



BusDEV - Business Development Opportunities at External EU Borders

Targeted Analysis

Annex IV

Business support policies in other EU Member States

Good practice examples for inspiration

15/02/2021

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Table of contents

1	Integrated territorial investment in a more rural and sparsely populated area	1
1.1	Policy objective, context and rationale for selection.....	2
1.2	Description of the good practice.....	4
1.3	Further information	10
2	SEZ as instrument to address economic diversification.....	11
2.1	Policy objective, context and rationale for selection.....	11
2.2	Description of the good practice.....	12
2.3	Further information	19
3	Innovation voucher Brandenburg	20
3.1	Policy objective, context and rationale for selection.....	20
3.2	Description of the good practice.....	21
3.3	Further information	26
4	Financial instruments in Małopolskie – an effective way to support SMEs in need	27
4.1	Policy objective, context and rationale for selection.....	27
4.2	Description of the good practice.....	28
4.3	Further information	32
5	Cluster development measure on digital innovation	33
5.1	Policy objective, context and rationale for selection.....	33
5.2	Description of the good practice.....	34
5.3	Further information	39
6	JuEX – Female start-ups in Saxony-Anhalt.....	41
6.1	Policy objective, context and rationale for selection.....	41
6.2	Description of the good practice.....	42
6.3	Further information	46
7	Demography coaching.....	47
7.1	Policy objective, context and rationale for selection.....	47
7.2	Description of the good practice.....	48
7.3	Further information	52
	Annex.....	53
8	BioEnergy Villages	54
8.1	Policy objective, context and rationale for selection.....	54
8.2	Description of the good practice.....	55
8.3	Further information	60

1 Integrated territorial investment in a more rural and sparsely populated area

SUMMARY

The main objective of Integrated Territorial Investments (ITIs) is facilitating territorial cohesion and multi-stakeholder co-operation in tackling development challenges of specific areas. It assumes adjustment of interventions to the needs of 'functional areas' whose boundaries are determined by common development conditions and strong multidirectional functional connections. In the analysed good practice of the ITI of Koszalin-Kołobrzeg-Białogard Functional Area (KKB ITI) in the West-Pomerania region of Poland, the common development objectives of 19 municipalities from the north-eastern part of the region involve transport, innovation and education.

The KKB ITI is an example of a sub-regional cooperation method differing from the usual approach focusing on an agglomeration and its surrounding functional area. In this particular practice, the development measure is suited for more sparsely populated territories, away from major cities. This allows to respond to specific development needs of such territories, with an adjusted development measure. The practice can be used in designing development measures for regions and territories with a similar functional layout (i.e. rural, sparsely populated), and therefore, may be of relevance for the stakeholders.

ITIs are an instrument within the framework of the EU Structural and Investment Funds (ESIF), introduced by the European Commission in the financial perspective 2014-2020. In Poland, ITIs are implemented in 24 areas under regional operational programmes (ROPs). The financing is allocated by the European Regional Development Fund (ERDF) and the European Social Fund (ESF). The areas where ITIs are implemented were agreed jointly by the regional self-government and municipalities interested in implementing ITIs. These areas were defined in relevant resolutions of the Regional (voivodeship) Boards. They also reflected observations from the National Regional Development Strategy and Regional Development Strategies. The KKB ITI is implemented under the West-Pomeranian ROP 2014-2020, in accordance with the KKB ITI Strategy adopted by the KKB ITI Union (i.e. the association of 19 local municipalities headed by the urban Municipality of Koszalin), and based on the funding agreement between the Union and the ROP Managing Authority. The KKB ITI allocation under the ROP is EUR 40 million.

The KKB functional area has a relatively low population density, i.e 75 inhabitants/km² for the region of West-Pomerania, compared to Poland's average of 123 inhabitants/km² (2018). There are further negative demographic forecasts for the KKB area. Moreover, the majority of the KKB ITI municipalities are rural or urban-rural, with only three urban municipalities that have only sub-regional and local functions.

The good practice can be fully transferable to other regions, upon adaptation based on specific needs analysis. It is conditioned by the possibility of creating unions, common strategies and implementation measures of local administrative units. Possible adaptation to local needs and conditions will also require detailed parameters of the solution, in particular the need to take into account the local socio-economic structure (i.e. the administrative capacity of local authorities, infrastructural endowment, structure of enterprises, etc.) and may refer to different sectors.

1.1 Policy objective, context and rationale for selection

1.1.1 Main policy objective of the good practice

Integrated Territorial Investments (ITIs) are one of the most recent instruments in managing regional development. It assumes adjustment of interventions to the needs of areas whose boundaries are determined by common development conditions as well as strong and multidirectional functional connections. The main goals of ITIs are the following:

- Promoting a partnership model of cooperation between various administrative units in functional urban areas,
- Increasing the effectiveness of interventions by implementing integrated projects comprehensively responding to the needs and problems of cities and areas functionally related to them,
- Implementation of integrated projects comprehensively responding to the needs and problems of cities and their functional areas,
- Increasing the influence of cities and areas functionally related to them on the shape and manner of implementation of activities supported in their area under the cohesion policy.

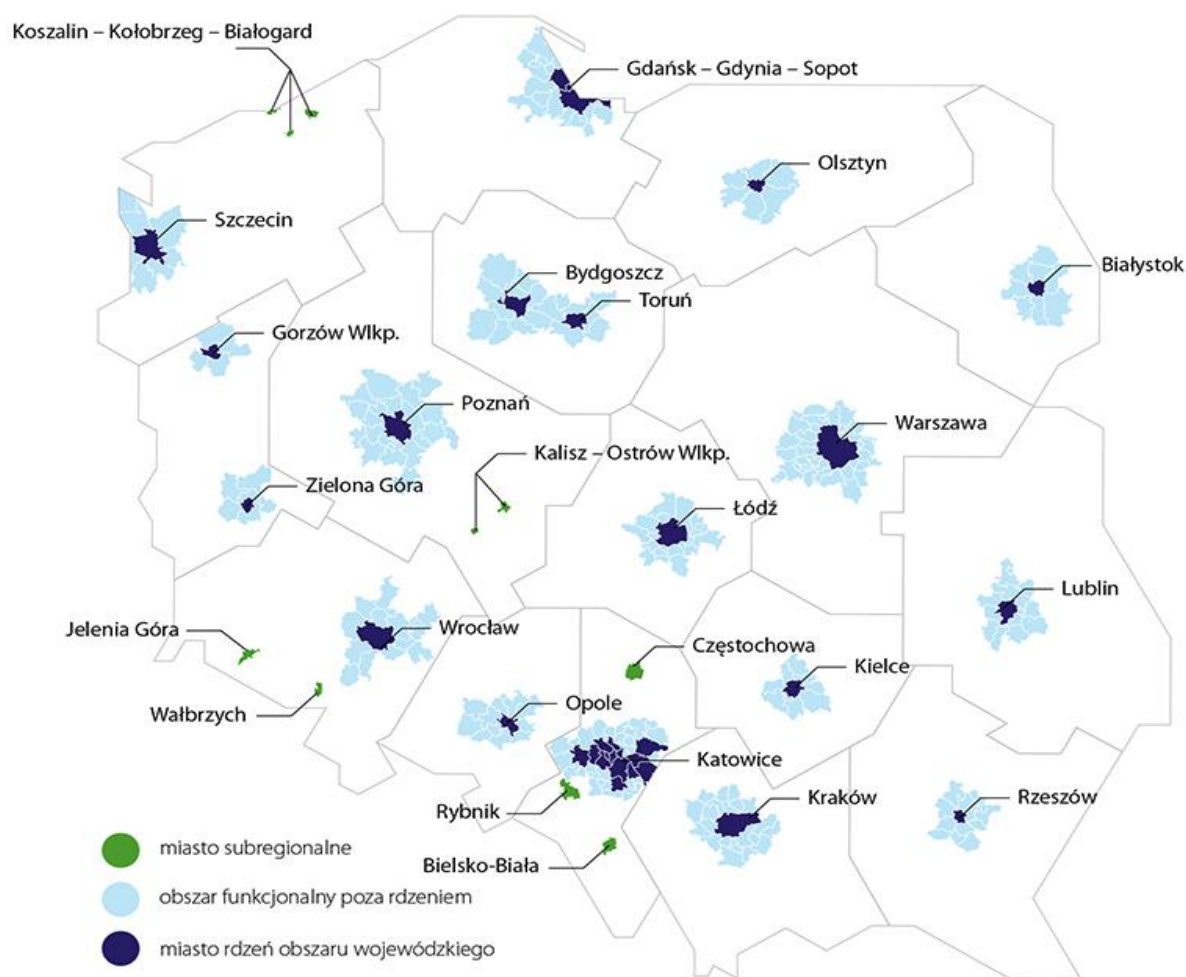
1.1.2 Policy context of the good practice

