the corresponding period of the previous year and 37.4% more than in November 2020), of which: - 337.2 thous. foreigners - 68.3% less than in December 2019 and 36.4% more than in November 2020. However, in the case of Poles - 21.2 thousand. - 71.1% less than in December 2019 and 53.7% more than in November 2020.

In 2020, employers from Podkarpacie notified the poviat labor offices of their intention to lay off about 3,400 jobs. employees. Among the employers submitting

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redundancies to labor offices, the most frequent were entities from the aviation, automotive and metalworking industries or the production of machinery and equipment. The first two industries were hit by the pandemic. First of all, restrictions on the movement of people along with a general decline in orders in the automotive industry and in the production of aircraft components. These constraints have significantly affected the level of orders and employment in these particular sectors of activity. Apart from the pandemic, the difficult situation was also compounded by the decline in demand resulting from the slowdown in the global economy, taking place in decades of cycles, which determines the reporting of layoffs in the other, less numerous sectors. A significant factor mitigating the negative effects of the pandemic are, inter alia, individual editions of the government's Anti-Crisis Shields.

The long-term effects of the pandemic are currently difficult to predict. Some companies, in his opinion, will have to react to the decline in demand by adjusting the level of order fulfillment to the new market conditions. Other employers will cooperate and attract new contractors. Some of the larger companies try their hand at opening new types of production or services, in short test series, e.g. of goods that are popular on the domestic market or new customers abroad. For the automotive industry, a new growth pole may turn out to be the production of modern public transport vehicles on the so-called magnetic cushion or microelectronics.

Three specific companies from Podkarpacie BorgWarner, ML System and Asseco were selected for the analysis. ML System is a producer and distributor of photovoltaic panels. On the Polish market, it is one of the pioneers whose scope of operation is photovoltaic energy. The company's financial situation confirmed that in the following quarters of 2020, the COVID-19 coronavirus epidemic was a medium-sized risk that did not significantly affect the size of the impact on operations. The company was not subject to administrative operating restrictions imposed by the authorities related to the loss of business.

In the case of BorgWarner Polska, the plant operated as normal. At the beginning of the pandemic, the company used a quick analysis of the situation and data, close cooperation of key departments and the introduction of detailed sanitary and epidemiological procedures. This allowed for an appropriate response to the threat, smooth shutdown of production and its restart, and above all, effective protection of employees against COVID-19.

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Due to the lock-down and the transition of most companies to remote work, the demand for computer hardware, software and network support increased, which improved the condition of companies in the IT industry.

For Asseco, 2020 was very demanding on many levels. That is why the company joined the activities aimed at helping in this difficult situation, which is the coronavirus epidemic. At the same time, it focused on those areas in which it was competent, i.e. on ensuring the continuity of our clients - companies and institutions important for the functioning of the state, the financial system or the health sector. Despite the epidemiological situation, the company's employees were fully available on duty to ensure the smooth operation of our clients' systems. Last year, the company also provided additional free activities for hospitals to adapt the systems to the needs of patients at risk of a pandemic. in consultation with the Ministry of Health and the National Health Fund, implementing ad hoc measures to support the fight against coronavirus.

In 2020, the situation was good for entities involved in the production and sale of medicines and supplements supporting health. The demand for such products increased significantly with the first signs of a pandemic in the country.

The largest losses were concentrated in the small business sector, which cannot be seen in the presented data - gyms, restaurants, transport companies, event companies, marketing companies and small service companies related to the wedding industry, are usually small enterprises. The condition of these smaller companies is difficult due to the lack of new orders and resignation from already concluded, which is associated with the return of advances. Certainly, these companies were greatly helped by the government's anti-crisis shields. They made it possible to significantly reduce payroll costs, and at the same time cash transfers - invisible in revenues - made it possible to cover part of the costs.

In the Podkarpackie voivodship, goods are often produced that are simpler, cheaper and less complex than in other provinces or other more developed countries, i.e. goods for which demand is less sensitive to economic fluctuations. The situation in the automotive sector is a good example. Last year, production in this sector in the voivodship was at a similar level as in the previous year, while, for example, in Germany it fell by almost one fifth. This difference may result, among others, from from the fact that the region produces a lot of parts that were badly needed in the conditions of increasing car use at the expense of

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public transport. At the same time, less advanced elements and finished cars, for example, are produced.

The aviation industry is in a worse situation, as it has suspended orders for new products due to the grounding of flights. Some companies used this time for fleet repairs. In the second half of the year, orders for parts in the aviation industry grew slightly, but the increase in morbidity at the end of the year caused further restrictions on flights, which resulted in limitations in production and services in the aviation industry.

1.1. General information on Podkarpackie Voivodship

Location, population and settlement network

Podkarpackie Voivodship lies in a zone of moderate climate with transitional features, on the edge of the maritime and continental climate. Three main climate regions can be distinguished in the Voivodship: mountainous (the region of the Bieszczady, the Beskid Niski and the Sanocko-Turczańskie Mountains), submontane (the Carpathian Foothills) and sub-mountainous basins (the Sandomierz Basin). In some parts of the Low Beskids there is a climate of mountain resorts (Rymanów-Zdrój).

Map 1. **Administrative division of the country**

Podkarpackie Voivodship is situated in south-eastern Poland. It borders to the north and west with the Małopolskie, Świętokrzyskie and Lubelskie Voivodships; to the south with Slovakia and to the east with Ukraine. It covers three separate physiographic regions. In the northern part there is the Sandomierz Basin, in the middle the Carpathian Foothills, in the south the Beskids, divided into the Beskid Niski and the Bieszczady. The north-eastern corner of the voivodship is situated within the Roztocze range.

The geodetic area of Podkarpackie Voivodship in 2020 (as at 1 January) amounted to 1784.6 thousand ha, i.e. 5.7% of the country's area. Agricultural land constituted 54.0% of the total area of the Voivodship, forest land including wooded and shrub land constituted - 39.0%, built-up and urbanised land - 5.0% and other land - 2%.

At the end of 2019, Podkarpackie Voivodship had a population of 2127.2 thousand, which constitutes 5.5% of Poland's population. In Podkarpackie Voivodship, as in all of Poland in recent years, the aging process of population is progressing. The percentage of population in the pre-productive age has decreased The percentage of population in the pre-productive age has decreased to 18.2% in 2019, whereas the percentage in the post-productive age has increased to 20.4% in 2019.

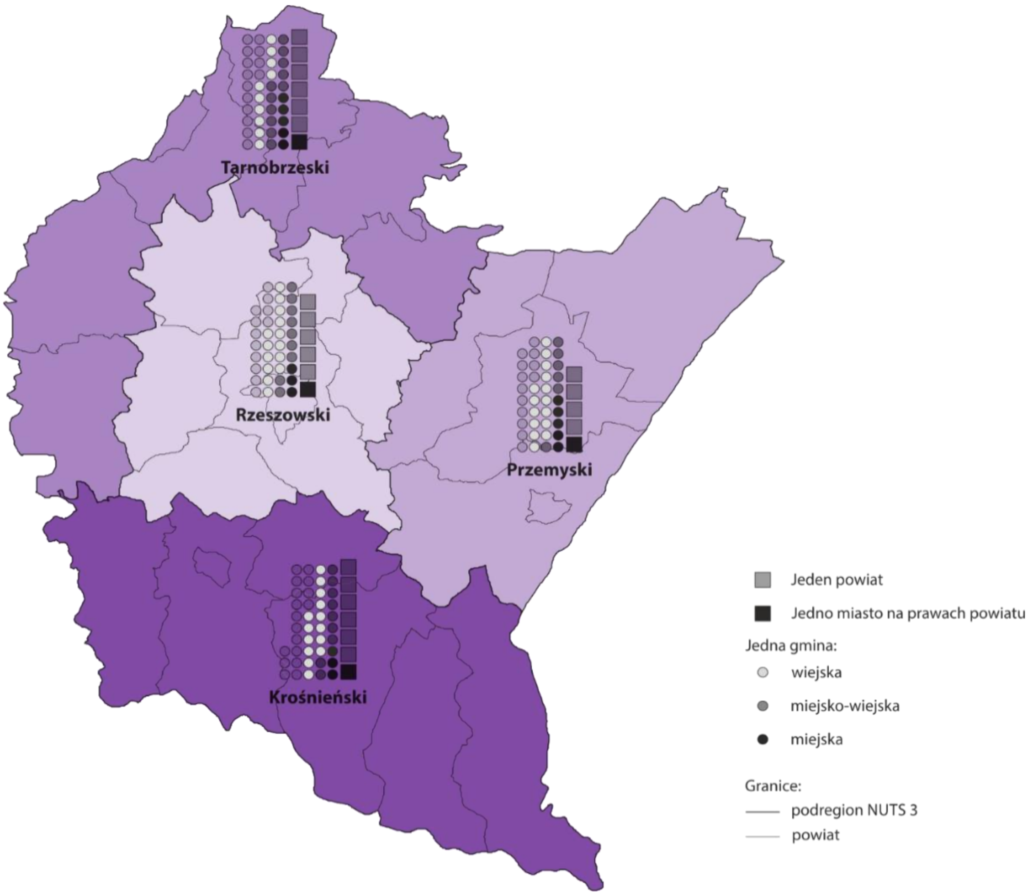
The average population density of the Voivodship in 2020 will be 119 persons per 1 km^2 (in Poland - 123). This indicator showed significant spatial variation - from the highest in Rzeszów and Przemyśl - respectively: 1550 and 1314 persons/km^2, to the lowest in poviats: bieszczadzki and leski - 19 and 32 persons/km^2. In the cities of the Voivodship there were on average 713 people per 1 km^2, while in the countryside 75 people. The population structure by gender has not changed much for several years. Women constituted 51.0% of the total population of the Voivodship. Podkarpackie belongs to the least urbanized regions in the country among 16 Voivodships. However, an even distribution of medium size urban centres performing similar social and economic functions favours a polycentric development of the region.

The settlement network of the Voivodship is characterised by a regular and even distribution of towns. The former Voivodship towns of Krosno, Przemyśl and Tarnobrzeg as well as the towns of Stalowa Wola, Mielec, Dębica, Jarosław, Sanok and Jasło form a specific ring around the city of Rzeszów, the largest centre in the Voivodship. This ring is completed by medium and small towns. The size structure of the cities is dominated by small towns of less than 5 thousand inhabitants. The size structure of the cities is dominated by very small towns of less than 5 thousand inhabitants, which constitute 40% of all the cities of the voivodship. Poviat towns are characterised by diversified demographic potential (Rzeszów - 189.7 thousand inhabitants, Lesko - 5.5 thousand inhabitants). As of 31.12.2020 in Podkarpackie Voivodship there were 51 cities and 1666 rural settlements which constitute 21 rural poviats, 4 grodzki poviats and 160 gminas, including 16 urban gminas, 109 rural gminas and 35 urban-rural gminas. Compared to 2014, the number of rural municipalities decreased in favour of urban-rural municipalities, as on 01.01.2014 Zaklików obtained the status of a city. At present the basic elements of the settlement network in the Voivodship consist of:

Rzeszów - national centre fulfilling some metropolitan functions, the biggest city in the Voivodship with the population of in the Voivodship with 196 thousand inhabitants. Apart from Rzeszów, in Podkarpackie there are 9 large cities with population above 30 thousand, i.e. Przemyśl, Stalowa Wola, Mielec, Tarnobrzeg, Krosno (sub-regional cities), Dębica, Jarosław, Sanok, Jasło, 7 medium-sized cities with population between 10 thousand. Seven medium-sized towns with population between 10,000 and 30,000, i.e. Łańcut, Przeworsk, Nisko, Ropczyce, Leżajsk, Lubaczów, Nowa Dęba, small towns with population between 5,000 and 10,000 (14 centres), very small towns with population below 5,000 (20 centres). Rzeszów as the capital of the Voivodship plays a key role in the region's economic development. Its influence is very strong both on the functional area and in relation to other growth poles. The city's position is also stable in comparison with other provincial cities in south-eastern Poland.

Map 2. **Administrative division of Podkarpackie Voivodship into subregions and powiats in 2020 -**

Subregions



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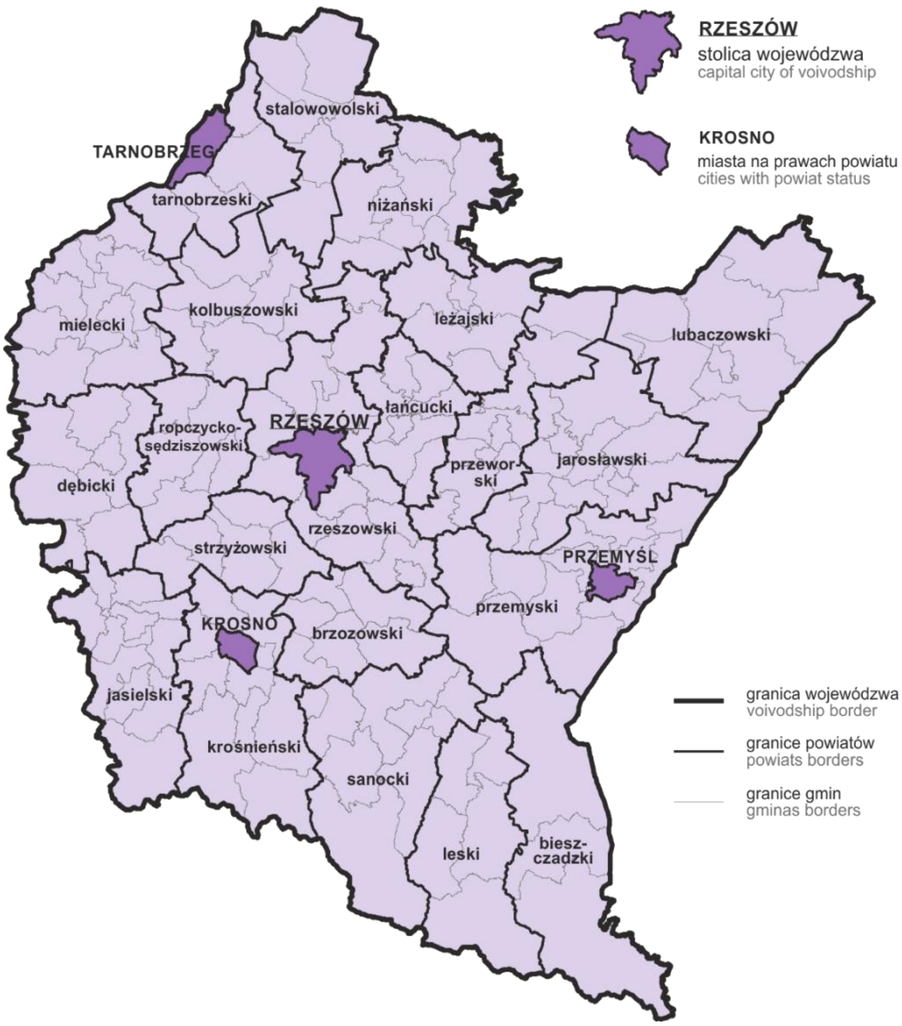


Source: Own elaboration based on CSO data.

Powiats and gminas

Source: Own elaboration based on CSO data.

As of 1 January 2018, there are 97 NUTS units in Poland:

- NUTS 1 - macro-regions (grouping Voivodships) - 7 units
- NUTS 2 - regions (Voivodships or parts thereof) - 17 units
- NUTS 3 - subregions (grouping powiats) - 73 units

NUTS 3 units are divided into local administrative units (LAU). In the case of Poland, gminas are indicated as local administrative units. Podkarpackie Voivodship is divided into: 4 subregions (NUTS 3): tarnobrzeski, przemyski, krośnieński and rzeszowski.

Main sectors - drivers of growth in Podkarpackie Voivodship

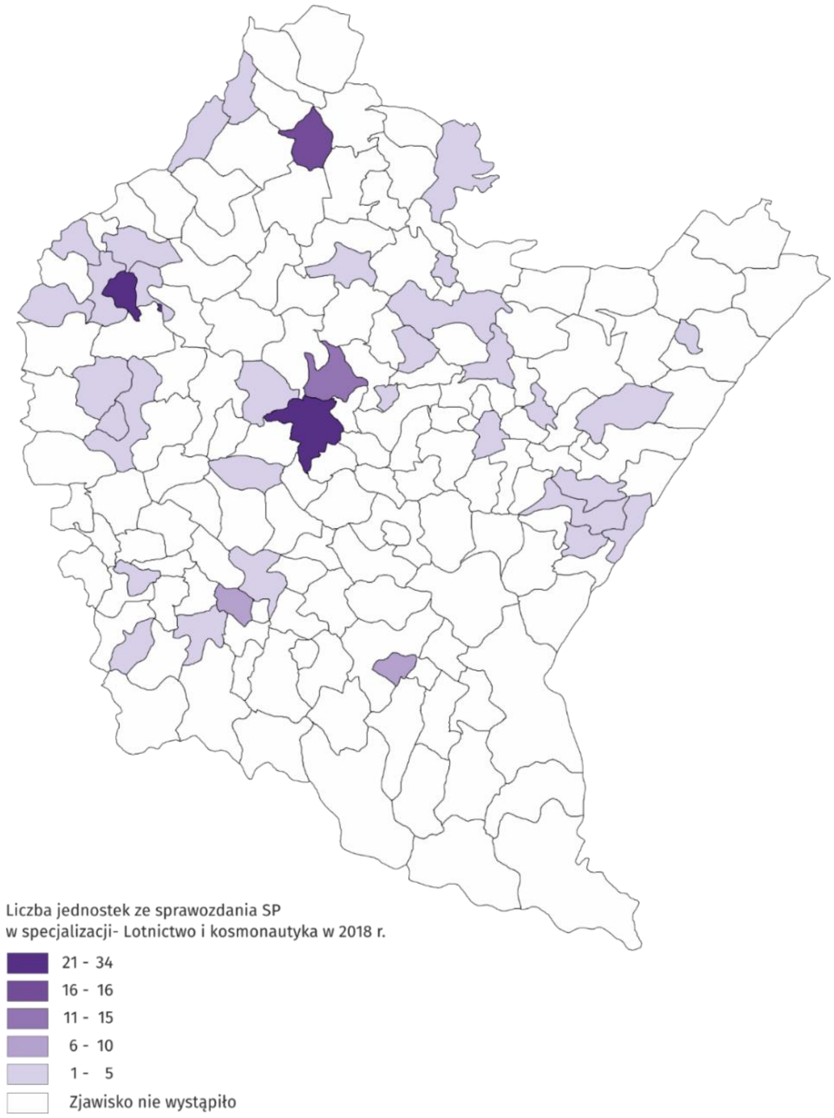
The specialisation of aviation is what distinguishes Podkarpackie Voivodship from other regions of Poland. Although companies in the aviation industry are also located outside the Voivodship's borders, Podkarpackie is regarded as an unrivalled region in Poland. At the same time, it is a unique field, which as a leading specialisation was designated only in one region of Poland (Regional Innovation Strategy of Podkarpackie Voivodship 2014-2020 for smart specialisation).

In general, a region is considered to have a competitive advantage in a given field when there is an above-average concentration of these factors in its area, compared to the values observed in a given country or group of countries. Such an example, which has been already underlined many times, is the aviation industry in Podkarpackie Voivodship and sectors concentrated around it (defence industry, electromechanical industry, foundry industry, composite materials production).

The impact of the aerospace industry on practical sectors and industries of the economy is very important. The technologies, materials and other solutions generated are very quickly applied in other areas of the economy - aerospace is therefore a driving force behind the growth of the region's economy. The region is characterised by a high concentration of aviation industry companies, pilot training centres, and many research and development institutions, as well as a developed educational and training base.

In Podkarpackie Voivodship a cluster - the Association of Aviation Industry Entrepreneurs "Aviation Valley" - has its seat. The founding members of the cluster were several aviation companies from Podkarpacie and Bielsko-Biała, as well as the Rzeszów University of Technology and two regional development agencies - RARR and MARR. In order to maintain the leading role of the industry as the driving force behind the development of the cluster, all newly recruited members represent aviation companies.

Map 3. **The location of enterprises in the aviation industry in Podkarpackie Voivodship in 2019.**



Source: Own elaboration based on CSO data.

Polish research on aviation industry is managed by the Centre of Advanced Technology AERONET - Aviation Valley, which brings together 13 research and development institutions and over 100 enterprises from the aviation sector, with its offices located at the Rzeszów University of Technology. This university has the most modern Laboratory of Material Testing for Aerospace Industry, and the company Pratt & Whitney Rzeszów S.A. (former WSK "PZL-Rzeszów" S.A.) has built its own strong R&D centre. Between all the organisations mentioned above, which is a unique phenomenon noticed and emphasised in the whole country, there is a real scientific-research and educational cooperation.

Aviation Valley companies are fully-fledged participants in the global supply chain. Aviation products from the Podkarpacie region are assembled in the most modern passenger aircraft manufactured by Boeing, Airbus, Canadian Bombardier, Japanese Mitsubishi and Brazilian Embraer. They are assembled in the most modern American fighter aircraft F-35, made by Lockheed Martin.

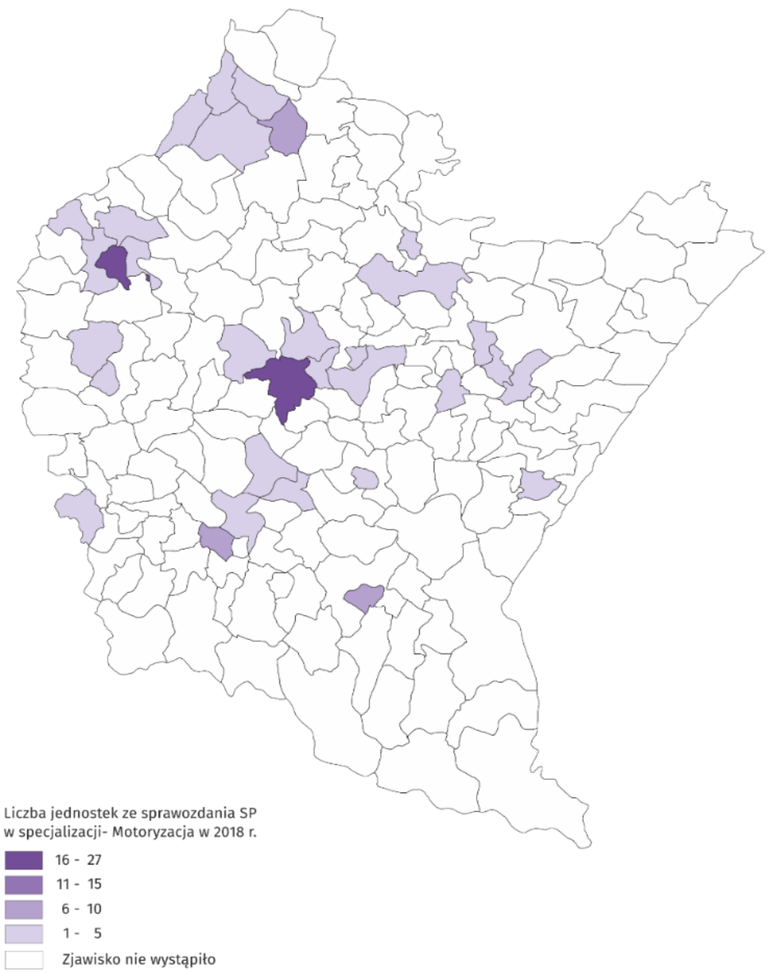
The Podkarpackie aviation industry supplies: aircraft, helicopters, aircraft engines, APU auxiliary engines, aircraft landing gears, aircraft transmissions, turbine modules, as well as hundreds of other complex components and assemblies, using state-of-the-art technologies and materials, such as monocrystals, composite materials, recognised as priority technologies in the development of the industry and the region. Podkarpackie Aviation Valley Cluster (Podkarpacki Klaster Dolina Lotnicza) obtained the status of a National Key Cluster (Krajowy Klaster Kluczowy), placing it on the first place among seven most important Polish clusters. The importance of the Podkarpackie Voivodship for the aviation and space industries has been confirmed by the fact that a branch of the Polish Space Agency POLSA is located in Rzeszów. It is estimated that in the next 5 years, the aerospace industry in the Podkarpackie Region will create more than 4 000 new, highly specialised jobs. An influx of new investments and new investors can also be expected.

The aviation industry is characterised by a high share of export sales. It oscillates around 70%, and although in recent years a slight decrease can be observed, it is still much higher than the average in the Voivodship. In the region the share of exports fluctuated within the analysed period between 22.3% and 24.2%, whereas in the country between 21,1%-23,0%.

In 2015-2016, revenue from sales of products, goods and materials for export in companies in the aviation industry grew much more dynamically than on average in the Voivodship and Poland. In 2018, the dynamics of export revenue of the aviation industry was higher than recorded for Poland but lower than for Podkarpackie. Average employment in aviation sector units in 2014-2016 recorded a systematic growth, while in the Voivodship employment decreased in 2014-2015 and recorded an increase in 2016. In 2017, employment in both the sector and the Voivodship declined compared to the previous year, while in 2018, employment in both the aviation sector and the Voivodship increased (by 6.3% and 3.7% respectively). Revenue from export sales fell in the first three quarters of 2020, compared to the same period in 2019 by 23.5%, while employment decreased by 5.7%.

The second important branch of dynamic growth is automotive. It includes all enterprises and organisations involved in the design, development, production, marketing and sale of motor vehicles, taking into account the production of parts for them. The automotive sector, in turn, does not include the sector related to the on-going maintenance and repair of and repair of vehicles or a network of petrol stations. The smart specialisation adopted by the Voivodship is a set of activity areas and solutions related to the production of motor vehicles.

Map 4. **Spatial distribution of enterprises in the automotive sector in Podkarpackie Voivodship in 2019**



Source: Own elaboration based on CSO data.

The automotive sector is made up of companies and other manufacturing, scientific and service organisations that operate within traditionally understood supply chains in this sector. Companies within functioning supply chains in the automotive sector should be limited to that level in the Tier n1 classification at which the manufactured product has features (e.g. construction, use, functionality, exploitation) that place this product as strictly adapted to the automotive industry. In the case of companies manufacturing products with features that enable their use in various industries (including the automotive sector), the criterion for their classification as an element of the automotive sector is in this situation the majority share of production sold for the automotive sector. In the case of companies providing automotive services the criterion for their classification as part of the automotive sector for the purposes of RIS is the provision of services tailored to the needs of business customers (B2B type). The highest concentration of automotive sector entities in the Podkarpackie region can be observed in the vicinity of Mielec, along the A4 motorway from Dębica to Rzeszów and in the Sanok area.

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

The share of net revenues from the sale of products, goods and materials for export in net revenues from the sale of products, goods and materials in the automotive sector between 2014 and 2018 recorded slight fluctuations. The automotive sector shows a share of exports at a level almost three times higher than in the Voivodship and the country. After an increase in the share in 2014-2015, it decreased in the following 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 amount of the share of export revenues in total revenues showed trends similar to the sector, while in the country, after a successive increase in 2014-2017, it decreased to 22.8% in the last year of the analysed period. In the first three quarters of 2020, revenue from export sales fell by 19.4%, compared to the same period of 2019. Employment decreased by 6.3% during the period.

Net revenue from sales of products, goods and materials for export in the automotive sector in 2014 was lower than in the year preceding the analysis. In the following two years,

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revenue from export sales increased significantly and the growth rate was 106.9 in 2015 and 105.6 in 2016, respectively. There was a decrease in 2017, while an increase was recorded again at the end of the analysed period. Both in Podkarpackie Voivodship and in Poland during the analysed period, the net revenue from sales of products, goods and materials grew successively. The faster growth was recorded by units in Podkarpackie Voivodship (the highest in 2016 - by 11.4%).

Another important industry in the region is the information and communication industry. 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 emphasising the fact of the presence in the region of the largest IT company in the country - Asseco Poland S.A., which has already obtained the status of a large international corporation. It is the largest Polish software producer listed on the Warsaw Stock Exchange. For 30 years it has been creating technologically advanced software for companies from key sectors of the economy. It creates jobs in various locations, but it should be added that it is registered in Rzeszów.

