

INVESTMENT AS A KEY FACTOR IN THE DEVELOPMENT OF THE LUBUSKIE REGION ON THE 20TH ANNIVERSARY OF POLAND'S MEMBERSHIP IN THE EUROPEAN UNION

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Purpose: The aim of the publication is to present the changes and impact of investments on the development of the Lubuskie Voivodeship in the context of the 20th anniversary of Poland's membership in the EU. The aim of the work was also to present and describe key investments financed by the European Union in the Lubusz Voivodeship and their impact on the development of the region.

Design/methodology/approach: The method of statistical data analysis and source materials was used in the work. The work uses the analysis of statistical data from the Central Statistical Office and SWOT analysis.

Findings: the paper presents issues related to the analysis of data on public and private investments, assessment of the impact of investments on GDP growth, employment, productivity and the structure of the economy. Finally, a summary of the most important research results and the formulation of recommendations for further investment development of the voivodeship are included.

Originality/value: The paper is addressed to people interested in European funds, investments that have played a role in the transformation of the Lubuskie Voivodeship, and regional policy.

Keywords: labor market, regional development, region, Lubusz Voivodeship.

Category of the paper: research paper.

1. Introduction

The Lubuskie region, located in the western part of Poland, plays a strategic role in the country's regional development. The twentieth anniversary of Poland's membership in the European Union is an opportunity to analyze the impact of investments - both national and EU - on the economic, social and infrastructural development of the region. The article analyzes the key investment strategies implemented in Lubuskie Voivodeship from 2004-2024, their effects and future prospects. An analysis of secondary data, official reports and academic studies was used to present a coherent picture of the region's transformation. Established in

1999, Lubuskie Province has undergone a significant transformation since Poland joined the European Union in 2004. This accession opened up new financial and programmatic opportunities that contributed to the region's development. In the first years after accession, the province began to benefit from structural funds, which allowed the implementation of many key infrastructure projects, such as the modernization of roads and the development of public transportation.

Over the past two decades, the region has grown in importance, becoming an important economic and cultural center. In recent years, EU funds have supported the development of local businesses and innovation, which has contributed to an increase in employment and an improvement in the quality of life of residents. However, despite the noticeable progress, the Lubuskie region faces many challenges, such as depopulation and inequalities in development between different areas of the region.

In a historical context, it is also worth noting that Lubuskie Province has had to deal with different models of management and development, which has influenced its current shape. As the region has adapted to changing conditions, more and more importance has been given to sustainable development strategies and integration with European standards.

2. EU investments in Lubuskie province

Investments are counted among the more important factors of growth and socio-economic development in the region. Their absence is a barrier to regional development. There are feedback loops between the level and structure of investment and the rate of socioeconomic growth (Adamowicz, Lay, 2016, p. 20). Investment involves the use of financial resources with the intention of acquiring specific assets, as well as intangible fixed assets. In addition, these are assets acquired with the assumption of earning economic benefits as a result of growth from their value, as well as obtaining interest, dividends or many other sources, for example, from commercial transactions. Investments boil down to a financial commitment to a venture with the aim of obtaining benefits, which mainly consist of allocating financial resources to earn a certain profit in the future. In other words, investment is the outlay of economic funds on a venture to increase the value of the owner's assets. It is assumed that investment is an allocation of financial resources, peculiarized by such characteristics as benefit, outlay, and, in addition, risk and time, among others (Korzeniowska, Janiczak, 2024).

Lubuskie Voivodeship is located in central-western Poland. The location of this territorial unit near the border ensures economic cooperation with Germany. Currently, the main industries in the region are manufacturing to meet the needs of the automotive industry, woodworking and papermaking. There are also industries such as electronics, food processing, glass and building ceramics, mechanical engineering or biotechnology, transportation and

logistics. Zielona Góra and Gorzów Wielkopolski are also important academic centers with significant scientific achievements (Polish Investment and Trade Agency, 2024).