Integrated Territorial Investments (ITIs) are an instrument within the framework of the EU Structural and Investment Funds (ESIF), introduced by the European Commission in the financial perspective 2014-2020. They are aimed primarily at sustainable development of urban areas and adjacent communities, the so-called 'functional areas'.

In Poland, ITIs are implemented in 24 areas under regional operational programmes (ROPs). The areas where ITIs are implemented were agreed jointly by the regional self-government and municipalities interested in implementing ITIs. These areas, consisting of regional core cities or sub-regional urban areas with needs for strategic intervention, were defined in relevant resolutions of the Regional (voivodeship) Boards. They also reflected observations from the National Regional Development Strategy and Regional Development Strategies. The total ESIF allocation to all 24 Polish ITIs is EUR 3.75 billion.

ITIs are to help, among other things, to improve transport within a functional area, eliminate the effects of urban degradation, improve the state of the natural environment, improve the energy balance, increase innovation, attractiveness and quality of services in a given area. The financing is allocated by the European Regional Development Fund (ERDF) and the European Social Fund (ESF).

Figure 1.1 ITIs in Poland



Source: National Control Chamber

1.1.3 Rationale for selecting this good practice

The good practice is an example of a sub-regional cooperation method, slightly different from the typical ITI example, which is usually aimed at the cooperation of a metropolis and its surrounding functional area. In this particular practice, the development measure is suited for more sparsely populated territories, away from key major cities. It is the ITI of Koszalin-Kołobrzeg-Białogard (KKB) Functional Area in the West-Pomerania region of Poland.

This atypical approach allows to respond to specific development needs of such territories, with an adjusted development measure. The practice can be used in designing development measures for regions and territories with a similar functional layout.

1.2 Description of the good practice

Figure 1.2 Koszalin-Kołobrzeg-Białogard (KKB) Functional Area (2020)



Source: KKB ITI

1.2.1 The need addressed by the good practice

The analysis focuses particularly on the ITI of KKB functional area, located in the sparsely populated territory of Poland, the region of West-Pomerania. The KKB ITI was created in 2014-2015 by 19 local municipalities from the north-eastern part of the region, whose average population density is 75 inhabitants/km², compared to Poland's average of 123 inhabitants/km² (2018). The ITI area is 3 175 km², i.e. 13.8% of the region's area, and the population reaches 299.6 thousand inhabitants, i.e. 17.4% of the region's population. The leader of the ITI in the Municipality of Koszalin, which executes the ITI implementation tasks based on an agreement with the West-Pomeranian ROP MA. The ITI allocation under the ROP is EUR 40 million.

Taking into account the demographic situation of the region, there are further negative demographic forecasts for the KKB area in 2035 and 2050. Population will be ageing, and the demographic dependency rates will further increase.

From the spatial point of view, there were several trends important for the socio-economic development. There was a clear economic differentiation in the KKB area. The centre determining the economic strength of the area was the city of Koszalin with a relatively richer industrial tradition and the academic, human and infrastructure base necessary for development. However, there was a successive decrease in the number of students studying at Koszalin higher education. Interestingly, the municipalities located in the coastal belt in the north of the area, were the leaders in most entrepreneurship indicators. It was thanks to developed tourism, even though there was no integrated ESPON 2020

tourist offer that would display the advantages of the entire Central Pomerania sub-region. And especially those municipalities were seen as constituting the competitive advantage of the area. In contrast to the northern part, the southern part of KKB was based on activities related to agriculture, forestry and wood processing.

The development has been accompanied by sub-urbanization. In the entire area, the population was observed to increase slightly, although a greater relative increase was recorded in the municipalities surrounding the largest cities in the area. The inhabitants move mainly within the KKB municipalities, and the dominant direction was from cities to the countryside. And there was also local 'urban sprawl' observed from the largest cities onto neighbouring municipalities, which resulted in creating new networks of dependencies and functional connections between local governments.

At the same time the area lacks a coherent and integrated public transport system in the KKB area. In this regard there was an insufficient level of public transport integration in communication nodes, and the local transport was based on the difficult to manage, fragmented offer of small carriers.

Therefore, the development needs of the KKB area have been diagnosed in terms of;

- Transport
 - Low transport availability on a national scale,
 - Unsatisfactory technical condition of local roads, low capacity of the main routes, which causes traffic congestion, especially during the holiday season,
 - Insufficient public transport offer outside the main KKB cities,
 - Dispersion of relatively well-developed cycling infrastructure,
- Innovation
 - Low level of own resources enabling innovative development of enterprises,
 - The dominant position of enterprises from traditional sectors,
 - No common space for cooperation between business and science,
- Education
 - Insufficient number of places in nurseries and kindergartens, especially in rural areas,
 - Underfunded secondary schools,
 - Necessary professional development of teachers.

1.2.2 Objectives of the good practice

The ITI Strategy sets out the objectives of economic and infrastructural development, developed jointly by the local governments that make up the KKB Functional Area.

The most relevant objectives include the implementation of integrated projects which favour the development of the entire ITI area, the integration of its inhabitants, and the co-operation of local governments in addressing the common needs of the area.

The Strategy is implemented through three priorities and six measures as follows:

- Integrated sustainable transport
 - Efficient public transport - creating efficient and integrated public transport (i.e. purchasing of low-emission bus fleets),
 - Better transport accessibility - building bicycle paths ensuring safe and efficient passage of inhabitants to workplaces, schools and other public institutions; strengthening the road infrastructure and improving road connections (i.e. reconstruction of local roads and connecting them with the S6 and S11 expressway nodes),
- Innovative economy based on endogeneous potentials
 - Infrastructure for enterprise development - enabling SMEs to start up easily or develop their businesses (i.e. expansion of investment areas),
 - Increasing potential and competitiveness of enterprises based on innovations - development of innovative enterprises,
- Education and upbringing adjusted to contemporary needs
 - Creating new places in nurseries and kindergartens,
 - Supporting primary, secondary and vocational education.

