





Barrieren reduzieren - gemeinsame Stärken nutzen! Redukować bariery - wspólnie wykorzystywać silne strony!

The Lubuskie-Brandenburg Cluster Guide

developed under the project

"EuRegioNet -

Internationalisation of networks and clusters (NWC)"

2017-2020









Table of contents

			Page	
	Preface			
	Foreword	Czesław Fiedorowicz Uwe Hoppe		
A)	Clusters and clus	ter policy in Brandenburg and Berlin - Review	6	
B)	Clusters and cluster policy in the Lubuskie Province - Review			
C)	the development	cross-border clusters and their importance for control of the Lubuskie - Brandenburg borderland" eba; dr hab. Iwona Bąk, Prof. ZUT)	32	
D)	Presentation of the project "EuRegioNet - Internationalisation of networks and clusters (NWC)" and its results			
E)	A scientific evaluation of the "EuRegioNet" project (DePoWi GmbH)			
F)	Observations, rec	ommendations, perspectives	92	
G)	Contact details		95	

Preface

This "Cluster Guide" has been developed within the project "EuRegioNet - Internationalisation of networks and clusters (NWC)". It aims to provide an up-to-date overview of network structures and in particular of cross-border links, their status, potential, development and need of support in the project area of the "Spree-Neisse-Bober" and "Pro Europa Viadrina" Euroregions and to share the practical experience in this area.

This also includes an overview of networks and clusters in the State of Brandenburg and the Lubuskie Province. The Lubuskie Province and Brandenburg have different definitions of economic "clusters". While in Lubuskie the term usually refers to networks of target partners of different nature, which may also exist only for a limited period of time, in Brandenburg it is an industry-wide term. Therefore also the two chapters of the Guide presenting an overview and the situation of networks and clusters in Lubuskie and Brandenburg are very different. With regard to Lubuskie, this presentation already provides a comprehensive overview of cluster issues in the province, while for Brandenburg this is just its first level, i.e. an overview of cluster industries. The details concerning the deeper structures and diverse cluster activities in Brandenburg can be found via the links provided in the text. Their full presentation would go beyond the scope of this document.

The guide also contains an academic lecture on the potential of cross-border clusters, and in particular their significance for the development of the Lubuskie-Brandenburg border region, which was delivered at the Cluster Congress organized as part of the "EuRegioNet" project in January 2020.

We also present to you the "EuRegioNet" project itself with its activities and results as well as a report on the external evaluation of the project.

Finally, we summarize the practical observations and experiences from the project and present recommendations for future network and cluster policy.

The "Cluster Guide" is available in Polish, German and English. It serves the purpose of disseminating the project results and sharing information and examples of good practice.

Foreword

Czesław Fiedorowicz

President of the Convention of the Association of the municipalities of the Republic of Poland, the 'Spree-Neisse-Bober' Euroregion



Strengthening the economic cohesion of Member States is one of the most important political objectives of the European Union. Cross-border cooperation of entrepreneurs, especially in the German-Polish border region, where the disparities in the level of private and public financial turnover are still visible, should be strongly supported not only in the financial sphere, but also in the human dimension. Apart from individual examples of partnership cooperation, larger networks of business entities, often cooperating with local authorities, non-governmental institutions or research centres, play an important role in this context. Such cooperation, based on synergy effects, brings tangible economic benefits to its participants and additionally supports the development of a society free of stereotypes and open to innovation.

An answer to this demand is, among other things, the project "EuRegioNet - internationalisation of networks and clusters", initiated in 2015 and successfully implemented in 2017-2020 in the Lubuskie-Brandenburg border region. The ambitious plans concerning the international networking of companies, institutions, scientific centres, culture, local governments and non-governmental organizations have been successful and very well received by stakeholders on both sides of the Oder and Lusatian Neisse Rivers. The assistance and support provided under the project has helped to attract new partners, strengthen bonds and consolidate existing contacts at the economic level. In this context, the conducted evaluations and the working plans drawn up for the selected entities played an important role. There was a need to create 2 new cross-border entities - the Cluster for Combating Invasive Species and the Cluster for Historical Tourism, whose scopes of activity significantly meet the needs of the region.

We have experience and are aware of the need to inspire the establishment of new entities for cross-border cooperation. Always together, Poles and Germans are able to achieve more ambitious goals and better results in their actions aiming at improving the quality of life of the borderland population.

Foreword



Uwe Hoppe

Chief Executive Officer of the Chamber of Crafts of the East Brandenburg Region in Frankfurt (Oder)

Clusters provide a platform on which companies and institutions intertwine both horizontally and vertically, where they can exchange information, cooperate and nurture the idea of entrepreneurship. This is particularly evident in border regions, where bilateral networks offer benefits to companies on both sides of the border. For these reasons, networks and clusters are an essential element of the economic and innovation potential of regions and are in the very centre of economic policy.

These facts were the starting point for the "EuRegioNet" project. Networks and clusters on both sides of the border in the "Pro Europa Viadrina" and "Spree-Neisse-Bober" Euroregions were evaluated, their cooperation and innovation potential and support needs were identified, initiatives were stimulated and new networking ideas were presented.

The objective of the project was to support networks and clusters in applying the identified potentials and new ideas as soon as possible. This included acquiring new network partners, preparing joint projects, creating or expanding value creation chains, developing cluster brands and, in particular, initiating cross-border cooperation networks and searching for partners in order to gain new markets and new know-how, thus strengthening the perception of the cross-border location as an advantage and creating a larger economic area. To this end, the project partners had many discussions, provided advice and analyses, sought new partners and know-how, prepared and organised workshops together, worked as interpreters, made use of expertise and shared their own observations and experiences.

All this serves to create added value for the network partners involved in the project - companies, scientific centres and institutions, and strengthens the European idea in the border region on both sides of the Oder River. This is how we work together and on equal rights to create these values and achieve sustainable development, regardless of whether it concerns the industry, crafts, research institutions or services and trade.

The commitment and results achieved by the project partners are therefore to be welcomed and it is to be hoped that their work will be continued.

A) Clusters and cluster policy in Brandenburg and Berlin - Overview

The Brandenburg Innovation Strategy

The aim of the Brandenburg Innovation Strategy "innoBB+" (Brandenburger Innovationsstrategie, innoBB+) is the development of the capital city region towards an internationally competitive innovation area. It focuses on the establishment and development of clusters with high development potential.

Support for the economy in Brandenburg focuses on 9 intensively developing clusters:

• <u>5 Berlin-Brandenburg clusters covering both federal lands:</u>

Power generation technology, healthcare industry, information and communication technology / media / creativity, transport / mobility / logistics, optics / photonics

4 Brandenburg national clusters:

Food industry, plastics / chemistry, metal industry, tourism

To achieve this goal, the Wirtschaftsförderung Land Brandenburg GmbH (WFBB) is implementing the project "Paths and strategies for sustainable cluster development and overcoming their common challenges in Brandenburg 2018-2020". The main task of the cluster management team created under the project is to implement the ideas of the respective master plans together with the partners¹ and to network the entities in a targeted manner.

Power generation technologies

The Berlin-Brandenburg Power Generation Technology Cluster was established in 2011 to further develop the **innovation process in power generation technology** in both federal states. In Berlin and Brandenburg, power generation technology serves as an engine driving economic growth. Called the "Land of Energy", Brandenburg today stands out for its large number of facilities generating power and heat from **renewable sources**.

The power generation revolution is an important topic throughout Germany, and its directions are increasingly being set in Berlin and Brandenburg.

Nearly **6,300 companies** and research teams from more than **30 universities** and **non-university research institutions** are dedicated to meet all the challenges involved in this goal. They develop solutions and ideas to generate energy in a resource-saving way, to distribute it intelligently, store it wisely and use it efficiently.

By networking the research and development area and industry, as well as by pooling competencies, the participating entities succeed in achieving an optimal transfer of scientific knowledge to industrial processes and products.

→ Link to the cluster website: http://energietechnik-bb.de/de/home-energietechnik

Source: Wirtschaftsförderung Brandenburg WFBB, Branchen und Cluster,

Address: https://www.wfbb.de/de/ClusterBranchen/Über-die-Cluster, accessed on: 27.01.2020

¹ The master plans can be found in the following source under the headings for each cluster or under the addresses of the clusters' websites mentioned in the further part of this Guide.

Food industry

The food industry is one of the most important sectors of economy in Brandenburg. Around **57,300 employees** work in **3,400 small, medium-sized and large enterprises** along the entire value-added chain - in agriculture, the food and beverage industry, logistics and trade. The 180 largest companies in the food and beverage industry generate a turnover of more than **3.7 billion euros** (the largest 20 % share is in slaughter and meat processing)².

Brandenburg is also associated with a **number of strong brands**, such as 'Cucumbers from the Spreewald', 'Sausages from Eberswalde' and 'Ketchup from Werder'.

In addition, the trend towards increasing emphasis on regionality is particularly encouraged, which has significantly increased **market opportunities for manufacturers of regional products**. The market for **organic products** is also absorbent and offers good growth opportunities for well targeted companies. Brandenburg is in a leading position in Germany in terms of the share of organically farmed land.

By networking research and development activities and industry, an efficient and demand-driven technology transfer can be achieved in the food economy.

→ Link to the cluster website: http://ernaehrungswirtschaft-brandenburg.de/de/home

Healthcare industry

Thanks to a targeted innovation policy, the Healthcare Industry Enterprise Cluster has developed; it is an efficient cluster offering very modern workplaces. With around 230 biotechnology companies, more than 300 medical technology companies and more than 20 pharmaceutical companies, Berlin and Brandenburg hold one of the leading positions in the healthcare industry in Europe. In addition, more than 50 hospitals as well as 29 inpatient and 9 outpatient rehabilitation clinics provide comprehensive and high-quality patient care adjusted to the patients' needs.

The cluster records **above-average research and development activity**, which is distinguished by its international significance, supra-regional networking and future-oriented innovation potential. This development is supported by the concentration of research institutions, numerous newly established companies and **an excellent base of qualified specialists and young scientists**.

In addition to the development of important diagnostic disciplines in the field of cardiovascular diseases and oncology, especially in the area of **medical technology** (imaging techniques, e-health and telemedicine, minimally invasive surgery and orthopaedic techniques / implants), highly innovative and globally competitive products are being developed.

The cluster is actively working on networking the **economic and clinical expertise** and on **developing highly innovative** medical **products** and **new care models**.

→ Link to the cluster website: https://www.healthcapital.de/

² Statistisches Landesamt Berlin-Brandenburg, Kennziffern 2017 [National Statistical Office Berlin and Brandenburg, Indexes for 2017]

Plastics / Chemicals

The Plastics and Chemicals Cluster, with **620 companies** and about **12,900 employees**, is a strong pillar of the Brandenburg industry and one of the most important areas of concentration of the chemical and plastics industry in Europe.

Thanks to its presence in the entire area and **its approximately 15% share** in the state's **manufacturing sector**, the chemical and plastics industry is an above-average engine for economic growth and a stabilising factor for Brandenburg³.

The industry is particularly **well connected to other economic sectors** (e.g. medical technology / pharmaceutical industry, power generation technology, information and communication technology, optics, automotive industry) and, as a supplier, plays a key role in the innovative development of these industries.

The chemical companies in the region (such as BASF, PCK refinery in Schwedt or Atotech) and Brandenburg products (e.g. synthetic fibres, films or tyres) shape the cluster's profile thanks to large production plants that determine its structure.

The capital region has a **unique concentration of scientific institutions** in the field of plastics and chemicals. Many small and medium-sized enterprises benefit from this potential and are **the driving force of research and development**. The networking of R&D and industry supports the development of innovative ideas and enables efficient and demand-driven technology transfer in this sector.

→ Link to the cluster website: http://kunststoffe-chemie-brandenburg.de/home

Media / Information and Communication Technologies (ICT)

With more than 1,800 companies and over 12,000 highly qualified employees, the Media and Information and Communication Technologies Cluster is well on the way to becoming a leading location for innovations in the ICT industry. Including the media and creative industries, the region's competencies in these areas are concentrated in the Cluster comprising about 48,000 companies and over 240,000 employees.

The cluster's **range of subjects** is **wide** - from companies and service providers from the media industry through publishing houses and advertising agencies to telecommunication and software service providers. Thus, information and telecommunication technologies are the key to creating new high quality jobs, competitive industries and effective administration.

In the field of **IT-related research**, the region represents a **world-class** position thanks to renowned research institutes and a large number of universities and colleges in Berlin and Brandenburg offering media and IT-related study programmes. Thanks to such higher education schools as the Konrad Wolf Film Academy in the district of Babelsberg in Potsdam, the capital region is also a place where **young creative talents** can develop. It is also thanks to this that the region could become **a significant place for the development of new companies**.

The Cluster comprises more specialised areas: "Digital media and games", "Film and television", "Geoinformation industry", "Information and communication technologies", "Innovative services" and "IT in security systems and IT security". In all areas of the Cluster activity the capital region can be distinguished as a strong, dynamic business location with optimal network and development potential.

³ Statistisches Landesamt Berlin-Brandenburg, Kennziffern 2018 [National Statistical Office of Berlin and Brandenburg, Indexes for 2018]

→ Link to the cluster website: http://digital-bb.de/de/ikt-informations-und-kommunikationstechnologien

Metal industry

The Metal Cluster with its approximately **2,600 companies** and about **38,200 employees** can be considered as one of the **strongest single processing industries** in Brandenburg **in terms of employment.**

Apart from the traditional areas of concentration of the industry and well-known companies, new locations and new businesses are constantly being established.

This sector also has **various connections with other sectors of the economy** (e.g. the automotive industry, aerospace or power generation industry) and is therefore a key sector for the whole economy.

The cluster is characterized by the **application of diverse technologies and processes** and a wide range of components and final products.

The networking and cooperation of metalworking companies among themselves on the one hand, and with scientific and research institutions on the other hand, ensures a high **degree of innovation**, **quality**, **flexibility**, **specialisation and diversity**.

→ Link to the cluster website: http://metall-brandenburg.de/de/home

Optics and photonics

The Cluster of Optics and Photonics along with the industrial park in Rathenow are the centre of the optical industry in Brandenburg. More than 1,400 employees are employed by the industry leader, Fielmann, and in more than 25 other small and medium-sized enterprises. The conversion depth index in the fields of ophthalmic optics, optics and precision mechanics is the highest in Germany there.

The **Teltow-Stahnsdorf-Kleinmachnow industrial area is home** to companies from the optical technology sector (i.e. laser, measuring, environmental protection and communication technology). In **the Frankfurt (Oder) region**, microsystem technology has also been developing. It is still a very young branch of the economy.

The cluster is characterized by **dynamic growth**. Highly specialized companies from Berlin and Brandenburg have a **wide range of expertise** and can sell their products all over the world. Some companies are even **world market leaders** in individual segments.

Many research institutes and schools of higher education are also among the world's most prominent ones because of the **scientific excellence** they represent in all fields of optics, photonics and microsystem technology.

→ Link to the cluster website: https://www.optik-bb.de/

Transport / Mobility / Logistics

The Transport, Mobility and Logistics Cluster has a wide scope and is divided into **five fast-growing industries**:

- Automotive industry: The structure of the industry with about 200 companies supplying
 parts and components and about 21,000 employees is mainly determined by medium-sized
 companies. In the Berlin-Brandenburg region, the automotive industry has quickly opted for
 technological change and has been developing electric mobility and autonomous driving
 issues in a dynamic manner.
- **Logistics**: With 205,000 employees, this industry is one of the largest and most economically significant sectors in the national economy. Berlin and Brandenburg are among the top three locations of this industry in Germany.
- Aviation technology: With more than 17,000 jobs (including airports), the aviation industry
 in Berlin and Brandenburg currently ranks third among the German regions in which the
 industry is concentrated. The very good scientific and research base in the region has
 contributed, among other things, to a special climate of competence for the development of
 activities in the field of aircraft turbine design and maintenance.
- Railway technology: With more than 20,000 employees in this industry, the Capital Region is one of the most important research, development and production centres in Europe. The region is increasingly strengthening its position of a science centre for rail transport technologies and meeting the demand for new system solutions. Local universities offer a considerable innovation potential and strategically secure a comprehensive transfer of technology and competence in the region.
- Transport telematics: Since 1990, Berlin and Brandenburg have become one of the largest European areas of the application of road traffic telematics. The capital region's demanding conditions for innovative inter- and intramodal solutions ensure a good climate for innovation. Research and development work on new applications and services is particularly supported by the good networking of science and innovative medium-sized enterprises in the region.

The Transport, Mobility and Logistics Cluster in Berlin and Brandenburg is characterised by **clear intermodality and interdisciplinarity**. The cluster is the **leading** German **model region for** intermodal mobility in passenger and freight transport and the place of the **most modern traffic management in Europe**. Interdisciplinary cooperation between industries provides the cluster with a **special development potential**.

In terms of development work, the cluster has succeeded in consolidating the position of Berlin and Brandenburg as a leading market and at the same time a leading supplier in the field of electromobility and as a testing ground for future drive technology.

→ Link to the cluster website: http://mobilitaet-bb.de/de/home

Tourism

The tourism industry in Brandenburg employs **100,300 people** directly and indirectly and has been experiencing **stable and continuous growth** for 15 years. Tourism in Berlin and Brandenburg is the fastest growing sector of its kind in Germany. In 2017, a total of **nearly 4.9 million guests** visited Brandenburg, and around **13.1 million overnight stays were** booked. The tourism industry recorded a **gross turnover of around 6.1 billion euros**, of which 3.9 billion euros were generated by tourists living outside Brandenburg.