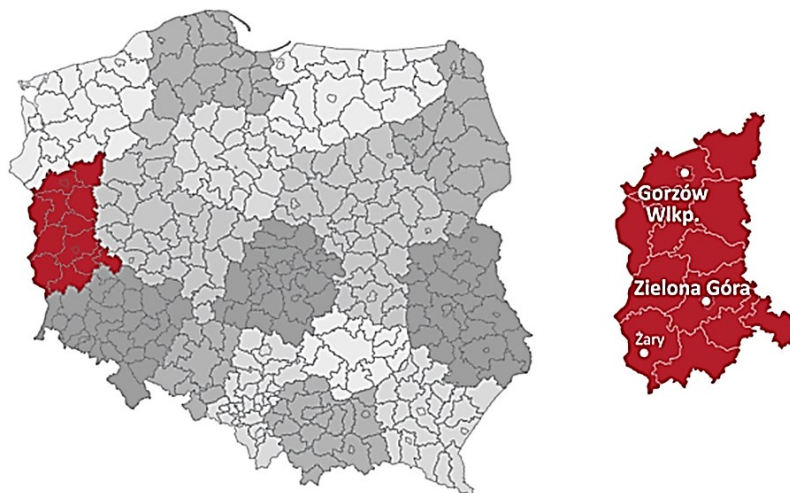


Figure 1. Location of Lubuskie Province.

Source: *Lubuskie*, www.paih.gov.pl/dlaczego_polska/regiony/wojewodztwa/lubuskie/, November 13, 2024.

Funds from the Union began to flow into the Lubuskie region even in the pre-accession period. As an example, the program of border cooperation between Poland and Germany (Phare) can be cited. The analyzed voivodeship became the main beneficiary of this program, while the efficiency of the people of the voivodeship in its implementation was praised as exemplary, if only in Warsaw, Berlin or Brussels. In 1994-2001, the region received more than €170 million from Phare. The money was used primarily to build roads and bypasses, sewage treatment plants or modernize border crossings. The funds were used to help organize bicycle paths and renovate cultural facilities (Polish Press Agency, 2024).

Above all, the aforementioned investments are reminded by information boards on which the EU flag has been placed. Their significance is extremely important, as they make many residents and politicians aware of the importance of the European Union's contribution and the benefits brought by Poland's membership in this community. As far as the Lubuskie region is concerned, the pre-accession funds allowed the development of valuable experience and foundations for skillfully reaching for greater financial resources, which began to appear after Poland's entry into the European Union (Polish Press Agency, 2024).

A large number of projects - both minor and major investments - have been carried out in Lubuskie Province with EU funds. Areas that have been supported with funds from the European Union are summarized in Table 1 below.

Table 1.

Areas that have been supported with funds from the European Union in Lubuskie Voivodeship.

Amount (PLN million)	Type of investment	Number of projects
758	research and innovation in the economy	236
644	transport infrastructure	40
558	low-carbon economy	167
542	health, social infrastructure	91
346	educational projects	264
325	environmental protection and cultural support	80
326	support for the regional labor market	231
294	social policy	262
199	development of the information society	40

Source: Own compilation based on: *20 Years of Poland in the European Union*, samorzad.pap.pl/sites/default/files/2024-04/raport-PAP_20-lat-w-UE.pdf, 15.11.2024.

Over the past 20 years, with the support of EU funds, almost the entire S3 highway in Lubuskie Province and the northern carriageway of the A8 highway have been built. This road, located next to the A2 highway, has the highest traffic in the area and is of economic and social importance. In terms of transport policy, the main objective of all projects was to increase the cohesion and integrity of the road network, as well as the accessibility of external communications in the sections through which the new roads pass. From a socio-economic point of view, this is mainly the creation of a safe highway network with visibly greater capacity and ease of movement, moving vehicles out of the city center and thus generally improving the living conditions of the province's residents (Polish Press Agency, 2024).

