

Regional analysis

*Identifying good support practices for eco-innovative
companies during the covid-19 pandemic in Podlaskie Voivodeship*

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Executive summary

The objective of the analysis is the evaluation of the regional support system targeted on small and medium enterprises facing Covid-19 pandemic challenges in Podlaskie voivodeship.

12 semi-structured interviews were conducted among representatives of regional support actors such as cluster, chamber of commerce, regional authorities and business association as well as small and medium enterprises operating in eco-innovation field. Questionnaire was prepared by scientific team and included open questions touching such aspects as: problems and challenges definition, impact on processes, support offered and potentially used, expectations towards offered support.

Main findings indicate that challenges and problems met by eco-innovative enterprises do not particularly outstand from those faced by other specialisations. All SMEs faced common external problems such as supply chains disruptions, logistic problems, lack of resources and half products and internal, including health problems of employees, quarantine, sometimes causing whole departments or production lines closure and resulting in revenues decline of the company. Global economy had slowed down. Another important conclusion is that crisis caused by pandemic also brought positive impact in some aspects. Lockdown caused change of lifestyles and raised importance of climate change as well as eco-innovativeness. It has also forced digital transformation to accelerate among private and public sector. Many enterprises had to redefine strategies to survive the crisis, which in long-term effect helped them to survive other globally affecting turbulences.

Nevertheless the governmental level support, especially at the first phases of the pandemic, was necessary. In Poland a number of supportive instruments was developed at the national level, but Podlaskie Voivodeship also developed regional activities. The analysis focus on presentation of "Anti-virus grants" from Podlaskie Voivodeship Regional Operational Programme operated by Podlaska Regional Development Foundation as the good practice, due to the fact, that eco-innovation as one of the regional smart specialisations, was key element of the system. Programme was aimed to adapt SMEs during pandemic to the sanitary regime and specific market conditions related to it. Grants were used to reorganize, upgrade and change operational processes in the enterprise in order to protect employees and customers, diversify or change the business profile, introduce a new product or service to the offer in response to changes in demand. Co-financing applied to expenses for the purchase of equipment (personal and collective protective equipment), fixed assets

(machinery and equipment) and intangible assets (software). Entrepreneurs could receive a grant of up to PLN 100,000. PLN, as a refund of 90% of the expenses incurred.

Analysis also gathers the ideas and fields of improvement of regional policies support instruments which might be useful in constituting future offer in times of crisis.

Introduction

Pandemic of Covid-19 officially declared as such by WHO 11th of March 2020 had extraordinary influence not only on health concern but also on the global economy and each country separately. In Poland, according to survey conducted by scientific team of Warsaw School of Economics, "only 9% of the surveyed enterprises did not feel the negative effects of the restrictions in economic life introduced as a result of the COVID-19 epidemic, and every fourth considered them severe. Business climate indicators and balances reached historical lows. The depth of their declines and the pace at which they occurred were exceptional."¹

The downturn in economic activity exacerbated the course of the crisis. It caused a very rapid drop in GDP and other economic indicators. The lowest values of which were recorded in the second quarter of 2020. Despite strong increases, especially in the second quarter of 2021, their values are lower than the values from before the pandemic, and also lower than in 2018, which was the last year of good economic conditions.

Pandemic of Covid-19 was global risk with very low level of probability to happen. This year 2022 brought new challenge in Europe, but still influencing global economy – war in Ukraine. Time of conducting the research among Covid-19 influence on eco-innovative sector in Podlaskie region and good practices to address the challenges coincided in time of military conflict in Poland's direct neighbour. Thus entities participating in survey in some answers gave wider view on challenges not only deriving from pandemic but crisis generally.

¹ <https://gazeta.sgh.waw.pl/meritum/gospodarka-w-czasie-pandemii> Lecture of prof.Elżbieta Adamowicz

Region



Podlaskie region is situated in North-East Poland, bordering with Lithuania and Belarus. It has around 1 169 000 inhabitants and covers the area of 20 187 square km (density is 59 persons/square meter). The capital is Białystok with around 296 000 inhabitants, other important cities are Łomża and Suwałki (former capitals of vivodeships). GDP per capita estimates around 9000 EUR (Poland average 12 900).²

The main potential of the region is its inhabitants, and in particular their ambitions, diligence in professional and social activity, and high and growing competences. The region's advantage is also its unique environmental values and relatively high quality of life.