Thanks to 11 nature parks (the equivalent of Polish landscape parks), 3 biosphere reserves, 1 national park and one UNESCO World Heritage Site, one third of Brandenburg is covered by protected areas. The region also attracts tourists with its cultural diversity and proximity to Berlin.

According to the **National Tourism Concept, sustainability and innovation** also play a special role in Brandenburg tourism. The industry is characterised by an increasing **networking of the tourism sector** with a strong focus on future themes and megatrends.

The Tourism Cluster is managed by Tourismus-Marketing Brandenburg GmbH (TMB).

Other industries

Wood processing

Brandenburg is the most densely forested East German federal state, and wood processing with **41 companies**, almost **4,000 employees** and a **turnover of more than 1.57 billion euros** forms an important part of the economic landscape.⁴ The industry is strongly **export-oriented** with almost 28% of its turnover in foreign trade.

Apart from a few large companies, this sector is mainly characterised by medium-sized companies. Innovative sawmills and wood construction companies, high-performance carpenter shops and nationally renowned manufacturers of wooden playground equipment complete the picture.

Due to **research and development and industry networking it is possible** to achieve efficient and demand-driven technology transfer in the wood industry.

Paper industry and paper processing

With more than **4,100 employees** and a **turnover of €1.58 billion in goods**, this sector shows an **above-average increase in turnover and employment**. The industry is strongly **export-oriented**. It achieves more than 38% of its turnover in foreign trade.⁵

Due to the growing demand for packaging materials, the paper industry and paper processing are characterised by **an attractive investment climate**.

Due to **research and development and industry networking** it is possible to achieve efficient and demand-driven technology transfer in the paper industry.

11

⁴ Statistisches Landesamt Berlin-Brandenburg, Kennziffern 2017 [National Statistical Office of Berlin and Brandenburg, Indexes for 2017]

⁵ See above

Horizontal themes

In order to ensure particularly sustainable development of enterprises, **four horizontal themes** have been identified which are **universal for all clusters**:

- Clean technologies
- > Raw materials and materials
- Production and automation technologies
- Security

These cross-cutting themes aim to enable companies to **fully exploit their potential** and ultimately achieve the **ecological modernisation of the economy**.

The close networking of the economy and science in this area should **strengthen the region's innovation potential** and thus improve **the international competitiveness** of enterprises.

A selection of cross-border or cross-border-cooperating networks and clusters in Brandenburg and the Lubuskie Province

which were established or which initiated cross-border cooperation supported by the partners of the "EuRegioNet" or "viadukt" projects, BIC Frankfurt (Oder) GmbH, the Lubuskie Employers Organization LOP, CIT GmbH Forst (Lausitz) and the Association of Polish municipalities, the "Spree-Neisse-Bober" Euroregion

Name	Industry	Year of establishment	Approximate number of members
The Education Cluster Lubuskie Brandenburg (Gorzów - Frankfurt)	Vocational education and training courses for adults	2013	40
The Business Support Cluster (Gorzów)	Support for innovativeness and for SMEs	2014	20
The Transport, Forwarding and Logistics Cluster (Świebodzin)	Transport and forwarding	2012	15
FEWE e.V. Frankfurt (Oder)	Renewable energy sources	2004	11
The Lubuskie Metal Cluster (LKM) (Gorzów)	Technologies and metal structures	2008	38
The Lubuskie Innovation Network LSI (Stanowice)	Research, development, education	2016	27
The Centre of Lubuskie Agrotechnical Innovations "CLIA" (Żary)	Agricultural production, development of flax processing technologies	2013	7
The Association for Combating Invasive Species	Environment protection	2019	16
The Cluster of Historical Tourism (Krosno Odrzańskie)	Tourism	2019	15
Regional gemacht ["Made in the Region"] (Peitz)	Food production and trade	2015	67
The "Cross-border healthcare" network in Euroregion SNB (Guben)	Health protection	2019	25
The Gesundheitsstammtisch network Burg (Spreewald)	Health protection	2013	20

B) Clusters and cluster policy in the Lubuskie Province - Overview

"CLUSTERS AND CLUSTER INITIATIVES IN THE POLISH PART OF THE SUPPORT AREA OF THE INTERREG VA BRANDENBURG - POLAND COOPERATION PROGRAMME 2014-2020"

- 1. THE ORIGINS AND ESSENCE OF CLUSTERS IN THE WORLD
- 2. CLUSTERS IN THE EUROPE 2020 STRATEGY
- 3. KEY NATIONAL CLUSTERS
- 4. THE LUBUNWCIE CLUSTERS AND CLUSTER INITIATIVES A RETROSPECTION
- 5. MONITORING OF THE LUBUNWCIE CLUSTERS ACCORDING TO PARP (2010 2015)
- 6. THE LUBUNWCIE CLUSTERS ESTABLISHED IN THE YEARS 2015 2018
- 7. ANNEX: CHARACTERIZATION OF THE LUBUNWCIE CLUSTERS OPERATING IN 2015-2018:

THE LUBUNWCIE ENERGY CLUSTERS ESTABLISHED IN 2017 - 2018

- 1. The Municipal Renewable Energy Cluster (the municipalities of the Słubice District)
- 2. Energy Cluster "Witnica Energy Sustainable Municipality"
- 3. Gorzów Energy Cluster
- 4. Zielona Góra Energy Cluster
- 5. Bobrowice Cluster Green electromobility

THE LUBUNWCIE CLUSTERS ESTABLISHED IN THE YEARS 2015 - 2017

- 6. The Cluster for Combating Invasive Plants (Gorzów Wielkopolski)
- 7. The Cluster of Historical Tourism (Gubin)
- 8. The Lubuskie Innovation Network (Gorzów Wlkp.)

THE LUBUNWCIE CLUSTERS ACCORDING TO THE PARP INVENTORY OF 2015

- 9. Digital Archiving Cluster (Nowa Sól)
- 10. The Lubuskie Metal Cluster (Gorzów Wlkp.)
- 11. The Lubuskie Business and Tourism Cluster (Lubrza)
- 12. Western IT and IT Security Cluster e-COOP (Zielona Góra)

THE LUBUNWCIE ENTITIES OPERATING IN KEY NATIONAL CLUSTERS AND OTHER CLUSTERS

1. THE ORIGINS AND ESSENCE OF CLUSTERS IN THE WORLD

The Polish word "klaster" comes from the English word *cluster* which literally means a bunch, a group. The forerunner of clustering is a British economist, A. Marshall, who in 1890 drew attention to the fact that thanks to the concentration in a particular region, some branches of the same or complementary industry bring many benefits to companies operating there and to the region as well.

It was M.E. Porter who introduced the term *cluster* into the dictionary of economics in 1990, however. He pointed to the numerous geographic concentrations of enterprises in similar or related industries in the world, which contribute to the economic advantage of some countries over others.

"A cluster is a geographical concentration of interconnected companies, specialized suppliers, service providers, companies operating in related sectors and related institutions in particular fields, simultaneously cooperating and competing with each other".

In the current literature on the subject, the concentrations the most frequently referred to as clusters are companies concentrated in the following production sectors in different countries of the world:

- the automotive sector (Detroit, Toyota City, southern Germany),
- the pharmaceutical sector (Basel, New Jersey),
- the watchmaking sector (Switzerland),
- the aviation sector (Seattle, Montreal, Toulouse),
- the film production sector (Hollywood, Bollywood).

The following clusters are also distinguished:

- financial and insurance services (London, New York, Hong Kong),
- cultivation and marketing of plant products (floriculture in the Netherlands),
- fashion (Paris, Milan),
- software development (Bangalore).

The Silicon Valley in Northern California is considered to be the most famous cluster in the world, where thousands of companies from advanced and new technology sectors, mainly computer companies, have been concentrated since the 1950s.

2. CLUSTERS IN THE EUROPE 2020 STRATEGY

The high effectiveness of the first European clusters established in Finland in 1997 made the EU institutions consider supporting them as an important element. The benefits of cooperation and competition in the cluster model, and in particular the role of clusters in the evolution from the transformation of European industry towards new strategic specialisations, were found noteworthy.

The Europe 2020 Strategy programme for the current decade puts emphasis on employment and economic growth. Attention is also paid to improving the quality of the existing clusters and increasing the number of global clusters, with regard to the size of employment, the number of entities and their area of specialisation.

In addition to issues such as facilitating the mapping of European clusters and improving their management, the internationalisation of the SME sector through clusters was also considered important, which is expected to lead to the emergence of new industries and the inclusion of clusters in the processes of identifying and implementing smart specialisations. Programmes supporting cross-border cooperation, including cooperation in the form of clusters, are also consolidated.

The benchmarking methodology is used to monitor the development of European clusters. It is an analysis/ a comparative study, which consists in compiling processes, methods and practices applied by clusters, which allows to select the best clusters in a given class, industry or country, and then to copy and introduce the best proven practices to one's own organization (here: a cluster).

3. KEY NATIONAL CLUSTERS

As a consequence of implementing the guidelines of the Europe 2020 Strategy, the concept of selecting the Key National Clusters (KNC) was applied in Poland. It was assumed that strong clusters in Polish regions should be the basis for selecting economic specialisations, which by their nature are based on enterprises, the R&D sector and universities, as well as business institutions operating in the region. In addition, KNCs should be entities which are, among other things, of significant importance for the Polish economy and which have a high potential for competitiveness in global markets.

Currently, after two rounds of competitions, a total of 16 Key National Clusters have been selected (7 in 2015 and 9 in 2016), whose KNC status expiry date is in September 2018 and October 2019 respectively.

The Polish clusters with a KNC status:

Round I:

- The Aviation Valley Cluster,
- The Interizon Cluster,
- The Metalworking Cluster,
- The Mazovian ICT Cluster.
- The Polish Aluminium Cluster,
- The Eastern Construction Cluster.
- The West Pomeranian Chemical Cluster "Green Chemistry",

Round II:

- The Silesian Aviation Cluster,
- The NUTRIBIOMED Cluster,
- The North-South Logistics and Transportation Cluster,
- MedSilesia the Silesian Medical Devices Network,
- The Eastern ICT Cluster,
- The LifeScience Cluster Krakow,
- The Sustainable Infrastructure Cluster,
- The Waste Management and Recycling Cluster,
- The Bydgoszcz Industrial Cluster.

The KNC characteristics:

- the size and structure of the cluster (the number of entities, in particular companies - SME, large companies),
- 2. employment in the cluster,
- the cluster participants' (members') activity and cooperation within the cluster,
- 4. the territorial concentration of cluster entities,
- 5. the cluster specialization,
- 6. R&D in the cluster,
- 7. the cluster innovativeness,
- 8. the cluster resources (material, human, financial, etc.),
- the presence of the cluster and cluster companies on foreign markets,
- national and international recognition of the cluster.
- 11. the role of a coordinator and cluster management.

4. THE LUBUNWCIE CLUSTERS AND CLUSTER INITIATIVES - A RETROSPECTION

The number of the actively operating clusters and cluster initiatives in the Lubuskie Province is small. Their survival rate is short, and at the same time new organizations and entities appear systematically. This is due, among other things, to a large fragmentation of the private sector, a small number of innovative solutions implemented in enterprises, a smaller number of R&D centres than in other provinces, as well as a lack of clear links and the companies' ability to merge into clusters.

In the years 2008-2018, attempts were made to create 33 clusters in the Lubuskie Province. Most of these initiatives have not reached the stage of a cluster, and after a short period of time, they stopped their activities due to their inability to formalize the entity, the lack of an organizational structure and a leader, who, with adequate financial resources, could ensure stable long-term operation of the cluster.

By 2015, attempts to establish clusters had been made in Kargów, Nowa Sól, Sława, Sulechów, Świebodzin, Wschowa, Zielona Góra, Żary, Kostrzyn on the Oder and Gorzów Wielkopolski, and the following industries had been included: the agrotechnical, construction, education, renewable energy, IT, logistics, medical-tourist, agricultural-food, wine and automotive industry. The highest intensity of developing cluster initiatives and clusters was probably in the years 2008-2012.

Most of the 21 entities established at that time and listed below were not operating, or were dormant in 2017. These are:

1. The Lubuskie Agrotechnical Innovation Centre, Żary

The "Farmers' Self-help" Municipal Cooperative

President: Roman Lichwiarz 668 407 972;

ul. Górnośląska 26, Żary 68-200

tel.: (68) 470 36 06, fax: (68) 470 36 01;

gssamopomoc06@interia.pl, qszary@interia.pl ; www.gszary.pl (no longer existing)

2. The Lubuskie Educational Cluster "Discare" Foundation, Zielona Góra

Chairperson: Marek Kołodziejski

ul. Ludowa 5C, 65-001 Zielona Góra (TON COLOR)

Tel: 68 324 07 06, e-mail: kolodziejski@toncolor.com.pl; discare@discare.com.pl

3. The construction cluster (the initiative ended in a failure), Żary

Chairperson: Grażyna Bar

ul. Wrocławska 12, 68-200 Żary

Tel: 697 712 716, e-mail:g.bar@opzl.pl

4. The Lubuskie Brandenburg Education Cluster, Gorzów Wlkp.

Chairperson: Józef T. Finster - Chairman of the Steering Committee

Tel: 883 324 549

5. The Renewable Energy Cluster (LUB-BRAN) - a cross-border initiative, Gorzów Wlkp.

Chairperson: David Furmanek (+49) 335 401 63 25, e-mail; info@viadrinasprachen.com.

Contact person for Poland: Waldemar Buchta mobile: +48 601 945 033,

Coordinator: De Po Wi Deutsch-Polnische Wirtschafts-entwicklungsgesellschaft mbH Frankfurt/O, Bergstrasse 32 ,15230 Frankfurt (Oder);

President: Reinhard Petzold - vice-president of the association;

contact: tel. + 49 335 644 39; e-mail; info@depowi.de.

6. The Waste management cluster (initiative), Zielona Góra

Chairperson at that time: Wojciech Janka

Tel: +48 68 322 91 04, 601 943 074, e-mail: sekretariat@zgkim.zgora.pl

ul. Zjednoczenia 110A, 65-120 Zielona Góra

7. The Logistics Cluster, Nowa Sól

Chairperson: Andrzej Matłoka

Tel: +48 68 45 90 354 ; Mobile: +48 88 331 54 15

e-mail: dyrektor@interiorns.home.pl

ul. Marszałka Józefa Piłsudskiego 12, 67-100 Nowa Sól

8. Food cluster (mushrooms, composting plant) - initiative, Wschowa

9. Food cluster (meat preparations) - initiative, Sława

Clusters 8 and 9 - Chairperson: Marta Hajduk - implementation of the initiative was suspended

Tel: 884 782 630, e-mail: m.hajduk@opzl.pl

ul. Rynek 9, 67-400 Wschowa

10. The Transport, Forwarding and Logistics Cluster, Świebodzin

Chairperson: Michał Sienkiewicz

2S Logistics Sp. z o.o.; ul. Park Chopina 4, 66-200 Świebodzin

Tel: +48 68 475 36 56, +48 684 587 645

11. The Business Support Cluster, Gorzów Wielkopolski

previously: The Lubuskie Foundation Western Economic Centre

ul. Targowa 9, 66-400 Gorzów Wlkp.

tel.: +48 95 735 49 00 mobile +48 601250 939 fax +48 95 720 87 18,

e-mail: tadeusz@tomasik.info www.business-cluster.eu,

OFFICE IN GERMANY: Business and Innovation Centre Frankfurt;

Business Cluster D-15236 Frankfurt (Oder),

12. The Lubuskie Regional Tourist Organization LOTUR - Zielona Góra

Chairperson: Jadwiga Błoch (President of LOTUR)

Tel: +48 68 45 65 553, 607 065 755

e-mail: j.bloch@lotur.eu

ul. Podgórna 7, 65-057 Zielona Góra

13. The Lubuskie Third Sector Cluster, Zielona Góra

Cluster President: Ryszard Napierała, phone 668 826 568

Office Manager/Vice President of the Cluster: Irena Sternal, phone 600 018 119

Office: ul. Sowińskiego 27, 65 – 419 Zielona Góra

14. The Lubuskie Cluster of Electrical Engineering, Information Technology and Telecommunication (initiative), Zielona Góra

Chairperson: Arkadiusz Kowalewski

Tel: +48 601 55 48 97, e-mail: arkadiusz.kowalewski@lppt.pl; info@lkeiit.pl; www.lkeiit.pl

Correspondence address: ul. Stary Rynek 1, 65-067 Zielona Góra

Registered seat: ul. Syrkiewicza 6, Nowy Kisielin

15. The Lubuskie Renewable Energy and Energy Efficiency Cluster, Sulechów

Chairperson: Radosław Grech (PWSZ Sulechów)

ul. Armii Krajowej 51, 66-100 Sulechów

Tel: 793 569 121, 609 383 156, (68) 352 01 01

16. The Lubuskie Training and Advisory Cluster for Regional Products, Kostrzyn nad Odrą

Chairperson: Henryk Piekarski, Tel: 603 040 127, rektor@wssz.pl

ul. Mickiewicza 20, 66-470 Kostrzyn nad Odrą

17. The Lubuskie Wine and Honey Trail, Zielona Góra

Chairperson: Przemysław Karwowski

tel.: 502 307 412, e-mail: winiarze@winiarze.zgora.pl www.winiarze.zgora.pl

Stary Rynek 1, 65-067 Zielona Góra

18. The Regional Cluster of Automotive Industry, Nowa Sól

Piotr Kowalczyk, mobile: +48 660 169 631 P-D-C-A SZKOLENIA, DORADZTWO ul. Moniuszki 11B, 67-106 Otyń

19. The Association of Tourist Municipalities "From Obra to Odra", Kargowa

Previously: the Tourist Cluster (initiative) - Kargowa

tel.: (68) 352 51 31, urzad@kargowa.pl

ul. Rynek 33, 66 120 Kargowa

20. The Western Paper Cluster (initiative), Kostrzyn nad Odrą

Chairperson: Michał Jarczyński; tel.: +48 61 62 62 007; michal.jarczyński@arcticpaper.com,

karolina.magdziarek@arcticpaper.com

ul. J.H. Dabrowskiego 334 A, 60-406 Poznań

21. The Western Cluster of Tourism and Medicine, Gorzów Wielkopolski

Chairperson: Jacek Bachalski; Coordinator: Medi-Raj Gorzów Medical Center

tel.: (95) 71 51 163

5. MONITORING OF THE LUBUNWCIE CLUSTERS ACCORDING TO PARP (2010 - 2015)

The Polish Agency for Enterprise Development (in Polish: Polska Agencja Rozwoju Przedsiębiorczości - PARP) is responsible for promoting and monitoring clusters in Poland. So far, PARP has published 42 various studies, guides, catalogues and reports on clustering and the activity of clusters and cluster organizations in Poland.