The achievement of objectives set out in the Strategy is envisaged owing to the involvement of the inhabitants, the social organisations and the companies actively operating in the area of 19 partner municipalities.

1.2.3 Detailed good practice description

Owing to the ITIs, partnerships of local government units of urban areas and territories functionally linked to them can achieve common objectives, and undertake combined 'hard' (EDRF-type) and 'soft' (ESF-type) activities. Such a formula makes it possible to go beyond the rigid administrative boundaries of local governments, and can transpose into greater impact of jointly implemented activities.

In the entire Poland the implementation of ITIs started with the establishment of ITI Unions (i.e. associations of local authorities), which developed ITI Strategies for their areas. Then the agreements were signed between ITI Unions (acting as OP Intermediate Bodies) and the Managing Authority for a given Regional Operational Programme (ROP MA), i.e. the Regional (voivodeship) Board. Then the Unions were responsible for elaborating their relevant ITI strategies as the key pre-condition for launching their ITIs.

The next stages of the ITI implementation were the creation of a system for the selection of appropriate operations, the selection of those operations, and the creation of conditions for their implementation. Any delays and errors in the preparation and implementation of ITIs contribute to delays in the use of funds under the ROP.

In the case of KKB ITI it was on the basis of the Intermunicipal Agreement of 28 March 2014 that the 19 municipalities established the ITI Union. Those are: Będzino, Białogard urban municipality, Białogard rural municipality, Biesiekierz, Bobolice, Dygowo, Gościno, Karlino, Kołobrzeg urban municipality, Kołobrzeg rural municipality, Koszalin, Manowo, Mielno, Polanów, Sianów, Siemyśl, Świeszyno, Tychowo, Ustronie Morskie. Among them: 9 municipalities are rural, 7 urban-rural, and 3

urban (though not large, i.e. Koszalin is of sub-regional and Kołobrzeg and Białogard are of local dimension).

The leader of the KKB ITI is the Municipality of Koszalin, which carries out tasks related to the implementation of the ITI instrument on the basis of an agreement with the Managing Authority of the ROP for West-Pomerania region 2014 – 2020, concluded on 23 June 2015.

The KKB ITI strategy was adopted on 28 June 2016 and then received positive opinions and approvals also from the ROP MA. And also the Poland's Ministry of Economic Development as the ESIF national coordination. The ITI operations falling under the strategy were then selected and implemented.

1.2.4 Results achieved

The projects indicated in the KKB ITI Strategy might have been financed from various sources and programs, however, the basic source of financing is the ROP for West-Pomerania region 2014-2020. EUR 29.0 million, i.e. over 72% of funds dedicated to KKB ITI under the ROP, went to local governments supporting the implementation of 25 strategic projects. In this way, funds have been allocated to the development of low-emission public transport, local roads and support for the development of economic infrastructure.

It was important for the entire area to improve connections between investment zones, seaports and local roads with the main communication routes - the TEN-T network S6/S11 routes. The City of Kołobrzeg improved access to the commercial, yacht, fishing and passenger port from the land side. The reconstruction of several streets and the construction of roundabouts connected the port with the national road No. 11 and the S6/S11 routes (links within the TEN-T network). Parking spaces and new pavements were also built. Investments carried out by the City of Koszalin and the municipalities of Biesiekierz and Bobolice had similar goals. Koszalin expanded a road which connects the new bypass along the S6 route, and Biesiekierz modernized the connection to Koszalin and other roads. All implemented investments integrate the local communication system and improve transport accessibility of investment areas. Road projects significantly improved accessibility to previously poorly connected areas of the region, though of lower industrial importance, but of higher for the development of tourism and the increase in the living conditions. Optimizing road connections, reducing distances and travel time contributed also to reducing the amount of emissions.

It was crucial for the KKB municipalities to undertake also other kinds of investment in the development of low-emission transport. Therefore, the ITI financed also comprehensive solutions in the field of improving collective passenger transport, non-motorized (e.g. bicycle) and intermodal transport, mobility management, pedestrian zones, road safety, and promotion of use of ecologically clean and energy-saving vehicles. Investments in low-emission transport and bicycle routes were accompanied by the construction of transfer centers, bike & ride places or city bike stations in several cities. Importantly, the local governments promote bicycle as an alternative form of transport, and development of bicycle infrastructure is also attracting tourism to the area. Therefore, Koszalin, Kołobrzeg and Białogard focused on completing the missing parts of their bicycle infrastructure. An important goal was also to integrate bicycle paths with bus and rail transport, and to create connections with neighboring municipalities. The total length of bicycle paths in the KKB ITI area increased from 88.2 km in 2011 to 206.4 km in 2018.

Under the KKB ITI, there was also funding for the development of innovation. The preferred kinds of investments were the ones within the framework of the region's smart specialization or leading local sectors, and creating new jobs. The projects selected in competitions needed to present product, service, process or organizational innovations and could receive funding of up to PLN 1 million. Most of the projects that received the funding were in metal and machine industry. Beneficiaries expanded and modernized their machinery park, built new production halls, and also increased. For example, the company of Rafa Plandeki, a producer of tarpaulins, tent halls and canopies, received a grant for the purchase of cutters (machine for cutting material) according to digitally designed drafts. In another example, Meden-Inmed Sp. z o.o. a producer and distributor of professional medical and rehabilitation equipment since 1989, with 80% of its revenues from exports, purchased high-class CNC machine tools and implemented advanced IT tools for production management. Thanks to the support, the manufacturing of details for the devices produced by the company has become simpler and more competitive.

The KKB municipalities also extended the already existing investment zones. Most of the companies from the zones operate in wood processing, metal and machine processing, storage services, forwarding and logistics, food processing and plastics processing. The new investment areas were made fully equipped and ready to host companies from the SME sector. Access roads were connected to the main national roads. Entrepreneurs investing in the zone may receive the real estate tax exemption according to the de minimis rules, and the income tax exemption in the amount of up to 55% of the investment value.

Another of the key KKB ITI investment areas was the kindergarten care, school education, and vocational training. One of the aims of the support was to facilitate the entry of young parents into the labour market. One of the kindergartens in Koszalin addressed the offer to employees of enterprises located in the Słupsk Special Economic Zone. The facility created additional places, extended working hours and provided care for children also on Saturdays. The program of kindergartens was also extended to include activities increasing the educational chances of children and compensating for the diagnosed deficits. New places were adapted to the needs of children with disabilities. Furthermore, kindergarten teachers also improved their skills in order to be able to work according to the latest methods, including those for children with special educational needs.

Increasing the quality of school education focused on developing key competences in pupils, such as: ICT, foreign languages, mathematics and natural sciences, creativity, innovation and teamwork. In order to increase the attractiveness of teaching, the supported schools also purchased modern equipment and teaching aids. They also created a wide range of extracurricular activities that help in making up for the gaps, developing the skills and promoting talents of children and youth. Teachers increased their competences by participating in workshops, trainings and courses. Trained teachers introduced new methods, including individualization of work with pupils.

1.2.5 Risk and success factors of the good practice

ITIs allow local governments to gain direct influence on investments implemented with the EU funds in their area, partner with the neighbouring areas and implement a joint strategy towards common challenges. Acting at a level of unions of local administration units allows for the adjustment of investment policies to the specific needs and conditions of given functional areas.

The key success factor and at the same time the key risk factor is the administrative capacity in the union of local administration units. In order to implement the good practice effectively and efficiently the union needs to demonstrate the capacity for partnership, strategic programming of common goals and policies, and for the policy delivery (i.e. project selection and implementation). And in the case of KKB this key capacity was ensured by dedicating the relevant administrative resources (esp.competent staff) from all the ITI stakeholders involved.