Noteworthy is also the Eastern Poland IT Companies Cluster established in December 2010 by 8 companies from Podkarpackie and Lubelskie Voivodships and based in Rzeszów. Currently it brings together companies associated with the telecommunications and IT industry and business support institutions from 5 Voivodships of Eastern Poland. The organization supports the exchange of experiences and business cooperation within the ICT sector. The main aim of the cluster is to increase competitiveness of ICT companies and establishing cooperation with universities and administrative units. The net revenue of companies associated in the Cluster reaches 1 billion per year. Every year the Cluster also increases the number of its members. In 2012. - 24 members, 2013. - – 49, 2014 r. - 67, 2015 there were 84, in 2016. - 90, while as of 31.12.2020. The cluster already had 100 members.

1.2 Employment in economic sectors in Podkarpackie Voivodship

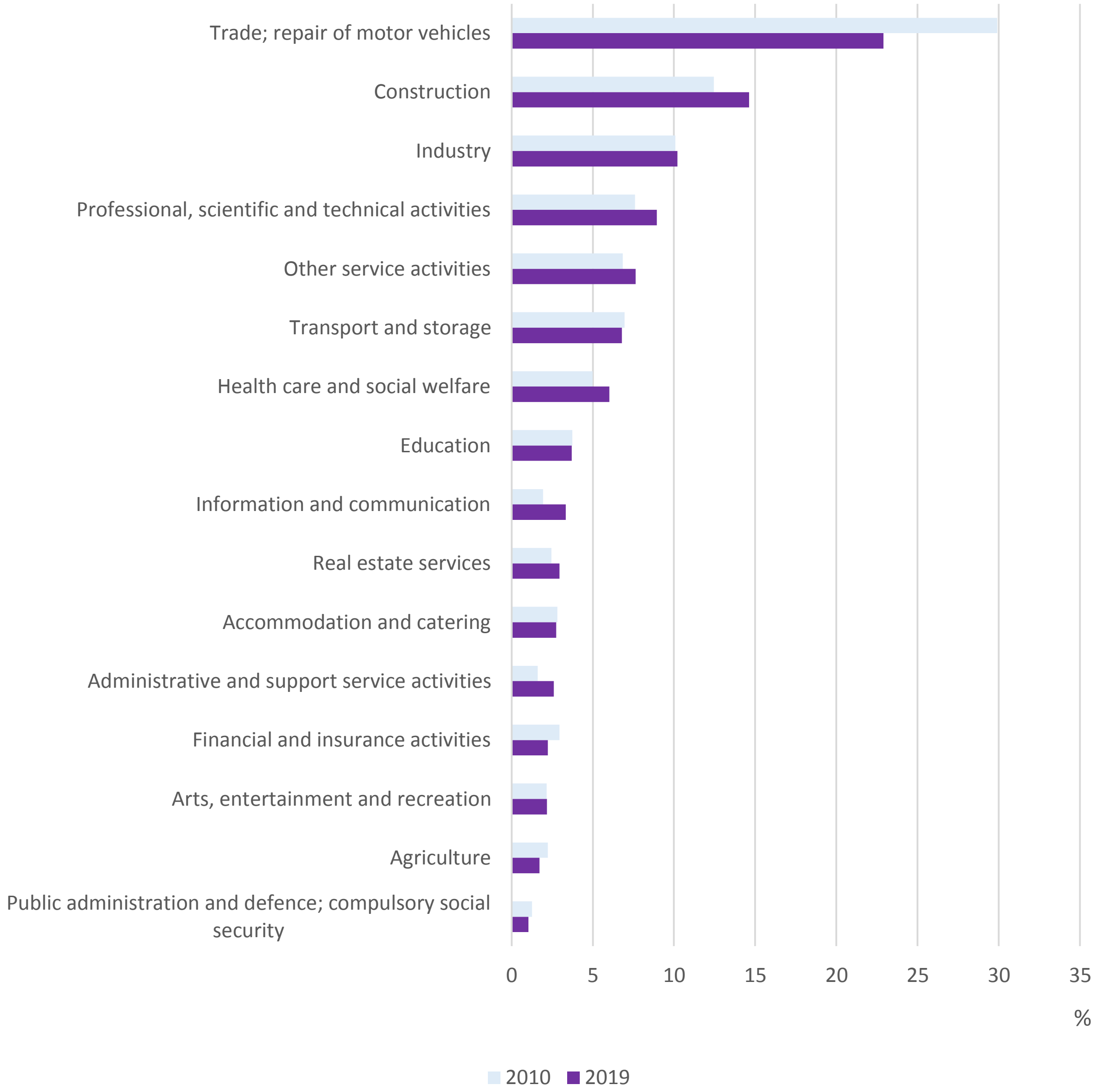
At the end of 2019, 181.1 thousand national economy entities, i.e. legal persons and organisational units without legal personality with their seat in Podkarpackie Voivodship and natural persons conducting economic activity residing in this area, were registered in the REGON register. In comparison to 2010 the increase by 18.7% was recorded. Entities from Podkarpackie Voivodship constituted 4.0% of all entities registered in the National Official Business Register REGON. A vast majority of entities - 173.9 thousand, i.e. 96.0% - belonged to the private sector, whereas entities of the public sector, which numbered 5.3 thousand, accounted for 2.9%. Compared to 2010, there were 18.7% more private sector entities and 13.1% fewer public sector entities.

Individuals conducted business activities mainly in trade and repair of motor vehicles - 23.7%, construction - 15.1%, industrial processing - 9.8% and professional, scientific and technical activities - 9.1%. Among natural persons conducting business, 99.1% were micro-enterprises, i.e. entities with up to 9 employees.

In 2019, there were 85 national economy entities per 1000 population in Podkarpackie Voivodship (82 last year), compared to 117 in the country (114 last year). The largest number of entities per 1000 population was registered in the cities with county rights: in Rzeszów - 150 (146 a year ago), Krosno - 122 (119), Przemyśl - 107 (105) and Tarnobrzeg - 106 (103) and in the powiat of Lesko - 123 (117), and the smallest in the powiats of Brzozowski - 63 (61), Przemyskie - 64 (60) and Przeworski - 64 (62).

The largest number of national economy entities conducted activities in the field of trade; repair of motor vehicles - 41.5 thousand (22.9% of the total), then construction - 26.5 thousand (14.6%), industrial processing - 17.2 thousand (9.5%) and professional, scientific and technical activities - 16.2 thousand (8.9%). A similar structure was observed in the case of natural persons who also conducted economic activity mainly in the field of trade and vehicle repair - 24.6%, then construction - 17.7%, professional, scientific and technical activity - 12.0% and industrial processing - 10.2%.

Chart 1. **National economy entities in Podkarpackie Voivodship by selected sections of PKD**



Source: Own elaboration based on CSO data.

The average employment in Podkarpackie Voivodship in 2019 was 450.6 thousand, an increase of 8.1% compared to 2010. (in Poland it increased by 10.8%), including in manufacturing by 14.3% (in Poland the increase was at a similar level). At the same time, this section had the largest share in total employment in industry (92.0% compared to 90.3% in 2010).

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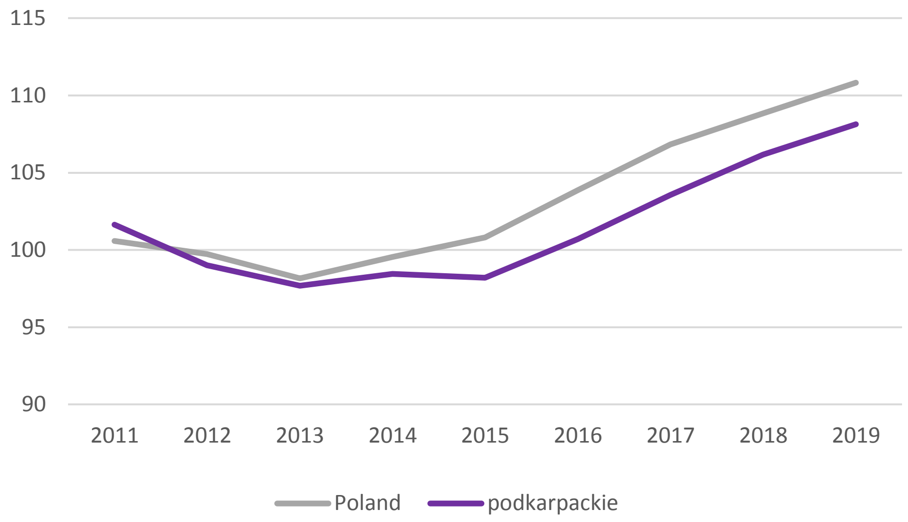
Chart 2. **Indices of average employment in industry (2010=100)**



Source: Own elaboration based on CSO data.

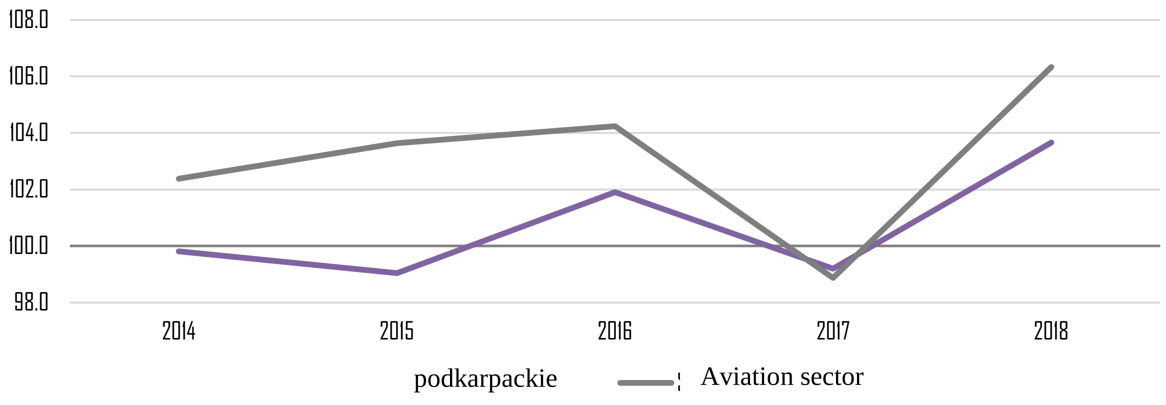
Indices of average employment between 2010 and 2019 was decreasing until 2015, in the Voivodship as well as nationally. Since 2016, however, there has been an increase in employment. In manufacturing, the upward trend had already started a year earlier in 2014.

The largest share of employment in 2019 in the Voivodship, excluding manufacturing, occurred in the sections: wholesale and retail trade, repair of motor vehicles, including motorbikes (15%, nationally 16.2%), education (12.7%, nationally 10.3%) and health care and social assistance (9.2%, nationally 6.5%), public administration and defence, compulsory social security (6.8%, nationally 5.8%) and construction (6.4%, nationally 6.1%).

Average employment in aviation sector units recorded a steady increase between 2014 and 2016, while in the Voivodship employment decreased between 2014 and 2015 and recorded an increase in 2016. In 2017, employment in both the sector and the Voivodship[1] decreased compared to the previous year, while in 2018, employment in both the aviation sector and the Voivodship increased (by 6.3% and 3.7% respectively).

[1] Data on employment in the voivodship refer to entities with 10 or more employees submitting the SP report.

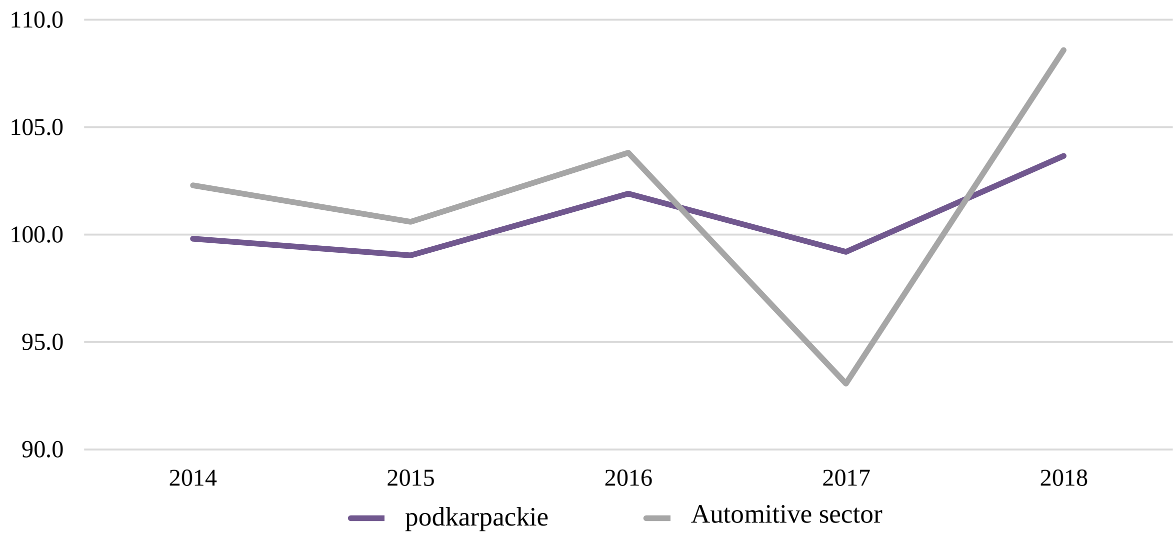
Chart 3. **Indices of average employment in the aviation sector (previous year=100)**



Source: Own elaboration based on CSO data.

While average employment in the automotive sector grew between 2014 and 2016, employment declined in 2017 compared to the previous year. In the Voivodship, after declines in 2014- 2015, it recorded an annual increase of 1.9% in the following year. In 2107, similarly to the automotive industry, employment declined, while in 2018, both in automotive and overall for the Voivodship, employment increased by 8.6% and 3.7% respectively.

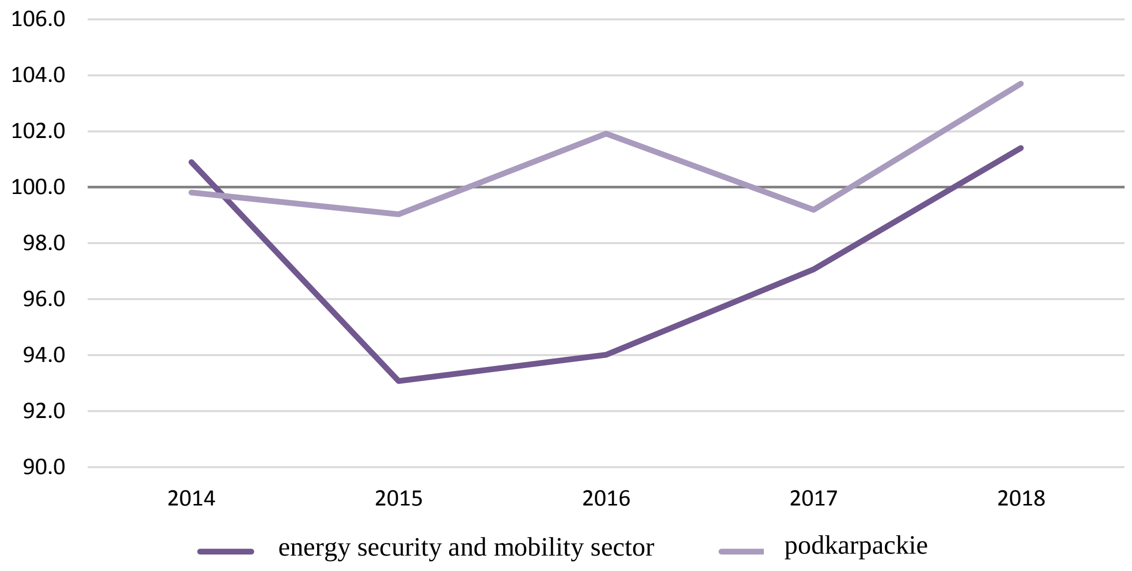
Chart 4. **Indices of average employment in the automotive sector (previous year=100)**



Source: Own elaboration based on CSO data.

Average employment in units specialised in energy security and mobility, after a slight increase in 2014, recorded decreases in the following years compared to the previous year (the largest in 2015 by 6.9%). A renewed increase was recorded in 2018. (o 1,4%). In the Voivodship[2], , between 2014 and 2015, employment decreased, in the following year it increased, and in 2017 it decreased again. In the last year of the analysed period, employment in the Voivodship increased by 3.7%.

Chart 5. **Indices of average employment in the energy security and mobility sector**



(previous year=100)

Source: Own elaboration based on CSO data.

[2] Data on employment in the voivodship refer to entities with 10 or more employees submitting the SP report.

1.3. Industrial change as an element of economic development in the Podkarpackie Voivodship

The beginnings of industry development on the lands currently belonging to the Podkarpackie voivodship should be sought at the time of establishment of the Central Industrial Powiat (CID). It was a heavy industry centre built in the years 1936-1939 in the south-central powiats of Poland. Many investments created at that time are still being continued today. The aim of CID was to increase the economic potential of Poland, development of heavy and arms industry as well as reduction of unemployment caused by the effects of the Great Depression. In the years 1937-1939 about 60% of the total investment expenditure of PLN 1925 million was allocated for the development of CID.

The construction of CID was initiated by Eugeniusz Kwiatkowski, Deputy Prime Minister for Economic Affairs and, at the same time, Minister of the Treasury, who started work in a very difficult social and economic situation. Industrial production was slowly growing, but its level was far from that prior to the 1930s crisis, due to the low purchasing power of the countryside. Kwiatkowski decided that the best solution was to increase employment in industry, as there was no real chance of rapid changes in the agrarian structure. In line with the prevailing economic views initiated by the American New Deal, efforts were made to focus on the development of manufacturing in those industries which did not contribute to consumer goods. Therefore, the emphasis was placed on the development of infrastructure, and to this end a four-year investment plan was prepared, covering the period from July 1936 to June 1940. Kwiatkowski proposed concentrating efforts in the so-called Security Triangle in the south of Poland. He expressed his opinion in a speech to the Sejm on 5 February 1937, during which he also put forward a motion to increase the capital allocated for this purpose to 2,400 million zlotys, to which he obtained consent. This was how the idea of the CID-U was finally born.

The intention to concentrate the armaments industry in this area had already been born in the years 1921-1922, due to the experience of military circles from the years 1914-1920. It was then that the name "safety triangle" appeared, to describe the area beyond the reach of German and Soviet aviation. At the time of the project, this name became obsolete due to the significant increase in aircraft range. Moreover, the region was characterised by considerable agrarian overpopulation and unemployment, so this investment was an opportunity for the development of the region. Initially, the CID was to be located only here, in the areas furthest from the border with Germany and the Soviet Union, situated at the forks of the San and Vistula rivers and sheltered from the south by the Carpathian chain. Later, however, the CID zone was enlarged by the adjacent areas of the then Kieleckie, Lubelskie, Lwowskie and Krakowski Voivodships.

The Central Industrial Powiat included the areas of today's Świętokrzyskie, Podkarpackie, Lubelskie, Małopolskie and partly Mazowieckie (Radom) Voivodships. In accordance with the needs of national defence, the plans assumed building new or modernising the already existing plants of the arms industry. Investments of CID were accompanied by expansion of communication and energy infrastructure.

CID was divided into 3 regions: Kielce region, rich in minerals, was to be a raw material base, Lublin region was to be an agricultural base and Sandomierz region was to be an energy base (crude oil, natural gas, hydroelectric power stations). The most important part was located in the forks of the Vistula and the San with the centre in Sandomierz. This region located on the border of Poland A and B was actually identified with the whole powiat due to a considerable number of industrial plants.

As a part of investments in the CID in the years 1937-39 there were established, among others, the Southern Steelworks in Stalowa Wola, Engine Manufacturing Plant No 2 in Rzeszów, Tyre Factory "Stomil" in Debica, weapon factories in Sanok, Radom and Starachowice, ammunition factories in Kraśnik, Jawidz near Lubartów, Nowa Dęba (then known as the Ammunition Plant No 3), the State Aviation Plant in Mielec. The construction of many power plants was also commenced, among others in Czorsztyn and Rożnów on the Dunajec River, in Porąbka on the Soła River, in Solina, Myczkowce and Łukawiec on the San River. CID was further developed in the period of PRL.

The most important investments were hydroelectric power plants in Porąbka on the Sola River and in Rożnów on the Dunajec River. A steelworks, armaments plants and a town named Stalowa Wola were built near Rozwadów. Among other things, 100 mm howitzers were manufactured there. In Dębica a synthetic rubber, tyre and paint factory was built, in Mielec - the State Aircraft Works, in Rzeszów - an aircraft engine and artillery equipment factory (the future WSK PZL Rzeszów), in Niedomice near Tarnów - a cellulose factory for gunpowder production. The existing armaments and ammunition factories were expanded.

In terms of attractiveness for industrial activity, the subregions of rzeszowski and tarnobrzeski were classified as highly attractive, whereas the subregions of przemyski and krośnieński were classified as subregions of the lowest attractiveness for industrial activity.

For innovation processes, the attractiveness of areas for the location of technologically advanced activity is of great importance. The Rzeszów sub-region was classified as the area with the highest location attractiveness for this type of activity. The krośnieński subregion occupies an average position in this respect, while the tarnobrzeski and przemyski subregions were determined as areas with the lowest attractiveness for conducting technologically advanced activity.

Podkarpackie Voivodship is the cradle of the aviation industry in Poland and it is also an important point on the map of Europe for other industries, such as rubber, chemical, automotive, electromechanical, metallurgical, IT, energy and food processing. In the region you can find not only excellent foreign companies but also Polish ones that have been successful in the world.

The strength of the industry is reflected in the fact that 90% of Polish industry is located in this region. Some of the largest companies in the industry have invested here, valuing above all quality and human resources costs.

Examples include:

- Pratt and Whitney
- Sikorsky Aircraft
- MTU Aero Engines
- Goodrich Corporation
- Hispano Suiza Poland

The rubber industry consists mainly of companies such as:

- Firma Oponiarska Dębica S.A. (Goodyear)
- Sanok Rubber Company S. A.
- "GEYER & HOSAJA" sp zoo

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Chemical industry

- TIKKURILA POLSKA SPÓŁKA AKCYJNA
- Inglot sp zoo
- Sylveco
- CIECH Sarzyna (formerly Zakłady Chemiczne Organika-Sarzyna)

Automotive industry

- Borg Warner Turbo Systems Sp. z o.o.
- Superior Industries Production Poland Sp zoo
- Melex A&D Tyszkiewicz Sp. j
- Autosan S.A.
- Lear Automotive Polska Sp. z o.o.
- Arcus & Romet Sp. z o.o.

Electromechanical industry

- Bury Sp. z o.o.
- Federal-Mogul Gorzyce sp zoo

Metallurgical industry:

- Steelworks Stalowa Wola S.A.
- Krośnieńskie Huty Szkła KROSNO S.A.
- O-I Poland S.A. (Owens-Illinois)

IT industry:

- Asseco Poland S.A.
- TOP S.A.
- Ideo Sp. z o.o.

Energy industry:

- Orlen Paliwa Sp. z o.o.
- Orlen Południe Refinery - Jedlicze

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- PGE Obrót S.A.

Food processing:

- Alima Gerber S.A. (Nestle)
- Taurus sp zoo
- Vortumnus Sp. z o.o.
- Hortino sp z. o.o.
- Froneri sp z o.o. (Zielona Budka)
- "Olimp Laboratories" Sp z o.o.

The industrial leader of the region is still the Tarnobrzeg sub-region, whose sales of industrial products in 2019 accounted for half (25.7 billion PLN) of the sold production of the entire voivodship (52 billion PLN). In other terms, it looks like in 2019 the sold production of the Tarnobrzeg sub-region was worth almost as much as the other three sub-regions produced and sold together. During the period 2010 - 2019, the sold production of the Tarnobrzeg sub-region increased by PLN 11 billion, and for the industrial reality of Podkarpacie, the increase is impressive. If it were not for the very weak powiat of Nisko and the powiat of Leżajsk in terms of industrial potential, the average of the entire subregion would certainly be higher. Among the poviats of the Tarnobrzeg subregion, the following poviats stand out: mielecki, stalowowolski, dębicki and tarnobrzeski. However, the industry of Mielec County is the strongest, undoubtedly due to its special economic zone and the companies that have grown up around it. In the nine-year period its sales doubled (from 4.6 billion PLN to 9.4 billion PLN), but in percentage terms it was kept pace with Stalowa Wola poviat which increased the sales volume of its industry from 3.4 billion PLN to 6.2 billion PLN.

A dynamic growth in the sold production of industry in a given region must also translate into a per capita increase. And so it is in the case of the Tarnobrzeg subregion, where the growth in the period under review amounted to PLN 18 thousand (from PLN 23.8 thousand in 2010 to PLN 41.8 thousand in 2019), i.e. 80%. In 2019, however, the highest value of sold production per capita was recorded by the leader, i.e. Mielec county (68.5 thousand PLN), increasing it during this period by 34 thousand PLN, i.e. twice. The second poviat in this respect was Stalowa Wola poviat (58 thousand PLN, increase by 90%).

The industrial vice-leader of the region is Rzeszów subregion, where the industry of Rzeszów and Rzeszów poviat produces over two thirds of the sold value of the whole subregion. An incredible growth in the period under study, both in percentage terms (more than fourfold) and in the value of sold production (more than 4 billion zlotys) was achieved by the Rzeszów Poviat. This was due to the establishment of a science and technology park in the immediate vicinity of the Voivodship's capital, but already outside its administrative borders, the infrastructure of which was built using European Union funds. It has attracted many foreign investors. There are several reasons for this. First of all, the proximity of the Rzeszów academic centre guarantees the inflow of well-educated staff, while the airport and the east-west motorway almost touching it, built a few years ago, provide excellent transport and communication conditions. In 2010, the average per capita in the Rzeszów sub-region was slightly more than twice as low as in the Tarnobrzeg sub-region, nine years later it was almost 60%. However, the Rzeszów sub-region was far behind the Tarnobrzeg sub-region in terms of industrial potential both in 2010 and 2019.

The situation of the industries of Mielec County and Rzeszów County and Rzeszów was interesting in the decade under review. In 2010 the total value of sold production of Rzeszów and Rzeszów Poviat amounted to 4.5 billion PLN and was lower than the volume obtained by Mielec Poviat by 141 million PLN. But in 2019, the total sold production of Rzeszów and Rzeszów Poviat (PLN 11.6 billion) was already higher by PLN 2.2 billion. However, when considering the industrial potential of the centre of the voivodship broken down by the city of Rzeszów and the rzeszowski poviat, the mielecki leader is still beyond their reach.

Most of the companies that have located themselves in this zone operate in the aviation industry. Pratt and Whitney Rzeszów (formerly WSK), which is part of the Aviation Valley, has its headquarters in Rzeszów. The Aviation Valley also includes companies located in Mielec (Sikorsky Aircraft), Rzeszów, Świdnik, Kraśnik, Kalisz and Wrocław, but most of them are based in the Podkarpackie region. This industry has a huge impact on the growth of the value of sold production. For example, due to the location of companies producing for the aviation industry in the Ropczycko-sędziszów region, this increase from 873.2 million PLN in 2005 has reached 1.46 billion PLN in 2019.

In the discussed years 2010-2019, the sold production industry of Łańcut county exceeded one billion zlotys (PLN 1.2 billion). The two other counties included in the Rzeszów subregion - Kolbuszów and Strzyżów - have little influence on the industrial position of the subregion. Strzyżowski poviat produced and sold production worth 0.4 billion

PLN (in 2010 it was 0.2 billion PLN), while Kolbuszowski poviat reached 0.6 billion PLN. Kolbuszowski and Strzyżowski poviats together did not produce half of the average sold industry output per poviat in the voivodship (PLN 1.3 billion in 2019), and most working-age residents work in Rzeszów, or in companies within the Rzeszów poviat.