Particularly noteworthy are the following publications: Cluster Benchmarking (three editions: 2010, 2012 and 2014), the catalogue entitled Clusters in the Lubuskie Province (2011) and the Cluster Inventory Report in Poland - 2015. These publications, due to the wealth of information, allow for a retrospective specification of clusters and cluster initiatives in the Lubuskie Province, including the area of communes belonging to the Spree-Neisse-Bober Euroregion.

It is worth noting that 5 of the above-mentioned PARP publications mention 6 entities from the Lubuskie Province (see: table below). The Lubuskie Metal Cluster (LKM) from Gorzów Wielkopolski is listed in all 5 publications. It is the only cluster from the Lubuskie Province that meets the requirements of the Cluster Management Standards and still actively conducts its activity. The Digital Archiving Cluster (KAC) from Nowa Sól appears in 2 PARP studies but not in benchmarks.

Similarly, the remaining four clusters appear once in 2 publications, but none of them are present in cluster benchmarking. In the last PARP publication of 2015, 4 clusters were inventoried: the aforementioned LKM and KAC, as well as the Lubuskie Business and Tourism Cluster (Lubrza) and the Western IT and IT Security Cluster e-COOP (Zielona Góra). Their activity profiles are presented on the following pages, in the annex.

The Lubuskie clusters described in PARP publications (in the years 2010 - 2015)

#	Name of the Lubuskie cluster	2010*	2011*	2012*	2014*	2015***
			*	(B K)	(B K)	(R inw)
			(K-			
			Lub)			
1.	The Digital Archiving Cluster					
	(Nowa Sól)		Χ			X
2.	The Lubuskie Regional Tourist					
	Organization LOTUR (Zielona Góra)		X			
3.	The Lubuskie Metal Cluster					
	(Gorzów Wlkp.)	X	X	X	X	X
4.	The Lubuskie Business and Tourism					
	Cluster (Lubrza)					X
5.	The Lubuskie Training and Advisory					
	Cluster for Regional Products					
	(Kostrzyn nad Odrą)		X			
6.	The Western IT and IT Security Cluster e-					
	COOP (Zielona Góra)					X

Cluster benchmarking (2010, 2012, 2014)

6. THE LUBUNWCIE CLUSTERS ESTABLISHED IN THE YEARS 2015 - 2018

Since the inventory conducted by PARP in 2015, 8 further cluster initiatives and clusters have appeared on the map of the region, 5 of which in the energy sector.

The Lubuskie Innovation Network (LSI), established in 2015 and based in Gorzów Wielkopolski, is an interdisciplinary cluster. It is a partnership of several dozen entities (mainly from the SME sector), which are part of the Lubuskie Province Regional Intelligent Specialisations. The LSI comprises mainly companies, schools of higher education and business parks expressing interest in cooperation in the implementation of projects with elements of innovation.

In the years 2017-2020, the project entitled EuRegioNet Internationalisation of Networks and Clusters (NWC/NWC) has been implemented under the cooperation programme INTERREG V A BB-PL. The leading partner of the project is the Business and Innovation Centre Frankfurt (Oder) GmbH and the other partners are:

- The Association of Polish Municipalities the "Spree-Neisse-Bober" Euroregion, Gubin,
- The Lubuskie Employers Organization, Gorzów Wlkp.,

^{** -} Clusters in the Lubuskie Province (2011)

⁻ Cluster inventory report in Poland 2015

• Centrum für Innovation und Technologie GmbH (The Centre for Innovation and Technology, Forst(L.).

The objective of the project is to create a German-Polish information and consulting platform to support the existing or emerging networks and clusters. One of the project results is to be the establishment of two new clusters in the Polish-German borderland, whose participants will be companies from the SME sector, scientists, state institutions and regional administration units.

As a result of the undertaken activities, in 2017 the Cluster for Combating Invasive Plants and the Historical Tourism Cluster were established.

The impulse to create clusters in the power generation sector was provided by the Act of 22 June 2016 amending the Act of 20 February 2015 on renewable energy sources. The key point was item 15a in the following wording: "energy cluster - a civil law agreement, which may include natural persons, legal persons, scientific entities, research institutes or local government units, concerning the generation and balancing of demand, distribution or trade in energy from renewable energy sources or other sources or fuels, within the distribution network with a nominal voltage lower than 110 kV, within the area of operation of this cluster not exceeding the borders of one district within the meaning of the Act of 5 June 1998 on district self-government (Journal of Laws of 2016, item 814) or 5 municipalities within the meaning of the Act of 8 March 1990 on municipal self-government (Journal of Laws of 2016, item 446); the energy cluster is represented by a coordinator, which is a cooperative, association, foundation or any member of the energy cluster indicated in the civil law agreement, hereinafter referred to as the "energy cluster coordinator".

Adopted in 2015, the act introduced an auction system of energy sales, supporting energy production from renewable sources. The amendment to the Act of 2016 introduced new rules of support, allowing municipalities to take specific actions in the field of "green energy" production in the cluster formula.

In a short time, several dozen cluster structures were established in Poland. According to the Energy Cluster and Cluster Initiatives List prepared by the Ministry of Energy on 20.09.2017, there were 55 clusters in Poland, including 3 clusters in the Lubuskie Province. These were:

- The Bobrowice Cluster Green electromobility,
- The Energy Cluster in the Gubin Commune neither the rural commune nor the town of Gubin are the creators or partners of this cluster,
- Witnica an energy-sustainable municipality.

In addition to these three, the media reported on 2 other entities, which are:

- The Municipal Renewable Energy Cluster (the municipalities of the Słubice District)
- The Gorzów Energy Cluster,
- The Zielona Góra Energy Cluster.

The common objective of the 5 energy clusters is cooperation in the scope of energy production, trade and distribution, in order to create sustainable and self-sufficient areas with regard to energy, as well as to improve local energy security.

It should be noted that before 2015 there were 2 energy clusters in the Lubuskie Province. The potential of the Lubuskie Renewable Energy and Energy Efficiency Cluster from Sulechów is currently used in the ventures of members of the Zielona Góra Energy Cluster in order to introduce innovative solutions in the area of renewable energy sources.

7. ANNEX:

CHARACTERIZATION OF THE LUBUNWCIE CLUSTERS OPERATING IN THE YEARS 2015 - 2018:

THE LUBUNWCIE ENERGY CLUSTERS ESTABLISHED IN 2017 AND 2018

The Municipal Renewable Energy Cluster (the municipalities of the Słubice District)

Town Office in Słubice ul. Akademicka 1; 69 - 100 Słubice

tel.: +48 (95) 737 20 00 ; fax: +48 (95) 758 28 80

slubice@slubice.pl; www.slubice.pl

In February 2018, on the initiative of the Mayor of Słubice, Tomasz Ciszewicz, the Municipal Renewable Energy Cluster was established. Five municipalities were involved in this undertaking: Słubice, Ośno Lubuskie, Cybinka, Rzepin and Górzyca. The establishment of the Cluster aims at the construction of photovoltaic power plants and bioenergy plants in order to achieve the expected power of renewable energy sources of 3 MW in one municipality. Medium-size installations up to 1MW and micro installations are to be constructed. Ultimately, the municipalities will be so-called "energy islands", i.e. they can become fully self-sufficient and the surplus energy can be sold to the grid.

The chief objective of the Cluster is to conduct activities aimed at joint and coordinated balancing of supply and demand for energy or gas fuels in the area of the cluster member municipalities, within the scope of production, distribution and trade.

The creators of the Cluster predict that residents who will want to use renewable energy will be able to apply for financial support from the European Union. Moreover, the implementation of the project, i.e. the use of renewable energy sources contributes to the reduction of greenhouse gases and other pollutants (dust, sulphur dioxide, nitrogen oxides).

The Energy Cluster "Witnica - Energy - Sustainable Municipality"

Town and Commune Office

ul. Plac Andrzeja Zabłockiego 6; 66-460 Witnica

tel.: (95) 721 64 40 ; fax.: (95) 751 52 18

urzad@witnica.pl; http://witnica.pl/

On 13 October 2017, the Witnica Town Council adopted a resolution on the agreement concerning the establishment of the Energy Cluster "Witnica - energy-sustainable municipality". According to the resolution, the founders and first partners forming the above-mentioned Energy Cluster will be the Witnica Municipality and the Warsaw company Solarpark Samas.

The main objective of the Cluster is to invest in renewable energy sources, such as photovoltaics, biogas plants, biomass incinerators and energy storage systems.

Thanks to the activities of the Cluster, the local energy consumption system will be implemented, which will involve and integrate the municipality, local community, energy producers, local entrepreneurs and the Distribution System Operator. Moreover, the selection of the energy mix is to increase the municipality's energy independence and reduce the local energy costs.

The coordinator of the Cluster is the Solarpark Samas company, which will be responsible for the development of the cluster and for obtaining external funds, but also for establishing cooperation with scientific centres, entrepreneurs and business support institutions.

The Gorzów Energy Cluster

Inneko Sp. o.o.

ul. Teatralna 49, 66-400 Gorzów Wlkp.

Tel: +48 95 722 53 85; mobile: +48 730 020 252

biuro@gke.biz.pl; www.gke.biz.pl

In September 2017, as a result of cooperation between companies involved in the production of energy from biomass and biogas, the Gorzów Energy Cluster (GKE) was established. The Cluster leader is Inneko Sp. z o.o., which deals with waste processing for Gorzów Wielkopolski. The cluster coordinator is the National Institute of Distributed Power Generation sp. z o.o. (KIER) from Warsaw, which is also the author of a comprehensive cluster development strategy. Moreover, its task is to supervise the observance of management standards as well as initiate and supervise activities on optimisation of the production and reception balance.

The Cluster members are companies with considerable experience in mutual cooperation whose activities are concentrated in Gorzów Wielkopolski. They are biogas, biomass and photovoltaic energy producers, including:

- Bioenergy Farm Stanowice Sp. z o.o. producing heat and electricity from local biomass,
- ENERI Sp. z o.o. from Stanowice, operating in the photovoltaic industry,
- Neo Energy Sp. z o.o. from Warsaw, a producer of energy from landfill biogas from a landfill site belonging to Inneko,

and energy consumers:

- Gorzowskie Towarzystwo Budownictwa Społecznego Sp. z o.o. [Gorzów Social Housing Society],
- ENERIS Surowce Sp. z o.o. from Warsaw.

The entities cooperating with the GKE are:

- The Bogdaniec Commune,
- Gorzowski Ośrodek Technologiczny Park Naukowo Przemysłowy Sp. z o.o.,
- ENEA Operator,
- The University of Zielona Góra.

The intention of the creators and members of the GKE is to implement innovative solutions in the area of the cluster's operation, the aim of which is to optimise and coordinate the processes of waste disposal, use of local energy resources, production, consumption and distribution of energy with respect for the natural environment, with particular emphasis on care for the air quality.

Work is in progress on the implementation of the proprietary technology of burning alternative fuel, RDF, obtained from the Inneko landfill. The Gorzów Energy Cluster also has far-reaching plans to implement electric vehicles for transporting waste, charged from sources producing energy from waste. The cluster also conducts research work on such projects as a line for processing hazardous waste or research on thermal processing of waste. For this purpose, a research model of a gasifier is being developed. This technology is to contribute significantly to the reduction of pollution released to the atmosphere from the process of burning solid and liquid fuels. The produced electricity and heat is expected to meet the needs of local consumers, including municipalities, households or medium-sized enterprises.

The Zielona Góra Energy Cluster

Mazel S. A.

ul. Inżynierska 3; 67-100 Nowa Sól

+48 (68) 45 70 100

biuro@mazel.pl; www.mazel.pl

In June 2017, 9 entities signed a letter of intent to establish the Zielona Góra Energy Cluster. The cluster is an initiative of the town of Zielona Góra, the University of Zielona Góra, companies from the Lubuskie Industrial and Technological Park, the Renewable Energy Centre from Sulechów and the Kostrzyn-Słubice Special Economic Zone. The entities from the industry are Enea Operator and Enea Innovation, and the coordinator of the Cluster is the Mazel company.

The aim of the initiative is to optimise investment conditions through the development and increase of energy security and total energy supply for the Zielona Góra Agglomeration. The following tasks will be implemented as part of the cooperation:

- improvement of the investment attractiveness of the Zielona Góra Agglomeration,
- implementation of innovative technological solutions in the regional power engineering sector,
- popularization of solutions aiming at the improvement of energy efficiency,
- reduction of the energy intensity and carbon footprint of the economy at the local and regional level,
- initiation of actions to develop electromobility in the Zielona Góra Agglomeration,
- development of distributed energy, local RES sources, cogeneration, trigeneration in the Zielona Góra Agglomeration.

Mazel, together with Enea Operator, are working on a local smart grid model. Enea Operator will be responsible for the construction of new power lines for the Lubuskie Industrial and Technological Park in Stary Kisielin and the new Main Power Supply Point.

According to the letter of intent, the Zielona Góra Energy Cluster will be organized in 2017 and will start its operations within a year.

Bobrowice Cluster - Green electromobility

Bobrowice Municipality Office
131 Bobrowice 66-627
+48 (68) 391 92 00 / +48 (68) 391 32 80
sekretariat@bobrowice.pl

The cluster located in Bobrowice (Krosno District) was established in order to increase the energy independence of the Bobrowice Commune with the use of energy from renewable sources located in the Krosno District and to develop electric transport in the Zielona Góra Agglomeration. The main entities of the Cluster are:

- 1. The Bobrowice Commune,
- 2. The Town of Zielona Góra the recipient of energy necessary for the introduction of an integrated zero-emission public transport system in Zielona Góra,
- 3. Enea Operator offering a charging and battery replacement station for electric buses, and a distribution network system,
- 4. Enea responsible for optimization of production sources,
- 5. Baywa investor and producer of energy from a photovoltaic farm (Bobrowice),
- 6. Ursus Bus manufacturer of electric buses.

The outdated distribution network in such peripheral areas as the Commune of Bobrowice makes them vulnerable to energy supply constraints, and the development of district heating and gas networks will be weaker there. In order to face these problems, the Cluster members have decided to use locally available energy resources in the most cost-effective way, using the existing technical infrastructure or the possibility to develop it. Investments in infrastructure will be based on the knowledge and capital of the cluster participants.

The construction of the Cluster is based on a modular concept, i.e. building an area composed of modules, which can be linked by implementing sustainable energy solutions. These modules include: agro-energy, energy modelling and management, heat, cold and electricity storage, virtual power plants, micro-networks, RES installations, sustainable construction, ecological transport and education, and Smart Municipality.

The main element of the Cluster is the investment in renewable energy sources such as photovoltaics, biogas plants, biomass incinerators and energy storage systems; the generated electricity will meet the demand of the local area and of Zielona Góra electric public transport.

The Cluster activities will be spread over years. Three key periods can be distinguished. In the first period, i.e. in 2018, projects for the development of charging infrastructure will be presented, and in the next two years the charging infrastructure for electric vehicles will be developed. In the years 2020 - 2025, according to the cluster authors, electric vehicles for public administration employees of the Krosno district will be introduced.

THE LUBUNWCIE CLUSTERS ESTABLISHED IN THE YEARS 2015 - 2017

The Cluster for Combating Invasive Plants

The Lubuskie Employers Organization ul. Jagiellończyka 17/1; 66-400 Gorzów Wlkp. tel./fax /095/ 722 75 30

lopgorzow@wp.pl; http://www.lp.wsb.gorzow.pl

iopgorzowe wp.pr , ittp://www.ip.wsb.gorzov

Project Manager: Józef Finster

In April 2017 work on the establishment of the Cluster for Combating Invasive Plants commenced. The initiative is still in the organizational phase. Information materials were prepared and the first training courses were conducted in June 2017, and in September 2017 in Mironice, a letter of intent / a declaration to join the work related to the establishment of the Cluster for Combating Invasive Plants was signed. Currently, work is underway to prepare a partnership agreement, the cluster statutes and strategy, followed by the development of a cluster brand.