Otherwise, the key risk factors may be:

- shortages in the administrative resources of local governments to coordinate comprehensive actions, reforms and investments,
- inadequate identification with common goals and challenges,
- differences between the partners overwhelming the use of common capacities.

1.2.6 Lessons learned and transferability

The main lessons learned from the good practice include:

- Capacity of efficient management of the development policy in a functional arrangement, beyond the administrative boundaries of a single urban, sub-urban or rural area,
- Capacity of developing a comprehensive transport network and increasing the low-emission mobility of residents of a common functional area, and not necessarily within a metropolis,
- Capacity of stimulating the innovativeness of traditional sectors commonly considered as not very innovative,
- Capacity of strengthening education (including pre-school) in rural areas.

The good practice can be fully transferable to other regions. It is conditioned by the possibility of creating unions, common strategies and implementation measures of local administrative units. Possible adaptation to local needs and conditions will require detailed parameters of the solution, in particular the need to take into account the local socio-economic structure (i.e. the administrative capacity of local authorities, infrastructural endowment, structure of enterprises, etc.). In other words, the detailed needs analysis summarised above, will always be very specific and may even refer to other sectors.

1.3 Further information

1) ITIs

www.funduszeuropejskie.gov.pl/strony/o-funduszach/zasady-dzialania-funduszy/zintegrowane-inwestycje-terytorialne/

2) KKB ITI

www.koszalin.pl/pl/zit

3) KKB ITI Information

www.koszalin.pl/sites/default/files/pliki/ZIT/broszura_wspolnie_robimy_wiecej_internet.pdf

4) KKB ITI Strategy

www.koszalin.pl/pl/zit/strategia-zit

2 SEZ as instrument to address economic diversification

SUMMARY

The main objective for creating Special Economic Zones (SEZ) is to increase the economic potential of a country and a region by attracting and stimulating investment to intensify and diversify economic activities. This is particularly important in pursuing a development policy for regions which are considered to be unable to generate growth endogenously.

From the point of view of the stakeholders, attracting and stimulating investment in SEZ may be particularly relevant to the following regions: lagging behind, border, or sparsely populated; regions experiencing difficulties in developing entrepreneurship and diversifying economic activity; unable to generate sufficient investment, having insufficient financial capital, or being insufficiently attractive to external investors. It may also be relevant for the stakeholders to get an insight into functioning of a particular SEZ, in similar circumstances to theirs. The insight is provided from the example of the Suwałki SEZ

SEZ are an instrument to support regional development and structural changes in the economy, which has been implemented in Poland as part of the national development policy since 1994. The instrument was extended in 2018, from the designated areas of the zones to the territory of the whole country and adjusted in scope to the current structural needs of the economy. The instrument is called the Polish Investment Zone (PIZ).

The Polish regions with SEZ were lagging behind, had an inefficient economic structure and an insufficient level of endogenous potential to generate economic growth at the expected level. Importantly, their territories may include rural, border or sparsely populated areas. Suwałki SEZ operates mainly in Podlaskie and Warmińsko-Mazurskie voivodships, which are mostly rural or urban-rural and also relatively sparsely populated. Moreover, like the stakeholder territories, they are located on the EU's eastern border (with Russia and Belarus) and may experience similar economic conditions.

The good practice may be fully transferable to other regions, upon adaptation to the local circumstances. While transferring, particular attention should be paid to the quantitative and qualitative requirements towards entrepreneurs (e.g. sectors and scope of supported investments, the expected value of supported investments and jobs created), State aid conditions, the support period, and the availability of other factors of investment attractiveness (e.g. infrastructure, human capital, etc.).

2.1 Policy objective, context and rationale for selection

2.1.1 Main policy objective of the good practice

Special Economic Zones (SEZ) are areas designated in the territory of a given country, where preferential conditions for conducting business activity (in particular tax reliefs) are offered. The main policy objective for creating SEZ is to increase the economic potential of a country and a region by attracting and stimulating investment to intensify and diversify economic activities. This is particularly important in pursuing a development policy for regions which are considered to be unable to generate growth in an endogenous way.

2.1.2 Policy context of the good practice

SEZ are an instrument to support regional development and structural changes in the economy. In Poland they have been implemented as part of the national development policy since 1994. At the time of SEZ launching, many Polish regions were experiencing the problem of an inefficient economic structure and an insufficient level of endogenous potential to generate economic growth at the expected level.

The main reason for the SEZ creation was the positive impact of investments on economic growth assumed both in theory and empirical studies.

The instrument for supporting investments in the SEZ formula was extended in 2018 (after almost 20 years of operation), from the designated areas of the zones to the territory of the whole country. The instrument created in this way is called the Polish Investment Zone (PIZ).

2.1.3 Rationale for selecting this good practice

Attracting and stimulating investment in the SEZ formula is of particular importance in pursuing a development policy aimed at increasing the economic potential of regions that are considered to be unable to generate endogenous growth. In particular, this may be addressed to the following regions:

- lagging behind, border, or sparsely populated,
- experiencing difficulties in developing entrepreneurship and diversifying economic activity,
- unable to generate sufficient investment, having insufficient financial capital, and insufficiently attractive to external investors.

Given the above, this good practice can be useful to the BusDEV stakeholders.

Furthermore, it may also be relevant for the BusDEV stakeholders to get an insight into functioning of a particular SEZ, especially in similar circumstances to theirs. Such an insight can be provided by analysing the example of the Suwałki Special Economic Zone, which operates mainly in Podlaskie and Warmińsko-Mazurskie voivodships of Poland. Like the BusDEV stakeholders, those regions are located on the EU's eastern border (with Russia and Belarus) and may experience similar economic conditions.

2.2 Description of the good practice

2.2.1 The need addressed by the good practice

The immediate need addressed by the introduction of SEZ in Poland was an inefficient economic structure in the regions, followed by an insufficient level of endogenous potential (including, in particular, inadequate financial capital held) which would enable further development of entrepreneurship, diversification of business activity, investments and, as a result, generation of sufficient economic growth.

2.2.2 Objectives of the good practice

The main objectives for the functioning of SEZ are the following:

- creating areas with more attractive economic, infrastructural and organisational conditions for business activity, leading to an increase in the level of domestic and foreign investment and diversification of business activity in the area,
- improving competitiveness of enterprises operating in the zone by improving products and services offered and stimulating innovation, maintaining a highly competitive environment characterised by cooperation between entities,
- creating new jobs,
- supporting less developed regions, actively responding to the needs of the economy in a given region, using the region's own resources (labour, raw materials, etc.) more efficiently to accelerate economic development.

2.2.3 Detailed good practice description

Between 1994 and 2018, there were 14 SEZ established in Poland. They are located in 146 Polish cities and 210 municipalities. Each of the zones consists of several subzones. A detailed description of the SEZ functioning can be provided on the example of the Suwałki SEZ.