Podlaskie in Poland

The nature of Podlaskie Voivodeship is determined by areas with special natural values. In 2017, the share of legally protected areas with special natural values in the total area of the region was 31.6%¹⁵. Most of the areas under legal protection are located in the northern

² <https://stat.gov.pl/>

and eastern part of the voivodeship (poviats: Augustów, Hajnowski, Sejny, and Suwałki). At the same time, they are unique places on a European scale, slightly changed by human activity. Rich forest complexes: Augustów Primeval Forest, Białowieża Primeval Forest, Knyszyn Primeval Forest, ecologically valuable Biebrza and Narew marshes, including a well-developed hydrological network, provide favorable conditions for the development of rich flora and fauna. Numerous areas of biodiversity occurrence are covered by the highest form of nature protection: national parks constitute 4.57 / 100 km² of the voivodeship's area (first place in the country), nature reserves - 1.17 / 100 km² (second place in the country). Taking into account the entire surface of NATURA 2000 areas, more than 40% of the area of Podlaskie Voivodeship is covered by at least one form of nature protection 16.³

According to the regional strategy the natural environment will remain a unique resource of the region. The idea of sustainable development will be consistently applied with an innovative approach to nature and its resources. Technologies of circular economy and production of energy from renewable sources will be developed. Ecological and sustainable agriculture will be developed on the basis of environmental values and state-of-the-art technologies.⁴ This strategical vision is important factor for eco-innovativeness development.

What is important eco-innovations are also one of the 4 smart specialisations of the region. Eco-innovation, environmental sciences and related sectors, in particular ICT (including: eco-innovation; eco-development, ecological engineering, biodiversity research, ecotourism; ecological agriculture and processing, sustainable wood harvesting and processing, renewable energy, resource construction) - and energy-saving, production of prefabricated houses, circular economy, energy efficiency technologies, solutions for electromobility, water management systems are one of the core specialisations.⁵

In 2020, in Podlaskie Voivodeship, 109,492 enterprises (entities of the national economy) were registered in the REGON register, of which 84,060 were natural persons conducting business activity. In the same year, 8,467 new entities were registered, and 4,147 entities were deregistered. When analyzing the register in terms of the number of employees, it can be concluded that the most (105,754) are micro-enterprises employing 0 - 9 employees.

2.3% (2,481) entities declared agriculture, forestry, hunting and fishing as their type of activity, 23.8% (26,027) entities declared their type of activity as industry, and 74.0% (80,984) entities in the register is classified as other activities. Among natural persons

³ Diagnoza Strategiczna Województwa Podlaskiego, czerwiec 2019.

⁴ Strategia Rozwoju Województwa Podlaskiego do 2030r.

⁵ <https://strategia.wrotapodlasia.pl/pl/ris/plan-rozwoju-przedsiębiorczosci-w-oparciu-o-inteligentne-specjalizacje-województwa-podlaskiego-na-lata-2021-2027-zostal-przyjety.html>

conducting business activity in Podlasie, the most frequently declared types of activity are wholesale and retail trade; repair of motor vehicles (22.9%) and construction (18.2%).⁶ As eco-innovation covers different types of performance no statistics are available.

The aim of the analysis

Regional analysis in SUPER partnering regions was designed to identify challenges and good support practices for eco-innovative companies during the covid-19 pandemic.

Good support practices are activities and initiatives by support system actors which aim to assist eco-innovative companies address the challenges posed by the covid-19 pandemic. A support system comprises "all actors, institutional settings, and resource that help entrepreneurs in successfully generating and implementing innovations"

Thus, the analysis in Podlaskie region focused on actors such as universities, incubators, science parks, business development organizations, financial institutions together with their related networks and institutions.

Method of the research

Method of the analysis fulfilled the criteria elaborated in frames of SUPER project in "Identifying good support practices for eco-innovative companies during the covid-19 pandemic" Version 2.0 (20220118) Prepared by Wisdom Kanda and Olof Hjelm. Survey was based on semi-structured questionnaires provided by above mentioned scientists.