The cluster has a cross-border character and is implemented under the EuRegioNet project - Internationalisation of Networks and Clusters by the Association of Polish Municipalities "Spree-Neisse-Bober" Euroregion together with the Lubuskie Employers Organization in Gorzów Wielkopolski, the Business and Innovation Centre in Frankfurt (Oder) and the Innovation and Technology Centre in Forst (within the INTERREG VA Brandenburg-Poland Cooperation Programme 2014-2020).

The establishment of the Cluster is a response to the EU regulation imposing an obligation on the Member States (as of 2015) to carry out preventive and remedial actions with regard to the introduction and spreading of invasive plants, animals and fungi of alien species. Especially those species which, when released into the environment, may threaten native species or natural habitats. And such species occur in the Lubuskie Province, e.g. very toxic Sosnkowsky's hogweed.

Due to the widespread occurrence of invasive plants, the cluster initiative is addressed to many recipients, including representatives of local government institutions, offices, as well as interested individuals. Representatives of the State Forests inventory alien species in regional forests, as well as the methods and scope of work after their identification. The scientific community is interested in issues related to biology and combating of invasive species occurring in the Polish-German borderland.

The Cluster of Historical Tourism

The Association of Polish Municipalities the "Spree-Neisse-Bober" Euroregion

ul. Piastowska 18; 66 – 620 Gubin

tel.: +48 (68) 455 80 50

Project Manager: Mariusz Welman "EuRegioNet - Internationalisation of Networks and Clusters"

tel.: +48 (68) 455 80 58

http://euroregion-snb.pl/program/interreg/euregionet

It is a Polish-German cluster for entrepreneurs from the tourist sector. The cluster was established as part of the project "EuRegioNet - Internationalisation of Networks and Clusters" which is implemented by the Association of Polish municipalities the "Spree-Neisse-Bober" Euroregion together with the Lubuskie Employers Organization in Gorzów Wlkp., the Business and Innovation Centre in Frankfurt (Oder) and the Innovation and Technology Centre in Forst.

The Cluster of Historical Tourism is intended to be a platform of integration and inspiration for entrepreneurs from the tourism industry and local governments in order to improve the quality and accessibility as well as to develop and promote the tourist offer for the inhabitants of the Lubuskie - Brandenburg border region.

The cluster is addressed to scientific and research units (e.g. BTU Cottbus - Senftenberg, the University of Zielona Góra, Jacob of Paradiz University, the European University of Viadrina, IHP Frankfurt /Oder), state institutions, regional administration and business support institutions.

The Lubuskie Innovation Network

Stanowice 29, 66-450 Bogdaniec Telephone: +48 (95) 781 70 85

biuro@lubuskasiecinnowacji.pl ; p.gramza@lubuskasiecinnowacji.pl

http://lubuskasiecinnowacji.pl/projekty



The Lubuskie Innovation Network is a partnership of 50 entities that are part of the Regional Intelligent Specialisations (RIS) of the Lubuskie Province. These are mainly companies from the SME sector, universities and technology parks, which are interested in cooperation on the implementation of projects with elements of innovation. The partnership is a loose form of cooperation between entities, defined as a cluster initiative. The partnership was established to concentrate entities willing to cooperate on the basis of different principles in the implementation of R&D projects.

It was established on the initiative of two Lubuskie Technology Parks: the Science and Technology Park of the Zielona Góra University and the Gorzów Technology Centre, the Science and Industry Park. The coordinator of the partnership's work is the Lubuskie Innovation Network Association. It is an association of individuals (27 members) who represent various areas of economy and science. They declare their willingness to cooperate during the implementation of R&D projects and are the personnel resources for the Lubuskie Innovation Network.

Among the completed projects, the Eco-System of Innovation deserves attention. It is a comprehensive tool for verifying innovative projects, building consortia for their implementation, creating dispersed R&D departments and managing intellectual and legal value created in the course of R&D projects implementation.

Projects addressed to children and adolescents are of great importance. These are workshops promoting science and presenting various forms of renewable energy, and for older participants, it is an introduction to vocational education.

The Lubuskie Innovation Network actively cooperates with universities, including cooperation via the IATI, with which it has signed a cooperation agreement, and with partners from Berlin and Brandenburg. A member of the Partnership of the Lubuskie Innovation Network does not bear any participation costs.

THE LUBUNWCIE CLUSTERS ACCORDING TO THE PARP INVENTORY OF 2015

The Digital Archiving Cluster (KAC), Nowa Sól

Sinersio Polska sp. z o.o. (SINERSIO Data Center WEST - Nowa Sól)

ul. Inżynierska 8, 67-100 Nowa Sól

tel.: +48 (68) 411 44 40, fax: +48 (68) 411 44 41

contact person: Marcin Bakowski

office@sinersio.com; www.nca.org.pl/pl/

Area of activity and Cluster members

The promoters of the Digital Archiving Cluster were: the National Archiving Centre from Poznań, the Lubuskie Employers Organization from Zielona Góra and the University of Zielona Góra.

Other members of the cluster are entities operating in the field of telecommunication and IT services and products within the scope of protection, security and effectiveness of electronic data management. The cluster is organized in the form of a cooperative agreement and its members are bound by a multilateral agreement. Moreover, it is a supra-regional cluster because its participants come from 3 provinces, i.e. Lubuskie, Wielkopolskie, and Pomorskie. The total employment in the cluster companies is about 120 people.

The Cluster objectives and tasks

The cluster was established in order to develop a new service, which is long-term archiving of data from digital resources. It consists in collecting and storing electronic data while ensuring their long-term usability. This means that the future user can be ensured that the content of the electronic document is authentic and not falsified, i.e. that it comes from the author and has not been changed since the date of publication and presents exactly what was originally recorded.

The cluster's task is to provide services to entrepreneurs and institutions and to stimulate the development of high-tech industry, through

- the development of appropriate infrastructure to ensure conditions for generating innovation, improving the qualifications of the staff of business entities in the field of advanced technologies and pro-innovation management, as well as the transfer of new technologies and commercialisation of research results,
- promotion of regional pro-innovative and economic entities,
- support for export activities of entrepreneurs (organization of companies' participation in trade fairs, missions and exhibitions at home and abroad),
- cooperation with domestic and foreign pro-innovation centres and attracting domestic and foreign investors.

Most of the cluster members' work will be performed within two data processing centres, i.e. SINERSIO DataCenter in the INTERIOR Industrial Technology and Logistics Park in Nowa Sól and PCPD in the Pomeranian Science and Technology Park in Gdańsk.

Cooperation

Since 2011, the Digital Archiving Cluster has been cooperating with the Latvian IT Cluster, since 2012, with the SYNERGIT cluster, the Białystok Science and Technology Park, the Wrocław Medical

Science and Technology Park, the Gdańsk Science and Technology Park, the Wrocław Research Centre EIT+, and the US-Polish Trade Council, and since 2013 - with the Wielkopolski Institute of Quality. Cluster members take an active part in Polish IT & ICT Cluster Forums and are active in the European Week of Cities and Regions - OPEN DAYS.

Effects and investment plans

Thanks to the Cluster members' cooperation, the first service was developed: archiving as a service offered in the PaaS model (platform-as-a-Service) being a combination of SaaS (Software-as-a-Service) and IaaS (Infrastructure-as-a-Service). Currently, companies operating in the Cluster conduct intensive promotion and sales of their products and services on foreign markets, mainly in Germany, Russia and Great Britain.

The Lubuskie Metal Cluster (LKM), Gorzów Wlkp.

ul. Jagiellończyka 17/1 ; 66-400 Gorzów Wlkp. Joanna Sondej - Pierzyńska tel./fax +48 (95) 722 75 30; Włodzimierz Fleischer 501 181 511 biuro@lubuskiklaster.pl ; www.lubuskiklaster.pl

Cluster members

The Lubuskie Metal Cluster Association (LKM) was established as a result of the demand of enterprises from various branches of the metal industry for the implementation of joint actions allowing them to achieve market advantage through the organization of a system of collective purchases of materials and components for production and a transaction system for purchases and sales of production capacity.

Currently, LKM comprises 37 entities from 4 provinces: Lubuskie, Zachodnio-Pomorskie, Dolnośląskie and Małopolskie. The companies belonging to the cluster conduct trading with countries in Europe, Africa, Asia and both Americas, but the major markets are: Germany, France, Denmark, the Netherlands, Italy, Great Britain, Ukraine, Lithuania, as well as the domestic market. The production value of these companies exceeded 400 million PLN and the number of employees in the companies belonging to the cluster is over 3000 people.

LKM potential

Metal companies offer their products for such sectors as industrial processing, power generation, construction, environmental protection and agriculture. Their services include all types of research, repairs, upgrades, assembly of machinery, equipment and installations and comprehensive relocation of factories and production lines.

The main technologies used in metal companies associated in LKM include: chip and plastic processing, oxygen, laser and plasma cutting of steel, welding technologies, hot dip galvanizing, painting, technologies for manufacturing grey iron castings by manual and full mould method, 3D measurement technology, vibration measurement, shaft and clutch alignment, balancing of rotating elements, gears processing, etc.

Cluster offer and the effects of its activity

LKM offers its members assistance in solving organizational, technical, commercial and training problems. It creates favourable development conditions, for instance, through cooperation with state and local government administration bodies and non-governmental organizations.

It expands the cooperation network and a coherent system of science and technology teaching at the secondary school level (with the Group of Mechanical Schools) and the higher education level

(the establishment of the Faculty of Mechanical Engineering and Machine Construction at the Jacob of Paradiz University in Gorzów Wielkopolski).

LKM also creates effective links between science and business in the field of knowledge transfer, research and application of innovative technologies (missions, trade fairs, cooperation exchanges, conferences, training). Thanks to this, innovative products have been implemented into the industry, such as: a bending machine used for the production of tube heaters, drilling machines, injection moulds and an ecological pot. The cluster has contributed to the establishment of the Gorzów Technology Centre, the Science and Industry Park (GOT PNP). The cluster conducts extensive cross-border cooperation with partners in the metal industry from Brandenburg by implementing jointly EU projects (employment policy, supporting education competences in the metal and electric industry and introducing innovative technologies).

In 2015, LKM received special thanks and an award from the Minister of Economy for "supporting innovation and entrepreneurship through active cooperation with the public sector and vocational education and activities aimed at adapting vocational education to the needs of the local labour market by initiating technical courses".

The Lubuskie Metal Cluster is the only cluster in the province that meets the cluster management standards defined by PARP.

The Lubuskie Business and Tourism Cluster (LKPiT), Lubrza

ul. Okrężna 3, 68-200 Świebodzin
President of LOT ŚWIEBODA - Sylwia Kowalik: 503 074 085, negotiumconsulens@o2.pl
Chairman of LKPiT - Stefan Tomczak 601 793 711,
www.izba.zgora.pl/lubuski-klaster-przedsi%C4%99biorczo%C5%9Bci-i-turystyki.html
www.swiebodzin.turystyka.pl

The cluster was established on June 2, 2015 as a result of the merger of the Lubuskie Tourist Cluster and the Entrepreneurship and Education Cluster. It currently comprises 20 entities, including micro- and small enterprises, local governments, business support institutions and schools located mainly in the Świebodziński District.

The Association Local Tourist Organization ŚWIEBODA (with its registered office in Lubrza at OW MARTINEZ at Klasztorna Street, office: ul. Okrężna 3 in Świebodzin) is responsible for coordinating the work of entities belonging to the cluster.

The cluster was established in order to promote a new brand and new products related to entrepreneurship, tourism and vocational education, as well as to increase competitiveness, innovativeness and intensify promotional activity by creating a cooperation network for the development of entrepreneurship, modern technologies and increase of the level of vocational education.

The LKPiTmembers communicate during technical and promotional trips, via e-mail and at business networking breakfasts.

The activities carried out so far by the members of the LKPiT include organizing outdoor events, festivals and town games for students, in order to integrate the local community and promote active recreation; they also organized cleaning of the Świebodzinski District, and created quizzes promoting the town of Świebodzin. The cluster supports entrepreneurship, in particular among young people and people over the age of 50, self-employment and improvement of the quality of vocational education.

The LKPiT Partnership Agreement allows the Cluster participants to merge into consortia and appoint its leaders. In accordance with the authors' intentions, after the merger of cluster entities into consortia they will be able, among other things, to implement regional and national projects supported by entrepreneurship development programmes.

Western IT and IT Security Cluster e-COOP (Zielona Góra)

ul. Nowy Kisielin - Antoniego Wysockiego 8, 66-002 Zielona Góra (Science and Technology Park of the University of Zielona Góra)

Tel: +48 (68) 470 07 70

President of the Management Board - dr inż. Waldemar Woźniak

www.ecoop.pl ; www.frig.org.pl ; office@ecoop.pl ; w.wozniak@frig.org.pl

The Cluster coordinator is the Foundation for the Development of Economic Initiatives in Zielona Góra. The objective of the cluster (comprising 14 entities) is to create a cooperation network in the area of IT security, which will enable effective combination and use of the potential of people, enterprises, universities, research and development units, business support institutions, and local and regional authorities. Other objectives of the cluster include:

- supporting entrepreneurship and innovation in the area of the cluster operations and creating conditions for effective commercialisation of the results of research conducted by universities and R&D units,
- combining and developing resources and competencies in the area of the cluster operations in order to effectively use both the existing opportunities and those related to the development of an innovative knowledge-based economy,
- legal, marketing, technical and technological consulting aimed at introducing new product and technological solutions to Polish and foreign markets,
- consulting on the possibilities of obtaining funding from the European Union for the implementation of projects and support in the preparation of application documentation, including among others: applications for funding, feasibility studies and business plans,
- consulting on the planning and implementation of IT projects,
- detailed analysis of hardware and software infrastructure needs.

Representatives of the e-Coop Cluster put considerable emphasis on cooperation with the education sector, scientific and research institutions. Students and scientists are encouraged to participate in research and development works in the area of IT and to cooperate in writing and coordinating diploma papers, and Information Technology Fora are organized for adolescents.

For the member companies, the Cluster organizes meetings with business partners and clients. The meetings are devoted, among other things, to issues of managing large data bases and threats that hardware and software producers currently have to face.

THE LUBUNWCIE ENTITIES OPERATING IN KEY NATIONAL CLUSTERS AND OTHER CLUSTERS

NUTRIBIOMED, Wrocław

Zakłady Jajczarskie OVOPOL Sp. z o.o. with its seat in Nowa Sól was established in 1997 as a result of transformation of the State Egg Production Company. The company is owned by employees and suppliers of the material. It is a leading producer of high quality and technologically advanced egg products in Poland. Due to the good and stable quality of products the company was able to gain the trust of customers in Poland and abroad. The main export directions include European and Asian countries.

Information from: www.nutribiomed.pl/pl/partnerzy_klastra/partners?partner_id=19

The Association of a Group of Aviation Industry Entrepreneurs "The Aviation Valley Cluster" (Rzeszów)

Bodycote is the largest and most respected heat treatment service provider in the world. These services are an essential part of every production process and they include: classical heat treatment, metal bonding technology and special technologies. Bodycote has 180 locations in 23 countries and is the chosen business partner of leading international companies. We maintain the highest production standards in terms of quality, safety and efficiency, with an extensive list of accreditations for key customers, platforms and standard organizations in all market sectors, including Nadcap. In Poland, Bodycote has 6 locations, including one in Świebodzin.

Information from: www.dolinalotnicza.pl/wizytowki/bodycote-polska-sp-z-o-o-,155.html

The West Pomeranian Chemical Cluster "GREEN CHEMISTRY"

The member of the West Pomeranian Chemical Cluster "GREEN CHEMISTRY" is the Gorzów Technological Centre - the Scientific and Industrial Park Sp. z o.o.

Information from: http://zielonachemia.eu/firmy-w-klastrze/

The Cluster of Space and Satellite Engineering

In May 2014, the activity of the Space and Satellite Engineering Cluster was inaugurated in the Military University of Technology. The agreement was signed by universities, research institutions and companies from the space industry. Two of the many entities forming the Cluster were the University of Zielona Góra and Hertz Systems Ltd. Sp. z o.o. from Zielona Góra.