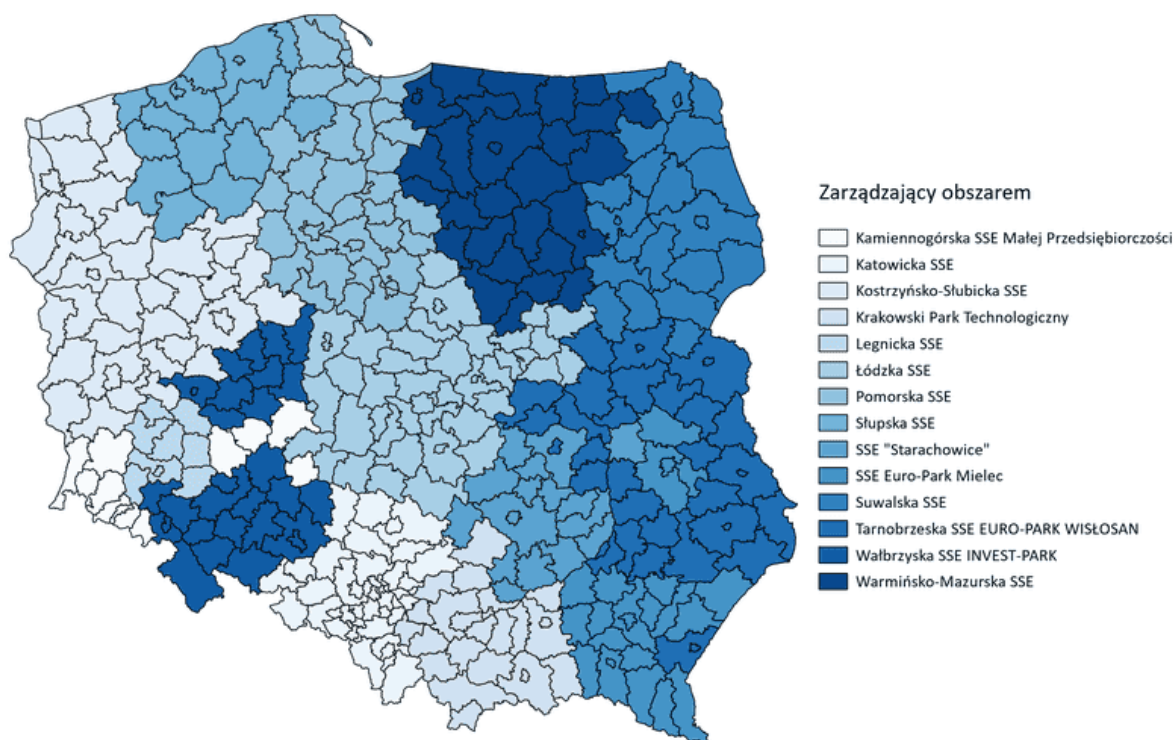
The Suwałki SEZ was established in 1996 under the Regulation of the Council of Ministers to the Act of 20 October 1994 on special economic zones. Like other zones, it has been intended to accelerate economic growth in a certain territory. The zone covers the area of three regions in the north-eastern part of Poland: Podlaskie, Warmińsko-Mazurskie and Mazowieckie, with a total area of about 663 ha. Within the zone, 19 local subzones have been delimited.

The potential of the Suwałki SEZ is primarily based on investment incentives (especially, tax exemptions), access to labour resources, and location factors. The zone is located in pan-European transport corridors (north-south – Klaipeda-Thessaloniki (Via Carpatia); and east-west – Berlin-Warsaw-Tallinn (Via/Rail Baltica) and Berlin-Warsaw-Grodno-Sankt Petersburg). At the same time, it is within a few hours' reach of Warsaw and Mazury (Szczytno) airports. The zone has a wide selection of investment plots of various sizes. The proposed investment plots are located in modern industrial districts of cities or communes and are largely equipped with the necessary technical infrastructure. Moreover, the zone administrator provides advice on State aid. The leading industries in the zone are wood, metal, plastics and furniture (whose representatives are valued producers on world markets). Moreover, the zone offers favourable conditions for the development of the food industry (well-preserved natural environment), as well as boatbuilding industry (availability of lakes).

Since 1996, the zone management authority has been the entity named "SSSE S.A". It is a joint stock company whose shareholders are the State Treasury and the local governments of the municipalities where the first subzones have been located – Elk, Goldap, Suwałki. The company's objective is to foster the economic development of the region by managing the zone, actively supporting entrepreneurship and creating modern industrial centres.

In 2018, in order to adapt solutions to the current market situation and to the needs of entrepreneurs, changes were made to the instrument of investment incentives, including the income tax exemptions (CIT or PIT). Under the Act of 10 May 2018, which established the PIZ, companies implementing new investments throughout Poland have been allowed to take advantage of the income tax exemptions. Therefore, the PIZ covers areas beyond the borders of the SEZ, allowing support for investments both in public and private areas. At the same time, existing permits to conduct business activity within the SEZ remain in force until the end of 2026. In addition, based on the amendment of 31 July 2019 the support has also been allowed for investments in areas with undeveloped mineral deposits, thus the range of available locations has been significantly expanded. The management of PIZ has been entrusted to the existing managers of the relevant SEZ (including SSSE S.A.). The scope of activity of individual administrators is shown on the map below.

Map 1 Polish Investment Zone and its managers.



Source: PAIH

Investment incentives, including tax exemptions, are subject to Polish and EU State aid rules. The “Decision on support” (further called “the Decision”) is issued at the request of an entrepreneur and specifies the period of validity, the subject of business activity, as well as the conditions that the entrepreneur is obliged to meet. The Decision is issued on behalf of the Minister of Economy (currently the Minister of Development, Labour and Technology) by the SEZ manager for a given area.

The period for which the Decision is issued depends on the intensity of State aid for the area. The time for using the State aid is the same for all companies, regardless of the type of business and size of the company. The Decision is issued for a fixed period, not shorter than 10 years and not longer than 15 years. If, on the day of the Decision, the new investment area is located at least 51% within the boundaries of the previous SEZ, the Decision is issued for a period of 15 years.

The Decision is issued for the implementation of a new investment meeting certain quantitative and qualitative criteria. The quantitative criteria (concerning the minimum amount of eligible costs) depend on the unemployment rate in the district where the investment is going to be implemented (the higher the unemployment rate, the lower the ceiling of the required costs) and the size of the enterprise. The qualitative criteria relate to the sectors and material scope of the supported investment. Preferences are granted to entrepreneurs conducting R&D activity and in the modern business services sector.

The new investment is: the creation of a new enterprise, an increase in production capacity, diversification of the enterprise's production by introducing new products, a change in the production process, the acquisition of assets belonging to an enterprise which has closed or would have closed had it not been purchased (whereby the assets are acquired by an enterprise not linked to the seller and the mere acquisition of the enterprise's shares is excluded). Only income obtained from business activities carried out as part of the investment covered by the Decision may be subject to the tax

exemption. Therefore, if an entrepreneur simultaneously conducts an activity not subject to support, the activity covered by the support should be separated organisationally. The amount of the exemption will be determined on the basis of data (revenues and costs) of the separated activity. Moreover, the Ministry of Finance has published special tax explanations, aimed to help in applying the above mentioned regulations, offering entrepreneurs the most predictable, uniform and legal interpretation.

The eligible costs of the new investment, in accordance with the State aid regulations are the following:

- cost of acquisition of land; cost of acquisition, extension or modernisation of fixed assets (e.g. machinery); cost of acquisition of intangible assets (computer software, licences, certificates, etc.), or
- the 2-year cost of employing new staff.

The amount of the tax exemption is calculated on the basis of the eligible investment expenditure and the intensity of State aid available in the region in which the investment is made.

The Decision obligatorily includes the date of completion of the new investment, after which further costs are not eligible (except for the two-year labour costs, costs related to the lease of land, buildings and structures and financial leasing, which may be eligible after the investment completion date).