Currently, a trip between the two capitals of the Lubuskie region takes just over an hour, while before it was decided to build the S3 road it was necessary to spend a minimum of two hours on such a trip. The realization of this undeniably huge infrastructure project, which was the construction of the S3 expressway, was possible thanks to support precisely from EU funds. And it should be recalled that the implementation of the project had been sought for many years. The construction of the road from north to south made it possible to move transit traffic out of the centers of local cities. Passing through towns such as Gorzow Wielkopolski, Swiebodzin, Sulechów or Zielona Góra and many smaller towns was a major inconvenience for drivers. They also lost a lot of travel time. Such a solution was also very disadvantageous for the residents of the province. Well, transit traffic in cities generated traffic jams, a lot of noise and more air pollution. Cars were also a danger to pedestrians. The new road has definitely changed living conditions, and the social significance of this investment is enormous (Polish Press Agency, 2024).



Figure 2. A section of the S3 route.

Source: *20 years of Lubuskie in the European Union - what have we accomplished?* regionalna24.pl/article/20-lat-lubuskie-w-unii-n1242910, 14.11.2024.

EU money has also been used to establish a Space Technology Park. Electric buses, innovative streetcars have been purchased, and many bicycle routes have been built. EU financial support also includes scholarship programs, support for education and assistance for senior citizens. In addition, the Gorzow Philharmonic was built for PLN 136 million. Another PLN 132 million was allocated for the construction of the Maternal and Child Health Center in Zielona Gora, of which PLN 92 million was EU funding. The bridge in Milsk was erected for PLN 91 million, of which about PLN 67 million was EU funding. A Recreation and Sports Center in Zielona Gora with an indoor pool and sports hall was built for PLN 150 million. The post-industrial areas in Nowa Sol were revitalized. The industrial areas of the former "Odra" factory were rebuilt. Modernized tower building with adaptation to serve the function of social, economic and educational activation of both entrepreneurs and residents. A Wine Center was created in Zabor near Zielona, which is a reference to the wine traditions of the region. The Lubuskie Center of Competence and Shared Services, a server room for local hospitals and local governments, was built for PLN 70 million (Polish Press Agency, 2024).



Figure 3. Maternal and Child Health Center in Zielona Gora.

Source: *20 years of Lubuskie in the European Union - what have we accomplished?* regionalna24.pl/article/20-lat-lubuskie-w-unii-n1242910, 14.11.2024.

The European Union also plays an important role when it comes to environmental protection efforts. The organization wants to be an example for other countries in the world. For Poland, this is an opportunity for a systematic transition to a low-carbon economy. The transition from an energy point of view is a challenge for Poland, but nevertheless remains the direction in which the entire EU is currently moving (Buczowska et al., 2024). As for the Lubuskie Voivodeship, within the scope of the current development strategy, among all the defined problems, such as an aging population and dynamic technological progress, the need to take measures to protect the environment and respond to climate change is mentioned (Lubuskie Voivodeship Assembly, 2021).

The province recognizes that climate change and the associated heavy rains, storms and other adverse weather events are dangerous to both human life and health, and damage to infrastructure is now a pressing problem. For this reason, it is very important to develop green and blue infrastructure, especially in urban areas. It should be noted that the improvement of the environment creates the need for extensive educational activities and support for biodiversity. In the course of the work on the new strategy, such challenges were pointed out as, among others, the necessity to modernize water and sewage infrastructure, especially in rural areas, take measures to counteract the negative consequences of climate change, develop pro-environmental infrastructure, implement drought or flood prevention measures, guarantee effective protection of biodiversity, undertake educational initiatives and the possibility of shaping pro-environmental attitudes among the local community, and appropriately manage rainwater (Sejmik Województwa Lubuskiego, 2021).

As a result, with regard to all programs that have been financed by the European Funds, more than PLN 22 billion has been transferred to Lubuskie Voivodeship. Some of this money is money that will be spent in the 2021-2027 perspective. The residents of the region under discussion, due to the geographic location of the province, are quite strongly affected by the transformation that has taken place in the 20 years since Poland joined the European Union. Lubuskie businesses have learned to compete in open European markets. It is also not unusual nowadays to study at university in Berlin, a city only 100 kilometers away from the Polish border (Buczowska et al., 2024).



Figure 4. Center for Professional and Business Education in Gorzow Wielkopolski.

Source: *20 years of Lubuskie in the European Union - what have we accomplished?* regionalna24.pl/article/20-lat-lubuskie-w-unii-n1242910, 14.11.2024.