Information from: http://ilot.edu.pl/klaster-inzynierii-kosmicznej-i-satelitarnej-i-satelitarnej/
http://ilot.edu.pl/klaster-inzynierii-kosmicznej-i-satelitarnej/
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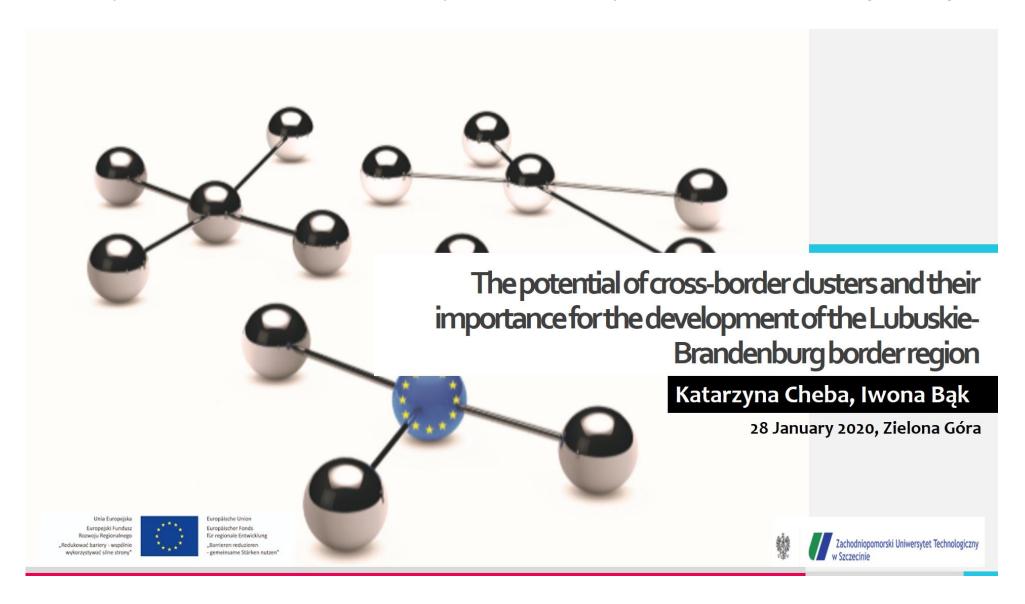
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C) "The potential of cross-border clusters and their importance for the development of the Lubuskie-Brandenburg border region"

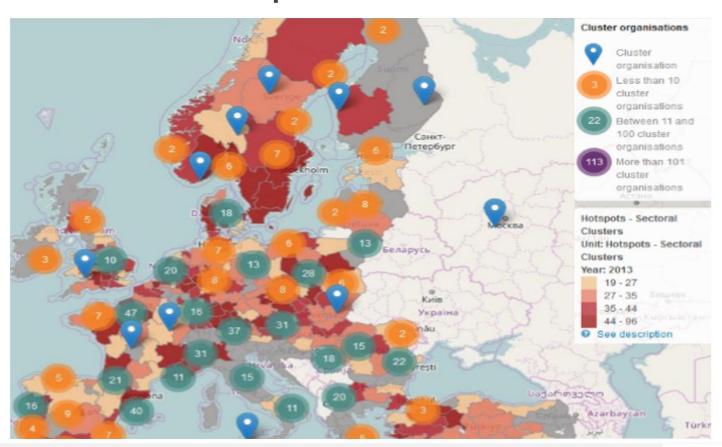


Why clusters?

- ... they offer a beneficial ecosystem,
- ... they accept innovative companies,
- ... they are addressed to groups of related small and medium-sized enterprises,
- ... they are well located as facilitators and constructors of bridges between science and business,
- ... they create strategic partnerships at the level of decision makers and intermediaries,
- ... they provide support for innovative activities,
- ... they facilitate the validation of ideas for joint innovative projects.



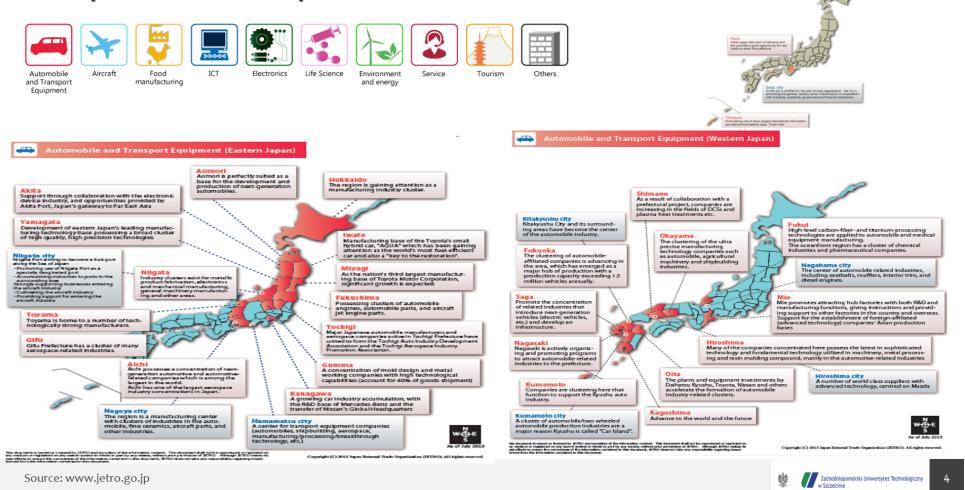
A map of clusters in the European Union



Source: The European Union Cluster Collaboration Platform



A map of clusters in Japan

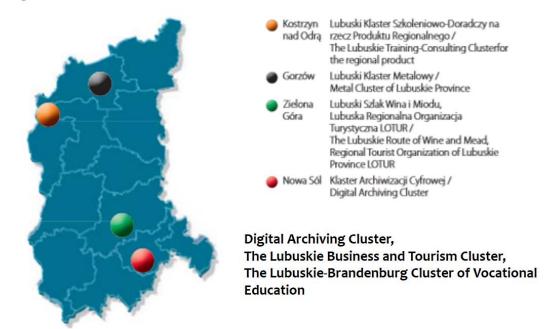


A map of clusters in Poland - 2015





Mapa klastrów i organizacji klastrowych w województwie lubuskim. / Map of clusters and cluster organization in Lubuskie Province.



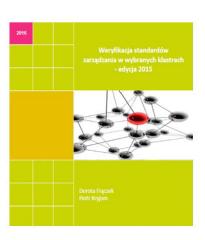
Source: PARP



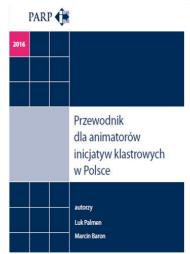
Clusters in Poland - key documents













Cluster benchmarking in Poland – 2018 edition



Recommended actions:

- 1. Increase in the number of cluster members, the so-called critical mass of a cluster.
- 2. Increase in the level of employment of employees responsible for current cluster services.
- 3. Increase of the financial resources of the cluster.
- 4. Implementation of joint processes in the cluster.
- 5. Further expansion of the scope and availability of services supporting the internationalisation of clusters.
- 6. Exploration of opportunities to adapt cluster specialisations to the most important, strategic directions of regional development of cluster operations, including compatibility with <u>smart regional specialisations</u>.
- 7. Aspiration for increasing the involvement of clusters in cooperation with foreign clusters.

Regional development and cohesion policy 2021-2027

The five main objectives driving EU investments between 2021 and 2027:

- > Smarter Europe through innovation, digitalisation, economic transformation and support for small and medium-sized enterprises,
- More environmentally friendly, zero-emission Europe implementing the Paris Agreement and investing in energy transition, renewable energy sources and the fight against climate change;
- ➤ A more connected Europe with strategic transport infrastructure and digital networks;
- ➤ A more social Europe delivering on the European pillar of social rights and supporting quality employment, education, skills, social inclusion and equal access to healthcare;
- ➤ A Europe closer to citizens by supporting locally-led development strategies and sustainable urban development across the EU.

Source: https://ec.europa.eu/regional_policy/pl/2021_2027/.



The most important directions of cluster development in the new financial perspective 2021-2027

"call for the **further development of the European cluster policy**, with the aim of linking-up and scaling-up regional clusters into cross-European world-class clusters, based on smart specialisation principles, in order to support the emergence of new value chains across Europe"

in free translation:

(KE) wzywa do <u>dalszego rozwoju europejskiej polityki klastrowej</u> w celu <u>łączenia i</u> <u>zwiększania skali regionalnych klastrów</u> w ogólnoeuropejskie klastry światowej klasy, w oparciu o zasady inteligentnej specjalizacji, w celu wspierania powstawania <u>nowych</u> <u>łańcuchów wartości przez Europę</u>

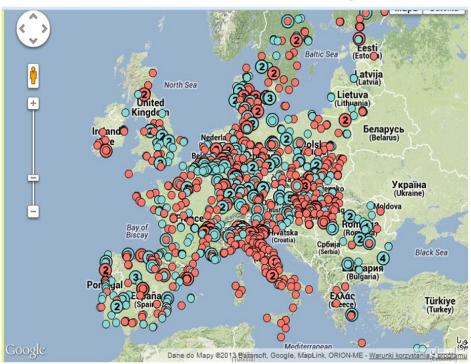
European Commission, 12 March 2018

The opinion of the European Economic and Social Committee "Towards better economic convergence and competitiveness in macro-regions (e.g. The EU Strategy for the Danube Region): the role of transnational clusters"

The European Economic and Social Committee (EESC) recognises that interregional, transnational cooperation based on pre-existing historical, socio-economic and cultural links is an essential response to the challenges posed by the dynamic expansion of the European Union (EU), partly caused by increasing global competition and the resulting urgent need to expand controlled markets, both geographically and economically. Establishing an interconnected cross-border and cross-sectoral system of collaboration based on multi-level governance and delivering a strategic framework for thematic poles for funding institutions to implement well-targeted projects in a macro-region is of great importance. The opinion is expected to have a constructive impact on policy makers across Europe, providing an objective analysis and practical suggestions on how to improve the implementation of macro-regional strategies. It will also determine whether an increase in their scope is necessary and identify innovative instruments that could be proposed to encourage cooperation between stakeholders, taking into account the opportunities arising from cross-border, cross-sectoral clustering.

European Commission, 20 August 2019.

International clusters - they have a long history in Europe!



Swedish/Norwegian Cluster Cooperation 2012/2013 Cluster cooperation between medtech clusters in Sweden and Norway.



In January 2017 the Baltic Sea Cluster sEaNERGIA was included in the founding group of the European Circular Construction Alliance acting in the area of construction, power generation and broadly understood closed-loop economy (European Circular Construction Alliance).

In 2019 Poland joined the European Commission's PERASPERA Cluster on Space Robotics focusing on planning, developing and harmonizing space robotics technology. The Project "PER ASPERA (ad ASTRA)" (in Latin: "Through hardships to the stars") is funded by a grant by the European Union through the "Horizon 2020" Programme.

Cross-border clusters in Poland

The Waterway Berlin - Szczecin - Baltic Sea



The Bieszczady Cross-border Tourist Cluster established under the project: "Polish-Ukrainian strategy of tourism development as an essential element of joint enterprises" which was co-financed by the European Regional Development Fund (ERDF) the Neighbourhood Programme Poland-Belarus-Ukraine INTERREG IIIA/Tacis CBC.



The Cluster for Combating Invasive Species

PL-SK project

Development and promotion of the Polish-Slovak cross-border aviation cluster

The Cluster of Historical Tourism

Borderland characteristics and their impact on cluster development

Positive

- access to markets on the other side of the border
- transit heavy traffic both for transport companies and individual customers
- access to goods and services on the other side of the border - different quality, price, etc.
- low costs of transport or the acquisition of goods from a neighbour
- coherent nature area tourism opportunities
- the functioning of the Euroregions and the institutions experienced in cross-border cooperation, e.g. within the Euroregion

Negative

- the peripheries of a country weaker infrastructure, lower population density
- fewer large and medium-sized enterprises
- larger distance from the big domestic urban centres - the capital of the country or the province
- poorer access to scientific and research centres
- problems left over from the past time cultural barriers
- language barriers
- legal barriers



Smart specialisations of the Lubuskie Province







Due to the successful implementation of the pilot action in the years 2014-2020, the Commission proposes the development of **interregional innovative investments**. Regions with **"smart specialisation"** funding will receive more support for the establishment of **pan-European clusters** in priority areas such as large dataset technology, the closed-loop economy, advanced manufacturing technologies or cyber security.

The social potential of the Lubuskie Province

Unfavourable changes in the demographic structure:

- 1. Negative birth rate.
- 2. Low fertility, fertility rate 1.43.
- 3. Negative migration balance.
- 4. The percentage of the working age population: 61.0%, the percentage of the post-working age population: 21.0%.
- 5. Dynamic ageing of the population: the percentage of people aged 65 and over in the total population is more than 16%.
- 6. Increase in the demographic dependency ratio (in 2017 there were 32.8 people at the post-working age per 100 people at the working age),
- 7. The increasing life expectancy.

Changes in the level of education of the inhabitants and a weakening academic potential:

- 1. The percentage of people with secondary vocational education decreased (from 21.30% in 2002 to 20.32% in 2011).
- 2. The percentage of people with general secondary education increased (from 8.66% in 2002 to 17.2% in 2017).
- 3. In 2017, about 17.1% of the total population had higher education, a much higher percentage than in 2002 (8.57%).
- 4. The indicator describing the number of students per 10 thousand inhabitants is systematically decreasing. In 2015 its value was 329.4, and in 2018 it was only 137.3 students per 10000 inhabitants the region was on the last position in the country in this respect.

The social potential of the Lubuskie Province

The situation of households

- 1. One of the highest ratios of persons benefiting from social welfare benefits (in 2017 it amounted to 449 per 10000 people compared to 373 on average in the country), but this ratio is gradually decreasing, as in 2012 it amounted to 604 per 10000 people.
- 2. The average gross monthly salary in the Lubuskie Province has been below the national average for years. In 2017 it amounted to PLN 3754.54 compared to PLN 4283.73 on average in Poland.

The economic potential of the Lubuskie Province

In 2017 the Lubuskie Province generated 2.2% of the Gross Domestic Product and the GDP per capita in the province amounted to 82.6% of this product per capita in the country. These indicators are lower than in the previous years. For example, in 2008 the province generated 2.3% of the country's GDP and the GDP per capita accounted for 85.8% of this product per capita in Poland.

The labour market: the employment rate of the population aged 15-64 increased from 57.1% in 2012 and 59.7% in 2014 to 66.1% in 2018; the registered unemployment rate: 5.8% (at the end of 2018).

In 2018, 113 277 entities in the province were registered in the REGON register. It was 1117 entities per 10 thousand inhabitants. Due to the value of this indicator, the Lubuskie Province is ranked 7th in the country.

The economic potential of the Lubuskie Province



Low level of innovativeness of the province - the region is classified, similarly to most of the Polish provinces, in the category of the least innovative regions in Europe.

According to the "Millennium Index 2018 - Regional Innovation Potential" ranking, the Lubuskie Province, as in previous years (data as of 2010), was in the last position in the ranking.

The place of the Lubuskie Province according to particular components (criteria) of the Millennium Index:

- 1. Productivity at work calculated as revenue generated by one employee 12.
- 2. Value added rate (calculated as the relation of the sum of net profit, salaries, surcharges and taxes to revenue) 11.
- 3. Expenditure on R&D (research and development) in relation to GDP 16.
- 4. Post-secondary education, i.e. the number of students per 10 thousand inhabitants 16.
- 5. The number of people working in the R&D area per 1000 professionally active persons 16.
- 6. The number of patents obtained (per 1 million inhabitants) 16.

According to the report on the **Investment Attractiveness of Regions 2017** of the Polish Investment and Trade Agency S.A. in the Institute of Enterprise of the Warsaw School of Economics, the Lubuskie Province was on the **11th** position in the ranking of provinces' potential investment attractiveness for the national economy, **ahead of Podkarpackie**, **Warmińsko-Mazurskie**, **Podlaskie**, **Lubelskie** and **Świętokrzyskie Provinces**.



Considerable natural and tourist values of the Lubuskie Province

- 1. Densely forested areas, with rivers and lakes,
- 2. Numerous reserves, attractive fisheries and a thriving tourist infrastructure.
- 3. Nearly 40% of the province's area is legally protected area with special natural values.
- 4. Numerous reserves, landscape parks and nature and landscape complexes, covering 30% of the province's area:
- > part of the Drawa National Park,
- > the "Warta Mouth" National Park,
- > seven landscape parks,
- ► 67 reserves,
- ➤ 1338 monuments of nature.

"green land of modern technology"



"green land of smart technology"

Source: GUS [Chief Statistical Office]



Diversified intensity of tourist traffic in the districts of the Lubuskie Province

- ➤ W1 the Defert index, showing the number of accommodation places per 100 permanent residents of a given administrative unit from 0.34 to 6.53 (1.82 in the province).
- ➤ **W2 the Schneider index,** defining the number of people using overnight stays per 100 permanent residents from 13 to 288 (68 in the province).
- > **W3 the Charvat index**, calculated as the number of overnight stays per 100 permanent residents from 30 to 515 (141 in the Province).
- > W4 the utilization of the capacity of tourist accommodation index, which measures for how many days per year one place of accommodation was occupied from 38 to 148 (77 in the province).
- > W5 the accommodation base development index, calculated as the ratio of the number of tourists to the number of accommodation places from 11 to 104 (37 in the province).
- ➤ W6 the tourist traffic density index, defining the number of tourists per 1 km² from 15 to 758 (49 in the province).
- > W7 the accommodation base density index, showing the number of accommodation places per 1 km2 of the country from 0 to 10 (1 in the province).

W2

Tourism

W3

W4

International cooperation of the Lubuskie Province and the State of

Brandenburg

 It covers many thematic areas. The implementation of joint projects is facilitated by the European Territorial Cooperation programmes Interreg Poland (the Lubuskie Province) - Brandenburg.

2. It develops in all areas of activity, as evidenced by the numerous Lubuskie-Brandenburg projects, implemented not only on a regional but also on a local level through twin arrangements between cities, municipalities and districts, contacts between schools, as well as public and private institutions.

Gorzów
Wilden

MärkischOderland

Międzyrzecki
słubicki
Frankfurt
(Oder)

Oder-Spree

krośnieński
Zielonogórski
Zielonogórski
Zielonogórski
Spree-Neiße

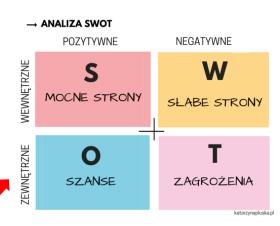
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The following agreements are model examples of this cooperation:

- Partnership agreements between the towns of Zielona Góra and Cottbus, Kostrzyn nad Odrą and Küstrin-Kietz, Słubice and Frankfurt nad Odrą, Gubin and Guben, Łęknica and Bad Muskau. During the term of the Treaty, a total of 58 partnership agreements between Lubuskie and German towns were concluded,
- > Twin towns: Słubice-Frankfurt nad Odrą, Gubin-Guben, Kostrzyn nad Odrą- Küstrin-Kietz,
- At the level of district cooperation, 16 partnership agreements were concluded, while at the level of cooperation between municipalities, 96 partnership agreements were concluded.