The regional intensity of State aid is related to the share of the eligible costs of the new investment, and depends on the location and the size of a company. Based on location, it varies between Polish voivodships, ranging from 10% to 50%, and it is the higher the more lagging-behind the voivodship is (in terms of economic indicators, e.g. GDP, employment, etc.). In the case of Mazowieckie voivodship, the State aid intensity varies at the sub-regional level (ranging from 10% in the City of Warsaw to 35% in the most lagging-behind parts of the region), and the new investment may only concern new business activity. Regarding the size of a company, medium-sized enterprises may receive an additional 10% and small-sized ones (including micro) an additional 20% of the support. Therefore, the maximum State aid intensity may reach 70% (in case of small-sized enterprises investing in the most lagging-behind Polish voivodeships).

In accordance with the current State aid regulations the entitled to the tax exemption are the following:

- all companies in the traditional industrial sector (with the exception of companies producing, inter alia, explosives, alcohol, tobacco, steel, or companies operating in the energy generation and distribution sector; wholesale and retail trade, facilities and works, accommodation and catering services and the operation of gaming centres; furthermore, companies in the steel, iron and steel, coal and transport sectors are also excluded from support under EU legislation);
- selected enterprises from the modern business services sector providing the following services: IT, R&D in the field of natural and technical sciences, accounting and book control, accounting (excluding tax returns), technical research and analysis, telecom, architectural and engineering centres.

In the particular case of the PIZ area managed by SSSE S.A., including the existing Suwałki SEZ, entrepreneurs can obtain the Decision including the income tax exemption (CIT or PIT) up to 70% of the value of the invested capital (depending on the enterprise size), if the new investment meets certain quantitative and qualitative criteria. The location of the investment within the area managed by ESPON 2020

SSSE S.A. may take place on private or public land, provided that the investor presents a legal title to the real estate. At the same time, SSSE S.A. offers its own plots of land prepared for a quick investment process, with current local spatial development plans and mostly equipped with the necessary technical infrastructure. In the area managed by SSSE S.A. the Decision is issued for a period of 15 years. The State aid intensity and the support period there are the maximums out of those available in the entire country.

2.2.4 Results achieved

The SEZ have significantly contributed to Poland's economic development, attracting a number of investments worth a total of nearly PLN 112 billion (or c.a. EUR 28 billion) between 1994 and 2019. Moreover, enterprises operating within the SEZ have created over 312 thousand jobs over the same period of time.

The SEZ have in particular contributed to the development of cities and districts in which, as a result of the economic transformation of the 1990s, there were negative structural effects.

In the area managed by SSSE S.A., including the Suwałki SEZ, the total capital expenditure incurred by all companies operating in the zone from 1996 to the end of 2019 is c.a. PLN 4.5 billion (or c.a. EUR 1.3 billion). The total employment in the zone amounted to over 13,000 employees, with the wood, metal, plastics and furniture becoming the leading industries. The major investors have been both foreign and domestic, including e.g. Rockwool (construction industry) from Denmark, NIBE (machinery) and Rosti (plastics) from Sweden, or Forte (furniture), Malow (furniture) Mlekpól (food) from Poland.

The SEZ are to operate in Poland by the end of 2026. The horizon of PIZ operations is not defined. From September 2018 to the end of 2019, nearly 300 decisions in PIZ were issued, and the total amount of capital expenditure reached approximately PLN 17 billion (or over EUR 4.25 billion).

2.2.5 Risk and success factors of the good practice

Numerous factors determine the success of this good practice. The most important of these success factors was the development of a formula that simultaneously fulfils the objectives of the region's development policy and is also an attractive instrument from the point of view of entrepreneurs (both foreign and domestic). It is stimulating them to invest, take up and diversify their business activities in the region, while at the same time complying with national and EU State aid rules. The key element of this formula is the tax exemption mechanism for entrepreneurs undertaking new investments, creating jobs, as well as developing R&D functions and implementing the most modern solutions.

Importantly, the support can be given to new undertakings as well as significant expansions of existing businesses. This approach both attracts new external investors, including FDI, and does not discriminate entrepreneurs already operating in the region.

Among other key success factors for SEZ, investors highlight in particular: better developed infrastructure, availability of qualified workforce, easier procedures, investor-friendly attitude, developed investment marketing.

In the area currently managed by SSSE S.A., including the existing Suwałki SEZ, the main success factors have been related to the following six elements:

- the location – which as described earlier is in proximity to the Baltic, Russian and other Eastern European markets and in relevant transport corridors (currently further developed); well-preserved natural environment;
- the skilled labour – investors can benefit from the potential of young and well-educated employees, relatively low labour costs, and the availability of professional training in higher, secondary and vocational schools;
- investor-friendly self-government – local authorities declare giving priority to entrepreneurship and create a friendly climate for investors;
- industrial areas prepared for quick investment – there is land offered for sale as property, equipped with full technical infrastructure; prices are competitive and negotiable; the land plots are divided according to the needs of investors; the areas of the Suwałki SEZ have local land use plans to further speed up the investment process;
- wide cooperation opportunities and developed business-related infrastructure – companies in the Suwałki SEZ are open to cooperation in many sectors; in the region there are numerous banks, insurance companies, legal and financial consulting offices, etc.; additional opportunities are created by the close presence of science and technology parks in Suwałki, Elk and Białystok;
- professional and friendly investor service – SSSE S.A. staff provides full-scope professional assistance to investors at every stage of their project implementation.

As regards the identified risk factors, the primary concerns the need to ensure high administrative capacity of the zone manager to act at the interface between the public administration (central and regional), investors from the business sector (domestic and foreign), and other stakeholders (e.g. from the science and R&D sector).

The next risk factor is the need to define and ensure an appropriate mix of investment incentives for investors, taking into account possible competitive advantages of the region. It is based primarily on tax exemption, but at the same time it should also include the above mentioned elements of availability of infrastructure, labour force, facilitated procedures and a friendly attitude towards investors, as well as investment marketing.

Further risk factor is possible competition in attracting investors with other zones at home and abroad. This factor is particularly important when trying to attract FDI inflows, whose global supply is usually lower than demand from the competing zones. The most relevant in this context is the mix of the incentives offered by a given zone and the local competitive advantages.

Another important risk factor from the point of view of regional development is the need to ensure that the entrepreneurs benefiting from the tax exemption will realise the anticipated benefits for the region. In this respect, it is extremely important that investments are as long-term as possible, with a broad financial and material scope, including, if possible, R&D functions and the use of the most modern solutions. Furthermore, it is key that the entrepreneur achieves the declared job creation. Otherwise, the State aid resulting from the tax exemption becomes ineffective.

Finally, there is a highly significant risk for sustainable regional development related to the time horizon of the FDI in the zone. As already stated, the long-term investments should be preferred. Especially that there may also happen the so-called 'footloose' investments. Those are the investments that

would move out from the current zone to another once they have gained their returns (especially from tax exemptions), and somewhere else the conditions are more promising (and cannot be covered by further tax exemptions from the current zone). Therefore, the sustainable regional development requires an approach that makes the regional economy more resilient, especially through building value added chains also beyond the FDI in the zone.

2.2.6 Lessons learned and transferability

A key lesson learned from the implementation of this good practice is the confirmation that SEZ are an important element in the development policy of regions and lagging behind areas, including border and sparsely populated areas. The zones make it possible to attract new investors, diversify economic activity and create new jobs, and thus generate economic growth. This is confirmed by the functioning of the SEZ in Polish regions since 1994.