The third sub-region in terms of industrial production is krośnieński. The level of production in 2019 amounted to 7.7 billion PLN in this subregion and compared to 2010 it increased by 2.5 billion PLN (a 50% increase). The greatest increase, more than twofold, in sold production was recorded in the county of Brzozów (from 0.25 billion PLN in 2010 to 0.5 billion PLN in 2010) and the city of Krosno (by 179%) from 1.4 billion PLN in 2010 to 2.5 billion PLN in 2010. A decrease in production in the discussed period occurred in the powiat of Lesko (from PLN 0.07 billion in 2010 to PLN 0.04 billion in 2019) and the powiat of Krosno (by PLN 0.02 billion). It should be noted that large areas of the Bieszczady and Lesko poviats are occupied by protected landscape areas, and this excludes them from industrial and mining activities. This also applies to the southern regions of Krosno, Jasło and Sanok.

The industry of the poor (in comparison with its rich neighbours from the north) sub-region of Krosno is in any case a crescent compared to the industrial value of the decided outsider of the voivodship, the sub-region of Przemyśl. Based on the eastern border, the sub-region with its capital in Przemyśl closed 2019 with PLN 3.5 billion in sales of its industry's products, twice as much as the krośnieński sub-region and more than seven times less than that achieved by the tarnobrzeg sub-region. Production above one billion PLN was exceeded by Jarosławski (1.4 billion PLN in 2019) and Przeworski (1.2 billion PLN). However, the sub-region is dominated by agriculture, and there are also many areas of protected landscape.

The value of sold production of industry in Podkarpackie Voivodship amounted to 52 billion PLN in 2019; in 2010 it was 29 billion PLN, so it was 23 billion PLN higher. The value of industry per capita was also higher by 1.1 thousand PLN and reached 24.4 thousand PLN in 2019. It is worth mentioning that the share of Podkarpackie Voivodship in the sold production of the whole Polish industry was 3.5% in 2019, while in 2010 it was 3.1%.

The economic strength of Podkarpackie Voivodship is constituted by its western and north-western counties which are part of the Tarnobrzeg subregion. The potential of this subregion, and especially the following poviats: dębicki, mielecki, stalowowolski, tarnobrzeski and the city of Tarnobrzeg, determines the value of the whole voivodships industry. Without them its potential would be half lower. However, it is worth mentioning that

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(apart from Tarnobrzeg and Tarnobrzeg poviat) the industry of the three remaining poviats mentioned above has a solid foundation built back in the pre-war times of the Central Industrial Powiat. If it were not for the factories built at that time in Mielec, Dębica, Stalowa Wola (also in Rzeszów), in which production was continued during the communist period.

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1.4. Business climate survey as a picture of changes occurring in Podkarpackie Voivodship in 2016-2020

The general economic climate indicator is a composite indicator. It is calculated as an arithmetic mean of the balances of answers to questions from the monthly survey about the current and expected economic situation of the company. It ranges from -100 to +100, with values below zero being negative (indicating an economic downturn) and values above zero being positive (indicating an economic upturn). The indicator taking the value of zero means the situation, when the economic situation does not change. In Podkarpackie Voivodship the sample of economic climate survey amounted to 1008 units, including those belonging to the sections: manufacturing - 229, construction - 291, trade - 337 and services - 151. The survey of economic climate is conducted until the 10th day of the month, so it is a kind of a reflection of the feelings of entrepreneurs after the end of each month and the forecasts for the current month.

In most of the surveyed areas the entrepreneurs in Podkarpackie Voivodship evaluate the economic situation in December 2020 less pessimistically than in November 2020. Obviously more pessimistic nevertheless than in December 2019.

The greatest improvement in ratings occurred in the accommodation and catering and information and communication sections. Only in the retail trade and construction sections are assessments similar to those of a month ago.

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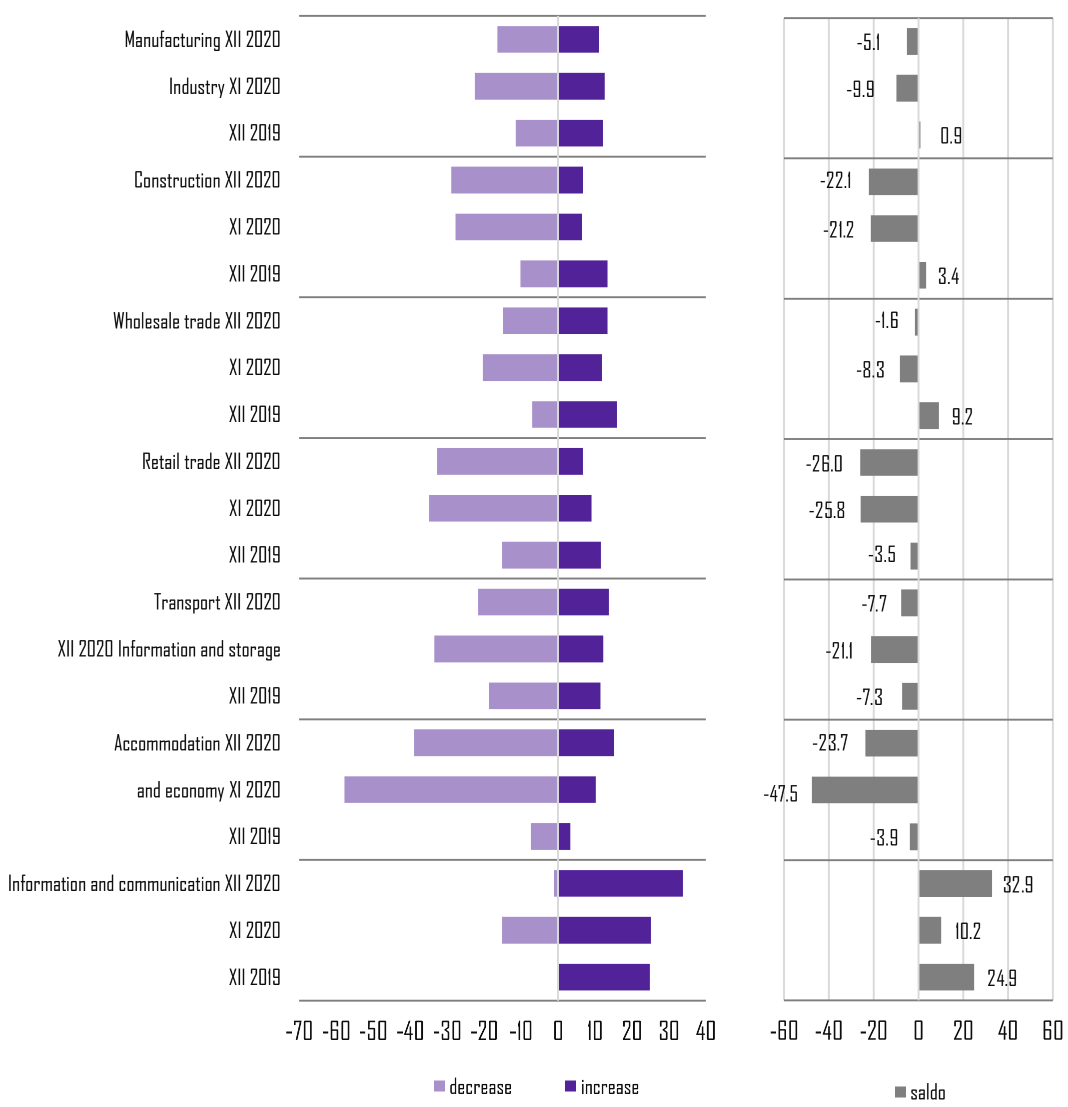
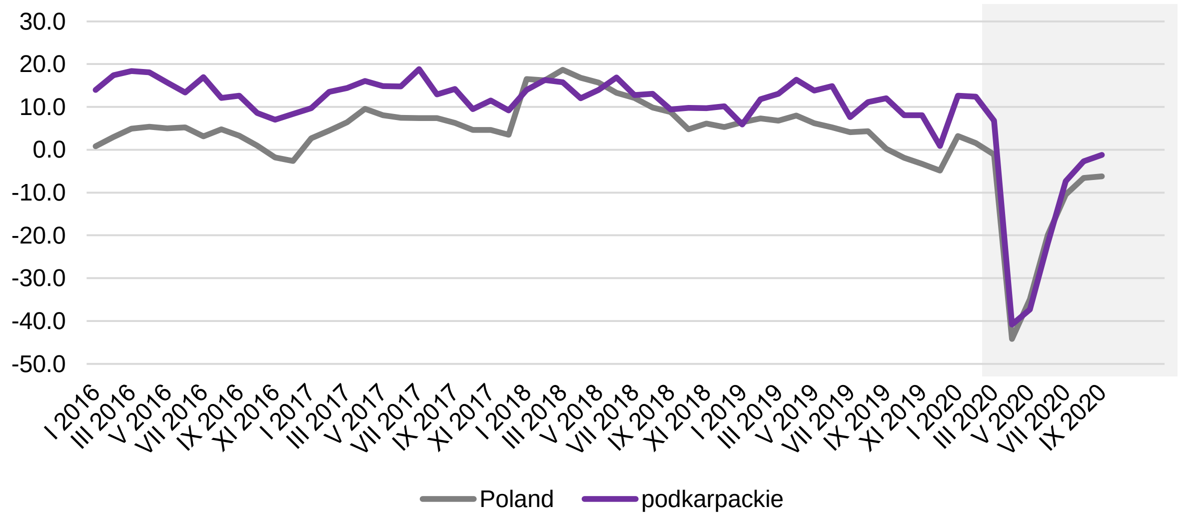
Chart 6. **Indicators of general business climate by kind of activity (sections and divisions of PKD 2007)**



Source: Own elaboration based on CSO data.

The regional index of general business climate in manufacturing in the period April-September ranged from minus 40.8 to minus 1.2. After a slight improvement in the sentiment in Podkarpackie Voivodship in October, in the following months the indicator was again negative.

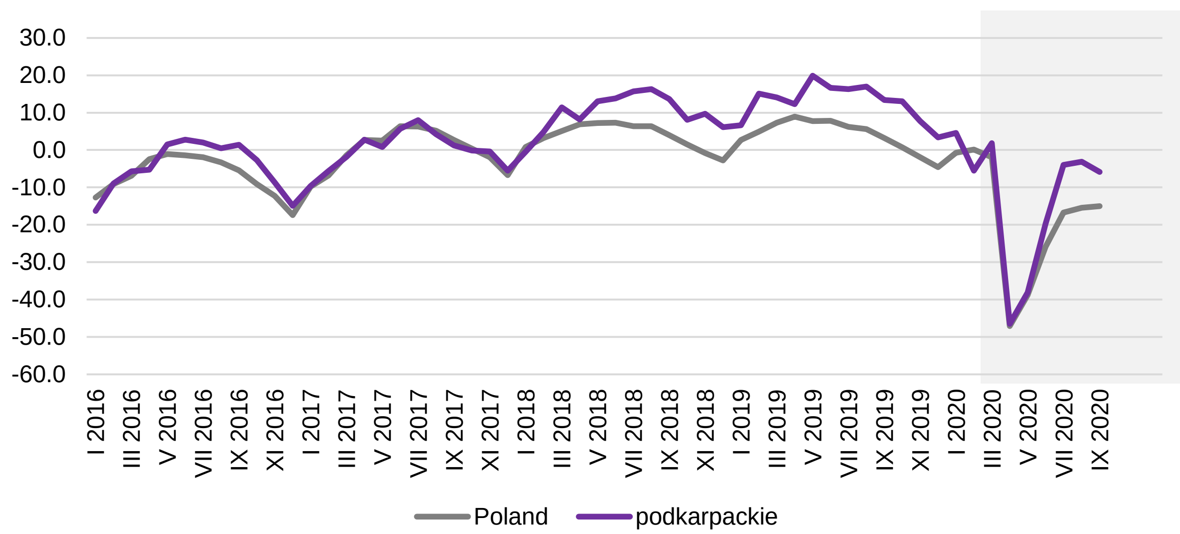
Chart 7. **Index of general business climate in manufacturing.**



Source: Own elaboration based on CSO data.

In December 2020, the general business climate index for construction in Podkarpackie Voivodship was at a level of minus 22.1, i.e. the lowest level since May 2020. The lowest level of assessment both in the voivodship and in the country, as in manufacturing, was recorded in April (minus 46.5 and minus 47.1, respectively). Taking into account the period 2016-2020, a general improvement of the economic situation in the construction industry can be seen. In 2016-2017, the assessment in the Voivodship was very close to the assessment of the overall business climate in the country. The recovery in the Voivodship can be seen especially in 2018 and 2019, and the rating was higher than the national average.

Chart 8. **General business climate index in the construction industry in Podkarpackie**



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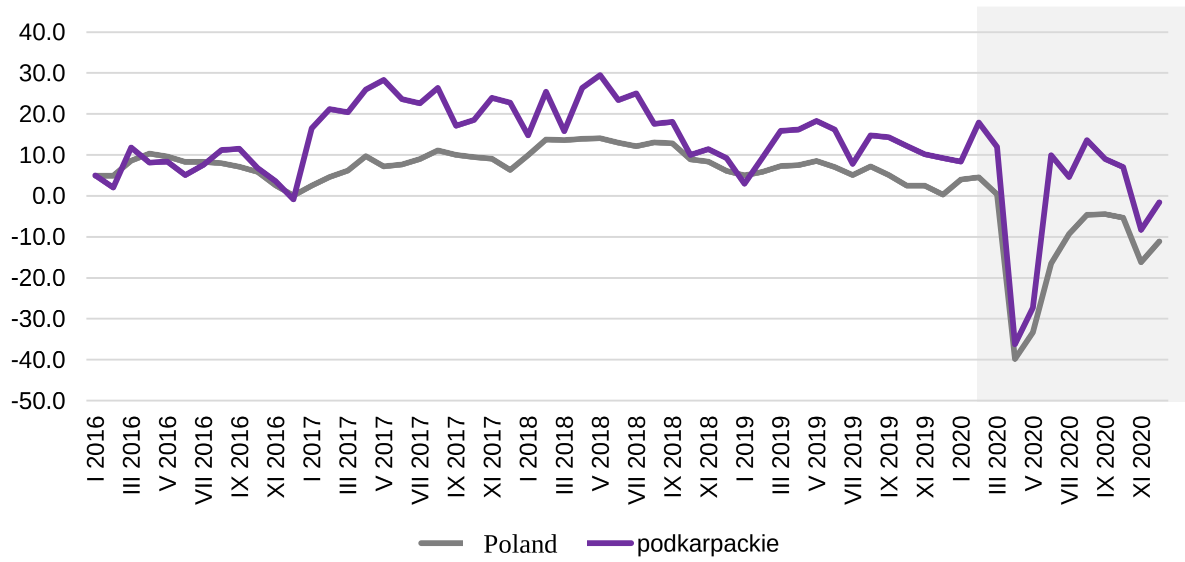
Voivodship and Poland

Source: Own elaboration based on CSO data.

After two months (April, May) of negative assessment of the economic climate in wholesale trade in Podkarpackie Voivodship, in the next four it was assessed positively, including the highest in August (13.6) .In the last two months of 2020 the indicator of the general economic climate in wholesale trade in Podkarpackie Voivodship was again negative. In the country since March is recorded a negative assessment of the economic climate in wholesale trade and it is lower than in the Voivodship. In the voivodship, positive business climate has been recorded since January 2017. For the next two years it has been higher than the national average. Sentiment deteriorated at the beginning of 2019 and, despite improvement in subsequent months, the rating did not exceed 20.

Chart 9. **Wholesale trade general economic climate index in Podkarpackie Voivodship and Poland**

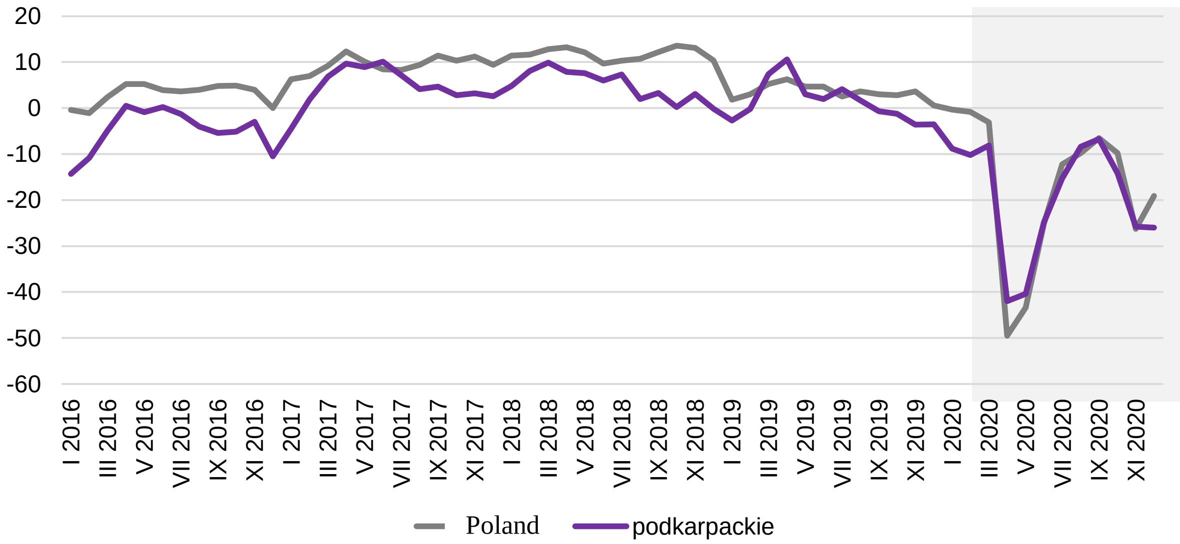


Source: Own elaboration based on CSO data.

In December 2020, the general business climate index was at minus 26.0, the lowest level since May 2020. Negative assessments in Podkarpackie Voivodship have been observed since September 2019, but it was the pandemic period that significantly lowered the assessment of business climate in retail trade. In April, the indicator of general business climate in the Voivodship stood at minus 42.0 (in the country -49.5), and in May - minus 40.4 and minus

43.4, respectively. Positive business climate has been recorded in the Voivodship since January 2017. The rating is low and for the next two years it was lower than the national average. In 2019, after a slight increase in March, the rating deteriorated in subsequent months and continued to be lower than the national total.

Chart 10. **General business climate index in retail trade**

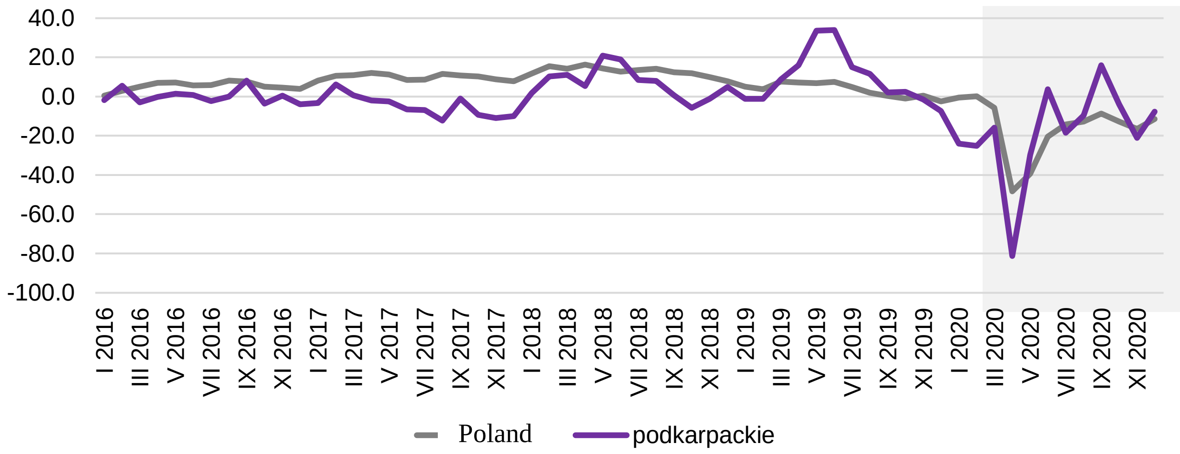


in Podkarpackie Voivodship and Poland

Source: Own elaboration based on CSO data.

In February-May the assessment of the economic climate in transport and storage was very negative. The lowest index was recorded in April (minus 81.3), in May it was at a level of minus 28.9, while in June the economic climate in transport and storage was assessed positively (3.8). In September, after another two negative assessments, entrepreneurs operating in the transport and storage sector gave a positive assessment of the overall business climate (15.9). In the following three months of 2020, the economic climate in transport was again negative, including in November (minus 21.1). Nationally, the business climate has been below 0 since March. In 2016-2017, the business climate in transport and storage was rated very low, and in 2017 it was negative for several months. The following two years show a fluctuating trend with jumps in ratings in May 2018 and May and June 2019.

Chart 11. **Indicator of general business climate in transport and warehouse management**

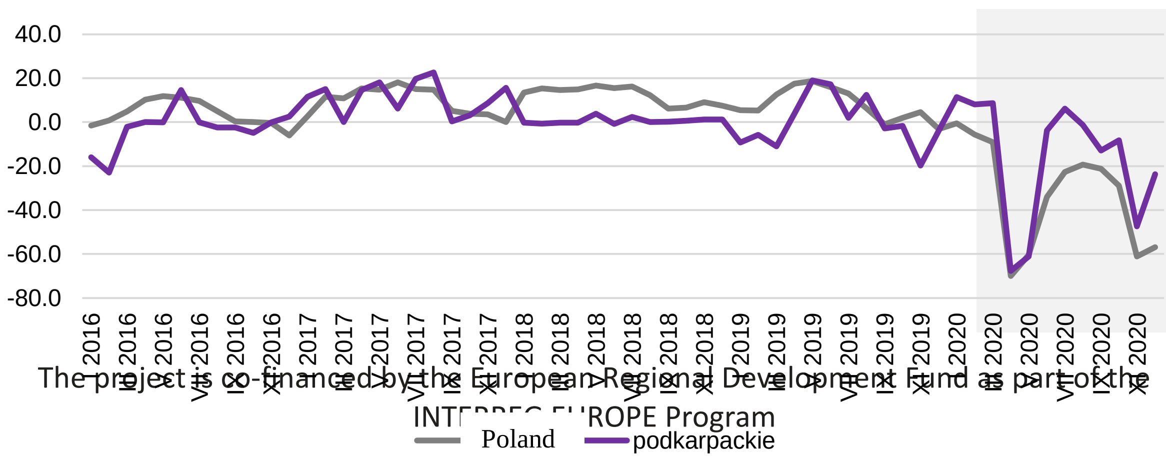


in Podkarpackie Voivodship and Poland

Source: Own elaboration based on CSO data.

In April and May, companies both in the Voivodship and in the country gave very negative assessments of the overall need in accommodation and catering. In the Podkarpackie Voivodship in April the rating was minus 67.7 (nationally minus 70.0), and in May minus 61.1 (nationally minus 60.4). This is largely the result of restrictions related to the epidemic and the closure of the industry. In the country the assessment of the general business climate in the section is very negative and since April has been below minus 19. In the Voivodship only in July the assessment was positive, while since August, despite the unfreezing of the industry, entrepreneurs have negatively assessed the following months in accommodation and catering. In September the general business climate index was minus 12.9, and in November minus 47.5. Both in the country and in the Voivodship entrepreneurs ended the year with a negative attitude.

Chart 12. **General business climate index for accommodation and catering in**

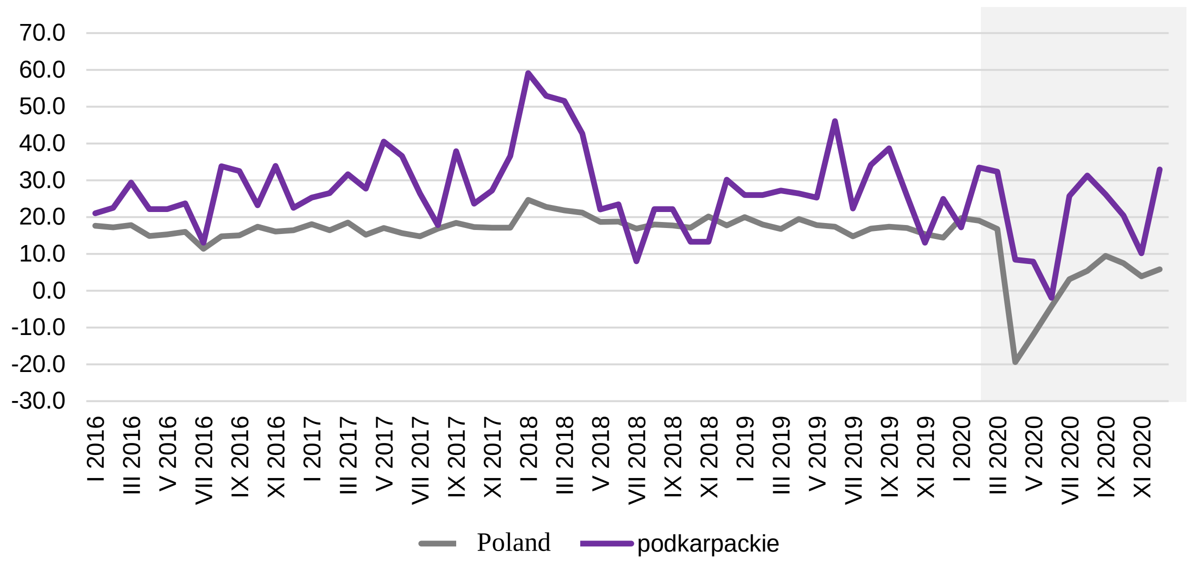


Podkarpackie Voivodship and Poland

Source: Own elaboration based on CSO data.

Entrepreneurs operating in the information and communication section of Podkarpackie Voivodship only in June rated the overall business climate negatively (minus 1.9), while in the remaining months it was rated only positively, including the highest in December (32.9). The economic climate in the Voivodship in the period January 2016 - June 2018 was rated higher than the average for the country, including the highest rating recorded in January 2018(59.1). The period July - November 2018 brought fluctuation in the assessment of the economic climate, while from December 2018 to November 2019, the Voivodship's assessment was higher than the national average.

Chart 13. **The general business climate index for information and communication in**



Podkarpackie Voivodship and Poland

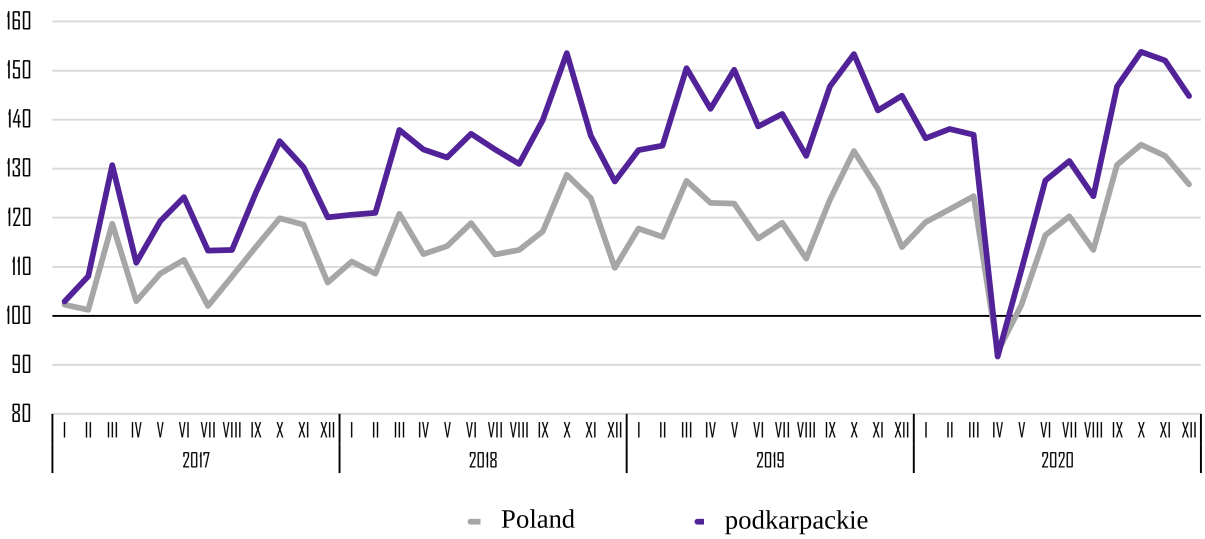
Source: Own elaboration based on CSO data.