OPPORTUNITIES OF THE LUBUSKIE ROVINCE

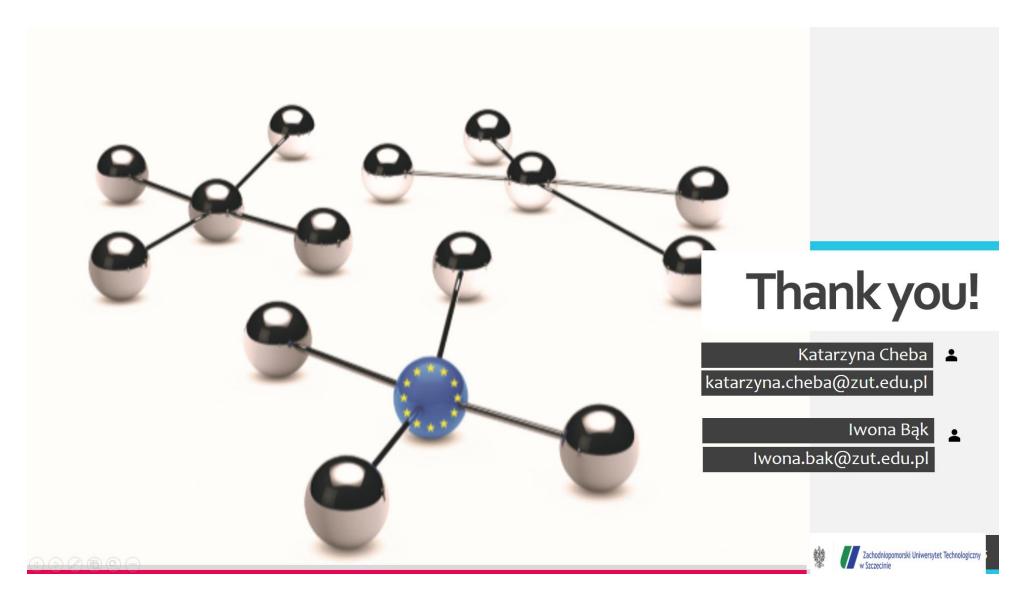
- 1. Location of the region in the vicinity of thriving domestic and foreign scientific centres facilitating cooperation and technology transfer.
- 2. Proximity to the large German market allowing the increase of the business entities potential.
- 3. Constantly improving external transport accessibility of the region.
- 4. Potential to produce energy from renewable sources.
- The existing network of business support institutions, including clusters, science and technology parks and financial institutions.



A POSITIVE CLIMATE FOR CLUSTER DEVELOPMENT IN THE LUBUSKIE PROVINCE

- Convenient location and proximity to other large urban agglomerations.
- 2. Favourable climate and good conditions for business development.
- 3. The presence of international companies (in 2017, 2919 companies with foreign equity).
- 4. Significant high quality work resources (availability of experienced and well-qualified personnel, a network of higher and secondary technical and business schools).
- 5. Active industrial zones (the Kostrzyn-Słubice Special Economic Zone, zones of economic activity, industrial and science and technology parks).
- 6. Specified key areas of economic development regional smart specialisations (innovative industry, health and quality of life, green economy).
- 7. Special natural and climatic values (a good place to live and do business).





D) "EuRegioNet project - Internationalisation of networks and clusters (NWC)"







Barrieren reduzieren - gemeinsame Stärken nutzen! Redukować bariery - wspólnie wykorzystywać silne strony!

EuRegioNet

EuroRegionales **Net**zwerk

zur intelligenten Spezialisierung und Internationalisierung von Clustern und Netzwerken in den Regionen "Pro Europa Viadrina" und "Spree-Neiße-Bober"

Euroregional network for smart specialisation and internationalisation of clusters and network initiatives

in the "Pro Europa Viadrina" and "Spree-Neisse-Bober" Euroregions















Vier Projektpartner – eine Region Four project partners - one region

- BIC Frankfurt (Oder) GmbH (D)
- Lubusker Arbeitgeberverband (PL) /
 Lubuskie Employers Organisation, Gorzów Wlkp., (PL)
- Centrum für Innovation und Technologie GmbH Wirtschaftsförderungsgesellschaft des Landkreises Spree-Neiße, Forst (DE)
- Verein der Gemeinden der Republik Polen Euroregion "Spree-Neisse-Bober" / The Association of Polish Municipalities
 Spree-Neisse-Bober Euroregion, Gubin (PL)





Lebuser

Arbeitgeberverband







Die Herausforderung - The challenge

- Das Fördergebiet liegt zwischen bedeutenden Metropolräumen The assisted area is located between significant metropolitan areas.
- Es "ist als strukturschwacher Raum zu charakterisieren. … "dünn besiedelt, stark von Abwanderung bedroht und weist eine geringe Wirtschaftsleistung auf". Its characteristic feature is weak economic structures, it is "sparsely populated, strongly threatened by emigration and has low economic potential".
- "... die Wirtschaftsstruktur ..., ist im Wesentlichen durch kleine und Kleinstunternehmen mit zum Teil geringer Innovationskompetenz ... geprägt."
 "... the economic structure is essentially shaped by small and microenterprises with partially low innovative skills".















Die Herausforderung - The challenge

- ➤ Die Branchenstruktur ist zu wenig auf Zukunftsbranchen orientiert /
 The branch structure is insufficiently oriented towards the industries of the future.
- "Die wirtschaftlichen Verflechtungen … sind immer noch auf einem relativ niedrigen Niveau und weiter ausbaufähig. Dies gilt insbesondere für grenzüberschreitende Unternehmensnetzwerke."/

"The level of economic connections between enterprises in the assisted area is still relatively low and has a development potential. This applies in particular to cross-border business networks.

Strukturschwäche und demografischer Wandel/ Structural weakness and demographic change

Quelle Kooperationsprogramm BB-PL 2014-2020)/ Source: Cooperation Programme BB-PL 2014—2020















Potentials and Opportunities

Potentiale

- In der Projektregion existieren mehr als 20 Cluster und noch mehr Netzwerke
- Es gibt mehr als 10 Universitäten und Forschungseinrichtungen.

Potentials

- There are more than 20 clusters and even more networks in the project region.
- > Several universities and research institutions operate here.















Die Zielstellung - The objective

Das Projekt sollte:

- die Vernetzung von Wirtschaftsakteuren,
- die Stärkung der wirtschaftlichen Verflechtungen,
- die Entwicklung grenzübergreifender Kooperation zwischen Wirtschaft und Wissenschaft

insbesondere durch die Internationalisierung von Netzwerken und Clustern, gezielt anstoßen und sie nachhaltig befördern.

The project's aim was to initiate and support the following in an economically sustainable manner:

- the network cooperation of economic entities,
- > the intensification of economic links,
- > the development of cross-border cooperation between the economy and science,

in particular through the internationalisation of networks and clusters.















Projektaktivitäten – Project activities

Evaluierung von min. 16 NWC

- Bedarfs- und Effektdiagnosen, Diagnose Mittelbedarf, Prüfung des Vernetzungspotentials innerhalb der Gesamtregion
- Identifizierung der Branchenschwerpunkte, die in das Projekt einbezogen werden
- Auswahl von 8 NWC für eine konkrete Unterstützung/Stärkung

Evaluation of at least 16 NWC

- a diagnosis of demand and effects, a diagnosis of financial needs, verification of the network cooperation potential at the level of the entire region
- an identification of the main branches of industry to be included in the project
- a selection of 8 NWC for specific support/reinforcement















Projektaktivitäten - Project activities

Unterstützung- und Vernetzung der ausgewählten NWC

- Festlegung der konkreten Aufgaben für jeden Projektpartner, Abstimmung mit den NWC
- Schrittweise Unterstützung, Erweiterung und grenzübergreifender Ausbau dieser NWC/Netzwerkbestrebungen und ihrer Vorhaben

Support and consolidation of the network cooperation of selected NWC,

- · setting specific tasks for each partner, in agreement with NWC
- gradual support, expansion and cross-border development of NWC and their actions















Arbeitsinstrumente - Tools applied in actions

Dienstleistungen durch Projektpartner unter Einbeziehung externen Know-Hows

Konsultationen, Beratung, Coaching, Sprachmittlung, Recherchen, Klärung von Rechts-, Steuerfragen, Partnervermittlung und -prüfung, Begleitung grenzübergreifend,

Open-Shop Aktivitäten

Identifikation, Initiierung und Unterstützung neuer innovativer NWC- Vorhaben im Projektgebiet

Services performed by the project partners using external know-how

consulting, advice, coaching, language mediation, research - queries, clarification of legal and tax-related issues, partner matching, cross-border piloting, interview assistance ...

Open-shop activities

identifying, initiating and supporting new innovative network projects















Projektunterstützung - Support from the project

Konkret wurden 9 NWC im Projekt unterstützt und grenzübergreifend vernetzt

- 1. FEWE e.V. "Verein zur Förderung und Entwicklung der Wirtschaft im Bereich erneuerbarer Energien in den Euroregionen e.V." FFO / FEWE e.V. "Association for the Promotion and Development of Economy in the field of Renewable Energy in Euroregions"
- Netzwerk "LSI Lebuser Netzwerk für Innovationen e.V." Stanowice" / "LSI - the Lubuskie Innovation Network Association"
- 3. Netzwerk "LKM Lebuser Metallcluster" Gorzów / "LKM the Lubuskie Metal Cluster"
- Neugründung 11/2019: Cluster "Verein zur Bekämpfung invasiver Gattungen"
 Gorzów / the newly established Cluster "Association for combating invasive species"
- 5. Neugründung "Cluster für Geschichtstourismus" 11/2019 Krosno Odrzańskie /



Arbeitgeberverband











Projektunterstützung - Support from the project

Konkret wurden 9 NWC im Projekt unterstützt und grenzübergreifend vernetzt

- 6. Cluster "CLIA Lebuser Centrum für Innovationen in der Landwirtschaft" Żaray / The Cluster: the Centre of Lubuskie Agrotechnical Innovations CLIA"
- 7. Netzwerk "Regional gemacht" / The "Made in the Region" network
- 8. Netzwerk "Grenzübergreifende Gesundheitsvorsorge" Guben / The "Cross-border healthcare" network
- 9. "Gesundheitsstammtisch" Burg (Spreewald) / The "Health" discussion group, Burg (Spreewald)

Unterstützte Branchen / the assisted industries

Erneuerbare Energien, Tourismus, Gesundheit, Ernährung, Trade, Umwelt- und Naturschutz, Metall- und Leichtbau / renewable energy, tourism, health, nutrition, trade, environment and nature protection, metals and lightweight structures

Arbeitgeberverband







Weitere Projektaktivitäten - Other project activities

Konferenzen, Workshops, Kommunikation und Medienarbeit/ conferences, workshops, communication and cooperation with the media

- Eröffnungskonferenz / inauguration conference (29.06.2017)
- 4 Regionalkonferenzen der Projektpartner / 4 regional conferences of the project partners
- > 20 Workshops mit NWC / > 20 workshops with NWC
- Clusterkonferenz in der Euroregion SNB / cluster conference in the SNB Euroregion (22.01.2020)
- Abschlusskonferenz / final conference (20.02.2020)
- Entwicklung neuer Ideen und Projekte / development of new ideas and projects
- Auswertung, Verallgemeinerung, Verbreitung der Ergebnisse und Erfahrungen (Clusterinformator) /
 Analysis and summary, dissemination of results and experiences (a cluster guide)
- Mitglieder in unterstützten NWC: > 150 / Members in assisted NWC: > 150
- Teilnehmer an Veranstaltungen insgesamt: > 1.000! /Total number of participants in events > 1,000!















Erkenntnisse aus dem Project - Experience from the project

- Das durch die zunehmende Vernetzung anwachsende D PL Vertrauen begünstigt grenzübergreifende Kooperationen insgesamt - Klimaverbesserung.
- The trust increasing as a result of the German-Polish networking is generally conducive to cross-border cooperation and climate improving.
- Aber: Der zeitliche und finanzielle Aufwand für grenzübergreifende Kooperationen von der Idee bis zum Erfolg wird durch Unternehmen und Institutionen stark unterschätzt!
- But... The amount of time and money required for cross-border cooperation, from the birth of the idea to its successful completion, is significantly underestimated by companies and institutions!
- Auf Wirtschaftsprozesse ist kein Zwang ausübbar es muss einen realen Bedarf/Nutzen geben.
- No pressure can be exerted on economic processes there must be real demand and benefits.
- Wirtschaftskooperationen brauchen Zeit größere und internationale Vernetzungen noch viel mehr Zeit → Die Projektlaufzeit von EuRegioNet war mit drei Jahren in diesem Maßstab gesehen und besonders für die neu entstandenen Netzwerke, sehr kurz.
- Economic cooperation forms require time, and the larger and international network cooperation forms need even more time. → The specified EuRegioNet project implementation time of 3 years was in this context very short, in particular, from the newly established networks' perspective.















Erkenntnisse aus dem Project - Experience from the project

- Für NWC lebenswichtig und erfolgsbestimmend sind engagierte Initiativpersonen, daraus resultiert auch der hohe Nutzen einer externen Begleitung/Unterstützung: initiiert Aktivitäten, neue Impulse, Beschleunigung und Sicherung der Vernetzungsprozesse - besonders bei neuen NWC erhöht es die "Überlebensrate" maßgeblich, da die meisten Vorhaben auf Grund der Aufwandsproblematik und der Spezifik von Vernetzungsprozessen in der Startphase scheitern.
- For networks and clusters, the initiators involved in the activities are of vital importance. External
 assistance or support brings also considerable benefits: it initiates actions, gives new impulses,
 ensures acceleration and safety of networking processes especially in the case of new networks and
 clusters, it significantly increases the "survival rate", as most projects fail in the initial phase due to
 problems with the expenditures and the specificity of networking processes.
- Vernetzungsprozesse sind i.d.R. komplizierter als von außen sichtbar oder vermutet "Der Teufel steckt im Detail".
- Networking processes are usually more complicated than one can see or guess from the outside "the devil is in the detail".
- Digitalisierung als Innovation und Zukunftsthema spielt bisher kaum eine Rolle in den KMU.
- Digitalisation as an innovation and a theme for the future plays almost no role in SMEs now.















Know How und Budget / Know-how and budget

Einer der wesentlichen Faktoren für den Projekterfolg war das

→ Know-How der vier Projektpartner und der Projektmitarbeiter

Sie verfügen über langjährige Erfahrungen in den Bereich Wirtschaft, Wissenschaft und beim Aufbau grenzübergreifender Kooperationen und sind regional und überregional sehr gut vernetzt.

→ Budget 120 T€ Eigenmittel der Projektpartner + 680 T€ EFRE Mittel

One of the most important factors determining the effectiveness of the project was

> the know-how of the four project partners and the project personnel

They have many years of experience in the fields of business and science and in establishing cross-border cooperation, and have a network of supraregional contacts.

→ Budget the partners' own resources 120 000 EUR + 680 000 EUR of ERDF funding















Wir leisten messbaren Beitrag - We're making a tangible contribution

... zur Erfüllung der spezifischen Ziele der Priorität IV

- Mehr Informationen und besseres Verständnis über den jeweiligen Nachbarn
- Schaffung der Grundlagen für weiterführende Aktivitäten, mehr Wirtschafts- und Wissenschaftskooperation und grenzübergreifender Austausch in allen Bereichen
- Stärkung der Kooperation zwischen Institutionen, sowielnstitutionen und Zivilgesellschaft
- Generell die Beförderung eines gemeinsamen Lebens- und Wirtschaftsraums

... to the implementation of the specific objectives of Priority Axis IV

- More information and better understanding of the neighbouring country
- Laying the foundations for more far-reaching activities, for more cooperation between economic and scientific entities and for exchange in all fields
- Strengthening cooperation between institutions, and between institutions and residents
- · Creating conditions fostering the development of a common living and economic space















Barrieren reduzieren - gemeinsame Stärken nutzen! Redukować bariery - wspólnie wykorzystywać silne strony!

... zur Erfüllung des Leitbildes des Programms:

"... das gemeinsame Programmgebiet grenzübergreifend zu einem integrierten, infrastrukturell gut vernetzten, nachhaltigen Lebens- und Wirtschaftsraum mit einer hohen Attraktivität so zu entwickeln, dass in all seinen Teilräumen die Lebensbedingungen für die Menschen und die Lebensqualität verbessert werden."

... to the implementation of the vision of the Cooperation Programme:

"... the cross-border development of a common assisted area towards an integrated, sustainable and highly attractive living and economic space, with a well-developed network infrastructure and offering better living conditions and quality of life for the inhabitants. "















Barrieren reduzieren - gemeinsame Stärken nutzen! Redukować bariery - wspólnie wykorzystywać silne strony!

Wir danken allen Unterstützern!

We would like to thank all the supporters!

Ich möchte mich bei allen Partnern des Projektes und ihren fleißigen Mitarbeitern, bei allen Kooperationspartnern, Unternehmen, Wissenschaftseinrichtungen, Netzwerkorganisatoren, bei allen Ämtern und Behörden und Personen bedanken, die uns geholfen haben, das Projekt EuRegioNet erfolgreich durchzuführen!

I would like to thank all the project partners and their conscientious employees, companies, scientific institutions, network organisers, public organisations and authorities and everyone else who helped us to successfully implement the EuRegioNet project!