At the same time, as the level of economic development increases, and further growth requires also an increase in innovation and industrial know-how, it is possible to take action to adapt the mix of investment incentives. Such adjustments to meet the more advanced needs for structural changes in the economy (i.e. innovation and productivity through investment in R&D and modern business services), and also to extend the territorial coverage of the support (i.e. beyond the existing SEZ areas), were undertaken in Poland in 2018.

Despite numerous positive experiences with the functioning of SEZ, lessons learned also include problems which occurred at various stages of the zones' operation. These include:

- a) A complicated and lengthy procedure for the inclusion of new areas within the zones without regard to territorial cohesion. Between 2003 and 2016, the total area of the zones increased from about 6000 ha to about 21500 ha). The procedure of expanding the territories of the SEZ was time-consuming and complicated (sometimes it took even more than 20 months), which required additional organisational and financial resources from the investor. At the same time, individual subzones belonging to a single zone could be scattered across as many as three or four regions, sometimes not adjacent to each other.
- b) Time constraints on the operation of the zones. According to the current regulations, the SEZ will operate until the end of 2026, with the final date of their operation already having been changed twice. The change of this date is the responsibility of the Council of Ministers acting at the request of the Minister of Economy. From the investor's point of view, this creates uncertainty as to the length of the period during which he may use the State aid he is entitled to in the form of the tax exemption. As the date of the end of SEZ operation approaches, the attractiveness of Polish zones in relation to other countries using a similar instrument decreases. However, the problem seems to be Europe-wide. In other EU countries, the time during which an investor can take advantage of State aid is usually 10 years.
- c) Zones should be one of the instruments of regional development, but not an exclusive instrument. The rate of development of SEZ in individual regions was also determined by other development activities, such as infrastructure development, quality of human capital, etc.
- d) The rules of support may be less attractive in relation to foreign competition. The support systems applied in neighbouring countries have, in some cases, been more adapted to foreign investors' expectations. The main areas of advantage were the possibility of obtaining support

throughout the country and a clearly defined period of support for new investments. This reduced the competitiveness of Polish zones and the risk of losing significant large FDI.

The answer to these issues was the creation of the PIZ and its solutions.

Good practice is a fully transferable solution to other regions, including BusDEV stakeholders, upon adaptation to the local circumstances. In the case of transfer of the solution, particular attention should be paid to the requirements towards entrepreneurs:

- quantitative: among other things, the desired value of supported investments, jobs created,
- qualitative: e.g. sectors and scope of supported investments (e.g. R&D, solutions),
- the possible intensity of State aid and the amount of tax exemption available,
- the support period,
- availability of other factors of investment attractiveness (e.g. infrastructure, human capital, etc.).

2.3 Further information

- 1) Investment incentives in Poland – Polish Investment Zone – the governmental Polish Development Fund: https://www.paih.gov.pl/strefa_inwestora/Polska_Strefa_Inwestycji
- 2) The Suwałki Special Economic Zone: https://www.paih.gov.pl/strefa_inwestora/sse/suwalki
- 3) Why do we need special economic zones? – Poland's Central Bank: https://www.nbportal.pl/wiedza/artykuly/gospodarka/po_co_nam_strefy_ekonomiczne
- 4) What are Special Economic Zones? – Deloitte <https://www2.deloitte.com/pl/pl/pages/tax/articles/SSE/SSE-Specjalne-Strefy-Ekonomicznyczym-sa.html>

3 Innovation voucher Brandenburg

SUMMARY

The main objective of the innovation vouchers was and is to enable access for SMEs to results and knowledge gathered in science and research. Through easing access to innovation SMEs' competitiveness and innovativeness shall be enhanced.

This measure may be interesting for stakeholders of the ESPON BusDev project as it has been implemented in a region characterised by predominantly micro and small enterprises with a low innovation propensity. Thus the measure addresses the need to enhance innovation activities in SMEs by lowering their entry barriers to these activities.

Since 2007, the measure has been continuously implemented in the framework of the Brandenburg ERDF programme, offering vouchers and grants to SMEs. Given the positive perception of this measure and its step-wise expansion it is expected to continue in 2021-2027.

Apart from similarities regarding the business structure the measure is implemented in an East German state with the second lowest population density that is mostly dominated by small and medium sized cities and rural areas.

However, compared to most stakeholder territories the region is less sparsely populated, which requires adaptation regarding the size and scale. In addition, any transfer needs to consider other framework conditions such as the existence of applied research institutions and networks in relevant sectors.

3.1 Policy objective, context and rationale for selection

3.1.1 Main policy objective of the good practice

The main objective of the innovation vouchers was to enable access for SMEs to results and knowledge gathered in science and research, and this way to facilitate technology and knowledge transfer and improve the capacity for innovation of SMEs.

3.1.2 Policy context of the good practice

The policy has been implemented at the benefit of enterprises in Brandenburg, i.e. covering one regional NUTS 1 level region representing a federal state. Brandenburg is one of the Eastern states of Germany. The measure has been implemented continuously since the ERDF programme of Brandenburg 2007-2013, where it was part of the key intervention 1 "Support of enterprises investment and innovation processes". Funding is partially combined with the federal transfer instrument GRW (Gemeinschaftsaufgabe Verbesserung der regionalen Wirtschaftsstruktur – Joint task aiming at improving regional economic structures). The measure has been continued under the 2014-2020 ERDF programme in TO 1, IP 1b in the SO "Strengthening research, development and innovation capacities of Brandenburg's enterprises". The measure can be expected to further continue in 2021-2027, since the state's policy prioritisation for this period mentions, inter alia, "strengthening of innovation, particularly in SME" as one of six key challenges for the years to come.

Transforming ideas into innovations requires an exchange between business and research. Innovation vouchers provide SMEs with financial resources to pay specific innovation services. Thus, these vouchers are a means to ease the access to research for SMEs, to overcome initial barriers and to promote exchange. The innovation voucher programme is well known in Brandenburg and considered to be particularly important for SMEs that aim at a first time contact to science, which explains the continuity in applying the measure.

3.1.3 Rationale for selecting this good practice

This good practice is related to the following interests of the ESPON BusDev stakeholder territories:

- enhancing regional innovation, knowledge and technology transfer;
- support a more efficient use of regional resources through cooperation (quadruple helix).

There are certain similarities with some of the stakeholder territories:

- The region is characterised by low R&D activities in the private sector, which result from low R&D expenditure of enterprises, a low share of enterprises doing research and a low share of external funding in the business sector.
- The regional business structure in Brandenburg is dominated by SMEs. 99.5% of all enterprises are SME, of which one fifth is in the group of micro-enterprises below ten employees. Many SME have low staff and financial resources which hamper growth, and especially to benefit from process or product innovation and internationalisation.
- Within Germany Brandenburg is the state with the second lowest population density.¹ Apart from a few cities and the municipalities in the neighbourhood of Berlin (core of the agglomeration area Berlin-Brandenburg), population density is below 50 inhabitants per km² in most municipalities of Brandenburg.²

3.2 Description of the good practice

3.2.1 The need addressed by the good practice

Capacity for innovation is essential for maintaining and improving economic competitiveness. This results in a continuous demand for innovation in all types of enterprises. However, especially SMEs often face inhibition thresholds and consequently avoid cooperating with research institutions. Hence, a need for low-threshold approaches exists to bring business and research actors together. Their cooperation, in turn needs to be embedded in the wider context of the quadruple helix, which is subject to other measures.