Questionnaires were translated into Polish and all interviews were conducted in Polish language in order to make the respondents focused on the quality of answer not on the foreign language. Though English version was available during the interview for methodological validity. For the purpose of the analysis interviews were translated into English. Each interview lasted approximately 45 minutes.

Interviews were conducted by experts from Podlaska Regional Development Foundation during February and March 2022. Experts conducting the interviews work with business on everyday basis, many of them are also engaged in Enterprise Europe Network. Interviews were conducted on-site and online (Zoom, Teams, etc.) according to current pandemic

⁶ www.stat.gov.pl

restrictions and situation in particular enterprise and other entities. The notes were taken, also some interviews were recorded.

The regional analysis was based on 5 interviews with actors within the regional support system. The selection approach was broad and covered different types of actors of the ecosystem in Podlaskie, also their focus on eco-innovation was considered as the factor, field. though there is no actor active only in that. Interviewed actors were:

Chamber of industry and commerce in Białystok

Marchall's Office of Podlaskie Voivodeship

Metal Processing Cluster

Business Center Club

Białystok Science and Technology Park

A complementary set of interviews was conducted with 7 eco-innovative companies in the region. The purpose of these interviews was to understand their covid-19 related challenges and support they have received. Interviewed enterprises were SMEs with different field of ecoinnovation:

PPUH Komirex Sp z o.o. (food sector)

Słomiana Pracownia (natural eco cosmetics)

Letniskowo.pl Sp. z o.o. Sp.k. (construction – module co housing)

Edu Skarbnica (education)

AMDG s.c. (IT)

4 Szpaki (beauty)

Nemitech Sp z o.o. (production)

The group was based on deliberate sample collection (SMEs group collaborating with PRDF and/or identified on the market, support actors known to PRDF as the organisation collaborates with the whole ecosystem). Due to that fact the presented results cannot be understood as representative in statistical manner.

Main results

The most breakthrough innovations are forged during the greatest global crises: wars, collapses of world markets, pandemics. In 2020, COVID-19 has changed the way people live, buy and work. It has changed global lifestyles and processes in enterprises.

Health restrictions implemented worldwide and in Poland after WHO information had severe consequences on the economy. According to the collected statistical information in the period between January 2020 and August 2021, there were as many as 574,171

suspensions or liquidation of enterprises in Poland.⁷ Many entities struggled to survive. The situation forced them to find new paths, solutions and innovative ideas.

After another crisis starting from February 2022 – war in Ukraine - influencing world energy supplies, refugees crisis, and thus many other fields of economy, enterprises realise that one of the most important issue is to be strategically prepared to change.

Covid -19 pandemic related challenges of eco-innovative companies

Pandemic related challenges indicated in the questionnaires by regional actors widely collaborating with enterprises, including eco-innovative companies are in line with global trends. Each challenge cannot be considered separately as they influence overall value chains. Main challenges are presented below with quoted answers of chosen respondents:

External

- **Supply chains disruptions and lack of certain raw material and half-products**

“During the pandemic, raw material supplies were often delayed due to supply chain problems. The availability of many raw materials has been limited due to the smaller production capacity of suppliers, which was directly caused by the pandemic. Many companies also had logistical problems related to the transport of raw materials. In summary, the availability / quantity of many raw materials was limited, and the delivery time was extended, which resulted in an increase in their prices and delivery costs.”

- **Drop of clients**

“Another issue is the limitations in terms of promotion of the offer and acquisition of new customers - this is due to the fact that borders are closed and there is no possibility of free movement and cancellation of industry events. These problems are universal for all actors.”

- **Covid-19 official restrictions**

“Due to restrictions restaurants and hotels branch had to close, which implicated loss on our food products”

⁷ <https://sukces.rp.pl/biznes/art18884821-jak-wyglada-polska-gospodarka-po-ponad-roku-pandemii>

- **Rise of prices of raw materials and half-products**

"The main problem that has emerged in connection with the pandemic is the organic availability of intermediates and raw materials. On the one hand, this situation resulted in difficulties in executing orders, with a simultaneous increase in prices. Independently, the vast majority of companies indicate that the number of orders exceeds their capabilities, therefore they have to give up many orders."