E)	A scientific evaluation	of the	"EuRegioNet"	pro	ject
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Report

on the scientific evaluation of the project entitled

"EuRegioNet - Internationalisation

of networks and clusters (NWC)"

and the activities of the project partners aimed at recording

and researching

networks and clusters covered by the project

Deutsch-Polnische Wirtschaftsentwicklungsgesellschaft mbH, Frankfurt (Oder)

March 2020

Table of contents of the final report

		Page
I.	The basis of analysis	77
II.	Descriptions of project partners and their competences	79
III.	Description of the evaluation process	80
IV.	Tabular overview of networks and clusters covered by the project	84
V.	Presentation of results achieved by the networks and clusters supported by the project	87
VI.	Summary - Evaluation results and final assessment	91

I. The basis of analysis

The evaluation strategy is based on the following considerations:

In the case of scientific assistance and project evaluation, methodical data collection and systematic data documentation is necessary to make the study, approach and results understandable and verifiable. In this case, the evaluation concept has been implemented in such a way that the focus is on process evaluation. This means that the project was analysed at regular intervals and intermediate results were collected.

Upon the project completion, the results of the project partners' activities were evaluated. The task of the evaluation accompanying the project was to collect the data necessary to illustrate the project implementation process in order to provide the project partners, in a timely and comprehensive manner, with opportunities to control the project flow.

The results of the evaluation intended for publication should also serve to make regional policy even more effective.

The procedures meet the criteria or standards of the German Evaluation Society (Deutsche Gesellschaft für Evaluation e.V., DeGEval):

• Usefulness / necessity

The evaluation is targeted at the demand for information of the entities participating in the project and benefiting from its results. The criterion of usefulness determined the type and scope of collected information.

Feasibility

The procedures to be followed during the evaluation were intended to optimise the workload of project partners and participating companies so that inputs are in proportion to the benefits of the expected results. The evaluation was designed in such a way that a high degree of acceptance by the project participants was achieved.

Fairness

Data were collected and evaluated on the basis of a fair consideration of the different starting situations of the project participants (the size of the company, financial potential, regional links, mentality, cultural and social differences, industry and market, etc.). The confidentiality of the collected data, and in particular personal data, was ensured by data anonymisation. Generalised data and conclusions were made available to all project partners on an equal basis.

Accuracy

The accuracy standards were intended to ensure reliable information and results yielded by the evaluation questions. The qualitative and quantitative information resulting from the evaluation was analysed in a systematic way and the conclusions were justified in a detailed manner.

The evaluation strategy therefore included:

- A definition of the project effectiveness parameters and changes to these parameters expected during the project implementation period based on the project description (ex ante evaluation as a structured process in dialogue with four project partners).
- A measurement of changes (qualitative, quantitative, time-dynamic, a combination of foreign and own evaluation).
- An evaluation and securing of (qualitative and quantitative) results.
- Preparation of the "Cluster Guide" on the basis of significant results.

Based on these principles, as a unified basis for data collection, in the first phase of the evaluation questionnaires and data forms in Polish and German were prepared and made available to the project partners by DePoWi GmbH.

These documents covered the following partial aspects of the evaluation:

- Collecting data on existing clusters and networks.
- Companies or other entities organised in a network or cluster.
- Small and medium-sized enterprises that are interested in cooperating within a network or cluster.
- A brief summary of project-relevant data.

The concept of impact potential and implementation analysis has been applied, which examines the extent to which a specific way of project implementation was able to influence the development of impact potential.

The horizontal themes of the programmes, such as the sustainability of the project impact, equal opportunities and non-discrimination as well as equality between women and men, are reflected in the evaluation criteria and the final success check.

In the evaluation process, with respect to the participating companies the following issues had to be analysed in particular:

- whether there was any impact on their competitiveness,
- whether scientific and technical solutions which made it possible to set up enterprises were developed or improved, or applied in enterprises,
- whether there were any learning outcomes and sustained behavioural changes in the innovation process and whether horizontal principles played a role in this.

Moreover, in the course of the project implementation, external factors were observed which influence the innovation process (the economic situation, specificity of the industry, availability of staff, financing possibilities and other factors).

II. Descriptions of project partners and their competences

Project Partner No. 1 (PP1):

The Business and Innovation Centre Frankfurt (Oder) - (BIC) - since 1991, as a technology centre and business incubator of the City of Frankfurt (Oder), the Business and Innovation Centre Frankfurt (Oder) has been supporting the economy, cooperation between science and the economy and business networks in the Oder region, and developing projects for the region. One of the priorities is German-Polish cooperation. As a leading partner, the Centre has been involved in more than 10 EU projects, including 5 German-Polish INTERREG A projects. The Centre has 25 years of experience as a project author and manager as well as a competent advisor. It comprises the best intercultural, linguistic and economic competences and is, among other things, the spokesperson of the EGP ODERLAND network for young entrepreneurs (public-private partnership of the districts of Märkisch Oderland and Oder-Spree, the City of Frankfurt (Oder), the regional chambers of commerce, banks and WFBB Brandenburg).

Project Partner No. 2 (PP2):

The Lubuskie Employers Organization (LOP), with 150 members, has been supporting entrepreneurs in the Lubuskie region since 1991. It promotes the acquisition of qualifications by managers, organises business contacts with foreign countries, establishes networks of companies, participates in defining strategies for the development of vocational schools and technical universities. LOP members take part in the work of the Monitoring Committee of the Interreg Va Brandenburg-Lubuskie 2014-2020 Cooperation Programme. Contacts with Brandenburg have been maintained since 1991. The Lubuskie Employers Organization initiated, among other things, the establishment of the Polish-German Foundation for the Training of Personnel of the Economy, was a partner in many EU projects, e.g. with the BIC in the project "Cross-Border Connect" and "Cross-Border ClusterNet", and founded the Lubuskie Metal Cluster (23 SMEs, 5 universities and 16 institutions).

Project Partner No. 3 (PP3):

Centrum für Innovation und Technologie GmbH (CIT) [The Centre for Innovation and Technology, CIT] from Forst in Lusatia, founded in 1993, is a business promotion agency in the district of Spree-Neiße. From the very beginning, one of its main objectives has been the promotion of German-Polish contacts in business, science and administration. For this purpose, numerous INTERREG projects (IIA, IIIA, IVA) have been developed and successfully implemented. For instance, the "TMS" projects (Phare 2004-2006), "Cross-border Business Support" (2003-2007), "DEPLINNO" (2010-2012), "DENUI" (2014-2015), and "Water Tourism on the Neisse River" (2014-2015).

Project Partner No. 4 (PP4):

The Association of Polish municipalities, the "Spree-Neisse-Bober" Euroregion (SNB) has 50 cities and municipalities and 7 districts among its members. Since 1993, under the Small Project Fund, it has been supporting the development of interpersonal contacts in all areas of life, including the economy and science. Thanks to the implementation of over 2,000 small and micro-projects, the Association achieves a high multiplication effect. As a leading partner or project partner, the Association was directly involved in numerous projects under the PHARE CBC, Interreg IIIA and Interreg IVA programmes. It was also a leading partner in many projects concerning the initiation and development of cross-border cooperation and partnership (2009-2014).

III. Description of the evaluation process - Evaluation stages

III.1. Baseline situation characterization

The following **strategic objectives** have been formulated for the project:

- Data collection and analysis of at least 16 cooperative networks.
- Further development / networking of 8 networks or clusters.
- Exploration and initiation of new ideas for creating networks or clusters establishing at least one new entity.

To facilitate the achievement of these objectives, work packages (WPs) have been formulated and project activities have been determined which serve as a basis for ongoing and final evaluation.

For the purposes of the evaluation, many discussions have been held with project partners, networks and clusters (NWC) and individual companies. The consultation meetings planned by the project partners in Germany and Poland have been an opportunity to determine the progress of the project implementation and to give advice on its continuation.

Work Package (WP) 1 Acquisition of information

(work package coordinator: project partner 4)

The project activities or outputs planned and implemented as part of the project are divided as follows:

Project management:

In order to implement the project, partnership agreements were concluded and a Project Council (PC) was established as a professional advisory body which receives interim and final reports and organises controlling processes.

Information and promotion activities:

A subpage dedicated to the project was created on the website of each project partner. The partners' websites were linked to each other.

A conference inaugurating the project, a conference devoted to clusters and a press conference closing the project were held.

Promotional materials such as project leaflets, lanyards, folders, roll-ups and banners were prepared.

The results of the project were published in the press, radio, television and on the project partners' websites. At the end of the project, a "Cluster Guide" was prepared in Polish, German and English, which, among other things, makes the results of the project available to those interested.

Information posters were placed in the project sites and leaflets were distributed to target groups.

Substantive work / advice:

At the beginning of the project, one central inauguration event and four regional opening events were hled with a total of 319 participants.

In order to identify the networks and clusters that should be comprised in the project, questionnaires and guidelines for structured interviews were developed.

Presentation of results

Clusters or networks participating in the project were presented on relevant cooperation platforms or websites and the progress of the project was described.

 A closing event was held, during which the results of the project were presented and summarised and examples of good practice were presented. The participants had the opportunity to present the added values resulting from work on the project.

III.2. Selection of participating enterprises

The selection of companies participating in the project was part of the second work package (WP2):

Work Package (WP) 2 Identification and Sensitization Phase

(work package coordinator: project partner 2)

In the course of work on the project in the period from the third quarter of 2017, 16 networks and clusters were analysed by means of questionnaires, and relevant analyses were prepared.

In the region of each project partner one cross-border cluster workshop was organized.

Agreements or work plans were developed for 9 clusters or networks to support and further develop cooperation.

The focus of the evaluation of networks and clusters was on identifying, initiating and supporting new, innovative potentials.

The choice was made on the basis of interviews conducted with networks and clusters and potentially interested companies. The interview questionnaires developed with the participation of the evaluator were evaluated together with the project partners.

III.3. Development of existing networks and clusters

The activities related to the project implementation process were determined in the second and third work packages (WP 2 and WP 3).

Work Package (WP) 2 Identification and Sensitization Phase

(work package coordinator: project partner 2)

Work Package (WP) 3 Support and Networking Phase

(work package coordinator: project partner 3)

The following stages of work were completed:

Third quarter of 2018 / First quarter of 2020:

Development of action plans with 9 networks and clusters, support/networking of selected networks and clusters, development of strategies, support for 9 networks and clusters in such matters as: smart specialisations, strategic acquisition of partners, project development, obtaining support/financing, cross-border networking, know-how transfer, open-shop activities for projects implemented by networks and clusters.

Third / fourth quarter of 2018:

Meetings of the project partners and the Project Council, study tours to enterprises, working meetings with networks and clusters in the project region, 4 regional workshops in Frankfurt (Oder), Gorzów Wielkopolski, Forst and Zielona Góra.

First / second quarter of 2019:

Meetings of the project partners and the Project Council, study visits to enterprises, working meetings with networks and clusters in the project region.

Fourth quarter of 2019:

Numerous meetings of the project partners, study visits to enterprises, working meetings with networks and clusters in the project region.

First quarter of 2020:

Meetings of the project partners and the Project Council, study visits to enterprises, working meetings with networks and clusters in the project region.

Cross-border Cluster Congress in Zielona Góra (responsible partner: project partner 4).

III.4. Semi-annual reports / Final report

The structure of the reports resulted from the structure of the project tasks and objectives described in the work packages and from the interview questionnaires. The final evaluation and mainstreaming activities were summarised in the fourth work package (WP 4).

Work Package (WP) 4 Project Summary / Dissemination of Results

(work package coordinator: project partner 1)

As part of this work package under the leadership of the leading partner, BIC Frankfurt (Oder) GmbH, the following tasks were implemented:

Fourth quarter of 2019 / First quarter of 2020:

Generalisation of the findings of the evaluation of the questionnaires and reports, transfer of knowhow to the project partners and regions, presentation of the results on the Euroregions platform (as at the end of March 2020). Development of new project ideas (e.g. digitisation in network relations), preparation of the "Lubuskie-Brandenburg Cluster Guide" (in Polish, German and English).

Organization of a final conference to present the results of cross-border smart specialisations, examples of good practice and added value developed in the project.

The focus of the findings coincides with the focus of the project:

- Development and expansion of product and value creation chains.
- · Joint processing/sales.
- Integrating R&D capacity into the activities of SMEs.
- Smart specializations of clusters and networks.
- Impulses for the creation of Polish-German cluster brands and diversification of location marketing tools.
- Cross-border cooperation, support for businesses and infrastructure.

Numbers and facts:

- 16 networks and clusters were evaluated.
- 9 networks and clusters were supported and are increasingly engaged in cross-border cooperation,
- including 2 newly established clusters with high regional added value (the Historical Tourism Cluster), innovative assumptions and already nationwide interest (the Cluster for Combating Invasive Species).
- More than 150 benefiting members (SMEs, scientific institutions, and other institutions) in 9 supported networks and clusters.
- Over 20 new members of cluster networks.
- Over 20 workshops aiming at the support of networks and clusters and their continued networking.
- Evaluation, generalization and dissemination of results and experiences in the form of a "Cluster Guide".
- The number of participants in the events organized under the project over 1000.

IV. Tabular overview of networks and clusters covered by the project

item	Name	Year of establ ishme nt	Industry	Activity / Objective	Numbe r of memb ers	Effects / Experiences	Contact s with other clusters	Cross-border actions	Support from national / foreign funds	Plans	Contin uation
1	Verein FEWE e.V. [FEWE e.V. Association]	2004	Renewable energy sources	Cooperation and exchange of information	11	Cross-border cooperation	Yes	Contacts with Polish clusters	No	Qualification acquisition system	Yes
2	The Lubuskie Metal Cluster	2008	Metal industry	Creating optimal development conditions for metalworking companies	38	Joint actions, cross border cooperation	Yes	Contacts with many clusters in Germany	ViVA 4.0 Interreg VA	Update of the cluster development strategy for 2021-2027, development of the cluster brand	Yes
3	The Association Lubuskie Innovation Network	2016	Research and development, education	Implementation of new technologies, cooperation with universities and scientific institutions, consulting	27	Cross border activities, workshops, information events	Yes	Cooperation with the University of Zielona Góra	No	Preparation of joint cross-border projects, continuation of joint workshops and information events	Yes
4	The Centre of Lubuskie Agrotechnical Innovations "CLIA"	2013	Agricultural products, food processing, priority - flax seeds	Development of technologies related to flax seeds processing, sale of flax products	7	Information concerning new and planned products and potential customers	No	Few cross-border contacts	No	Expansion of the network on the German side, e.g. food processing plants, wholesalers, etc.	Yes
5	The Cluster for Combating Invasive Species*	2018	Environmental protection	Combating invasive plant species	16	Creating a sustainable, cross border network	Yes	Cooperation with the State Office for the Environment Protection, Agriculture and Geology in Saxony and CIT GmbH Forst	No	Expansion of cooperation in combating invasive plant species in industrial, investment and tourist areas	Yes
6	The Cluster of Historical Tourism*	2017	Tourism	Better use of the historical and tourist potential of the region	15	2017 - the idea of establishing the "Cluster of Historical Tourism" for Lubuskie and Brandenburg, 2019 - establishment of the cluster in Krosno Odrzańskie	Yes	German partners involved in cooperation	SPF, ERDF	Increasing the number of cluster members, network development on the German side	Yes
7	Netzwerk "Regional gemacht" ["Made in the region" Network]	2015	The regional economy	Production and distribution of regional products	67	Examples of good practice from the region, use of weekly markets	Yes	Attempts to hold weekly cross-border markets	No	Preparation of an Internet platform	Yes

item	Name	Year of establ ishme nt	Industry	Activity / Objective	Numb er of memb ers	Effects / Experiences	Contacts with other clusters	Cross-border actions	Support from national / foreign funds	Plans	Contin uation
8	Netzwerk "grenz- überschreitende Gesundheitsvor- sorge" [Cross-Border Healthcare Network]	2019	Health care	Improving cross-border medical care and emergency assistance	20-30	Improving cross- border medical care and emergency assistance	Yes	Further development of cross-border cooperation between administrations, medical establishments and citizens in the field of health care	Euroregion	Looking for further partners interested in cooperation	Yes
9	Netzwerk "Gesund- heitsstammtisch Burg (Spreewald)" [Network "Health - Permanent Working Group" in Burg (Spreewald)]	2013	Health care	Organization, implementation and promotion of joint activities of health care - related enterprises and administrations	20	Supporting the Burg Authority in the coordination of activities of enterprises related to health protection, organising the "Health Week" event	No	Extension of cross- border activities in order to attract more partners from Poland to these events	No	Organization and implementation of workshops, searching for appropriate sources of financing and support for the planned events.	Yes
10	Ekoenergetyka Polska Sp. z o.o. (+ partners)	2013	E-mobility	Developing technologies in the field of e-transport, developing new technologies in the field of e-mobility	4	So far, the development of the production chain. No equality of members in the cluster	No	Distribution partners in Germany	No	Further expansion of the "Research and Development Centre for New Technologies in E-transport"	No
11	Netzwerk Leichtbau Metall Brandenburg [Brandenburg Lightweight Metal Construction Network]	2015	Metal and lightweight construction industries	Support in the search for solutions in lightweight construction, partners, suppliers and research facilities	22	Currently, there is no interest in extending Euroregional contacts	Yes	Contacts with the Lubuskie Metal Cluster from Gorzów Wielkopolski.	No	If support is provided, the expansion of the cluster is an option	No
12	Cluster Optik und Photonik Berlin Brandenburg [Berlin-Brandenburg Optics and Photonics Cluster]	2011	Optics and photonics	Supporting innovation and cooperation to increase competitiveness	400	Currently, there is no interest in expanding Euro- regional contacts	Yes	Various ties with Poland	The participants' own German-Polish support programme	Continued searching for partners within their own support programme	No
13	Verein CURPAS e.V. [CURPAS e.V. Association]	2016	Aviation and aerospace industry	Concentration of the economic and innovation potential of aviation-related businesses	40	The NWC is already operating in the international arena, financial and substantive support is not needed	Yes	Various ties with Poland and Denmark	Brandenburg GRW support programme	Some NWC partners are involved in the development of patents	No

item	Name	Year of establ ishme nt	Industry	Activity / Objective	Numb er of memb ers	Effects / Experiences	Contacts with other clusters	Cross-border actions	Support from national / foreign funds	Plans	Contin uation
14	The "Tastes from the Warta and Noteć River area" cooperative	2014	Production and sale of regional food products	Production of natural, regional food and disposable, edible dishes made of bran	30	Interest in regional products is growing steadily	Yes	Participation in fairs in Germany	Co-financing for a social cooperative	Accessing new markets, expanding operations in the region, seeking investors	No
15	Blue Sensors	2001	IT and sensorics	Production of various types of gas analysis systems	4	Further development of existing systems, seeking new partners	Yes	Blue Sensors belongs to supra-regional networks. There are no related aspects with the "EuRegioNet" project.	No	Development of new systems and research	No
16	Business Support Cluster	2013	Education and support for employers and entrepreneurs	Providing facilities for vocational practice. Scholarships and internships.	23	New fields in secondary and higher vocational education.	Yes	Cross-border cluster	No	Developing and supporting business and science cooperation. New directions tailored to the needs of the region.	No

^(*) New clusters established under the 'EuRegioNet' project

V. Presentation of results achieved in networks and clusters supported by the project

Description of 9 networks and clusters (NWC) selected by the project partners to continue cooperation and support their further development:

Project partner no. 1 - BIC Frankfurt (Oder) GmbH

NWC no. 1: FEWE e.V., "Verein zur Förderung und Entwicklung der Wirtschaft im Bereich erneuerbarer Energien in den Euroregionen e.V."