The money coming in from the EU contributes to the development not only of the province itself, but also of the people there. In addition, the region has far-reaching plans that are related to the implementation of the National Reconstruction Plan. A number of other investment tasks, estimated to be worth around PLN 107 million, are already awaiting their turn in implementation. Nearly half of these projects are to be allocated to the so-called green transformation. It includes such elements as smart mobility, raising the competitiveness of the local economy, health care or digital transformation, among others. It is virtually impossible to point to such an area or field in which the results of Poland's and the Lubuskie region's presence in the European Community will not be seen. The aforementioned transformations concern both infrastructural issues (construction of roads, city bypasses, sports, research, cultural or educational facilities), as well as many others, which were created precisely with the participation of EU funds. Many of the changes carried out in the region concern its residents themselves. They are the ones who have a sense of belonging to the European community and are learning to take full advantage of the benefits of EU membership (Buczowska et al., 2024).

Poland in 2004 became a member of the group of modern countries that care about the development of civilization, democracy and all the basic values important to all open minds. Many of our achievements are financed in Europe. Thanks to them, the plans and creativity of the residents have turned into real investment. This has changed not only the reality around us, but also the way we think about the values of our membership in the EU. The use of EU funds for investment in Lubuskie was evaluated on the basis of a SWOT analysis. The results are presented in Table 2 below.

Table 2.

Use of EU funds for investment in Lubuskie voivodeship - SWOT analysis

STRENGTHS	WEAK POINTS
<ol style="list-style-type: none"> 1. Lubuskie Voivodeship, like other regions of Poland, has access to significant funding from the European Union. 2. The region has a number of resources that can be used for investment, such as investment land, human resources and tourism potential. 3. There is a well-developed network of institutions supporting entrepreneurs and local governments in the process of obtaining and using EU funds. 4. The province already has experience in implementing EU projects, which translates into greater efficiency in using new financial instruments. 	<ol style="list-style-type: none"> 1. The complex system of procedures involved in obtaining and accounting for EU funds can be a barrier for many entities. 2. Some entrepreneurs and local governments may have limited knowledge of the possibilities and conditions for using EU funds. 3. The Lubuskie region competes for EU funds with other regions of Poland, which may make it difficult to obtain funding for all planned projects. 4. Lack of adequate competence in EU project management may lead to delays in investment implementation and increase the risk of irregularities.

Cont. table 2.

SEASONS	DANGER
<ol style="list-style-type: none"> 1. EU funds can be used to modernize transportation, energy and telecommunications infrastructure, which will contribute to the region's investment attractiveness. 2. EU funds can be used to support the development of small and medium-sized enterprises, which will contribute to job creation and economic growth. 3. EU funds can be used for environmental and water and wastewater projects. 4. Investment in tourism infrastructure and promotion of the region can contribute to the development of this branch of the economy. 	<ol style="list-style-type: none"> 1. Changes in EU regional policy may affect the availability and conditions for the use of EU funds. 2. The economic downturn may limit investment opportunities. 3. Uncertainty about the amount of funds allocated to cohesion policy in the post-2027 financial perspective can make planning long-term investments difficult.

Source: Own study.

Based on the SWOT analysis, the following conclusions can be drawn. Lubuskie Voivodeship has significant potential for development, which can be strengthened through the effective use of EU funds. Despite the availability of funds, the region faces a number of challenges, such as bureaucracy, low awareness of beneficiaries and competition for funds. Success in the implementation of investments depends on a comprehensive approach, including not only the raising of funds, but also the effective management of projects and monitoring of their implementation.

Since Poland's accession to the EU, the Lubuskie region has been the beneficiary of numerous operational programs, such as the Operational Program Infrastructure and Environment (OPI&E), the Operational Program Human Capital (OPKL) and later the Operational Program Intelligent Development (OPIR). Of particular importance were investments in transportation infrastructure, environmental protection, and education and innovation.

Transportation and infrastructure

Between 2007 and 2013 and 2014-2020, the Lubuskie Province received significant funding for the modernization of its road and rail network. A key project was the modernization of the S3 route, which has become the main thoroughfare connecting northern and southern Poland, as well as the border bridges over the Oder River, enabling better integration with the German transport network (CSO, 2020).