1.5. Changes in industry in the Voivodship due to the outbreak of the Covid-19 coronavirus pandemic

The epidemic state introduced in March and the series of restrictions that were associated with it sharply affected the deterioration in the performance of industrial output sold. In April 2020, industrial output sold recorded a deep decline, both on an annual and monthly basis. In the Podkarpackie voivodship, industrial output sold was (at constant prices) 35.0% lower than in April 2019, and compared to March it decreased by 32.5%.

From May to October, an increase in dynamics can be seen both in the country and in the Voivodship. In contrast, the last two months of 2020 saw a slowdown in this growth.

Chart 14. **Indiecies of industrial output sold (constant prices; monthly average 2015=100) in Podkarpackie voivodship and Poland in 2017-2020**

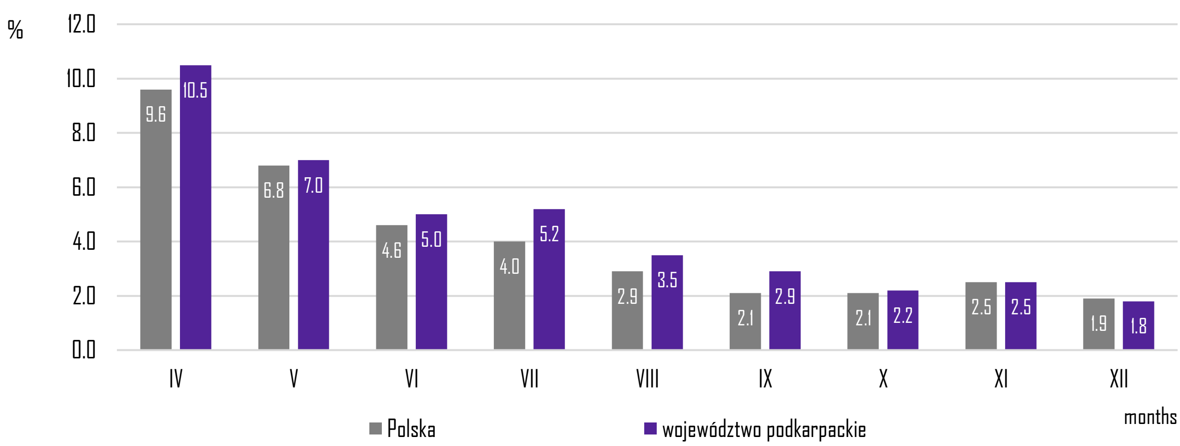


Source: Own elaboration based on CSO data.

In 2020, the sold production of industry amounted to 51559.14 million PLN and was by 6.4% lower, (in the country by 1.0%) than in 2019, including a decrease in production by 6.7% in industrial processing. The decrease in production occurred in 16 industry departments (out of 31 occurring in the Voivodship), including in three departments with the largest share of sold production, i.e. in the production of other transport equipment (by 24.0%), machinery and equipment (by 20.7%) and the production of chemicals and chemical products (by 8.6%).

In December 2020, in Podkarpackie voivodship 1.8% of business entities that submitted the DG-1 report[3] indicated the COVID-19 pandemic as a factor causing significant changes in the conduct of economic activity. The highest percentage of entities in the country which reported changes caused by the pandemic was recorded in Zachodniopomorskie Voivodship (3.1%), while the lowest was recorded in Dolnośląskie Voivodship (1.5%). Podkarpackie Voivodship was ranked 8th. In December, the percentage of units reporting changes due to COVID-19 in Podkarpackie Voivodship decreased compared to the April-October period. Similarly, nationally, from April 2020 to October 2020, the share of entities experiencing COVID-19 impacts showed a declining trend and stood at 2.1% against 9.6% in April 2020. In November, both nationally and in Podkarpackie Voivodship, the indicator increased compared to October 2020, while in December 2020 it decreased again and was the lowest in the whole analysed period.

Chart 15. **Percentage of units reporting changes due to COVID-19 from April to December 2020 in Podkarpackie voivodship and Poland**



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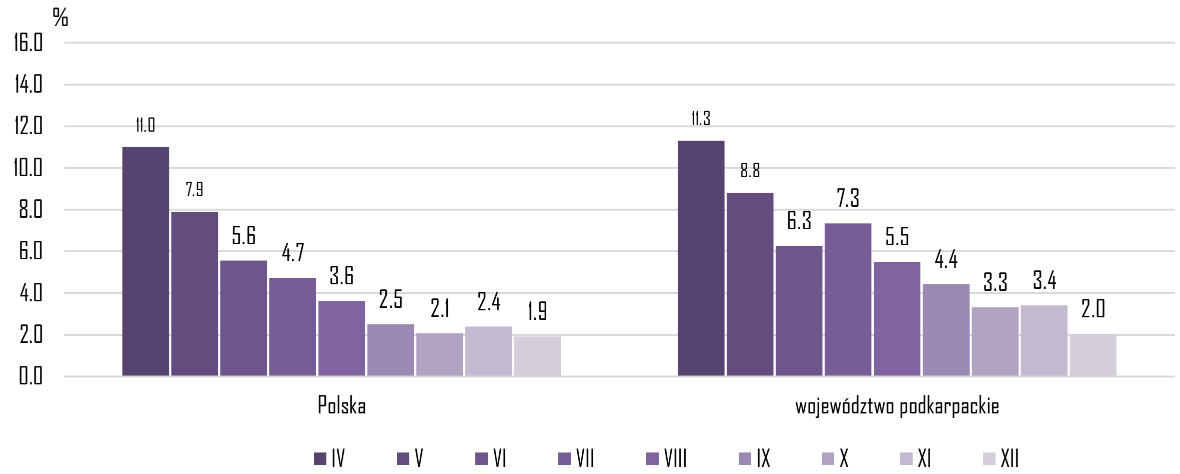
[3] Entities with more than 9 employees participate in the DG-1 survey. All percentages refer to the number of units reporting in a given month.

Source: Own elaboration based on CSO data.

In April 2020, the businesses most frequently signalling changes due to COVID-19 in both the Voivodship and the country were in accommodation and catering (Podkarpackie 43.3%; Poland 20.5%). Industrial units in the Voivodship in April reported changes due to COVID-19 in 11.3% of units, while in December this share decreased to 2.0%. In the analysed period, the share of units reporting changes due to Covid-19 was higher than in the country.

Chart 16. **Industrial units reporting changes due to COVID-19 from April to December 2020.**



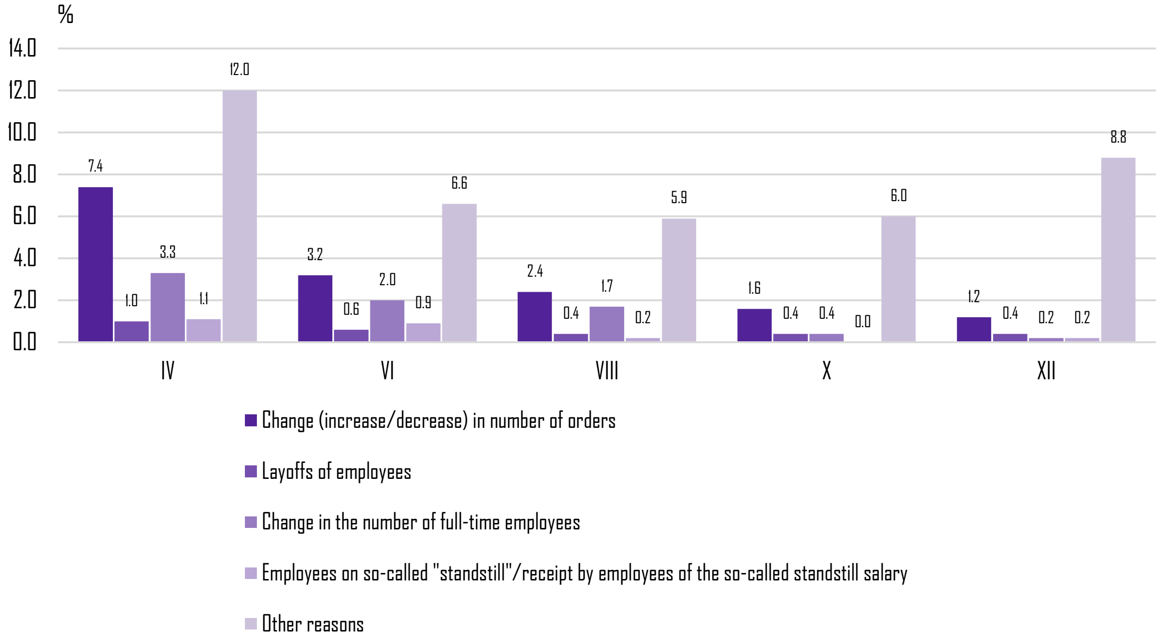
Source: Own elaboration based on CSO data.

Most often, a change in the number of orders (increase/decrease) was indicated as the reason for changes in business activity related to COVID-19, both in the Voivodship and in the country. In April 2020, a decrease in this respect was indicated in the Voivodship by 7.1% of entities (including industrial units - 8.9%.), and in the country by 6.8% (including industrial units - 8.5%), whereas an increase was indicated by 0.3% (including industrial units - 0.4%), and in the country by 0.3% (including industrial units - 0.3%). In December 2020, both in Podkarpackie Voivodship and in the country, a change in the number of orders was still indicated as the most frequent reason by enterprises. A decrease was indicated in the

Voivodship by 0.2% of entities (including industrial units - 0.3%), similarly in the country (both in total and including industrial units - 0.2%).An increase as a cause of change was indicated in Podkarpackie Voivodship by 1.2% of enterprises (including industrial units), whereas in the country by 1.5% (including industrial units - 1.6%).

Changes in the number of employees were ranked second among the factors determining activity and results of enterprises. In April 2020, they were indicated by 3.3% of units in the Voivodship and 2.2% in the country (in industry - 3.5% and 2.4% respectively). In December 2020 the share of this reason dropped significantly to 0.3% in the country and 0.2% in the Voivodship (in industry 0.2% and 0.5% respectively).

Chart 17. **Reason for changes in economic activity due to COVID-19 in Podkarpackie Voivodship from April to December 2020.**



a Respondents could indicate multiple reasons at the same time.

Source: Own elaboration based on CSO data.

1.6. The impact of the COVID-19 coronavirus pandemic on the economy of the Podkarpackie Voivodship in relation to the introduced restrictions on economic and social activity

Sold production of industry is a basic measure of economic activity (i.e., industrial, construction and assembly, transport and other activities) of enterprises and industrial companies, i.e., business entities classified according to PKD2007 into sections B, C, D, E. The data on sold production enable current and annual assessment of industry production activity in view of the entity's location in a given territorial/administrative unit. The value of sold production of industry allows assessing the level of economic activity long before estimates of the basic measure, i.e. gross domestic product (GDP), appear. Industry accounts for about 25% of Poland's GDP, and is considered to be a sector "ahead" of the rest of the economy and setting the rhythm of the business cycle. Moreover, due to its nature (large and concentrated plants), it is more easily "quantifiable" than the fragmented and small company-dominated services sector.

Sold production in January 2020, in units of the enterprise sector (with more than 9 employees) in Podkarpackie voivodship, increased by 6.5% compared to the same month of 2019. An increase in production also occurred in February 2020, by 3.9% and this was an increase in sold production on an annual basis recorded continuously since August 2016. However, the situation changed in the month of March, where, for the first time, production sold decreased on an annual basis. Production was 4.1% lower compared to the corresponding month of 2019. Sixteen powiats had lower revenues, of which twelve did not exceed the average for the Voivodship.

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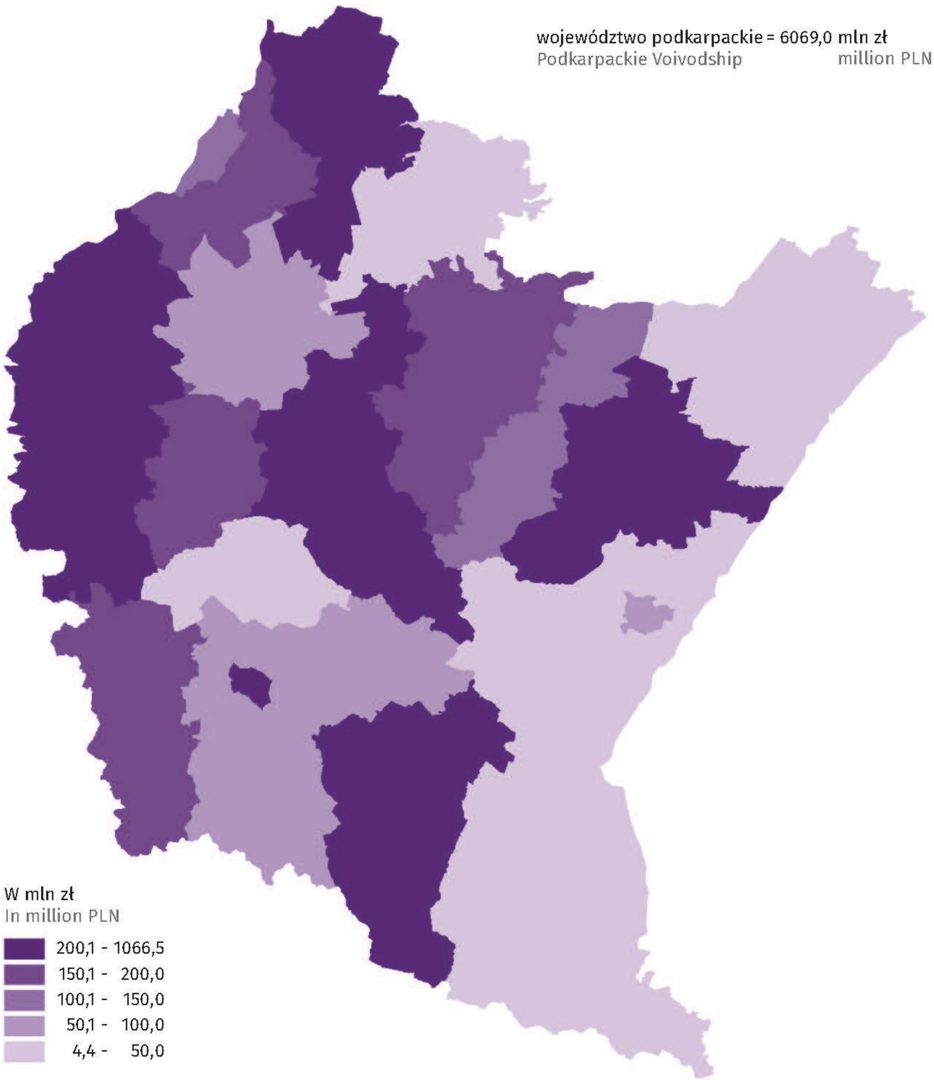
Map 5. **Output of goods and services sold in the business sector in March 2020**



Source: Own elaboration based on CSO data.

In April 2020, output was 26.6% lower than in April 2019 and 27.6% lower than in March this year. Almost all powiats saw a decrease in revenue compared to April last year, including Rzeszow, which saw a 23.6% decrease. However, in relation to March this year, a decrease in revenue was noted in all powiats. In eleven poviats the fall of income was deeper than the average in the Voivodship, including in Rzeszów by 29.2%.

In May 2020 in Podkarpackie Voivodship it was 20.4% lower than in May last year, and 15.0% higher than in April this year. Twenty-one counties recorded a decrease in revenue compared to May 2019, including Rzeszów by 36.2%. Compared to April this year, there was an increase in revenue in twenty-two counties, including Rzeszow by 2.8%.

A smaller decrease in output occurred in June 2020. - by 2.2% than in June 2019, and higher by 16.8% than in May this year. Twelve counties saw a decrease in revenue compared to June last year, including Rzeszow, down 16.8%. Compared to the previous month, there was an increase in revenue in twenty-three counties, including Rzeszów by 15.9%.

A similar situation occurred in July 2020. Output was 3.6% lower than in July 2019, but 2.4% higher than in June this year. In most counties, there was a decrease in revenue compared to July last year, including a 23.2% drop in Rzeszow. Compared to the previous month, significantly more counties reported an increase in revenue, while in Rzeszów, output sold decreased by 5.0%.

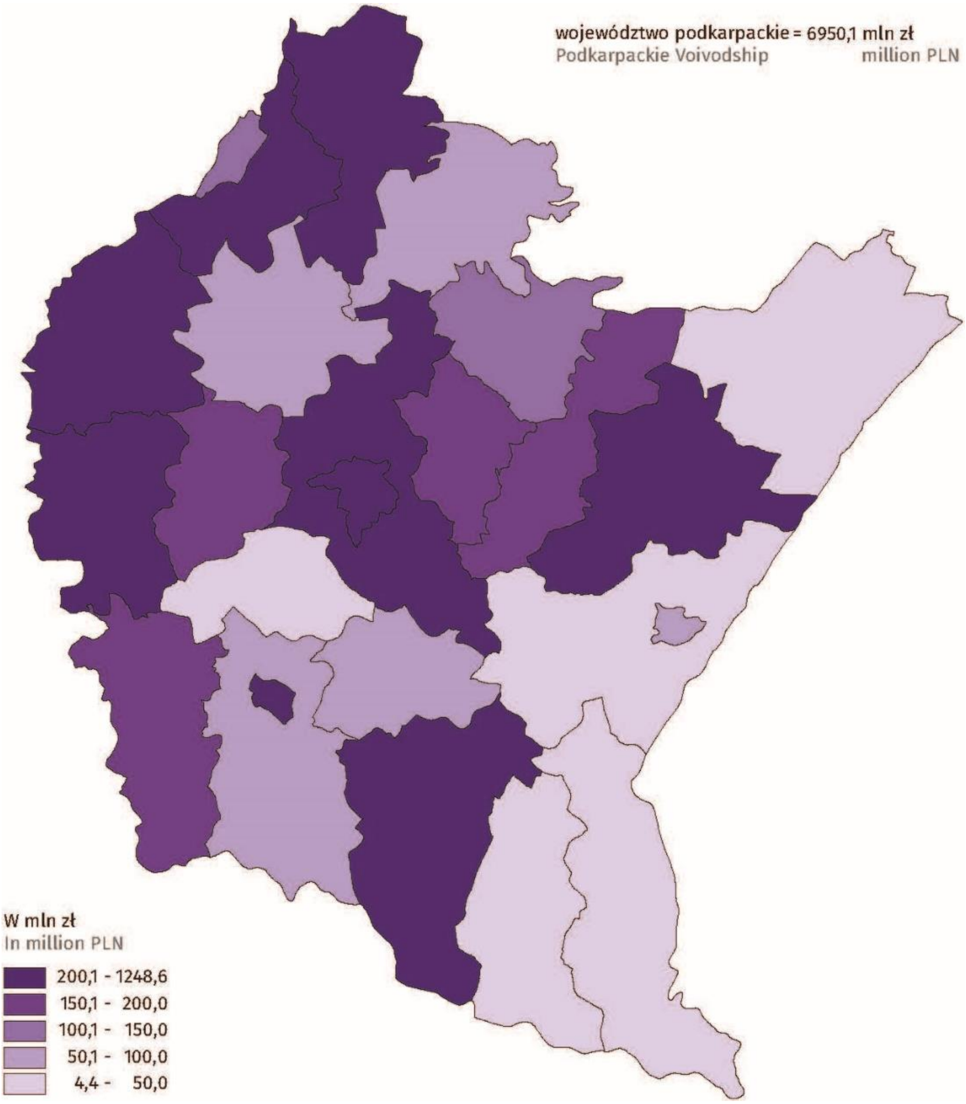
In August 2020 in Podkarpackie Voivodship was lower than in August 2019. - by 2.5%, and by 3.5% lower than in July this year. In most powiats compared to August last year, there was a decrease in revenue, including in Rzeszów a decrease of 19.8%. In relation to the previous month, thirteen powiats recorded a decrease in revenue, while in Rzeszów the production sold increased by 0.8%.

It was 15.7% higher in the Podkarpackie region in September than in August this year, and remained at that level compared to September 2019. In relation to the previous month, most counties recorded an increase in revenue, including Rzeszów where output sold increased by 20.9%. Compared to September last year, many more counties reported an increase in revenue, while in Rzeszow, output sold decreased by 13.5%.

In October, output was 2.2% higher than in September this year, while compared to October 2019, it decreased by 2.1%. Compared to the previous month, most counties saw an increase in revenue, while in Rzeszow, output sold decreased by 4.3%. Compared to October last year, slightly more counties reported an increase in revenue, while in Rzeszow, output sold decreased by 17.1%.

November was the first month since March where production was higher than in the previous year (by 1.0%) and by 6.8% higher than in November 2019. Compared to the previous month, most counties saw a decrease in revenue, while in Rzeszów, output sold increased by 0.3%. Compared to the same period in 2019, slightly more counties reported an increase in revenue, while in Rzeszów, output sold decreased by 15.2%.

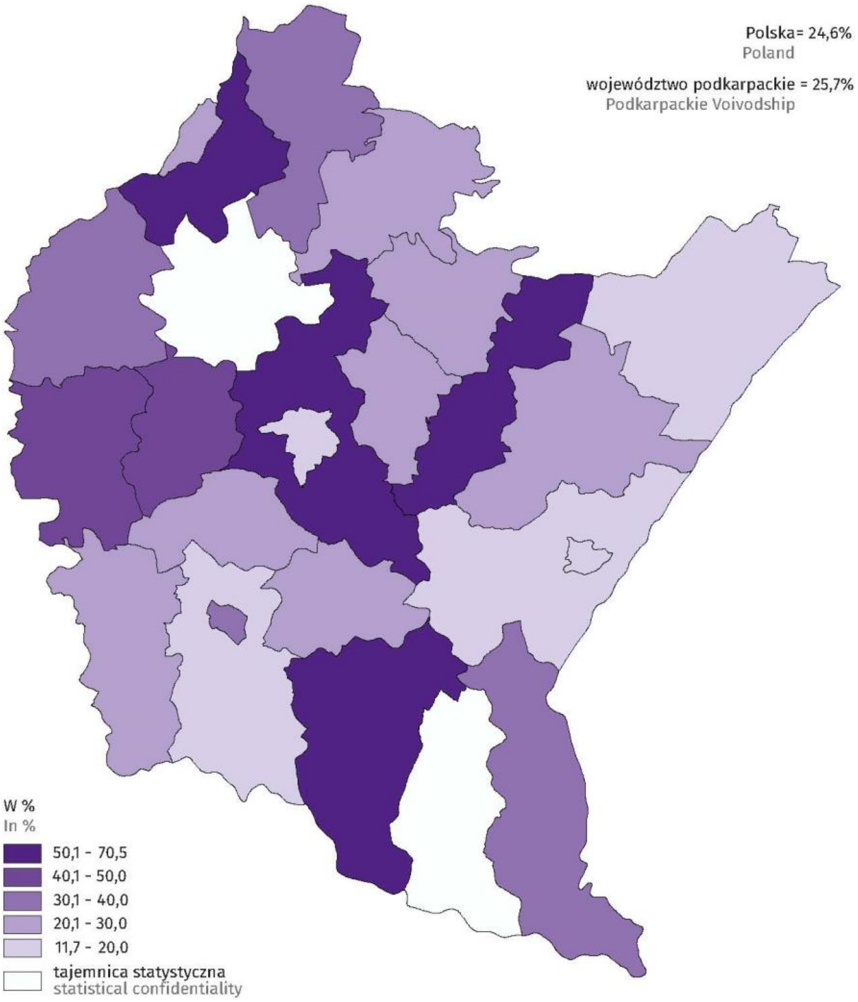
Map 6. **Sold production of goods and services in the business sector in November 2020.**



Source: Own elaboration based on CSO data.

The share of export sales revenue in revenue from sales of products, goods and materials in the first quarter of 2020 was 26.5%, lower than in the corresponding period of 2019 by 2.6 p.p. In eleven counties, the share of exports in revenue was higher than in the province. In fourteen counties, the share of exports in sales revenue was lower than in Share of export sales revenue in revenue from sales of products, goods and materials.

Map 7. **Share of revenue from sales of products, goods and materials for export in total net revenue from sales of products, goods and materials in enterprises in January-September 2020**

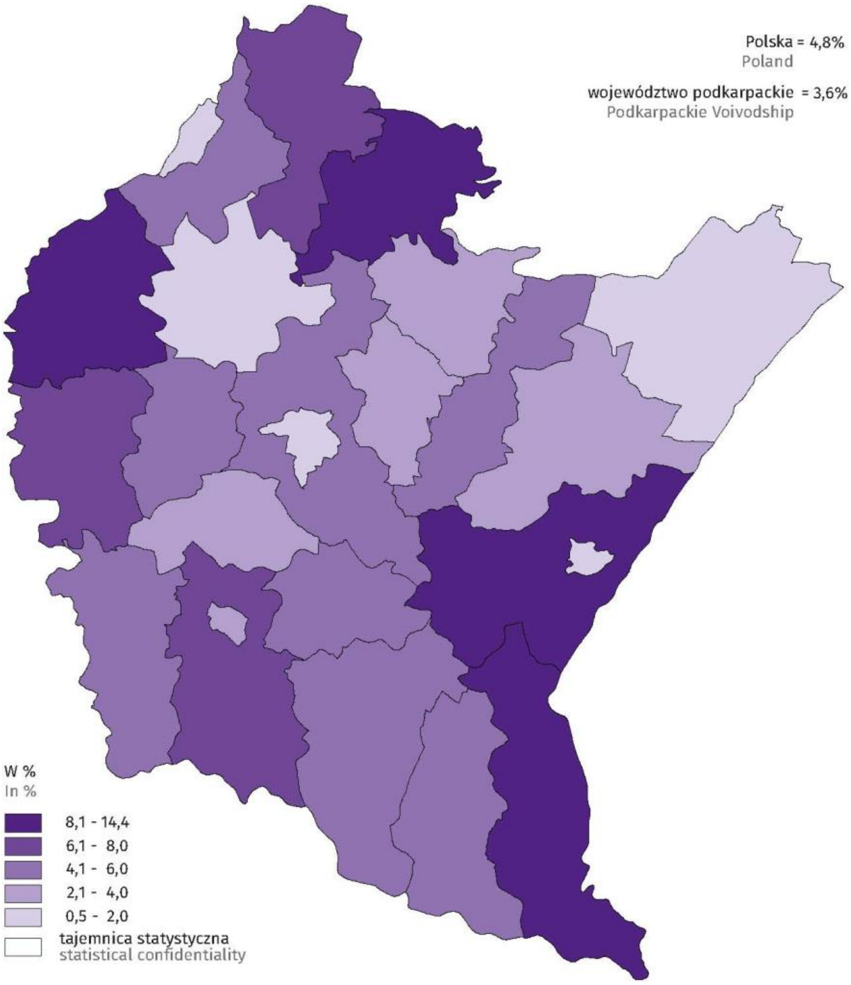


Source: Own elaboration based on CSO data.

In first half 2020, the share amounted to 25.1% and was lower than in the corresponding period of 2019 by 3.1 p.p. In twelve counties, the share of exports in revenue was higher than in the province. In fourteen counties, the share of exports in sales revenue was lower than in first half 2019, including Rzeszów. Q1 2019 including Rzeszów. On the other hand, in January-September 2020, the share amounted to 25.7% and was lower than in the corresponding period of 2019 by 2.4 p.p. In twelve counties, the share of exports in revenue was higher than in the province. In thirteen powiats, the share of exports in sales revenue was lower than in the corresponding period of 2019, including Rzeszów, Leżajsk powiat and Krosno, while in one it remained at the level of last year.