[FEWE, Association for the Promotion and Development of Renewable Energy Economy in Euroregions]

Network or cluster objectives (strategy):

- Seeking Polish networks/clusters with the same or similar objectives
- Organization of workshops and information events to exchange and collect information
- Seeking potential for cross-border cooperation
- Cooperation between German and Polish companies and scientific institutions
- Implementation of cross-border projects

Plans, support and results:

- Seeking Polish partners with a relevant profile in the project area
- Contact was established with the Lubuskie Innovation Network Association
- 4 workshops / information events in Germany and Poland were planned and implemented jointly
- Planning and implementation of further joint events
- Preparation and signing of a letter of intent concerning cooperation

NWC no. 2: The Lubuskie Innovation Network (LSI) Association

Network or cluster objectives (strategy):

- Developing cross-border initiatives in innovative areas, in particular in the field of renewable energy sources
- Promoting cooperation between businesses and scientific institutions
- Looking for innovative solutions to occurring entrepreneurship problems
- Cooperation with the University of Zielona Góra
- Training, consulting and advisory services
- Supporting the economy at home and abroad

- Contacts were established and negotiations / meetings were held with FEWE e.V. from Frankfurt (Oder)
- Common interests and approaches to cooperation were identified
- 4 expert workshops were planned and implemented in Germany and Poland
- A letter of intent was signed with FEWE e.V.
- Use of German experience in the planning, design, construction and operation of RES installations
- Establishing contacts with the European University Viadrina in Frankfurt (Oder)

Project partner no. 2 - The Lubuskie Employers Organization (LOP), Gorzów Wlkp.

NWC no. 3: The Lubuskie Metal Cluster (LKM)

Network or cluster objectives (strategy):

- Cooperation in implementing joint actions to achieve market benefits by organising a system of collective purchasing of materials and components for production
- Development of a transaction system for the purchase and sale of production capacity
- Common presence on the market
- Support for the development of innovative products
- Developing the foundations for a common German-Polish dual vocational training system for metalworking professions

Plans, support and results:

- Support in establishing contacts with German networks and clusters with similar profiles
- Professional support was provided to develop contacts and strengthen the basis for cooperation with the German "Metall Brandenburg" cluster and the "profil.metall" network.
- Monitoring of and support for the Polish-German project "ViVA 4.0" implemented by LKM and QCW GmbH Eisenhüttenstadt to create a cross-border dual vocational training model ViVA 4.0
- Promoting information and training events in Germany
- In cooperation with the Jacob of Paradiz Academy in Gorzów Wielkopolski new fields of technical studies were developed to meet the needs of the cluster members, necessary to secure the future of enterprises

NWC no. 4: Cluster for Combating Invasive Species

Network or cluster objectives (strategy):

- Environmental protection, protection from dangerous, invasive plant species
- Combating invasive species by means of coordinated actions and measures
- Development of control methods
- Training concerning invasive species and specific methods of combating them
- Establishment of a cross-border association operating on a permanent basis to investigate and combat invasive plant species within and outside the project area

- Support and assistance in the organization of a conference on "Clusters and networks in the border region".
- In cooperation with the West Pomeranian University of Technology from Szczecin and the Jacob of Paradiz Academy from Gorzów Wielkopolski a cluster strategy was developed.
- Cooperation with the "Herakleum a burning issue" Foundation in order to spread experience and know-how
- Thanks to the cooperation with school authorities, children and adolescents could be informed during classes about the dangers, handling and occurrence of invasive plants.

- Cooperation with the Business Support Cluster in Gorzów Wielkopolski with respect to combating invasive plant species in areas of industrial infrastructure as well as in investment and tourist areas
- In cooperation with CIT GmbH Forst, a conference with lectures and multimedia presentations
 on the topic "Invasive plants in our region" was organised for representatives of local authorities,
 scientists and employees of the Brandenburg Ministry of the Environment.

Project partner no. 3 - Centrum für Innovation und Technologie GmbH (CIT), Forst (Lausitz)

NWC no. 5: Netzwerk "Regional gemacht"

["Made in the region" Network]

Network or cluster objectives (strategy):

- The network wants to strengthen the region in terms of promotion, trade and sales of regional products
- More traders should join the network
- The product range should be further expanded
- Actions should be taken to improve the external image and publicity
- Organization of cross-border cooperation between regional German and Polish producers and traders

Plans, support and results:

- Development of a plan based on examples of good practice from the region, which will focus on both past and future cross-border activities
- Visit to the Gorzów Wholesale Market
- Regular weekly cross-border fairs are planned
- Conducting 3 jointly organized fairs
- Developing an Internet platform
- Joint preparation of an application for funding under the NCI support programme

NWC no. 6: Netzwerk "grenzüberschreitende Gesundheitsvorsorge" im Bereich der Euroregion "Spree-Neiße-Bober"

[Cross-border healthcare network in the Spree-Neisse-Bober Euroregion]

Network or cluster objectives (strategy):

- Further development and consolidation of Polish-German cooperation between administrative bodies, institutions, medical facilities, health professionals and citizens in the field of health care
- Improvement of cross-border healthcare and emergency assistance in the area of the Spree-Neisse-Bober Euroregion

- Joint participation in events in order to raise awareness of the issue
- Establishing contacts with regionally relevant institutions in Germany and Poland that deal with health care and emergency assistance, discussing "cross-border potentials" and looking for contacts / partners
- Looking for other partners interested in cooperation within this Polish-German network
- Regularly maintaining cross-border contacts and informing each other on current healthcare issues

NWC no. 7: "Gesundheitsstammtisch Burg (Spreewald)"

["Health" permanent working group in Burg (Spreewald)"]

Network or cluster objectives (strategy):

- Organization, development and promotion of joint activities of administration units and enterprises related to health care
- Organization and promotion of joint events
- Extension of cross-border promotional activities, e.g. to reach more Polish citizens in order to attract them to these events and activities

Plans, support and results:

- Supporting the activities of the Burg (Spreewald) Office to coordinate the activities and undertakings of health protection-oriented enterprises
- Improving active cooperation of enterprises operating in this field
- Co-organization of the "Burg Health Week"
- Organization and implementation of a series of workshops
- Seeking relevant funding opportunities and support for planned future joint events

<u>Project partner no. 4 - Association of Polish municipalities the "Spree-Neisse-Bober" Euroregion</u>

NWC no. 8: The "Historical Tourism Cluster" Association

Network or cluster objectives (strategy):

- Better use of the tourism potential of the German-Polish border region
- Maximum utilization of tourist attractions: historical palace and park premises, fortifications
- Processing and dissemination of knowledge of the history and traditions of viticulture in the region
- Supporting activities aiming at the cross-border networking of tourism potential
- Networking of activities and tourist attractions
- Cooperation with tourist associations in the region

- The idea, preparation and establishment of an association called "Historical Tourism Cluster"
- Opening of an office in Krosno Odrzańskie
- Support for joint promotional activities
- Preparation, organization and implementation of 17 events to date aimed at popularizing the project among the public
- Organization of 2 conferences entitled "Historical Tourism Cluster"
- A number of meetings with representatives of local authorities dealing with tourism in order to clarify the scope of activities of the Historical Tourism Cluster
- Preparation of the association's development strategy
- Seeking German partners (clusters) to develop a joint, cross-border action strategy in this field
- Consideration of the possibility of commercial exploitation of the activities
- Looking for new project concepts

NWC no. 9: The Centre of Lubuskie Agrotechnical Innovations ("CLIA")

Network or cluster objectives (strategy):

- Developing technologies for flax seed processing
- Sales of all types of flax seeds, omega acids (esters) and oils
- Production of various types of bakery and confectionery products (biscuits, bread, flat bread, etc.) made from flax flour or with the addition of flax flour and flax oil esters

Plans, support and results:

- Exchange of information on new and planned products
- Exchange of information using the EuRegioNet project network
- Searching for network partners on the German side and invitations to participate in information activities
- Developing a stable network of partners on the German side
- Presentation of products and information on the quality of flax products from the Żary region as compared to imported cheaper products from Ukraine
- Looking for regular cooperation partners (buyers) in Germany, such as pharmacies, health food stores, organic food shops, etc., interested in pre-packed flax seed products, products with omega acids, linseed, linseed flour as well as skimmed and ground flax seed

VI. Summary - Evaluation results and final assessment

As a result of the evaluation it was concluded that the project partners fulfilled their tasks and achieved their objectives. The project activities aimed at supporting and developing networks and clusters proved to be effective for future-oriented economic development of the region.

In conclusion, it should be stated that:

- Networking and clustering is economically and socially beneficial.
- Well organised and managed networks and clusters are beneficial for all parties involved.
- By creating a network, problems can be identified and solved faster.
- Networks and clusters provide effective support in the cross-border cooperation process.
- Cooperation within networks and clusters should be consistently continued and new network and cluster structures should be created, developed and their skills upgraded.

The continuation of the work carried out under the project is necessary to consolidate the positive results achieved in the development of networks and clusters and to manage this development in a sustainable and future-oriented manner.

F) Observations, recommendations, perspectives

The following proposals and recommendations based on them result from the project work and its evaluation:

- 1. Cross-border cooperation related to the establishment of networks and clusters has the following effects on the networks, on individual entities involved in the NWC and on the region:
 - Knowledge transfer and confidence building

All the persons and entities involved in the process reach a new level of knowledge of markets and economic systems, partners and competitors, the mechanisms and requirements of internationalisation and, consequently, develop an understanding of the other persons and entities involved as well as the neighbour market. Various personal contacts are established, as processes shaped by innovative ideas, such as those that are the cause of networking, are also particularly dependent on the involvement of active individuals.

Creating additional added value that cannot be otherwise achieved

Additional requirements related to internationalisation (interaction of different markets and legal systems, overcoming language barriers, impact of different mentalities on economic processes...) accelerate and increase the dynamics of strategic considerations and processes in the companies and institutions involved. They require new ideas, strategies and solutions and thus foster innovation. The know-how base in the economic, legal, scientific and social area is expanding considerably. Activities have a positive and model effect.

The added values for NWC, individual entities and the region are the following:

- ✓ Additional investments and new projects
- ✓ Increase in innovation
- ✓ Increase in activity in the economy, science and administration
- ✓ Linking labour markets together
- ✓ Establishing new personal contacts at all levels → developing trust → domino effects
- ✓ Improvement of the mood and social climate in the region → the process of the region's convergence is supported
- ✓ Setting an example → activating other market players
- ✓ Improving the presentation and external perception of the region
- The development of cross-border networks can be very effectively stimulated from outside.
 Moderating, assisting and supporting networking processes has a stabilising and sustainable impact.
 - An "ignition spark" to commence activities

Ideas for networking or cooperation often already exist or are evident. They are usually based on economic benefits that can be achieved in this way. However, for a variety of reasons, they are not taken up or are not being implemented. Such reasons include, for instance, high daily workload, failure to find partners on the other side of the border, psychological barriers, lack of international experience, lack of suitable business environment or too tight environment, etc. Contact through an external network, such as the "EuRegioNet" project, is

like an energy injection and can initiate the process. An important role in this process is played by the know-how of an external entity, such as in our case of the "EuRegioNet" project and its partners, as well as the support provided by them in the initial phase.

 Moderation and initial support of the networking processes by the project helps to overcome the above mentioned, objectively existing barriers and deficits, and has a stabilising effect during the network establishment phase.

Practically tested forms of support include, for instance:

- Specification and registration of ideas and potentials and activation of entities
- Making the environment and know-how of the project and its partners available in order to develop a strategy of action on the basis of presented ideas, as well as providing support in searching for and establishing contacts with the partners, i.e. preliminary relieving of enterprises and potential partners, for example by
 - Active moderation of first steps
 - Joint organization, preparation and conduct of meetings and workshops
 - Translation and advisory services
 - Assistance in clarifying factual issues (tax, legal, organizational issues)
 - Support in the provision of marketing services

We prevent good ideas from failing due to initial, objectively existing barriers.

- 3. The establishment of cross-border networks and clusters involves the following requirements:
 - The time, personnel and financial resources required to establish cross-border cooperation from the birth of an idea to a successful end are very high for all the entities involved and are usually significantly underestimated by companies and institutions!
 - No pressure can be exerted on economic processes, and thus on networking processes, and there must be real demand and (expected) benefits.
 - Forms of economic cooperation (organization, clarification of competition, substantive and legal issues, provision of personnel, financing) need time - the networking of many entities and international participants is even more time-consuming, because of the processes and additional problems involved (see above).
 - In order to establish networks, initiators who are able to inspire and attract other participants are important as they can offer a chance of success. Significant advantages also result from external assistance and help in the initial phase (see item 2). It initiates actions, gives new impulses, accelerates and secures the networking processes by sharing tasks, relieving the burden, sharing know-how, etc. This significantly increases the "survival rate" for newly established networks and cross-border activities, as most projects fail precisely in the initial phase due to the usually underestimated problems connected with expenditure and the specificity of the networking processes.
 - Networking processes are usually more complicated than one can see or guess from the outside - "the devil is in the details".
 - Due to the variety of tasks and problems to be solved, very accurate organization, communication and constant focus on objectives are necessary.

 Digital instruments play almost no role in networking processes, even in SMEs they are not yet an issue.

4. Recommendations and prospects

Networks and clusters have been in the centre of attention of policy at all levels and not without good reasons have they been supported.

We would like to summarise here a few aspects resulting from our experience (see items 1-3) gained in assisting and supporting networks or clusters in practice, especially in cross-border projects:

- It makes sense to actively address the needs of networks and clusters in order to find or actively develop ideas of a cross-border character and to initiate them and assist in their implementation, and it creates added value, as very often there are barriers necessary to overcome, and without external intervention such ideas or approaches are not implemented at all.
- Practice shows that this task can be carried out in the most efficient way by networks of regional know-how multipliers operating across regions and borders, which combine entrepreneurial know-how, market practice, consulting, regional and international aspects and project experience. This is due to their position, which allows for a broad overview of the situation from a distance, their independence from competition, which allows for making strictly justified decisions, and their know-how and access to the whole environment at the regional level on both sides of the border, which is needed in the initial phase of cross-border networking. In order to avoid institutionalisation, these networks should be established and financed for a certain predefined period of time within the projects.
- Simultaneously, these know-how multipliers in the regional and supra-regional dimension should explore new topics related to networking and the resulting new areas and opportunities for the future. They are very well suited to this, as they can act from a "distance and perspective" (→ smart specialization).
- In order to reduce and overcome barriers, especially at the beginning, project financing should, in addition to personnel costs, include funding for organizational tasks, meetings, workshops, translations, professional know-how and marketing.
- A period of 5-6 years should be the time horizon for the sustainable implementation of such tasks, since these processes, due to their complex nature, are very time-consuming and therefore lengthy. The risk of failure, especially in the first phase, the organization phase, is very high. It can be significantly reduced by providing assistance based on relevant knowhow and initial help and support.
- The know-how and experience gained from such projects should be preserved in an intelligent and sustainable way. As they are linked to specific individuals, these individuals must not be allowed to leave the project after the support phase. This should be an essential requirement for projects.
- The methods of digitalization of networking processes should be studied and taken into account from the very beginning. So far, especially in SMEs, this has not been a topical issue, but it will be one of the competitiveness requirements in the future.

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