- **Logistics problems**

"High impact, negative, many components come from external suppliers. The delivery was either getting longer or replacements had to be found."

- **Growing demand from the market/export growth**

"The pandemic significantly increased the demand for the company's products, due to the transfer of sales mainly to online channels, increased customer interest in our products, as well as the development of the pandemic trends. Therefore, the company invested in additional human resources and equipment to increase production efficiency. During periods of increased number of cases, many employees were in quarantine, which forced the company to properly organize the work of the production department, the smoothness of production and the availability of our products to customers were maintained."

Internal

- **Human resources**

"Problems with the availability of employees. COVID hindered the mobility of foreign workers (Belarus / Ukraine), borders were closed, and quarantine was introduced."

"Personal contacts between contractors (at the level of CEOs, traders) were limited and many companies associated in our organisation based their businesses on personal meetings."

- **Digitalization and remote work**

" For every industry, the development of the pandemic has contributed to the development of digital technologies and tools for working and communicating remotely, which of course increased awareness of modern technologies."

- **Reorganisation of production processes**

"Work on production has been organized in a way that maximizes safety and ensures continuity of production. Employees worked in specific teams, shift work was also introduced, and contacts between different departments of the company were limited to the necessary minimum."

"In the initial periods of the pandemic, many companies slowed down, had to reorganize the issues of logistics, production and supplies, it was also a time of reflection focused on the company's development in the long-term perspective and in new economic and social conditions - this fact provoked initiatives in the field of R&D and production optimization including the use of ecological solutions, circular economy and BIM."

- **Redesign of strategy**

"The pandemic had huge impact on our company: both negative – we had problems with covid itself, quarantine, we had to stop the production, but also positive: we had to redefine the overall strategy of the company, find new solutions, diversify markets and distribution channels."

"The pandemic had positive impact on eco-innovation due to the fact that the consciousness of customers has risen a lot during lockdown. It has forced us to implement new eco-driven solutions so that we could meet clients expectations."

Important finding from the conducted research is that the crisis was not expected and more flexible companies could adapt easier to the changes. Another is that the pandemic had positive impact on digitalisation. According to the Organisation for Economic Co-operation and Development (OECD), the COVID-19 shock has accelerated the digitalisation of public and private sector activities in many countries, including in the form of improved broadband connectivity, the adoption of online business models, the promotion of online payments and the enhancement of digital skills.⁸ Digitalisation also brought flexibility in attitude to employment and hybrid work as well as customer relations. McKinsey Global Institute survey of executives states that the COVID-19 crisis has also accelerated the digitisation of customer and supply chain interactions and of internal operations by three to four years. The share of

⁸ <https://www.oecd.org/digital/digital-economy-outlook-covid.pdf>

digital or digitally enabled products in their portfolios has been accelerated by seven years.⁹ These trends were also adopted by companies from Podlaskie region, which is of high importance due to the fact, that the region is behind better developed regions of Poland.

Good support practices to address Covid-19 challenges in the region

Key support practices to address pandemic related challenges:

1. Polish Development Fund – national level.

Anti-crisis shields 1.0 and 2.0 were packages of solutions prepared by the government, which is to protect the Polish state and citizens from the crisis caused by the coronavirus pandemic. It is based on five pillars:

- Protection of workplaces and employee safety,
- Financing of entrepreneurs,
- Health protection,
- Strengthening the financial system,
- Public investment

More than 347,000 SMEs have benefited from the PFR 1.0 Financial Shield program for micro, small and medium-sized enterprises from all over Poland, employing over 3.2 million employees.

SMEs received support in the form of financial subsidies of total PLN 60.5 billion.

Programme did not focus or gave leverage to eco-innovative enterprises.

2. Regional Operational programme for Podlaskie Voivodeship – regional level

“Anti-virus grants”

Entrepreneurs will be able to receive a grant of up to PLN 100,000. PLN, as a refund of 90% of the expenses incurred.