Environmental protection

Investment in environmental protection in Lubuskie focused on the construction of modern wastewater treatment plants, modernization of water supply systems and protection of forest areas. These activities were co-financed by the Cohesion Fund and the European Regional Development Fund (EMFF). For example, a land restoration project along the Oder and Warta rivers allowed significant improvements in the ecological status of the rivers (EU Regional Policy, 2022).

Education and innovation

The Lubuskie region has benefited from investments in human capital development. The University of Zielona Góra and the Jakub z Paradyż Academy in Gorzów Wielkopolski have become beneficiaries of funds for the development of research and teaching infrastructure. The implementation of programs to support innovation in the small and medium-sized enterprise (SME) sector has increased the region's competitiveness, although innovation potential remains a challenge (Nowak, Kowalski, 2019).

The impact of investment on economic development firstly increases investment attractiveness in a region. EU funds have enabled the creation of special economic zones, such as the Lubuska Special Economic Zone, which have attracted domestic and foreign investment. As a result, the province has become a location for new industrial plants and logistics centers (Kowalski, 2023).

Another element of investment's impact on the region's development is the tourism sector. Thanks to investments in tourism infrastructure, including the restoration of castles, palaces and bicycle trails, Lubuskie Province has increased its tourist attractiveness. An example is the development of the "Lubuskie Wine and Honey Route", which is attracting a growing number of tourists from Poland and abroad (Lubuskie Marshal's Office, 2022).

Employment and the labor market is another element that influences investment in the region. EU investments have had a significant impact on job creation, especially in the construction and service sectors. Thanks to business support programs, unemployment, which was 25% at the beginning of Poland's EU membership, has been reduced to below 10% in 2020 (Eurostat, 2020).

Table 3.

Unemployment rate in Lubuskie province from 2004 to 2024

Year	Value	Unit of measure
2004	25,6	%
2005	23,0	%
2006	19,0	%
2007	14,0	%
2008	12,5	%
2009	16,2	%
2010	15,5	%
2011	15,4	%
2012	15,9	%
2013	15,7	%
2014	12,5	%
2015	10,5	%
2016	8,6	%
2017	6,5	%
2018	5,8	%
2019	4,9	%
2020	6,3	%
2021	5,1	%
2022	4,4	%
2023	4,3	%

Source: own compilation based on <https://bdl.stat.gov.pl/>, 17.11.2024.

Cohesion policy funds used in Lubuskie Voivodeship in 2004-2021

By the end of 2021, a total of PLN 16,377.7 million of cohesion policy funds were used in Lubuskie Voivodeship. Taking into account the cohesion policy funds per capita and in relation to GDP, the total in Lubuskie Voivodeship in 2004- 2021 amounted to PLN 16,619 and 3.0% of GDP, respectively. The value of funds per capita was higher than the national average (PLN 16,406 per capita). The ratio to GDP was higher than the national average (2.3% of GDP). Investments financed by EU funds constitute a significant but non-dominant part of public investment in Lubuskie - in 2021 their share was 43.5% of total public investment in the region (with the national average of 43.7%).

The impact of cohesion policy in the Lubuskie region from 2004 to 2021

In 2021. GDP per capita (in PPS) in Lubuskie was 62% of the EU-27 average. In the period 2004-2021, the distance between Lubuskie and the EU-27 as measured by GDP per capita (in PPS) decreased by 16 percentage points, of which about 22.2% (3.5 percentage points) was the result of the implementation of the cohesion policy. Thus, thanks to, among other things, EU funds, the gap in the level of economic development separating Lubuskie from the EU-27 average is gradually narrowing. The pace of the convergence process depends mainly on the region's economic growth rate. In the period 2004-2021¹², Lubuskie developed at an average rate of 3.6% (in constant prices), of which about 11.0% (0.39 p.p.) was the effect of investments co-financed by EU funds.