The return on sales ratio in enterprises in Podkarpackie Voivodship in January-September 2020 was 0.8 p.p. lower than in the corresponding period of 2019. In sixteen powiats of the Voivodship it was lower than a year ago, including in non-financial enterprises based in Rzeszów.

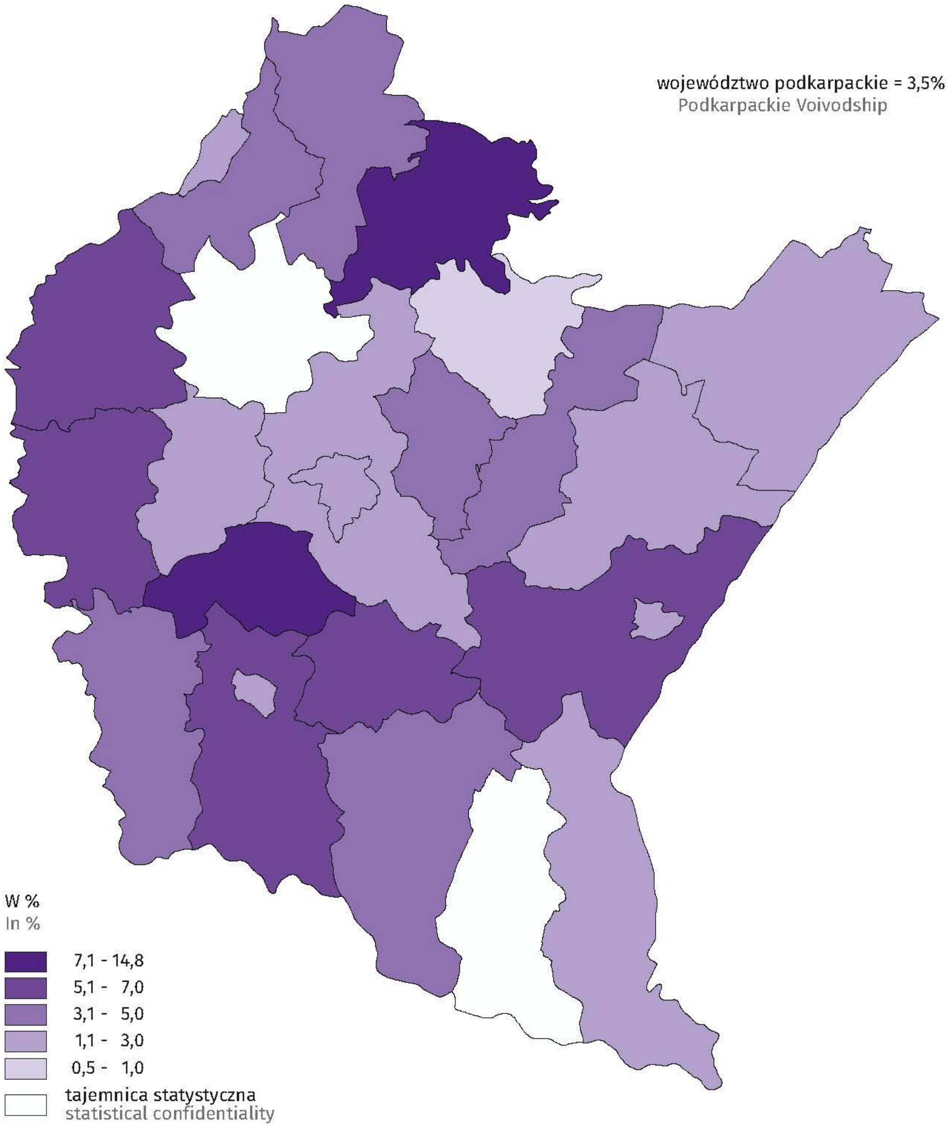
Map 8. **Profitability of sales ratio in enterprises in January-September 2020**



Source: Own elaboration based on CSO data.

The return on capital ratio in January-September 2020 in Podkarpackie Voivodship was lower by 3.0 p.p. compared to the same period of 2019. The decrease was recorded by non-financial enterprises in fifteen powiats of the Voivodship, including units based in Rzeszów.

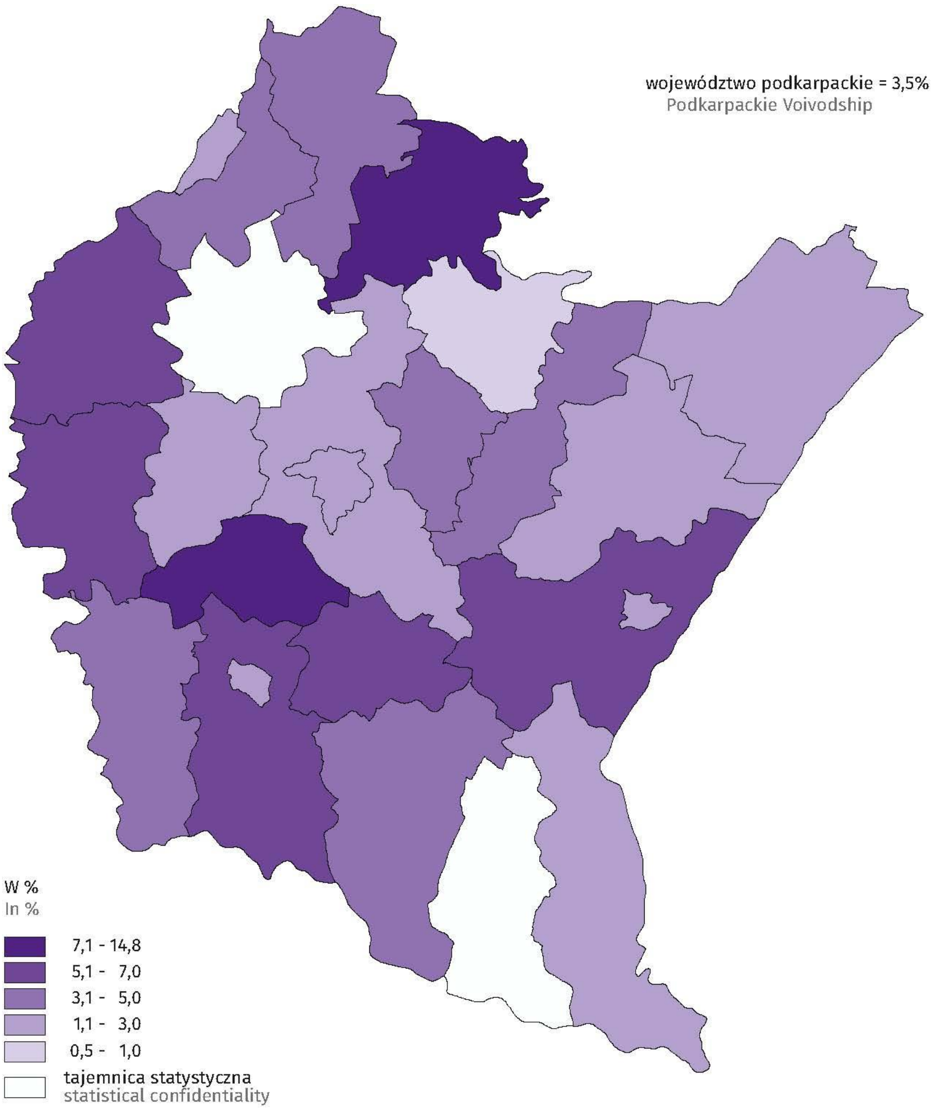
Map 9. **Profitability of capital in enterprises in January-September 2020**



Source: Own elaboration based on CSO data.

The return on assets ratio in January-September 2020 in Podkarpackie Voivodship decreased in comparison to the same period of the previous year by 1.6 p.p. In fourteen powiats of the Voivodship it was lower than the year before, including Rzeszów, and in one it remained at the level of the previous year.

Map 10. **Return on assets ratio in companies in January-September 2020.**

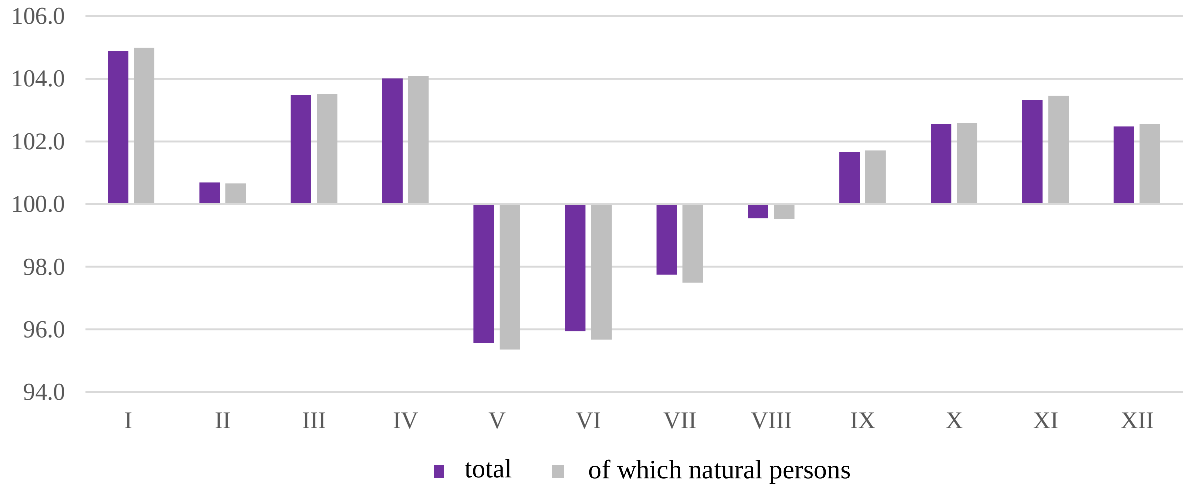


Source: Own elaboration based on CSO data.

As at the end of April 2020, 21.1 thousand entities had their activity suspended in the REGON register (4.0% more than a month ago). The vast majority were sole traders (95.5%, up from 95.6% in March this year). In the February-April period, the number of suspended entities grew. In the following four months, the number of suspended activities reported in the

REGON register dropped significantly. Since September it started to grow again, and at the end of December 20,800 entities had suspended their activity in the REGON register (2.5% more than a month ago). The highest increase in the second half of the year was recorded in November (by 3.3%).

Chart 18. **National economy entities with suspended activity**



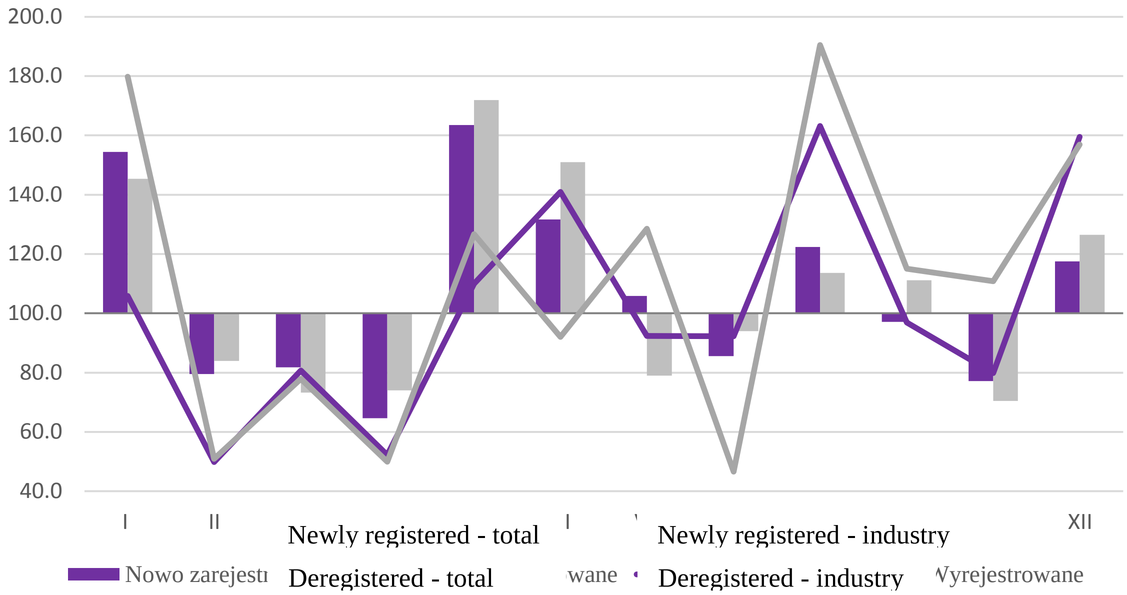
in Podkarpackie Voivodship in 2020.

Source: Own elaboration based on CSO data.

In February-April 2020, the number of newly registered entities in the REGON register decreased. In the following two months there was a significant increase in newly registered (in May - by 71.9% compared to April 2020). From July onwards, the dynamics of newly registered entities fluctuated considerably (with the largest decrease in November - by 22.8%). Similar trends were shown by entities in sections classified as industry. After decreases in February-April, the number of newly registered entities increased in the following months, and from July fluctuated significantly (the highest decrease in November - by 29.5%, the largest increase in December - by 26.5%). Similar trends were observed in the number of de-registered entities, where a period of decline from February to April 2020 was followed by increases and significant fluctuations both overall in the province and in industry.

The largest decrease, compared to the previous month, of de-registered industrial entities was recorded in August (by 53.3%) and the largest increase in September (by 90.5%).

Chart 19. **Newly registered and deregistered enterprises in Podkarpackie Voivodship from January to December 2020**



Source: Own elaboration based on CSO data.

In January-November 2020, in all powiats of Podkarpackie Voivodship the advantage of the number of newly registered enterprises over the number of de-registered ones was recorded. Including the number of natural persons and commercial companies. The greatest advantage was usually observed in Rzeszów, rzeszowski and mielecki. On the other hand, in December there were powiats where the number of newly registered enterprises did not exceed the number of de-registered ones, e.g. dębicki powiat, the cities of Tarnobrzeg and Przemyśl, and leski powiat.

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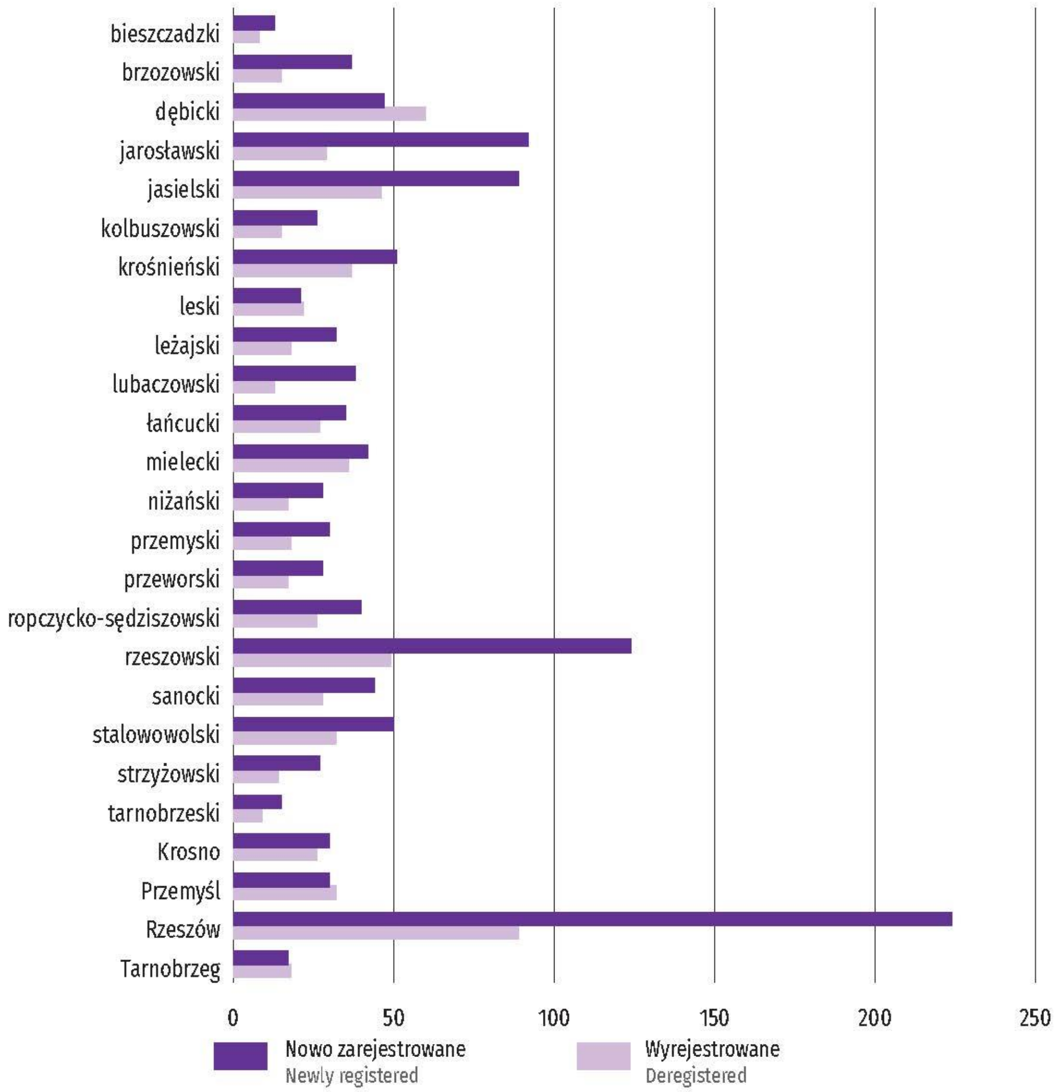
Chart 20. **Newly registered and deregistered enterprises - December 2020.**



Source: Own elaboration based on CSO data.

The situation is interesting as regards all national economy entities in Podkarpackie Voivodship. The number of entities with suspended operations at the end of March 2020 was 3.5% higher than a month ago. A relatively large increase in entities with suspended activities occurred in the section of education, activities related to culture, entertainment and recreation, health care and social assistance and other service activities. In March 2020, 936 new entities were registered, i.e. 18.2% less than in February 2020, while 519 entities were deregistered, i.e. 19.3% less than a month ago.

In Rzeszów, entities with suspended operations at the end of April 2020 were 129, i.e. 4.9% more than a month ago. A relatively large increase in entities with suspended activities occurred in the sections health care and social assistance - by 12.9% more than at the end of March 2020, education - by 8.8%, other service activities - by 8.4% and manufacturing - by 6.9%. In April 2020, 106 new entities were registered, i.e. 41.1% less than in March 2020, while 37 entities were deregistered, i.e. 41.3% less than a month ago.

Also in April 2020, entities with suspended activities were 4.0% more than the month before. A relatively large increase in entities with suspended activities occurred in the education, health care and social assistance, other service activities and transport, storage management sections. In April 2020, 605 new entities were registered, 35.4% less than in March this year, while 271 entities were deregistered, 47.8% less than a month ago.

On the other hand, in the May-August 2020 period, national economy entities with suspended activities were increasingly fewer than the month before, from 4.4% in May to 0.5% in August. A relatively large decrease in entities with suspended activities occurred in the accommodation and catering, other service activities, health care and social assistance, manufacturing sections.

The increase in entities with suspended activities started again from September 2020, 1.7% more than a month ago. Relatively large increases in entities with suspended activities occurred in the accommodation and catering, water supply; sewage and waste management; remediation, manufacturing, transport, storage management sections. In September 2020, 1443 new entities were registered, i.e. 22.4% more than in August 2020, while 584 entities were deregistered, i.e. 63.1% more than the month before.

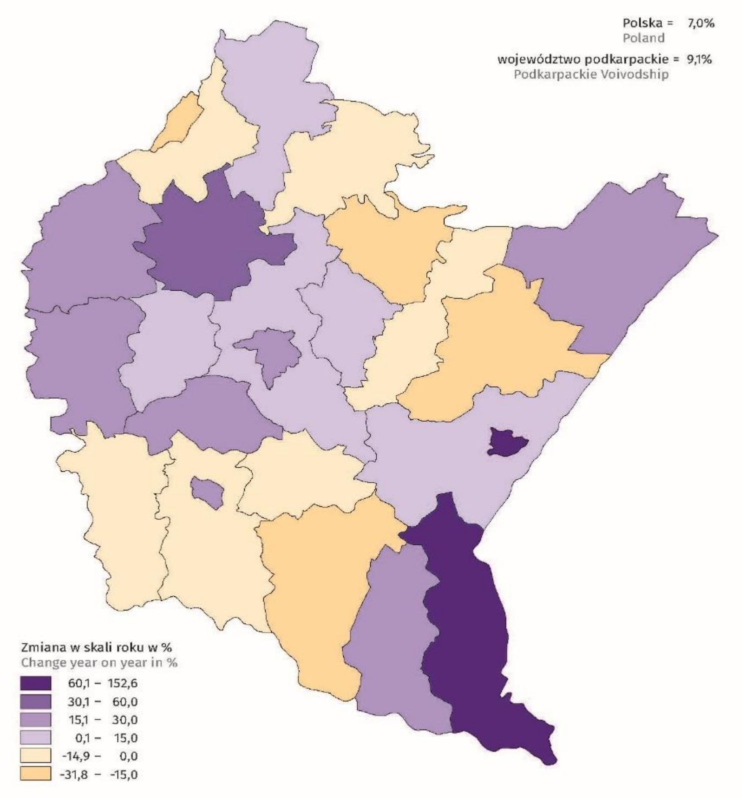
October and November was another month where the number of national economy entities with suspended activities was higher than in the previous month. At the end of November it was 3.3% more than the month before. A large increase in entities with suspended activities occurred in the sections culture, entertainment and recreation, accommodation and catering, health care and social assistance. In November 2020, 1081 new entities were registered, i.e. 22.8% less than in October 2020, while 452 entities were deregistered, i.e. 20.1% less than a month ago.

In Rzeszów, entities with suspended operations at the end of November 2020 were 62, i.e. 2.3% more than a month earlier, similar to previous months.

Such a tendency was also maintained in December, where such entities were 2.5% more than a month ago. The largest increase in the number of entities with suspended activities occurred in the sectors of cultural, entertainment and recreation activities, real estate services and construction. There was no decrease in suspended activities in any section. In December 2020, 1271 new entities were registered, i.e. 17.6% more than in November, while 721 entities were deregistered, i.e. 59.5% more than the month before.

In January-December 2020, an increase in the number of dwellings put into use in relation to the corresponding period of 2019 was recorded in fifteen powiats, the largest in bieszczadzki powiat - by more than 2.5 times, Przemyśl - by 70.1% and kolbuszowki powiat - by 50.0%. A decrease in the number of dwellings completed occurred in ten poviats, of which the largest one in Tarnobrzeg - by 31.8%, sanocki powiat - by 29.5% and leżajski powiat - by 18.7%. The largest number of dwellings was completed in Rzeszów (3825), rzeszowski powiat (1021), and mielecki powiat (570), while the smallest number of dwellings was completed in bieszczadzki powiat (96), and Tarnobrzeg (101).

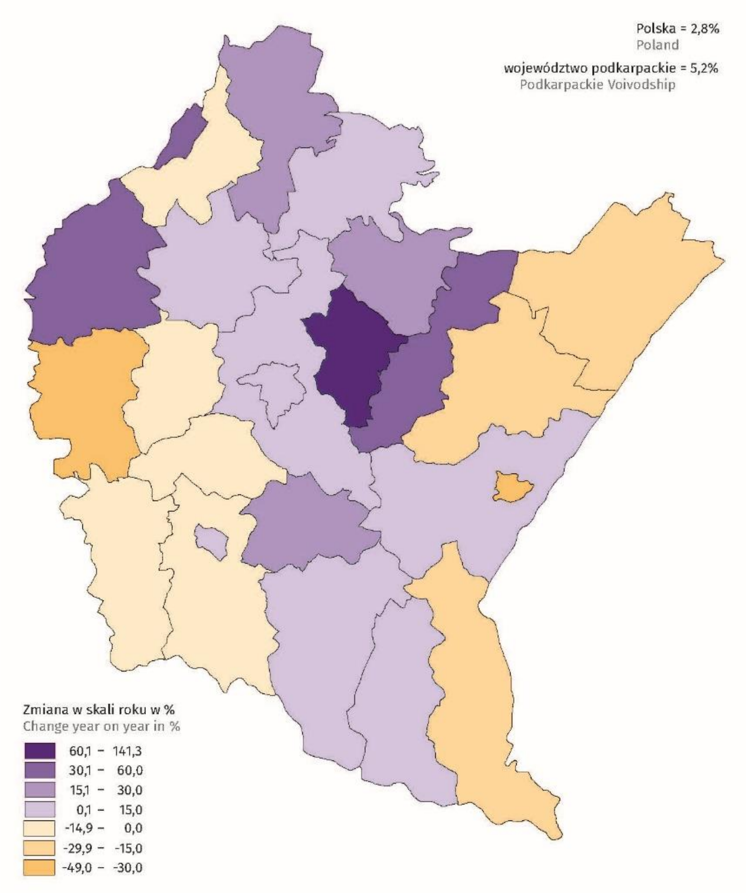
Map 11. **Change in the number of dwellings completed between January and December 2020.**



Source: Own elaboration based on CSO data.

In January-December 2020, the number of dwellings for the construction of which permits were issued or notifications with a construction project were made increased in relation to the same period of 2019 in fifteen powiats, of which the most in the łańcucki powiat - by nearly 2.5 times, przeworski - by 59.5% and in Tarnobrzeg - by 42.1%. Decrease in the number of issued permits or notifications with a construction project was recorded in ten powiats, the largest in the dębicki powiat- by 49.0%, Przemyśl - by 48.7% and in the jarosławski - by 27.9%. The largest number of dwellings for which permits were issued or applications were submitted with a construction design were recorded in Rzeszów (4366), rzeszowski powiat (1348) and mielecki powiat (1020). The lowest number was recorded in the powiats of bieszczadzki (125) and lubaczowski (132).

Map 12. **Change in the number of dwellings for which permits were granted or notifications with a construction design were submitted in the period January-December 2020**



Source: Own elaboration based on CSO data.

The tourism sector is one of the sectors directly affected by the current crisis resulting from the coronavirus pandemic. Throughout the world, tourist accommodation establishments are reporting lower occupancy rates compared to the corresponding periods of the previous year. A similar situation has also occurred in Podkarpackie. A decrease in the number of tourists and the utilisation rate of tourist accommodation facilities occurred in all powiats of the voivodship in every surveyed month from March to December. Thus, in March 2020, the highest decrease, compared to the same period of the previous year, occurred in Rzeszów (by 18.2 thousand) and in the county of Bieszczady (by 5 thousand), the lowest decrease in the number of tourists was recorded in the county of Brzozów (by 116). In November 2020 also the highest decrease occurred in Rzeszów (by 20.1 thousand) and in Bieszczady county (by 5.7 thousand).

According to data for the entire voivodship, in March 2020, about 37 thousand tourists used the accommodation in tourist accommodation facilities with 10 or more beds, including about 33 thousand domestic tourists and about 4 thousand foreign tourists. It is estimated that the number of tourists using overnight accommodation in March 2020, compared to the same month last year, was lower by about 59% (domestic lower by about 65%). Taking into account the country of permanent residence, there were 58% fewer Poles (63% fewer at home) and 66% fewer foreign tourists (69% fewer at home). However, in November 2020 about 21 thousand tourists used accommodation in tourist accommodation establishments in the Podkarpackie Province. Compared to the same month of the previous year, the number of tourists was lower by about 76%. Taking into account the country of permanent residence, about 19 thousand domestic tourists and about 2 thousand foreign tourists used the accommodation; compared to November2019 this was a decrease of about 75% and 84% respectively.

In December 2020, approximately 16.8 thousand tourists used accommodation in tourist accommodation establishments. Compared to the same month of the previous year, the number of tourists was approximately 79% lower. Considering the country of permanent residence, about 15.2 thousand domestic tourists and about 1.6 thousand foreign tourists used accommodation; compared to December 2019, this was lower by about 78% and 83% respectively.