Value of support app. 2,500,000.00 EUR

⁹ <https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever>

The "Anti-virus grant" project was co-financed from European Union Funds and implemented by the Podlaska Regional Development Foundation under Measure 1.4.2 "Increasing the investment attractiveness of BOF", Regional Operational Programme for Podlaskie Voivodeship for 2014-2020.

The aim of the project was to support enterprises which, as a result of the COVID-19 pandemic, had to cope with specific, negative conditions for running a business, including: prohibition or restriction of business activities resulting from legal provisions, additional sanitary regime, absenteeism of employees, limitation of logistic and transport possibilities, difficulties in the supply and increase in the prices of raw materials, materials, external services, payment bottlenecks, suspension of investments, limiting the demand for certain goods and services, etc.

As part of the project, a fund of grants was created, which was entrusted to entrepreneurs operating in the Białystok Functional Area (municipalities: Białystok, Choroszcz, Czarna Białostocka, Dobrzyniewo Duże, Juchnowiec Kościelny, Łapy, Supraśl, Turośl Kościelna, Wasilków and Zabłudów), to adapt to the functioning during an epidemic, sanitary regime and specific market conditions, related to it. Grants were used to reorganize, upgrade and change operational processes in the enterprise in order to protect employees and customers, diversify or change the business profile, introduce a new product or service to the offer in response to changes in demand.

Co-financing applied to expenses for the purchase of equipment (e.g. personal and collective protective equipment), fixed assets (e.g. machinery and equipment) and intangible assets (e.g. software). Entrepreneurs will be able to receive a grant of up to PLN 100,000. PLN, as a refund of 90% of the expenses incurred.

The total value of the project is approximately PLN 9 000 000. The project was implemented from 01/06/2020 to 31/01/2022.

The effect of the project was not only the protection of the established economic state of the region, but also a kind of economic counterattack, which will allow companies to adapt faster and more effectively to a crisis situation and a new opening after the end of the epidemic.

The important aspect of the programme was the fact that **eco-innovations**, as one of the 4 smart specialisation of the region according to RIS were of special attention.

Another crucial point of the good practice is **short assessment period, minimised to 10 days**. Application documentation was also minimised, though it included all necessary information and was implemented according to all legal obligations and programmes.

Conclusions

Information gathered during the research confirmed that eco-innovative SMEs, similarly to other enterprises, needed support on many levels during the Covid-19 pandemic: starting from basic survival support ending at professional counselling and advisory.

Fields of potential improvements in support practices for covid related challenges expected by interviewed SMEs can be summarised as follows:

- Less bureaucracy
- Shortening time for application assessment
- Lowering taxes (New deal programme in Poland)
- Direct support for eco-innovative companies
- Clear quarantine rules and stable law (rules were outdated very fast)
- Financial support needed (2 types: direct „Covid support” or development support: technology, digitalisation, internationalisation etc.)
- Support for younger enterprises
- Strategic advisory in redefining strategies and business plans.

„Active and wide promotion of eco-innovative companies and their activities both on the Polish and international market, building the awareness of the authorities and the society regarding eco-innovation of companies, ecological production and products, substantive support and maximum simplification of formalities related to the possibility of obtaining financial support in connection with problems resulting from the COVID 19 pandemic.”

Recommendations indicated in conducted questionnaires are important feedback for regional authorities responsible for policies implementation. Crucial point is to create policies responding the needs but at the same time instruments that are flexible and adjustable to changing conditions.

- Visible and directly targeted support for eco-innovative SMEs. Even if supporting programmes give eco-innovative enterprises additional points programmes are not specifically targeting this type of companies.
- Programmes targeting young enterprises, which are operating less than a year. It is common that beneficiary has to have at least 1 fiscal year closed to apply for support. No instruments for eco-innovative younger enterprises and start-ups are available in the region.

- Advisory and professional support In eco-innovative solutions are expected. At some stage of development funds might not be the crucial issue. Enterprises are lacking knowledge and support in business plans, strategies, internationalisation.
- Further and targeted support regarding digital transformation and IT tools implementation by eco-innovative companies is expected.
- Bureaucracy should be minimised. Long assessment periods while applying for funds should be shortened.