EU-funded infrastructure outlays and direct support for businesses are contributing to a significant recovery in investment activity. It is estimated that in 2021 the investment rate (the ratio of gross fixed capital formation to GDP) was 3.0 p.p. higher than in the scenario assuming no EU funds. At the time of its entry into the EU, Lubuskie Voivodeship had an employment rate of 52.8% for people aged 20-64, while in 2021 the value of this indicator was already 73.2%. About 14.3% (i.e. 2.9 p.p.) of the growth recorded during this period was the result of the impact of EU funds. The positive effect of European cohesion policy can be seen in the creation of new jobs, improvement of workers' skills and their better adaptation to changing conditions in the labor market. As of 2021, the number of jobs created in the Lubuskie Voivodeship as a result of investments co-financed by the EU budget is estimated at about 17,600. The positive impact of EU funds is also visible in the reduction of the unemployment rate. The unemployment rate of people aged 15+ in Lubuskie Voivodeship in the year of accession to the EU (2004) was as high as 25.3%, and in 2021 only 2.1%. To some extent, EU funds have contributed to the reduction in the unemployment rate - it is estimated that investments co-financed under the cohesion policy have reduced the region's unemployment rate by 0.9 percentage points in 2021 and by 1.3 percentage points on average in the 2004-2021 period (Ministry of Funds and Regional Policy, 2023).

3. Conclusions

Lubuskie Voivodeship, which has undergone significant transformation since Poland joined the European Union in 2004, is now facing many challenges and opportunities. Analyzing the achievements to date, it can be seen that investments, especially those supported by EU funds, have played a key role in the development of the region. Modernization of infrastructure, support for local businesses, and innovative approaches to education have helped to improve the quality of life of residents and increase the region's competitiveness compared to other parts of Poland (Nowak, 2021).

However, despite these successes, Lubuskie Province still faces significant challenges. Inequalities in development between different areas of the region, depopulation and the need to adapt to changing market conditions are just some of the problems that require effective solutions (Zielinski, 2022). Therefore, it is crucial to continue to invest in infrastructure development, innovation and sustainable development in order to maintain a positive growth trend (Kowalski, 2020).

In terms of the future, Lubuskie Province should focus on strategic actions that take into account both local needs and global challenges, such as climate change and technology development. Integration with European Union policies and active participation in EU programs can bring additional benefits and financial support for the implementation of key projects (Wisniewska, 2023).

In conclusion, Lubuskie has the potential to become a dynamic and sustainable region, but this requires coordinated action by local authorities, communities and the private sector. Continued investment in infrastructure, education, innovation and sustainable development will be key to ensuring sustainable

References

1. *20 Years of Poland in the European Union*. samorzad.pap.pl/sites/default/files/2024-04/raport-PAP_20-lat-w-UE.pdf, 13.11.2024.
2. Adamowicz. M., Kładź. M. (2016). The role of investments in the socio-economic development of the city of Biała Podlaska. *Economic and Regional Studies*. Vol. 9, No. 4, pp. 19-38.
3. Buczkowska, E. et al. *The European Green Deal in Questions and Answers*, www.pois.gov.pl/media/98573/zielony_lad_broszura_wersja_dostepna.pdf, 13.11.2024.
4. Central Statistical Office, <https://bdl.stat.gov.pl/bdl/dane/podgrup/tablica>, November 16, 2024.

5. Korzeniowska, A., Janiczak, M. *Investments*, mfiles.pl/en/index.php/Investments, 13.11.2024.
6. Ministry of Funds and Regional Policy (2023). *Impact of European funds on the socio-economic development of Poland and regions in 2004-2021*, 17.11.2024.
7. Polish Investment and Trade Agency. *Lubuskie*, www.paih.gov.pl/dlaczego_polska/regiony/wojewodztwa/lubuskie/, November 13, 2024.
8. Sejmik Województwa Lubuskiego. *Strategia rozwoju województwa lubuskiego 2030*, bip.lubuskie.pl/system/obj/51530_SRWL_2030__czysty_OST_19.02.2021.pdf, 13.11.2024.
9. Tuziak, A. (2022). Regional development and the paradigm of the new regionalism. *Social Inequality and Economic Growth*, No. 70(2), pp. 55-69.