The project is co-financed by the European Regional Development Fund as part of the INTERREG EUROPE Program

Chart 21. **Tourists using accommodation in tourist accommodation establishments[4] in Podkarpackie Voivodship in December 2020**

Source: Own elaboration based on CSO data.

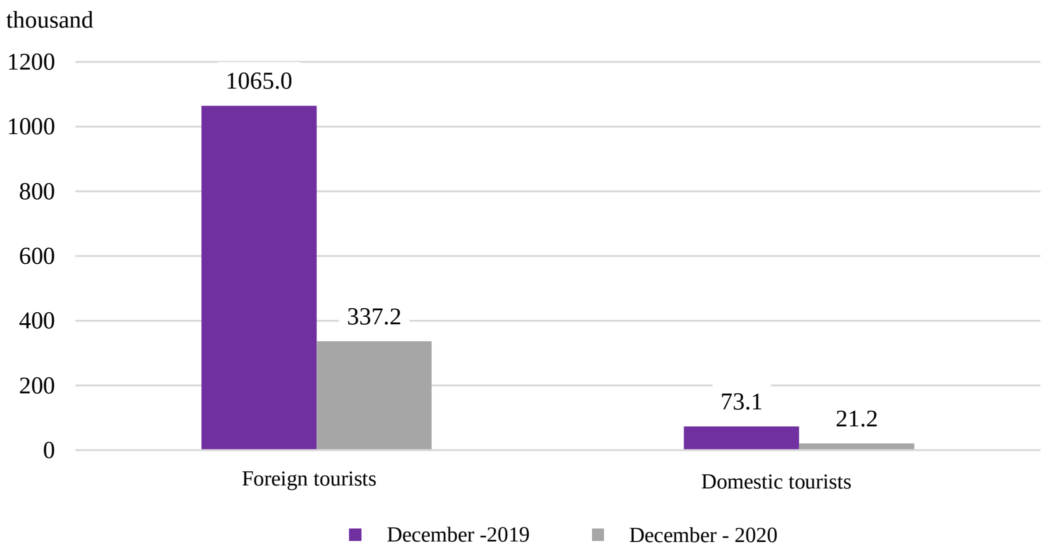
On the territory of Podkarpackie Voivodship, according to the data of the Border Guard Headquarters, in December 2020 on the land border between Poland and Ukraine 358.3 thousand checks were recorded (by 68.5% less than in the corresponding period of the previous year and by 37.4% more than in November 2020), of which:

- 337.2 thousand foreigners - 68.3% less than in December 2019 and 36.4% more than in November 2020,
- 21.2 thousand Poles - 71.1% less than in December 2019 and 53.7% more than in November 2020.

Among foreigners crossing the Polish-Ukrainian border in Podkarpackie Voivodship, 92.8% were citizens of Ukraine.

[4] Applies to establishments with 10 or more bed places.

Chart 22. **Border traffic (from and to Poland) on the land border between Poland and Ukraine in the Podkarpackie Voivodship**



Source: Own elaboration based on CSO data.

Under the Local Border Traffic (LBT) on the Polish-Ukrainian border in the Podkarpackie Voivodship, 2 foreigners were checked in December 2020 (from Poland and to Poland). For comparison, in December 2019 the number of border crossings (from Poland and to Poland) under the LBT regime was 241.9 thousand.

1.7. Case-studies on the example of 3 companies from the automotive, manufacturing and IT sectors

From 1 January to the end of December 2020, Podkarpackie employers notified the powiat labour offices of their intention to make 3 416 employees redundant. Among the employers reporting redundancies to labour offices, the most frequent were entities in the aviation industry, the automotive industry and in the field of metalworking or production of machinery and equipment. The first two industries have been affected by the pandemic. First of all, there were restrictions on the movement of people, together with a general decline in orders in the automotive industry and in the manufacture of components for aircraft. These restrictions significantly affected order levels and employment in these particular sectors of activity. The difficult situation beyond the pandemic has also been compounded by a decline in demand resulting from the slowdown in the world economy, following cycles of decades, which has conditioned notifications of redundancies in other, already less numerous, sectors. Significant factors in mitigating the negative impact of the pandemic include the various editions of the government's Crisis Shield. The effects of the pandemic in the long term are currently difficult to predict. Some companies, he says, will have to respond to the fall in demand by adjusting their order fulfilment levels to the new market conditions. Other employers will co-opt and acquire new contractors. Some of the larger companies will try their hand at opening up new types of production or services, in short trial series, e.g. goods which are of interest to the domestic market or new customers abroad. For the automotive industry, the production of modern public transport vehicles on the so-called magnetic cushion or microelectronics may turn out to be a new pole of growth.

An example of a company that has successfully reacted to the crisis is BorgWarner.

The company operating in the Podkarpackie Voivodship is the Polish branch of American BorgWarner Inc., a producer of components and advanced technology systems for power transmission and transmission systems in automotive vehicles. The company specialises in the production of turbochargers, control systems for automatic transmissions, chains and timing modules with variable phases for the automotive industry, and is currently the leader in the production of these devices in Europe. Production facilities are located near Rzeszow airport, in Jasionka, in the Podkarpackie Science and Technology Park.

Borg Warner started its operations in 2008, gradually expanding its activities with subsequent divisions. The starting point was the Turbo Systems division dealing with the production of turbochargers. Thanks to an investment in 2013, we opened new plants, i.e. Transmission Systems (production of control and steering systems for automatic transmissions) and Morse Systems (production of timing chains with variable timing phases). In the same year, a Research and Development Centre was established (designing, testing and implementing turbochargers into serial production). Through these investments it was possible to create a large BorgWarner industrial complex forming the so-called Campus in Jasionka near Rzeszów. Due to the continuous development, in 2016 a new turbocharger remanufacturing business was launched, the so-called Remanufacturing forming part of BorgWarner Poland. Sp. z o.o.

The company has two state-of-the-art factories which, thanks to the highest technological advancement, have a production capacity of close to one million turbochargers per year for petrol and diesel engines and one million solenoids for power transmission gears. The second plant, commissioned in 2013 and housing two production halls, produces technologically advanced chains, including variable valve timing systems, as well as induction valves for standard and dual-clutch automatic transmissions. The recipients of parts and finished products are among others Fiat/GM, Ford, VW, Audi, Jaguar. The company also owns a modern complex of buildings of Rzeszów Technical Centre, which houses design studios, offices, workshops and test stands. The goals set for the centre are the development and implementation of new products for our leading European customers. Due to the global structure of our partners, the engineers we employ travel and work all over the world - wherever engines are developed.

In the whole BorgWarner Campus in Poland there are about 1800 employees. The company is developing very dynamically. The dynamics of sales revenue in the last 5 years is high, and employment in the last period 2015-2019 increased by about 130%. The company has also made a lot of investments - during this period they increased more than 4 times.

In Q1 2020, temporary closures of carmakers' factories began, mainly due to concern for workers and compliance with authorities, and to a lesser extent problems with component shortages, as parts makers, for the time being, worked steadily. The downtime was experienced by carmakers who had factories in China.

Map 13 It is worth noting that the car industry is a significant part of the Polish economy, which according to various estimates can account for as much as 10 per cent of the country's GDP, so stopping the production of components would mean sending hundreds of thousands of workers home and causing huge losses to the industry as a whole. In the case of BorgWarner Poland, the plant was working fairly normally. At the beginning of the pandemic, rapid analysis of the situation and data, close cooperation of key departments and the introduction of detailed sanitary and epidemiological procedures were applied in the company. This allowed for proper response to the threat, smooth shutdown of production and its restart, and above all, effective protection of employees from COVID-19. The negative impact of the outbreak of coronavirus on the business activities of BorgWarner Poland (BW Poland) was noticed already at the beginning of the year. Incoming information about the development of the outbreak in Wuhan, China, was the cause of emerging concerns and anxieties about the stability of the supply chain and the risks posed by it. Workers raised various questions mainly about the possible transmission of the virus through production components imported from China. These concerns also applied to other European plants. Of course, the risk was checked out and the workers' doubts were finally dispelled. At the same time, with the negative development of the situation in Asia, based also on information from our Asian plants, we introduced restrictions on business travel and recommendations to refer employees returning from business trips to China for medical consultations in order to minimize possible risks. The problems were exacerbated by the introduction of quarantine in the Wuhan region. This affected the stability and regularity of supplies to BorgWarner Poland. However, as many components were already in sea and rail transport there was time (about one month) to take appropriate action. Their main objective was to shift the burden to alternative suppliers and communicate openly with customers about the threat posed by COVID-19. Additional security in the form of held safety stock and quick response to the current situation allowed BorgWarner Poland to maintain continuity of supply to key customers at an unchanged level. At that time the prevailing opinion in Europe was that the COVID-19 problem will come down to several weeks of perturbations in the supply chain and will slowly return to normal once the virus is contained in China. This is what happened - from the beginning of March the situation with the main Asian supplier began to normalize.

The project is co-financed by the European Regional Development Fund as part of the INTERREG EUROPE Program

In March, the situation in the industry became very dynamic. Eventually, due to the situation with the main customers and orders cancelled overnight, the plant was shut down on 23 March and production stopped for about a month. The operational activity was maintained only in the area of the European Centre of Regeneration of turbochargers. Employees were directed to take outstanding annual leave. They were also supposed to use the overtime they had. Thanks to the well-developed infrastructure and software facilities, the administrative employees were able to continue working in home office mode. Despite financial support from the government, the company's economic situation did not allow all jobs to be retained. However, over time, following a gradual increase in customer orders, the company began to increase employment in the following months.

The remaining activity of the plant during the production shutdown consisted of securing the plant during the shutdown and minimising the maintenance costs of buildings and machinery. In parallel, a group was established to develop a procedure for restarting the plant under pandemic conditions. The group comprised managers from key departments such as Health and Safety, Operations, Infrastructure and Logistics. The group worked under the leadership of the General Manager. The effects of the COVID-19 epidemic that affected the global economy including the automotive industry were also felt by BorgWarner Rzeszów. The restart of the plant took place in April.

At the outset, BorgWarner Poland introduced detailed rules to manage shipments of production components imported from various countries affected by the outbreak. This included deliveries from Italian plants, the epicentre of the pandemic in the European Union. The procedures put in place required all drivers to complete health questionnaires and disinfect their vehicles before entering the premises. It was also compulsory for them to use personal protective equipment, namely protective masks and gloves. Special leaflets and posters informing about the new requirements appeared in the plant.

At the beginning, BorgWarner Poland introduced detailed rules for managing transports of production components imported from different countries affected by the epidemic. This included deliveries from Italian plants, the epicentre of the pandemic in the European Union. The procedures put in place required all drivers to complete health questionnaires and disinfect their vehicles before entering the premises. It was also compulsory for them to use personal protective equipment, namely protective masks and gloves. Special leaflets and posters informing about the new requirements appeared in the plant.

ML System S.A.

ML System is a manufacturer and distributor of photovoltaic panels. On the Polish market it is one of the pioneers whose scope of activity is photovoltaic energy. Electricity production by photovoltaic panels is still a young technology, which is why ML System is an innovative company. Its business is designing and implementing photovoltaic systems integrated with buildings (BIPV). It is the only company in Poland to conduct its own research, create prototypes of photovoltaic cells and research new materials that can be used in their construction. The company is developing dynamically. It also implements modern solutions in historic buildings with good results. ML System offers innovative photovoltaic solutions integrated with construction, the so-called BIPV. ML System products are an attractive alternative to traditional building materials. The company is a leader in its industry in the Polish market, and is also one of the key BIPV manufacturers in the world[5]. The total area of the company's production facilities with warehouses and R&D centre is 14.4 thousand square metres. The company holds 13 patents, with five patent applications pending.

ML System employed 183 people at the end of 2019. Employment has been increasing dynamically in the recent period.

Analysing the financial situation of the company, it can be concluded that in the following quarters of 2020, the outbreak of the COVID-19 coronavirus, represented a moderately significant risk not significantly affecting the size of the impact on operations. The company was not subject to administrative restrictions on operations imposed by the authorities related to loss of business. The company kept the situation in relation to the spread of the COVID-19 virus epidemic under review.

As a reaction to the progressive spread of the COVID-19 virus, in April this year ML System launched a glass partition - in active and passive versions - protecting against viruses. The partition is used primarily in medical clinics and pharmacies. In the active version, the company offers a pane of glass, which is impulsively, cyclically heated to a temperature of approx. 75 degrees Celsius, eliminating germs. It is worth emphasising that antibacterial glass available on the market is not an effective tool in the fight against viruses. Safety glass is used

[5] Report Building Integrated Photovoltaic Skylights Market 2020-2027.

in the partitions, and in the passive version, additional glass is installed to facilitate direct communication.

The specially designed architecture of the device's interior, using reflective layers and suitable electromagnetic (EM) wave sources in the UV range, means that the disinfection process takes just 30 seconds. Additionally, the electromagnetic wave is dispersed inside the chamber in such a way that the process of surface disinfection takes place evenly. The device does not generate any contamination and thanks to the integrated safety system it switches off automatically e.g. when the cover is opened.

The device can be used in: healthcare, offices, the banking sector, public administration, hotels and restaurants, and industry.

The device works on the basis of high-energy electromagnetic radiation. It neutralizes all kinds of pathogens, including those causing the COVID-19 coronavirus disease. It removes bacteria, viruses and fungi from glass, paper, metal and plastic surfaces, at the same time ensuring complete safety for disinfected materials, e.g. banknotes. An initial market offering has been launched and there is considerable interest in the product.

In the following months of 2020. ML System actively sought partners with industry leaders to achieve economies of scale and enable mass sales. In July 2020, the company concluded, among others, a cooperation agreement with Pilkington Automotive Poland. The agreement with this glazing supplier concerns a research project aimed at implementing mass production of automotive glazing called "QDrive", using quantum dot technology. As a result of joint activities, car glasses will be introduced to the market, which will enable the conversion of sunlight into electric energy and at the same time improve the thermal and energy insulation of vehicles.

According to estimates, in the first three quarters of 2020 ML System generated PLN 88.7 million in sales revenue, which is a 35 per cent increase on the previous year. Despite the pandemic, it has been consistently increasing the scale of its operations, maintaining the desired profitability of orders. The market situation for the industry remains favourable. From the beginning of 2021, new requirements will apply in Poland regarding the technical conditions to which buildings and their location should conform. Tougher requirements on the energy efficiency of buildings open up completely new opportunities for the BIPV market, so this year the company can expect further growth.

ML System is diversifying its revenue sources, and products from the area of classical photovoltaics are only a part of them. Under the adopted strategy for 2020 - 2024, the company will strive to become a global supplier of products based on quantum dot technology for photovoltaic glass, dedicated to architectural objects and the automotive sector. As a result of the implementation of the adopted assumptions, ML System expects to achieve sales revenue in excess of PLN 400 million in 2024. In the first half of 2021, the company plans to implement for mass production Quantum Glass - a transparent insulating glass, generating electricity. According to the assumptions, reaching full production capacity is planned for the end of 2021. In subsequent steps, in 2022 and 2023 respectively, the company also plans to start production of 2D Glass and Active Glass.

Asseco Poland S.A.

Asseco started as a few-person company - an IT services office - in 1991. The choice of the IT industry resulted from the awareness of how IT can be used in business. At present it is the largest IT company in Poland and in the region of Central and Eastern Europe. Asseco Poland S.A. has its headquarters in Rzeszów.

The company operates according to the adopted strategy: we think globally, act locally. This stems from our experience in the banking sector, which was reluctant to cooperate with small, local companies, even though they offered good IT systems. For financial institutions, it was important that their supplier was a large company with an international reach. It was this need to effectively reach out to customers in the banking sector that gave rise to the idea of creating a federation. A few years ago, the management board of Asseco assumed that in Poland's neighbouring countries there are also companies similar to ours which, despite producing good software, cannot break through to large clients. The company is focused on freedom of action and entrepreneurship. Previous managers (usually minority shareholders) continue to manage the company's operations. Their experience and knowledge of local markets is important. What unites them is not only common business goals, but above all vision, values and partnerships. The company takes a responsible approach to business and is guided by local patriotism; therefore, it pays taxes in the places where revenues are generated and supports local communities. Last year the Asseco Group achieved a record level of over PLN 10 billion in revenues. In the development and expansion of its business, the company focuses primarily on finding companies similar to Asseco: with their own products, stable financial position, operating in similar sectors, and whose owners would like to remain with the company after the acquisition and develop it together. In its search, it assumes that companies after the merger with the Group should be independent, and what will be worked out together (the so-called synergy) is a bonus from which both the acquired company and Asseco will benefit.

Asseco supports cross-selling activities - it provides the Group companies with access to commercial information so that they are up-to-date with the offer of other Asseco family members, and facilitates contact with key persons who may support a given idea for a joint sale.

From the Asseco Group's perspective, international cooperation enables accumulation of comprehensive experience and know-how. Synergy of these competencies creates added value for our customers who receive products and services of the highest quality.

At present the Asseco Group is present in 60 countries worldwide, has made almost 100 acquisitions and employs ca. 27.5 thousand people.

In the coming years the company assumes to maintain the upward trend. In 2020, despite the coronovirus epidemic, the Group was joined by over a dozen new companies from the Israeli, American and European markets, complementing its offer with interesting products and competencies. The company has not slowed down, it continues to analyse interesting regions and focuses on meeting new companies that are potential acquisition targets, although it is more cautious in its decision-making due to the pandemic. They analyse the companies' operations and observe how they are coping with the current situation and how they are achieving their business objectives.

The coronavirus epidemic has increased companies' interest in digitalisation. This is particularly evident in the banking, leasing and HR sectors. However, when looking for solutions, organisations are not only paying attention to their current needs, but are also thinking about what will happen after the pandemic has passed, when they will focus on their target processes.

During the pandemic, there is now definitely a better perception of digitalisation. This is especially true in the banking sector, where remote management and remote decision-making are now being heavily explored. Currently, employees of large corporations do not

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meet each other, so there is a need to carry out back-office matters remotely. There has also been increased interest from leasing. Other industries, such as HR, which did not quite see the need for digitalization, are again wondering how to digitalize these processes.

Asseco Data Systems supports companies with its knowledge and experience in digitalization by offering dedicated solutions. However, it is important for customers to be aware that these are tailored to their needs, and therefore their implementation requires time, interaction and support of the organisation in question in plugging the solution into its processes.

After three quarters of 2020. Asseco generated PLN 8.7 billion in sales revenue, up 13% year-on-year. 80% of revenues were sales of own products and IT services, which amounted to PLN 7.0 billion.

Three quarters of 2020. Asseco ended with double-digit increases in revenue and profit, which in times of high uncertainty related to pandemics around the world can be considered a success. The company consistently pursues its strategy of strong business diversification. During 9 months of 2020, the Asseco Group was joined by over a dozen new companies, which will strengthen the company's position in international markets. Accelerated digitization processes in companies result in increased demand for solutions in selected IT areas, which allows us to sign new contracts and build a solid backlog for the current year and coming quarters. Asseco approaches the next year with moderate optimism. Uncertainty related to the general economic situation makes business partners cautious in undertaking new investment projects.

The development of Asseco in 2020 was difficult to estimate in connection with the SARS-CoV-2 virus pandemic The company's management took all necessary steps to ensure safe working conditions for its employees and full readiness of its customers to serve them and fulfil their obligations. Various scenarios of events were developed during the year to prepare Asseco for operations during and after the pandemic. The company in 2020 focused on further improvement of efficiency and simplification of the Group structure, continued development of competence areas and international expansion.

The year was very demanding on many levels. Therefore, Asseco joined in the activities aimed at helping in this difficult situation of the coronavirus outbreak. At the same time, we focused on those areas in which we were competent, i.e. ensuring the continuity of operation of our customers - companies and institutions important for the functioning of the state, financial system or health sector. Despite the prevailing epidemiological situation, the company's employees were fully available on duty to ensure the smooth operation of our clients' systems. Last year, the company also provided additional free-of-charge activities for hospitals in order to adjust their systems to the needs of patients at risk of pandemic. in consultation with the Ministry of Health and the National Healthcare Fund, implementing ad hoc measures to support the fight against coronavirus.

Asseco also supported universities by providing a platform for educational classes free of charge. "Partnership for universities" - is an offer by Asseco, the National Cloud Operator and Google, to provide free infrastructure and tools to conduct remote classes at universities for a period of 6 months.

Together with the Ministry of Digitization, the company worked on speeding up regulations enabling the introduction of video-verification, necessary, for example, for the remote activation of electronic signatures. The solution is necessary for people in forced quarantine for many people, for remote operation and remote signing of documents.

The Management Board of Asseco decided to allocate PLN 1 million to support the health sector.

Despite the fact that the company is firmly rooted in market structures and theoretically the coronovirus pandemic translates into accelerated digitalization in many areas, it is cautiously thinking about the future, which is uncertain and unpredictable, and it will determine how the crisis caused by the pandemic will be survived.

The importance of IT to all sectors of the economy today is so great that the software and services sold by our industry are and will continue to be in great demand. However, the coronavirus pandemic has meant that the need to implement new technologies is no longer a theoretical discussion. For the level of digitisation of companies and organisations has become a real barometer of whether an entity will survive. If someone had weaknesses in this area, they felt them painfully, with redoubled force. The challenge became how to remotely manage a business that relied heavily on face-to-face contact and how to maintain business continuity and the ability to fulfil obligations when employees do not have access to digital resources and IT systems that facilitate remote working. How to serve a customer or a citizen when it is not possible to approach the window (on both sides). Facing this new reality was an opportunity to win new customers.

The current situation in the near future will result in the dynamic development of two areas: cloud and cyber security. Alongside the digitisation of resources and processes, it is the cyber security dimension that will have a huge impact on decisions taken regarding the development of our sector. In Poland, this area has so far not been the most important and often threats have been neglected and cyber security is still in its infancy, not least because the number of attacks on domestic IT systems has not yet been so high.

The coronavirus has shown vividly that it is difficult to define the coming reality. The IT sector, to which Asseco Poland S.A. belongs, has felt the turbulence. In the first quarter, the group cut costs by freezing pay rises, it also limited recruitment and planned layoffs in some foreign markets. However, it tried to focus on its tasks and new solutions, so as to support others in this time to survive.

2. Economic resilience across Europe

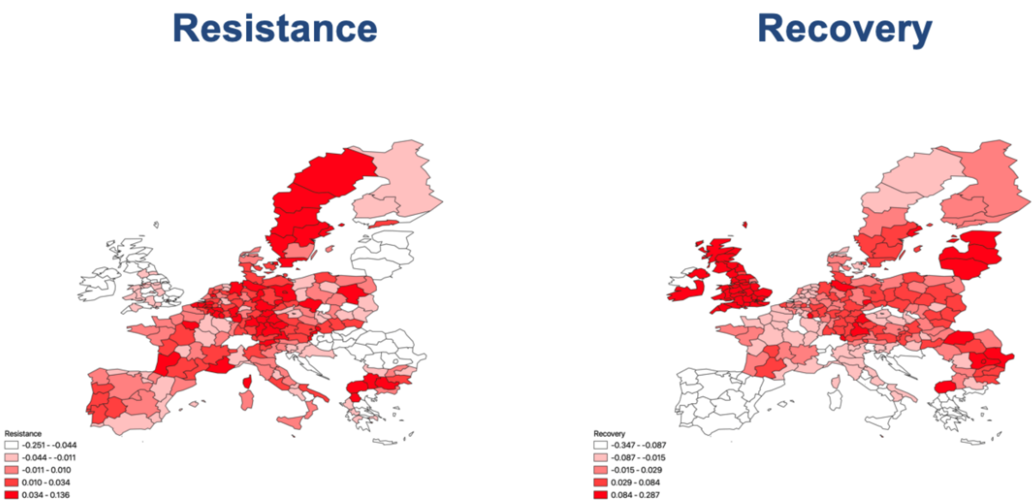
The 2007/8 economic crisis was the most severe shock to global financial markets since the great depression in the 1930s (Bordo and Landon-Lane, 2010; Barranco and Sudrià, 2012). Following the economic crisis there was a re-emergence of interest in how regional economies respond to and recover from economic shocks (Martin, 2012; Fingleton, Garretsen and Martin, 2012; Martin and Sunley, 2015; Doran and Fingleton, 2016). Most uses of the term resilience in economic geography refer to the ability of a region 'to anticipate, prepare for, respond to and recover from a disturbance' (Foster, 2007; 14). There are three main conceptualisations of resilience; engineering, ecological, and evolutionary. Engineering resilience is an equilibrium based notion of how an entity or system is plunged into disequilibrium, and off its steady state, following a shock and can defined 'how fast the variables return towards their equilibrium following a perturbation' (Pimm 1984: 322). The concept of ecological resilience can be defined as the 'the persistence of relationships within a system and is a measure of the ability of these systems to absorb changes of state variables, driving variables, and parameters, and still persist' (Holing 1973: 41). The region may settle on an inferior path post-shock or recover and assume a superior path post-shock.

However, these two forms of resilience have been criticised as too limiting and evolutionary resilience has gain significant focus in recent years. Martin and Sunley (2015) introduced such a conceptualisation of resilience defining it as a changing process that is adaptive. The adaptive capacities are based on the ability of the region to resist, reorientation, and recover following shocks. Martin and Sunley (2015:13) defined 'adaptive resilience' as 'the capacity of a regional or local economy to withstand or recover from market, competitive and environmental shocks to its developmental growth path, if necessary, by undergoing adaptive changes to its economic structures and its social and institutional arrangements, so as to maintain or restore its previous developmental path, or transit to a new sustainable path characterized by a fuller and more productive use of its physical, human and environmental resources'.

There are four broad ways of measuring resilience; (i) case studies, (ii) indices of particular regions in a descriptive discussion, (iii) Time series analysis focusing on the evolution over time, (iv) causal economic models. In this overview of regional resilience, it is the final approach, causal economic models, which is employed. The conceptualization of

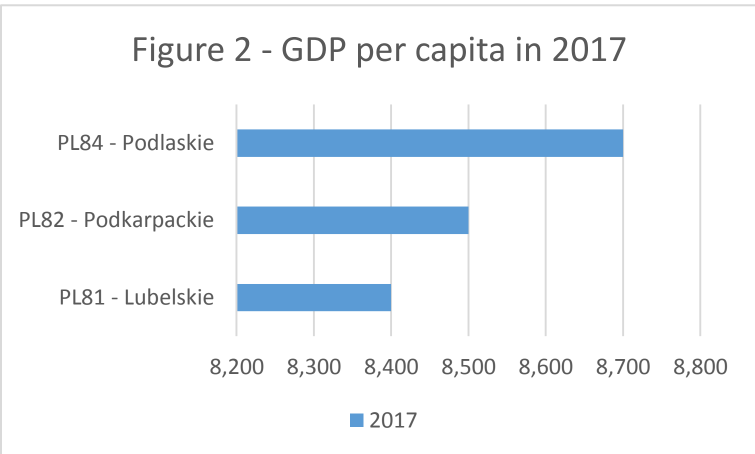
Martin and Sunley (2015:13) and Martin et al (2016) is employed to assess the resistance and recovery of regions following the 2007/08 economic crisis.

Figure 1: The resistance and recovery of European Regions to the 2008 economic crisis



In Figure 1 the left hand side shows the resistance to the 2008 economic crisis while the right hand side shows the recovery following the 2008 economic crisis. In both instances the darker red colour shows that that region performed relatively better than the European average at resisting the shock (in the left figure) or recovering from the impact of the shock (in the right figure).

Rzeszow – NUTS2 Podkarpackie



The Podkarpackie region is placed in the middle ground of the NUTS1 region of Makroregion Wschodni. It is at approximately 70% of the national average GDP per capita in 2017.

The proportion of the workforce employed across sectors in the Podkarpackie region is very similar to that of the overall Polish economy. However, there are more people employed in the industry sector and the agriculture, forestry and fishery sector.

Figure 3 - Proportion of employment by sector

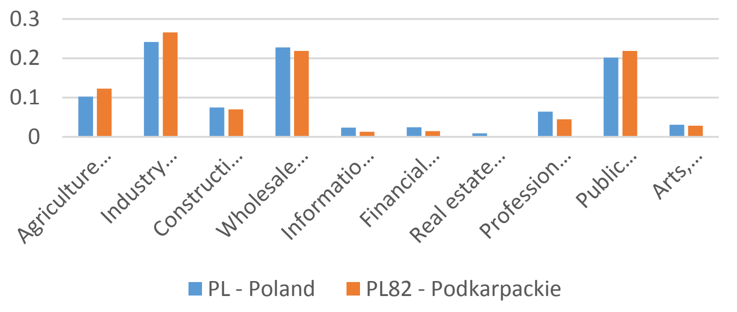
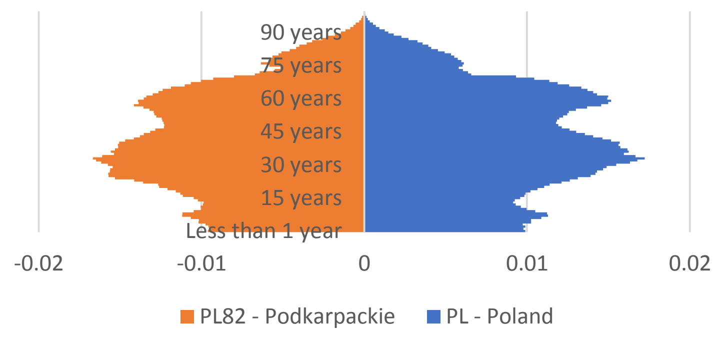
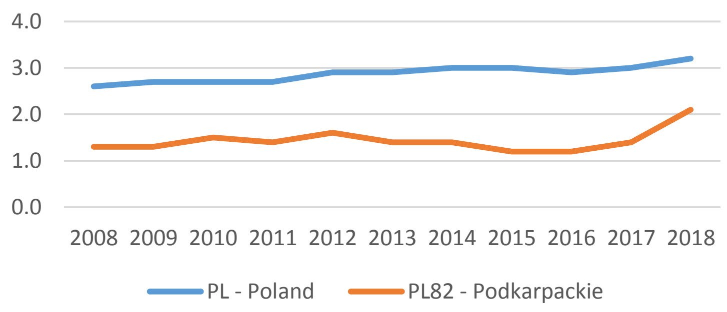


Figure 4 - Age profile of region



The age profile of the Podkarpackie region is similar to the national average, with the average age being approximately the same at 40 years. However, the region does display an aging demographic with a spike in the number of individuals aged around 60.

Figure 5 - Proportion employed in high-technology sectors



Regarding the engagement of the region in high-technology employment, Figure 5 compares the Podkarpackie to the national average over the period 2008 to 2018. It can be noted that the region has followed the national trend relatively closely but is consistently below the national average.

Table 1 below presents a brief comparison of the regions participating in this project. Significant variations can be observed across the regions with the Southern region of Ireland standing out with an exceptionally high level of GDP per capita and high-tech employment. While the Podkarpackie region of Poland has the lowest level of GDP per capita while the Vidurio ir vakaru Lietuvos regionas of Lithuania has the lowest level of high-tech employment as a proportion of employment.

Table 1: Comparison of Study Regions

Region	GDP - 2017	High Tech Employment - 2018
FI1D - Pohjois- ja Itä-Suomi	33,800	4.10%
UKD3 - Greater Manchester	30,500	5.00%
IE05 - Southern	74,700	7.40%
LT02 - Vidurio ir vakaru Lietuvos regionas	12,400	1.50%
PL82 - Podkarpackie	8,500	2.10%
HU22 - Nyugat-Dunántúl	13,400	3.90%
AT31 - Oberösterreich	43,100	3.00%
ITC2 - Valle d'Aosta/Vallée d'Aoste	35,200	3.30%
ES62 - Región de Murcia	20,600	1.60%

3. Regional resilience in Podkarpackie Region

Review of concepts and research on economic resilience in Podkarpackie. There are three basic interpretations that determine the scope of the analysis: engineering resilience, ecological resilience, and adaptive resilience. Within the framework of the distinguished concepts of resilience, the research studies on regions' balance to a state of equilibrium, their functioning as complex and adaptive systems and the strategies implemented in the past to build their resilience to external disturbances.

Research in this field focuses on the analysis of the impact of the recession on the functioning of regions, determining the characteristics of changes in gross domestic product, employment, investment, etc., as well as on strategic activities and instruments used by decision-makers in the public, economic and social spheres. The most frequently used instruments are investment incentives and actions in the labor market.

In the light of the proposed methods of analyzing regional resilience to the Covid 19 pandemic in relation to enterprises, it should be noted that the change in sentiment signaled in point 1.4. Assessment of the economic situation in December 2020 signaled by the surveyed entrepreneurs (1008 obtained questionnaires with answers) indicated moderate optimism. It was related to the fact that the second wave of the pandemic had passed and the government signaled a possible withdrawal from the restrictions given before. Certainly, the improvement in the economy in Podkarpackie was caused by restarting the hotel, catering and communication businesses. Closing the economy in March 2020. caused the production sold by enterprises from Podkarpacie to drop by 35% compared to April 2019. The pandemic period in the first three quarters of 2020 was not affected by rapid changes measured by the financial results of enterprises, moreover, until October, significant dynamics in sold industrial production was recorded, which only slowed down in the last two months of last year. That means a decreased level in sold production in 2020. 6.4% lower than in 2019. Chart 16 presents an appropriate comparison describing the economic situation of Poland and the Podkarpackie Voivodeship. These analyzes show a picture of the economy analyzed from the position of the region as burdened with falling orders (the main reason for the decline in the economic situation). Already in April 2020, this decrease, measured by the results in Poland, amounted to minus 7.1%. It is worth noting, due to the portfolio of realized orders, that this decrease was only 0.2%, what also should be noted that the structure of enterprises and orders performed resisted the negative impact of the Covid 19 pandemic. Detailed analyzes confirming the downturn economic indicators were visible from March to October 2020. Only in November 2020, a clear economic recovery was recorded, supported by an increase in industrial sales compared to the previous month by 1.0%, but what is important, this result was better by as much as 6.8% than the results on industrial sales in 2019. Such results indicate regional resilience visible in the economy of Podkarpacie. To support the extent to which the economy in our region is resistant to the negative effects of the Covid 19 pandemic, there is a relatively small decline in profitability on sales, which for the Podkarpacie region for the period January - September 2020 was only 0.8% lower compared to the same period last year , while the return on equity was lower by 3.0%, and the return on assets was only 1.6% lower than the corresponding results. The economic atmosphere in the Podkarpackie Voivodeship can be confirmed by the fact that in the period from January to November 2020, a surplus of newly registered companies over deregistered ones was observed, which proves the high economic resilience of the Podkarpackie Voivodeship, which is worth emphasizing, and most entities have been registered in cities that have recently shown are the most attractive from a business point of view for entrepreneurs willing to invest significant resources to start production.

4. Main political players in Podkarpackie Region

In this part of the report, some explanations on the methods and construction of the political ecosystem itself in Podkarpackie Region, responsible for cooperation in the field of action plans, including initiatives taken and programs implemented addressed to the socio-economic environment will be given

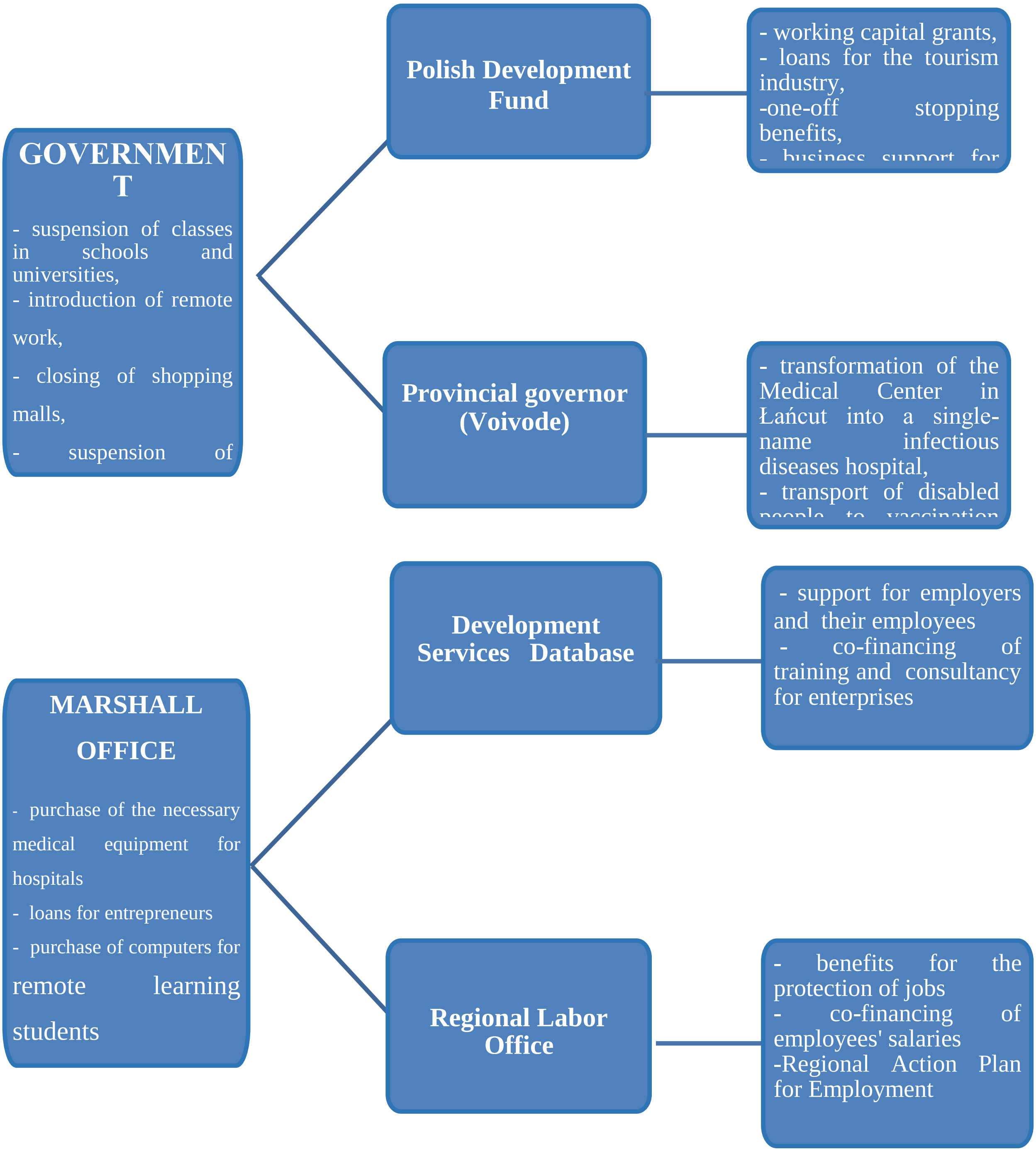
In Poland, the decisive role in shaping the economic order is played by central (government) departments, supported by local governments in the implementation of national and regional action plans and conducting economic policy. The most important element of success, which is minimizing the impact on the economy of the Covid 19 pandemic, is efficient cooperation implemented at the central and local level. For the efficient implementation of government assumptions related to supporting enterprises in maintaining current economic activity, individual voivodeships have been divided into subregions, and in the case of Podkarpackie, these are subregions such as: Rzeszowski, Tarnobrzeski, Przemyśl, and Krosno (see p. 9 for a more detailed description), and the administrative division includes 160 communes, 21 poviats and 4 cities with poviat rights. The self-government authorities of the Podkarpackie Voivodeship, fulfilling the assumptions of the economic policy, implement the measures contained in the Regional Operational Program of the Podkarpackie Voivodeship, which is an expression of the spatial and economic strategy enabling the achievement of a critical mass in the initiatives undertaken there. An example of such activities is the implementation of the assumptions contained in the Regional Action Plan for Employment in 2021, a program for the implementation and achievement of indicators of which is the responsibility of a local government institution such as the Voivodeship Labor Office in Rzeszów. Support is also provided for the activities of entrepreneurs operating in the local area in their efforts to ensure the sustainability of jobs, including support provided under the Anti-Crisis Shield, the implementation of which is the responsibility of the Polish Development Fund. The arrangement of all stakeholders operating in individual regions is an important element of the policy pursued by the main political players responsible for the functioning of the regions. The scope of the regional operational program is a response to the development challenges defined for the region in the main strategic documents and takes into account those areas of intervention, the implementation of which will bring the greatest effects. In this context, a socio-economic analysis that is updated annually and submitted to the European Commission - including an annually updated list of components of the diagnostic kit agreed with the European Commission (subject to data availability) will be taken into account. The funds of the Pomorskie ROP will implement the Priorities of the EUROPE 2020 Strategy. Among the three Priorities of the EUROPE 2020 Strategy, in the ROP of the Podkarpackie Voivodeship the largest share of funds will be allocated to supporting sustainable development (approx. 40% of EU funds). The second largest support in the ROP of the Podkarpackie Voivodeship will be measures for inclusive growth (approx. 35% of EU funds). Approximately 21% of EU funds will be dedicated for the smart growth.

Due to the fact that there is one local government in the region, supported by decisions of the Podkarpackie Voivodeship Assembly, this system is efficient, what confirms that support programs have been implemented without disturbances so far with the support of such institutions subordinate to the Self-government of the Podkarpackie Voivodeship, such as Rzeszów Regional Development Agency which, by engaging in the enterprise support program financed with the local government's funds, achieved the assumed goals. An example of such activities supporting entrepreneurs operating in Podkarpacie is the program implemented with the resources of RRDA. in the form of the Development Services Database, where the entrepreneur can obtain refunds of services indicated in the demand, or grant and loan programs for entrepreneurs from the Podkarpackie Region. It should be emphasized that the actions taken have an eminently formalized mode of implementation, what contributes to the transparency and effectiveness of the actions implemented.

Apart from the Self-government of the Podkarpackie Voivodeship, the Voivodeship Labor Office in Rzeszów, RRDA (along with the functioning Podkarpackie Science and Technology Park - AEROPOLIS) are also important players: the Regional Center for Social Policy in Rzeszów, the Podkarpackie Innovation Center, the Podkarpackie Development

Fund, clusters, foundations and associations such as the Aviation Valley Association, universities, local government units such as for example, the City of Rzeszów.

Diagram: Main political players in Podkarpackie Region



5. Policy recommendation for Podkarpackie Region

A company's resilience to operating situations during the Covid 19 pandemic is not a target, but it can certainly be considered as a means of dealing with a crisis. These activities are not about the company being able to return to the point where it was, for example in terms of turnover, profitability ratios, financial liquidity ratios, ROA ratios, POE equity ratios, or even debt ratios. The most important goal that a company should pursue during the Covid 19 pandemic by achieving a high degree of resilience is to shape new, different attitudes expected in this situation. The point is that with the flexibility of attitudes, such things as attitudes of belief in the rightness of actions taken will begin to gain importance, and agile methodologies and structures will gain importance, allowing the company not only to return to the state from before the crisis, but most importantly to ensure its development. This means that survival is not the goal these days - the goal should be to develop the company as the best form of defense against the Covid 19 pandemic and its impact on the functioning of the business and the wider economy. This means that for the Podkarpacie region and local business, as part of the Goals / Policy Learning area analysis, it is necessary to change the mental category from analyzes today to analyzes of planning tomorrow, which means introducing several important changes within the philosophy and strategy of operation, which may or may not help the company recover to a pre-Covid 19 state of equilibrium.

Policy learning for the Podkarpackie Region should cover such areas of enterprise operation as:

- Greater computerization and the use of state-of-the-art technologies in all sectors of the economy, significantly accelerating the functioning, increasing efficiency and enabling functioning, e.g. during a pandemic.
- Changes in the economic situation, including prioritizing training / consultancy for entrepreneurs in the search for new, non-standard solutions aimed at solving the problems of shortages in enterprises.
- Shifting the focus from inside the company (ensuring the safety of employees) outside the company in order to acquire new markets for products or services. An example of

such activities are programs supporting the activities of enterprises in the field of internationalization and using the potential of the Enterprise Europe Network

- The directions of activities are shifted from ensuring business continuity during the crisis to managing the process of returning to normal functioning, especially for companies which, as a result of the crisis, have significantly lost the market and sales revenues.
- Planning changes in place of short-term crisis plans is taken by medium- and long-term economic plans, plans including scenarios in the event of a crisis, enabling the analysis of the impact of various phenomena on the functioning of the company, employees, finances, etc. Support programs using tools will be very important for the development and recovery from the crisis repayable credits or loans for the functioning and companies development
- Due to the redundancies and difficulties in finding employment, and in order to use the rich experience and high qualifications, it will be important to support business start-up programs (loans, subsidies) for both natural persons running a business and social enterprises (very important for the region's economy at the time crisis)

- Innovations, commercialization, support for research and development activities as a tool for overcoming the crisis, increasing innovation and competitiveness of companies. Cooperation between science and business, technology transfer and commercialization of development works of university employees will be important in this respect. Companies should use the results of R&D work to a greater extent.

The project is co-financed by the European Regional Development Fund as part of the INTERREG EUROPE Program

Conclusions

Monitoring of socio-economic phenomena is of particular importance not only within the processes of integration and disintegration of countries and regions, but especially in the conditions of emergencies, which is undoubtedly the phenomenon of coronavirus pandemic. Systematic observation of economy indicates a complex character of both social and economic phenomena occurring in Podkarpackie Voivodship.

Podkarpackie Voivodship is still characterised by a relatively low level of gross domestic product, however, its growth rate stands out clearly higher than in other Voivodships. The structure of economy of Podkarpackie Voivodship is characterised by a high share of industry in creation of gross added value, which amounts to about one third. It is worth emphasising, however, that in recent years the highest increase in the share of industry among all Voivodships has occurred. Almost every fifth person employed in the voivodship is connected with industry. It should be added, however, that the dominant group of employees are those working in agriculture, which produces a minimal part of gross value added. Further groups of employees include: wholesale and retail trade, repair of motor vehicles, including motorbikes, education and health care and social assistance, public administration and defence, compulsory social security and construction.

In terms of attractiveness for industrial activity, the subregions of Tarnobrzeg and Rzeszów are ranked as highly attractive, whereas the subregions of Przemyśl and Krosno are ranked as less attractive for industrial activity.

Podkarpackie is distinguished from the rest of Poland by its aviation specialisation. The impact of aviation and space industries on other sectors and branches of the economy is very important. The second important branch which is dynamically developing is the automotive industry. It includes all companies and organisations involved in the design, development, production, marketing and sales of motor vehicles, including the production of parts for them. Other important industries in the region include the information and communication sector. Podkarpackie Voivodship belongs to the regions with outstanding resources of scientific and research potential in the field of information and communication technologies.

The COVID-19 pandemic caused economic activity to fall sharply in virtually all European countries Despite the fact that in March this year industrial production fell faster than during the global financial crisis, it is worth noting that in some industrial production sections a clear increase in production was recorded due to the COVID-19 pandemic. In Podkarpackie, in industrial processing, a fall was recorded in most sections, including three with the largest share of production sold, i.e. in the production of other transport equipment, machinery and equipment and the production of chemicals and chemical products. Not visible in the aggregate data is the phenomenon of very strong differentiation of company results. Some companies have lost in the crisis, while for others it has opened up new prospects. In connection with the lock-down and transition of most companies to remote working, the demand for computer equipment and software and network services increased, which improved the condition of IT companies. The situation is similar for entities involved in the production and sale of medicines and health-supporting supplements. Demand for such products increased significantly when the first signs of a pandemic emerged in the country. In contrast, the greatest losses may have been concentrated in the small business sector, which is not visible in the data presented - gyms, restaurants, transport companies, event companies, marketing companies and small service companies related to the wedding industry are mostly small businesses. The condition of these smaller companies is difficult, due to the lack of new orders and cancellation of already concluded ones which involves the return of advances. Certainly, these companies have been greatly helped by the government's anti-crisis shields. They allowed a clear reduction in wage costs, while at the same time cash transfers - not visible in revenues - allowed some of the costs to be covered.

As could be seen from the data after the first wave, Polish industry emerged from the crisis the fastest among the EU countries. Perhaps this is due to the structure of the industry. We have one of the highest shares of the agri-food sector in GDP in the EU, and at the same time we produce a relatively large amount of furniture, domestic appliances and car parts, for which demand was very high after the epidemic. At the same time, we produce little in the way of investment goods, i.e. complex machinery, production lines, robots, finished cars, etc., for which demand generally declined due to weakening investment.

In Podkarpackie Voivodship goods produced are often simpler, cheaper and less complex than in other Voivodships or other more developed countries, i.e. goods, the demand for which is less sensitive to economic fluctuations. A good example is the situation in the automotive sector. Last year production in this sector in the Voivodship was at a similar level as the year before, while e.g. in Germany it fell by almost one fifth. This difference may be due, among other things, to the fact that the region produces a lot of parts that were badly needed in the context of the growing use of cars at the expense of public transport. At the same time, fewer advanced components and finished cars, for example, are produced. At a disadvantage is the aviation industry, which has suspended orders for new products due to the grounding of flights. Some companies used this time to overhaul their fleets. Orders for parts in the aviation industry recovered slightly in the second half of the year, but an increase in illnesses at the end of the year caused further flight restrictions, and this affected production and service restrictions in the aviation industry.

Annex

Sample questionnaires::

nr str. 1

GUS	**GŁÓWNY URZĄD STATYSTYCZNY**, al. Niepodległości 208, 00-925 Warszawa *www.stat.gov.pl*	
Nazwa i adres jednostki (firmy)	**AK-B/m** **Ankieta koniunktury gospodarczej – budownictwo**	Portal sprawozdawczy GUS portal.stat.gov.pl Urząd Statystyczny ul. Spokojna 1 65-954 Zielona Góra
Numer identyfikacyjny – **REGON**	**miesiąc** . . . . **2020 r.**	Prosimy przekazać w terminie do 10. dnia danego miesiąca

Obowiązek przekazywania danych wynika z art. 30 ust. 1 pkt 3 ustawy z dnia 29 czerwca 1995 r. o statystyce publicznej (Dz. U. z 2019 r. poz. 649, z późn. zm.).

Zbierane na tym formularzu dane podlegają bezwzględnej ochronie zgodnie z zasadą tajemnicy statystycznej (art. 10 ustawy o statystyce publicznej).

(e-mail sekretariatu jednostki sporządzającej sprawozdanie – WYPEŁNIAĆ WIELKIMI LITERAMI)

Dziękujemy za terminowe wypełnienie ankiety i gwarantujemy zachowanie tajemnicy statystycznej

Odpowiedzi powinny być udzielane z wyłączeniem wpływu czynnika sezonowego, czyli z pominięciem zmian charakterystycznych dla danego okresu roku.

I. Ocena sytuacji gospodarczej

*W pytaniach oznaczonych numerami **1, 2, 4, 5, 8, 9, 10** proszę zaznaczyć symbol właściwej (tylko jednej) odpowiedzi, zaś w pytaniu **3** można wskazać kilka barier.*

1. **Jak Państwa zdaniem w ostatnich trzech miesiącach zmieniła się działalność Państwa przedsiębiorstwa w zakresie robót budowlano-montażowych:**

wzrosła . . . . 1 ☐ pozostała bez zmian . . . . 2 ☐ spadła . . . . 3 ☐

2. **Jaka jest bieżąca ogólna sytuacja gospodarcza Państwa przedsiębiorstwa:**

dobra . . . . 1 ☐ zadowalająca . . . . 2 ☐ zła . . . . 3 ☐

3. **Jakie najważniejsze bariery obecnie ograniczają działalność Państwa przedsiębiorstwa:**

brak barier . . . . 01 ☐

niedostateczny popyt . . . . 02 ☐

warunki atmosferyczne . . . . 03 ☐

niedobór wykwalifikowanych pracowników . . . 04 ☐

niedobór sprzętu oraz/lub materiałów i surowców (z przyczyn pozafinansowych) . . . . 05 ☐

koszty zatrudnienia . . . . 06 ☐

koszty materiałów . . . . 07 ☐

wysokie obciążenia na rzecz budżetu . . . . 08 ☐

zbyt duża konkurencja na rynku . . . . 09 ☐

niejasne, niespójne i niestabilne przepisy prawne 10 ☐

niepewność ogólnej sytuacji gospodarczej . . . . 11 ☐

inne (jakie?) . . . . 12 ☐

4. **Jak zmienia się bieżący portfel zamówień na roboty budowlano-montażowe wykonywane przez Państwa przedsiębiorstwo na rynku krajowym:**

wzrasta . . . . 1 ☐ pozostaje bez zmian . . . . 2 ☐ spada . . . . 3 ☐

5. **Jaki jest bieżący portfel zamówień na roboty budowlano-montażowe wykonywane przez Państwa przedsiębiorstwo na rynku krajowym i zagranicznym:**

zbyt duży . . . . 1 ☐ wystarczający . . . . 2 ☐ zbyt mały . . . . 3 ☐

6. **Jaki procent posiadanych pełnych mocy produkcyjnych (np. pracownicy, budynki, maszyny i urządzenia techniczne, środki transportu, itp.) Państwa przedsiębiorstwa jest obecnie wykorzystywany:** ☐☐☐,☐ %

7. **Ile obecnie wynosi zagwarantowany okres działania Państwa przedsiębiorstwa** *(w miesiącach)* **przy posiadanym portfelu zamówień i normalnym czasie pracy:** ☐☐,☐ mc

The project is co-financed by the European Regional Development Fund as part of the INTERREG EUROPE Program

I. Ocena sytuacji gospodarczej (dokończenie)

8.	**Jak zmienia się bieżąca produkcja budowlano-montażowa na rynku krajowym w Państwa przedsiębiorstwie:**
	wzrasta . . . . **1** ☐ pozostaje bez zmian . . . . **2** ☐ spada . . . . **3** ☐
9.	**Jak zmienia się bieżąca sytuacja finansowa Państwa przedsiębiorstwa:**
	poprawia się . . . . **1** ☐ pozostaje bez zmian . . . . **2** ☐ pogarsza się . . . . **3** ☐
10.	**Jak zmieniają się opóźnienia płatności za roboty budowlano-montażowe wykonane przez Państwa przedsiębiorstwo:**
	zwiększają się **1** ☐ pozostają bez zmian **2** ☐ zmniejszają się **3** ☐ brak opóźnień płatności **4** ☐

II. Prognoza sytuacji gospodarczej

W każdym pytaniu proszę zaznaczyć symbol właściwej (tylko jednej) odpowiedzi.

11.	**Jak Państwa zdaniem w najbliższych trzech miesiącach zmieni się ogólna sytuacja gospodarcza Państwa przedsiębiorstwa:**	poprawi się . . . . **1** ☐ pozostanie bez zmian . . . . . **2** ☐ pogorszy się . . . . **3** ☐
12.	**Jak w najbliższych trzech miesiącach zmieni się portfel zamówień na roboty budowlano-montażowe wykonywane przez Państwa przedsiębiorstwo na rynku krajowym:**	wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . . . **2** ☐ spadnie . . . . **3** ☐
13.	**Jak w najbliższych trzech miesiącach zmieni się portfel zamówień na roboty budowlano-montażowe wykonywane przez Państwa przedsiębiorstwo na rynku zagranicznym:**	wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . . . **2** ☐ spadnie . . . . **3** ☐ nie dotyczy . . . . **4** ☐
14.	**Jak w najbliższych trzech miesiącach zmieni się produkcja budowlano-montażowa Państwa przedsiębiorstwa na rynku krajowym:**	wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . . . **2** ☐ spadnie . . . . **3** ☐
15.	**Jak w najbliższych trzech miesiącach zmieni się sytuacja finansowa Państwa przedsiębiorstwa:**	poprawi się . . . . **1** ☐ pozostanie bez zmian . . . . . **2** ☐ pogorszy się . . . . **3** ☐
16.	**Jak w najbliższych trzech miesiącach zmieni się zatrudnienie w Państwa przedsiębiorstwie:**	wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . . . **2** ☐ spadnie . . . . **3** ☐
17.	**Jak w najbliższych trzech miesiącach zmienią się ceny robót budowlano-montażowych realizowanych przez Państwa przedsiębiorstwo:**	wzrosną . . . . **1** ☐ pozostaną bez zmian . . . . . **2** ☐ spadną . . . . **3** ☐
18.	**Przy posiadanym portfelu zamówień i przewidywanych na najbliższe miesiące zmianach popytu aktualne moce produkcyjne (np. pracownicy, budynki, maszyny i urządzenia techniczne, środki transportu, itp.) Państwa przedsiębiorstwa są:**	zbyt duże . . . . **1** ☐ wystarczające . . . . **2** ☐ zbyt małe . . . . **3** ☐

Proszę podać szacunkowy czas *(w minutach)* przeznaczony na wypełnienie formularza.	

(e-mail kontaktowy w zakresie sporządzonego sprawozdania – WYPEŁNIAĆ WIELKIMI LITERAMI)

(telefon kontaktowy w zakresie sporządzonego sprawozdania)

The project is co-financed by the European Regional Development Fund as part of the INTERREG EUROPE Program

GUS **GŁÓWNY URZĄD STATYSTYCZNY**, al. Niepodległości 208, 00-925 Warszawa *www.stat.gov.pl*		
Nazwa i adres jednostki (firmy)	**AK-H/m** **Ankieta koniunktury gospodarczej – handel**	Portal sprawozdawczy GUS portal.stat.gov.pl Urząd Statystyczny ul. Spokojna 1 65-954 Zielona Góra
Numer identyfikacyjny – **REGON**	**miesiąc** . . . . **2020 r.**	Prosimy przekazać w terminie do 10. dnia danego miesiąca

Obowiązek przekazywania danych wynika z art. 30 ust. 1 pkt 3 ustawy z dnia 29 czerwca 1995 r. o statystyce publicznej (Dz. U. z 2019 r. poz. 649, z późn. zm.).

Zbierane na tym formularzu dane podlegają bezwzględnej ochronie zgodnie z zasadą tajemnicy statystycznej (art. 10 ustawy o statystyce publicznej).

(e-mail sekretariatu jednostki sporządzającej sprawozdanie – WYPEŁNIAĆ WIELKIMI LITERAMI)

Dziękujemy za terminowe wypełnienie ankiety i gwarantujemy zachowanie tajemnicy statystycznej

Odpowiedzi powinny być udzielane z wyłączeniem wpływu czynnika sezonowego, czyli z pominięciem zmian charakterystycznych dla danego okresu roku.

I. Ocena sytuacji gospodarczej

*W pytaniach oznaczonych numerami **1, 2, 4, 5, 6, 8** proszę zaznaczyć symbol właściwej (tylko jednej) odpowiedzi, zaś w pytaniach 3 i 7 można wskazać kilka barier/źródeł finansowania.*

1. Jak Państwa zdaniem w ostatnich trzech miesiącach zmieniła się sprzedaż towarów zrealizowana przez Państwa przedsiębiorstwo:

wzrosła . . . . **1** ☐ pozostała bez zmian . . . . **2** ☐ spadła . . . . **3** ☐

2. Jaka jest bieżąca ogólna sytuacja gospodarcza Państwa przedsiębiorstwa:

dobra . . . . **1** ☐ zadowalająca . . . . **2** ☐ zła . . . . **3** ☐

3. Jakie najważniejsze bariery obecnie ograniczają działalność Państwa przedsiębiorstwa:

brak barier . . . . **01** ☐
niedostateczny popyt . . . . **02** ☐
niedobór pracowników . . . . **03** ☐
koszty zatrudnienia . . . . **04** ☐
wysokie odsetki bankowe . . . . **05** ☐
wysokie obciążenia na rzecz budżetu . . . . **06** ☐
zbyt duża konkurencja na rynku . . . . **07** ☐
trudności w rozrachunkach z kontrahentami . . . **08** ☐
niejasne, niespójne i niestabilne przepisy prawne **09** ☐
niepewność ogólnej sytuacji gospodarczej . . . . **10** ☐
inne (jakie?) . . . . **11** ☐

4. Jak zmienia się ilość towarów sprzedawanych w Państwa przedsiębiorstwie:

zwiększa się . . . . **1** ☐ pozostaje bez zmian . . . . **2** ☐ zmniejsza się . . . . **3** ☐

5. Jaki jest bieżący stan zapasów towarów w Państwa przedsiębiorstwie:

zbyt duży . . . . **1** ☐ odpowiedni w stosunku do zapotrzebowania . . . . . . **2** ☐ zbyt mały . . . . **3** ☐

6. Jak zmienia się bieżąca sytuacja finansowa Państwa przedsiębiorstwa:

poprawia się . . . . **1** ☐ pozostaje bez zmian . . . . **2** ☐ pogarsza się . . . . **3** ☐

nr str. 2

I. Ocena sytuacji gospodarczej (dokończenie)

7.	**Jakie są obecnie dominujące źródła finansowania środków obrotowych w Państwa przedsiębiorstwie:** fundusze własne . . . **1** ☐ kredyt bankowy . **2** ☐ kredyt kupiecki . . **3** ☐ inne . . . . **4** ☐
8.	**Jak zmieniają się bieżące ceny towarów sprzedawanych przez Państwa przedsiębiorstwo:** rosną . . . . **1** ☐ pozostają bez zmian . . **2** ☐ spadają . . . . **3** ☐

II. Prognoza sytuacji gospodarczej

W każdym pytaniu proszę zaznaczyć symbol właściwej (tylko jednej) odpowiedzi.

9.	**Jak Państwa zdaniem w najbliższych trzech miesiącach zmieni się ogólna sytuacja gospodarcza Państwa przedsiębiorstwa:** poprawi się . . . . **1** ☐ pozostanie bez zmian . . . **2** ☐ pogorszy się . . . . **3** ☐
10.	**Jak w najbliższych trzech miesiącach zmieni się popyt na towary sprzedawane przez Państwa przedsiębiorstwo:** wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . **2** ☐ spadnie . . . . **3** ☐
11.	**Jak w najbliższych trzech miesiącach zmieni się ilość towarów sprzedawanych przez Państwa przedsiębiorstwo:** wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . **2** ☐ spadnie . . . . **3** ☐
12.	**Jak w najbliższych trzech miesiącach zmienią się zamówienia u dostawców składane przez Państwa przedsiębiorstwo:** wzrosną . . . . **1** ☐ pozostaną bez zmian . . . . **2** ☐ spadną . . . . **3** ☐
13.	**Jak w najbliższych trzech miesiącach zmieni się sytuacja finansowa Państwa przedsiębiorstwa:** poprawi się . . . . **1** ☐ pozostanie bez zmian . . . **2** ☐ pogorszy się . . . . **3** ☐
14.	**Jak w najbliższych trzech miesiącach zmieni się zatrudnienie w Państwa przedsiębiorstwie:** wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . **2** ☐ spadnie . . . . **3** ☐
15.	**Jak w najbliższych trzech miesiącach zmienią się ceny towarów sprzedawanych przez Państwa przedsiębiorstwo:** wzrosną . . . . **1** ☐ pozostaną bez zmian . . . . **2** ☐ spadną . . . . **3** ☐
16.	**Jak w najbliższych miesiącach zmienią się nakłady inwestycyjne (np. wyposażenie, środki transportu, budynki, itp.) w Państwa przedsiębiorstwie:** wzrosną .... **1** ☐ pozostaną bez zmian .... **2** ☐ spadną .... **3** ☐ nie przewiduje się podjęcia inwestycji (**nie ma obecnie takiej potrzeby**)...... **4** ☐ nie przewiduje się podjęcia inwestycji (**brak środków**) .... **5** ☐

Proszę podać szacunkowy czas *(w minutach)* przeznaczony na wypełnienie formularza.	

(e-mail kontaktowy w zakresie sporządzonego sprawozdania – WYPEŁNIAĆ WIELKIMI LITERAMI)

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The project is co-financed by the European Regional Development Fund as part of the INTERREG EUROPE Program

GUS **GŁÓWNY URZĄD STATYSTYCZNY,** al. Niepodległości 208, 00-925 Warszawa *www.stat.gov.pl*		
Nazwa i adres jednostki (firmy)	**AK-P** **Ankieta koniunktury gospodarczej – przemysł**	Portal sprawozdawczy GUS portal.stat.gov.pl Urząd Statystyczny ul. Spokojna 1 65-954 Zielona Góra
Numer identyfikacyjny – **REGON**	**miesiąc** .... **2020 r.**	Prosimy przekazać: – raz w miesiącu do 10. dnia każdego miesiąca (Dział I i II) – raz w kwartale do 10. dnia pierwszego miesiąca kwartału (Dział III)

Obowiązek przekazywania danych wynika z art. 30 ust. 1 pkt 3 ustawy z dnia 29 czerwca 1995 r. o statystyce publicznej (Dz. U. z 2019 r. poz. 649, z późn. zm.).

Zbierane na tym formularzu dane podlegają bezwzględnej ochronie zgodnie z zasadą tajemnicy statystycznej (art. 10 ustawy o statystyce publicznej).

(e-mail sekretariatu jednostki sporządzającej sprawozdanie – WYPEŁNIAĆ WIELKIMI LITERAMI)

Dziękujemy za terminowe wypełnienie ankiety i gwarantujemy zachowanie tajemnicy statystycznej

Odpowiedzi powinny być udzielane z wyłączeniem wpływu czynnika sezonowego, czyli z pominięciem zmian charakterystycznych dla danego okresu roku.

I. Ocena sytuacji gospodarczej

*W pytaniach oznaczonych numerami od **1** do **10** proszę zaznaczyć symbol właściwej (tylko jednej) odpowiedzi, zaś w pytaniu **11** można wskazać kilka barier.*

1.	**Jak Państwa zdaniem w ostatnich trzech miesiącach zmieniła się produkcja w Państwa przedsiębiorstwie:**			
	wzrosła .... **1** ☐	pozostała bez zmian .... **2** ☐	spadła .... **3** ☐	
2.	**Jaka jest bieżąca ogólna sytuacja gospodarcza Państwa przedsiębiorstwa:**			
	dobra .... **1** ☐	zadowalająca .... **2** ☐	zła .... **3** ☐	
3.	**Jak zmienia się bieżący portfel zamówień (krajowy i zagraniczny) na produkty Państwa przedsiębiorstwa:**			
	wzrasta .... **1** ☐	pozostaje bez zmian .... **2** ☐	spada .... **3** ☐	
4.	**Jaki jest bieżący portfel zamówień (krajowy i zagraniczny) na produkty Państwa przedsiębiorstwa:**			
	zbyt duży .... **1** ☐	wystarczający .... **2** ☐	zbyt mały .... **3** ☐	
5.	**Jak zmienia się bieżący zagraniczny portfel zamówień na produkty Państwa przedsiębiorstwa:**			
	wzrasta ...... **1** ☐	pozostaje bez zmian **2** ☐	spada .... **3** ☐	nie dotyczy .... **4** ☐
6.	**Jaki jest bieżący zagraniczny portfel zamówień na produkty Państwa przedsiębiorstwa:**			
	zbyt duży ..... **1** ☐	wystarczający ... **2** ☐	zbyt mały ..... **3** ☐	nie dotyczy .... **4** ☐
7.	**Jak zmienia się bieżąca produkcja Państwa przedsiębiorstwa:**			
	wzrasta .... **1** ☐	pozostaje bez zmian .... **2** ☐	spada .... **3** ☐	
8.	**Jaki jest bieżący stan zapasów wyrobów gotowych w Państwa przedsiębiorstwie:**			
	zbyt duży .... **1** ☐	odpowiedni w stosunku do zapotrzebowania ... **2** ☐	zbyt mały ... **3** ☐	
9.	**Jak zmienia się bieżąca sytuacja finansowa Państwa przedsiębiorstwa:**			
	poprawia się .... **1** ☐	pozostaje bez zmian .... **2** ☐	pogarsza się .... **3** ☐	
10.	**Jak zmieniają się opóźnienia płatności za produkty sprzedane przez Państwa przedsiębiorstwo:**			
	zwiększają się **1** ☐	pozostają bez zmian **2** ☐	zmniejszają się **3** ☐	brak opóźnień płatności **4** ☐

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I. Ocena sytuacji gospodarczej (dokończenie)

11.	**Jakie najważniejsze bariery obecnie ograniczają działalność Państwa przedsiębiorstwa:**	brak barier . . . . **01** ☐ niedostateczny popyt na rynku krajowym . . . . **02** ☐ niedostateczny popyt na rynku zagranicznym . . . . . . **03** ☐ niedobór pracowników . . . . **04** ☐ niedobór wykwalifikowanych pracowników . . . . **05** ☐ niedobór surowców, materiałów i półfabrykatów (z przyczyn pozafinansowych) . . . . **06** ☐ koszty zatrudnienia . . . . **07** ☐ problemy finansowe . . . . **08** ☐ wysokie obciążenia na rzecz budżetu . . . . **09** ☐ konkurencyjny import . . . . **10** ☐ niejasne, niespójne i niestabilne przepisy prawne . . . **11** ☐ niepewność ogólnej sytuacji gospodarczej . . . . **12** ☐ inne (jakie?) . . . . **13** ☐

II. Prognoza sytuacji gospodarczej

W każdym pytaniu proszę zaznaczyć symbol właściwej (tylko jednej) odpowiedzi.

12.	**Jak Państwa zdaniem w najbliższych trzech miesiącach zmieni się ogólna sytuacja gospodarcza Państwa przedsiębiorstwa:**	poprawi się . . . . **1** ☐ pozostanie bez zmian . . . . . . **2** ☐ pogorszy się . . . . **3** ☐
13.	**Jak w najbliższych trzech miesiącach zmieni się portfel zamówień (krajowy i zagraniczny) na produkty wytwarzane przez Państwa przedsiębiorstwo:**	wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . . . . **2** ☐ spadnie . . . . **3** ☐
14.	**Jak w najbliższych trzech miesiącach zmieni się zagraniczny portfel zamówień na produkty wytwarzane przez Państwa przedsiębiorstwo:**	wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . . . . **2** ☐ spadnie . . . . **3** ☐ nie dotyczy . . . . **4** ☐
15.	**Jak w najbliższych trzech miesiącach zmieni się produkcja Państwa przedsiębiorstwa:**	wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . . . . **2** ☐ spadnie . . . . **3** ☐
16.	**Jak w najbliższych trzech miesiącach zmieni się sytuacja finansowa Państwa przedsiębiorstwa:**	poprawi się . . . . **1** ☐ pozostanie bez zmian . . . . . . **2** ☐ pogorszy się . . . . **3** ☐
17.	**Jak w najbliższych trzech miesiącach zmieni się zatrudnienie w Państwa przedsiębiorstwie:**	wzrośnie . . . . **1** ☐ pozostanie bez zmian . . . . . . **2** ☐ spadnie . . . . **3** ☐
18.	**Jak w najbliższych trzech miesiącach zmienią się ceny sprzedaży produktów wytwarzanych przez Państwa przedsiębiorstwo:**	wzrosną . . . . **1** ☐ pozostaną bez zmian . . . . **2** ☐ spadną . . . . **3** ☐

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III. Pytania kwartalne *(prosimy wypełniać w pierwszym miesiącu kwartału, tj.* ***do 10 stycznia, kwietnia, lipca, października****)*

W pytaniach oznaczonych numerami ***19, 20, 23, 24, 25*** *proszę zaznaczyć symbol właściwej (tylko jednej) odpowiedzi.*

19.	**Jak Państwa zdaniem w ostatnich trzech miesiącach zmienił się portfel zamówień (krajowy i zagraniczny) w Państwa przedsiębiorstwie:**	wzrósł .... **1** ☐ pozostał bez zmian .... **2** ☐ spadł .... **3** ☐
20.	**Przy posiadanym portfelu zamówień i przewidywanych na najbliższe miesiące zmianach popytu aktualne moce produkcyjne Państwa przedsiębiorstwa są:**	zbyt duże .... **1** ☐ wystarczające .... **2** ☐ zbyt małe .... **3** ☐
21.	**Jaki procent posiadanych pełnych mocy produkcyjnych Państwa przedsiębiorstwa jest obecnie wykorzystywany:**	☐☐☐ , ☐ %
22.	**Ile obecnie wynosi zagwarantowany okres produkcji Państwa przedsiębiorstwa** *(w miesiącach)* **przy posiadanym krajowym i zagranicznym portfelu zamówień:**	☐☐ , ☐ mc
23.	**Jak w ostatnich trzech miesiącach zmieniła się pozycja Państwa przedsiębiorstwa wobec konkurencji na rynku krajowym:**	poprawiła się .... **1** ☐ pozostała bez zmian .... **2** ☐ pogorszyła się .... **3** ☐
24.	**Jak w ostatnich trzech miesiącach zmieniła się pozycja Państwa przedsiębiorstwa wobec konkurencji na rynkach zagranicznych wewnątrz Unii Europejskiej:**	poprawiła się .... **1** ☐ pozostała bez zmian .... **2** ☐ pogorszyła się .... **3** ☐ nie dotyczy .... **4** ☐
25.	**Jak w ostatnich trzech miesiącach zmieniła się pozycja Państwa przedsiębiorstwa wobec konkurencji na rynkach zagranicznych poza Unią Europejską:**	poprawiła się .... **1** ☐ pozostała bez zmian .... **2** ☐ pogorszyła się .... **3** ☐ nie dotyczy .... **4** ☐

Proszę podać szacunkowy czas ***(w minutach)*** **przeznaczony na wypełnienie formularza.**	

(e-mail kontaktowy w zakresie sporządzonego sprawozdania – WYPEŁNIAĆ WIELKIMI LITERAMI)

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GUS **GŁÓWNY URZĄD STATYSTYCZNY,** al. Niepodległości 208, 00-925 Warszawa
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Nazwa i adres jednostki (firmy)	**AK-U/m** **Ankieta koniunktury gospodarcza – usługi**	Portal sprawozdawczy GUS portal.stat.gov.pl Urząd Statystyczny ul. Spokojna 1 65-954 Zielona Góra
Numer identyfikacyjny – **REGON** | | | | | | | | | |	**miesiąc** . . . . **2020 r.**	Prosimy przekazać w terminie do 10. dnia danego miesiąca

Obowiązek przekazywania danych wynika z art. 30 ust. 1 pkt 3 ustawy z dnia 29 czerwca 1995 r. o statystyce publicznej (Dz. U. z 2019 r. poz. 649, z późn. zm.).

Zbierane na tym formularzu dane podlegają bezwzględnej ochronie zgodnie z zasadą tajemnicy statystycznej (art. 10 ustawy o statystyce publicznej).

(e-mail sekretariatu jednostki sporządzającej sprawozdanie – WYPEŁNIAĆ WIELKIMI LITERAMI)

Dziękujemy za terminowe wypełnienie ankiety i gwarantujemy zachowanie tajemnicy statystycznej

Odpowiedzi powinny być udzielane z wyłączeniem wpływu czynnika sezonowego, czyli z pominięciem zmian charakterystycznych dla danego okresu roku.

I. Ocena sytuacji gospodarczej

*W pytaniach oznaczonych numerami **1, 2, 3, 4, 6, 7, 10, 11, 12** proszę zaznaczyć symbol właściwej (tylko jednej) odpowiedzi, zaś w pytaniu **5** można wskazać kilka barier.*

1.	**Jak Państwa zdaniem w ostatnich trzech miesiącach zmieniła się ogólna sytuacja Państwa jednostki w zakresie prowadzonej działalności usługowej:** poprawiła się . . . . 1 ☐ pozostała bez zmian . . . . . . 2 ☐ pogorszyła się . . . . 3 ☐
2.	**Jak w ostatnich trzech miesiącach zmienił się popyt na usługi sprzedawane przez Państwa jednostkę:** wzrósł . . . . 1 ☐ pozostał bez zmian . . . . 2 ☐ spadł . . . . 3 ☐
3.	**Jak w ostatnich trzech miesiącach zmieniło się zatrudnienie w Państwa jednostce:** wzrosło . . . . 1 ☐ pozostało bez zmian . . . . . . 2 ☐ spadło . . . . 3 ☐
4.	**Jaka jest bieżąca ogólna sytuacja gospodarcza Państwa jednostki:** dobra . . . . 1 ☐ zadowalająca . . . . 2 ☐ zła . . . . 3 ☐
5.	**Jakie najważniejsze bariery obecnie ograniczają działalność Państwa jednostki:** brak barier . . . . 01 ☐ wysokie obciążenia na rzecz budżetu . . . . 06 ☐ niedostateczny popyt . . . . 02 ☐ zbyt duża konkurencja firm krajowych i zagranicznych. 07 ☐ niedobór wykwalifikowanych pracowników . . . . 03 ☐ niejasne, niespójne i niestabilne przepisy prawne . . . . 08 ☐ niedobór powierzchni usługowej i/lub wyposażenia . . . . 04 ☐ niepewność ogólnej sytuacji gospodarczej . . . . 09 ☐ koszty zatrudnienia . . . . 05 ☐ inne (jakie?). . . . . 10 ☐
6.	**Jak zmienia się bieżący popyt na usługi sprzedawane przez Państwa jednostkę:** wzrasta . . . . 1 ☐ pozostaje bez zmian . . . . . . 2 ☐ spada . . . . 3 ☐
7.	**Jak zmienia się bieżąca sprzedaż usług w Państwa jednostce:** wzrasta . . . . 1 ☐ pozostaje bez zmian . . . . . . 2 ☐ spada . . . . 3 ☐

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nr str. 2

I. Ocena sytuacji gospodarczej (dokończenie)

8.	**Jaki procent posiadanych pełnych mocy produkcyjnych (np. pracownicy, wyposażenie, środki transportu, powierzchnia, itp.) Państwa jednostki jest obecnie wykorzystywany:**	☐☐☐,☐ %
9.	**Ile obecnie wynosi zagwarantowany okres działania Państwa jednostki** *(w miesiącach):*	☐☐,☐ mc
10.	**Jak zmienia się bieżąca sytuacja finansowa Państwa jednostki:** poprawia się . . . . 1 ☐ pozostaje bez zmian . . . . 2 ☐ pogarsza się . . . . 3 ☐	
11.	**Jak zmieniają się opóźnienia płatności za usługi wykonane przez Państwa jednostkę:** zwiększają się . . 1 ☐ pozostają bez zmian . . . . 2 ☐ zmniejszają się . . . . 3 ☐ brak opóźnień płatności 4 ☐	
12.	**Jak zmieniają się bieżące ceny usług sprzedawanych przez Państwa jednostkę:** rosną . . . . 1 ☐ pozostają bez zmian . . . . 2 ☐ spadają . . . . 3 ☐	

II. Prognoza sytuacji gospodarczej

*W pytaniach oznaczonych numerami **13, 14, 15, 16, 18, 19, 20, 21** proszę zaznaczyć symbol właściwej (tylko jednej) odpowiedzi, zaś w pytaniu **17** można wskazać kilka odpowiedzi.*

13.	**Jak Państwa zdaniem w najbliższych trzech miesiącach zmieni się ogólna sytuacja gospodarcza Państwa jednostki:** poprawi się . . . . 1 ☐ pozostanie bez zmian . . . . 2 ☐ pogorszy się . . . . 3 ☐
14.	**Jak w najbliższych trzech miesiącach zmieni się popyt na usługi sprzedawane przez Państwa jednostkę:** wzrośnie . . . . 1 ☐ pozostanie bez zmian . . . . 2 ☐ spadnie . . . . 3 ☐
15.	**Jak w najbliższych trzech miesiącach zmieni się sprzedaż usług w Państwa jednostce:** wzrośnie . . . . 1 ☐ pozostanie bez zmian . . . . 2 ☐ spadnie . . . . 3 ☐
16.	**Jak w najbliższych trzech miesiącach zmieni się sytuacja finansowa Państwa jednostki:** poprawi się . . . . 1 ☐ pozostanie bez zmian . . . . 2 ☐ pogorszy się . . . . 3 ☐
17.	**Jakie w najbliższych trzech miesiącach będą źródła finansowania działalności usługowej:** środki własne . . . . 1 ☐ kredyt bankowy zagraniczny . . . . 3 ☐ kredyt bankowy krajowy . . . . 2 ☐ środki z budżetu państwa . . . . 4 ☐ inne . . . . 5 ☐
18.	**Jak w najbliższych trzech miesiącach zmieni się zatrudnienie w Państwa jednostce:** wzrośnie . . . . 1 ☐ pozostanie bez zmian . . . . 2 ☐ spadnie . . . . 3 ☐
19.	**Jak w najbliższych trzech miesiącach zmienią się ceny usług sprzedawanych przez Państwa jednostkę:** wzrosną . . . . 1 ☐ pozostaną bez zmian . . . . 2 ☐ spadną . . . . 3 ☐
20.	**Jak w najbliższych miesiącach zmienią się nakłady inwestycyjne (np. wyposażenie, środki transportu, budynki, itp.) w Państwa jednostce:** wzrosną …………………………………………………………………...…. 1 ☐ pozostaną bez zmian ………………………………………………………….. 2 ☐ spadną ……………………………………………………………………….…. 3 ☐ nie przewiduje się podjęcia inwestycji (**nie ma obecnie takiej potrzeby**)…… 4 ☐ nie przewiduje się podjęcia inwestycji (**brak środków**) ……………….….…. 5 ☐
21.	**Jeśli wzrósłby popyt na usługi świadczone przez Państwa jednostkę, czy przy posiadanych zasobach mogą Państwo rozszerzyć działalność?** NIE ☐ TAK ☐ jeśli TAK, to o ile ………………………………….. ☐☐☐,☐ %

III. DANE UZUPEŁNIAJĄCE W ZAKRESIE DZIAŁALNOŚCI BANKOWEJ I UBEZPIECZENIOWEJ

W pytaniach 22, 23, 24, 25 proszę zaznaczyć symbol właściwej (tylko jednej) odpowiedzi dla każdego z wymienionych wariantów.

Wypełniają jednostki usługowe realizujące działalność ***bankową***.

22.	Jak zmieni się w bieżącym miesiącu **liczba kredytów udzielanych:**			
	1. gospodarstwom domowym	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	1.1 w tym na cele konsumpcyjne	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	1.2 w tym na nieruchomości mieszkaniowe	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	2. przedsiębiorstwom	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	2.1 w tym inwestycyjnych	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	2.2 w tym operacyjnych	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
23.	Jak zmieni się w bieżącym miesiącu **liczba kredytów, których spłata jest opóźniona**, udzielanych:			
	1. gospodarstwom domowym	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	1.1 w tym na cele konsumpcyjne	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	1.2 w tym na nieruchomości mieszkaniowe	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	2. przedsiębiorstwom	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	2.1 w tym inwestycyjnych	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	2.2 w tym operacyjnych	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐

Wypełniają jednostki usługowe realizujące działalność ***ubezpieczeniową***.

24.	Jak zmieni się w bieżącym miesiącu **liczba zawartych umów ubezpieczeniowych:**			
	1. osobowych i majątkowych – ogółem	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	1.1 w tym OC posiadaczy pojazdów mechanicznych	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	1.2 w tym wypadku	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	1.3 w tym szkód spowodowanych żywiołami	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	2. na życie – ogółem	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
25.	Jak zmieni się w bieżącym miesiącu **liczba wypłaconych świadczeń:**			
	1. osobowych i majątkowych – ogółem	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	1.1 w tym OC posiadaczy pojazdów mechanicznych	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	1.2 w tym wypadku	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	1.3 w tym szkód spowodowanych żywiołami	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐
	2. na życie – ogółem	wzrośnie .... 1 ☐	pozostanie bez zmian ..... 2 ☐	spadnie .... 3 ☐

Proszę podać szacunkowy czas *(w minutach)* przeznaczony na wypełnienie formularza.	

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