3.2.2 Objectives of the good practice

The programme aims at promoting technology and knowledge transfer in SMEs to enhance innovative capabilities of SME. SMEs shall overcome their initial barriers to contact science and shall receive support in accessing latest knowledge in their business field. Over time innovation vouchers have become more diverse to address several sub-objectives:

- technology and knowledge transfer from research institutions to businesses;
- implementation driven R&D activities of businesses;
- preparation and implementation of digitisation processes in enterprises;
- increasing chances to access EU support.

3.2.3 Detailed good practice description

The innovation voucher aims at an increasing capacity for innovation in enterprises that are SMEs according to the EU definition and work in the industrial, service or craft sector in Brandenburg. All

¹ <https://de.statista.com/statistik/daten/studie/1242/umfrage/bevoelkerungsdichte-in-deutschland-nach-bundeslaendern/>

² <https://www.deutschlandatlas.bund.de/DE/Karten/Wo-wir-leben/006-Bevoelkerungsdichte.html>

types of SMEs including crafts enterprises can benefit from innovation vouchers, if they fall among the list of eligible sectors of the GRW. The initiative directly pays research institutions for research activities which they conducted according to an offer and a contract between the enterprise and the research institution. The agreed services have to be related to the enterprise's innovation activities. Only the research institution's expenses for personnel, material and user fees for specific facilities are eligible.

Eligible activities comprise external R&D activities like scientific advisory, support for the development of an innovative product, service or process, and implementation-oriented R&D activities to further develop existing products and processes.

In 2007-2013 one could distinguish between "Small Innovation Vouchers" and "Big Innovation Vouchers", both of which have been continued in 2014-2020 but renamed.³ Small vouchers cover expenses for initial science related steps or feasibility studies, for example. Only enterprises can apply that have not had any professional exchange with research institutions yet. Each enterprise can therefore only apply once for the small voucher. After approval, the vouchers were originally valid for a period of two months, in 2014-2020 this has been extended to six months. 100 % of the expenses are covered. The maximum budget was 1,500 € until October 2011, then it had been increased to 3,000 € and is currently at 5,000 €.

In contrast to the "Small Innovation Voucher", the "Big Innovation Voucher" can be requested by enterprises that had exchange with research institutions in the past. Any kind of R&D activity with regards to planning, development and implementation aiming at improving existing products, processes and services are eligible. The joint activity has to be finalised within 12 months (6 months until December 2010). Every SME can apply for several vouchers but only once per calendar year. A big voucher covers not more than 15,000 € (7,000 € until October 2011). The maximum public co-funding rate for the big voucher was 70 % and has been reduced to 50 % in 2014-2020. Thus, a project that was funded at the maximum rate and amount may have had a total eligible project budget of 21,500 € or 30,000 € respectively (public and SME cost).

For both types of vouchers the SME may have a first contact with either one of the university⁴, sector or regional transfer offices or they may directly contact the Economic Development Agency Brandenburg (WFBB). The sector transfer offices cover 12 economic branches that are important in Brandenburg. These branches have been identified in the course of the innovation strategy development Berlin-Brandenburg that started in 2005 and was updated in 2019 (innoBB 2025) and complemented for Brandenburg with the innoBB plus in 2014. Their precise definition has been changed and adjusted over time to identify those branches with the highest development potential in the region. The Brandenburg branches that are considered to be particularly important include e.g. food industries, logistics, wood/paper, energy, media/ICT, to name only a few. The WFBB assesses all preconditions on the application of the SME and checks its eligibility and offers other service support to SME searching to strengthen their innovativeness. The ILB (investment bank) then manages the funds' distribution etc.

³ The are now referred to as "Small Innovation Voucher Transfer" and "Big Innovation Voucher Transfer".

⁴ University transfer offices exist at universities and other tertiary education institutions (Fachhochschulen).

In addition to these two vouchers, the system includes three further vouchers in 2014-2020:

- The “R&D Innovation Voucher” amounts to a maximum of 100,000 € and provides 50 % of co-financing. It can be applied for again after utilising results of a previous support. One voucher is valid for a maximum of two years and can be spent, inter alia on own staff, external R&D provision applying a flat rate of 60 % of proven staff costs.
- The “Digital Innovation Voucher” has different maximum amounts for advisory services and training (50,000 €) and 500,000 € for implementation of digitisation measures, each with a 50 % co-financing rate. Maximum duration is six and 36 months respectively. It has been first introduced in 2018.
- Finally, the “EU Innovation Voucher” offers support for external advice. It covers 50 % of a maximum of 8,000 € or in case of lead partners of 16,000 €. Maximum duration is 12 months.

Other preconditions for any of the vouchers are that only those projects may be supported that have not been started yet or for which no pre-contracts are existing. The projects seem to be technically feasible and have to be conducted in the state of Brandenburg.

The main resource is the money that is directly paid to reimburse the research institutions, SMEs and external providers (depending on the type of voucher) for their delivered services. The innovation voucher is subsidised by the state of Brandenburg and the federal level through ERDF and GRW money and has to be co-financed by the SME taking advantage of the support.

No specific infrastructures or human resources are required in the SMEs. However, the public investment bank (Investitionsbank des Landes Brandenburg), the WFBB and the intermediaries (Transferstellen) need to have personnel for advising the enterprises as well as processing and approving the applications. Most of these resources are needed at the ILB and WFBB for assessing applications and managing the innovation voucher programme. Less is needed at the different types of contact offices (science, regional and branch contact offices), since they cover many different types of transfer support of which the innovation voucher is only one application on which they forward information.

3.2.4 Results achieved

The following gives an overview of the uptake of the vouchers in the early years. The continuity of the measure and its further extension indicate the positive evaluation and effectiveness of the voucher system.

In 2010 and 2011 more than 100 vouchers were approved per year. In 2012 80 vouchers were approved. From the beginning of the programme in early 2010 until July 2012, 250 vouchers were approved. The share of “Big Innovation Vouchers” was approx. 60 % (141) which implies a share of approx. 40 % (109) for “Small Innovation Vouchers”. Given that “Big Innovation Vouchers” can be applied for more often, and the “Small Innovation Voucher” only once per SME, the higher share of “Big Innovation Vouchers” develops naturally over time.

In April 2014 the 400th innovation voucher was approved. The relation between big and small vouchers has remained similar since 2012: In total, i.e. from early 2010 until April 2014, 163 small (approx. 40 %) and 237 big (approx. 60 %) vouchers have been approved. This implies that the demand for both vouchers still exists and that the initiative still attracts interest from new enterprises that have not

had any professional exchange with research institutions yet. It furthermore demonstrates the possibility to initiate innovation in increasing numbers of SMEs over time as the instrument becomes more prominent.

The more recently introduced innovation vouchers also experience high demand. For instance, the voucher for digitisation counted after 1.5 years already 126 projects with a support of 11.8 million Euro.

This may also be mirrored in general economic indicators analysed for the programming period 2014-2020. Since the end of the 1990s private R&D expenditure and staff were decreasing until they started increasing again since 2006. The share of private R&D in GDP, however, still remains far below the German average (in 2018 for Germany 2.16 %, Brandenburg 0,59 %)⁵. This is one of the two lowest values in Germany and indicates the continued need for action.

Overall, this measure together with other innovation instruments has helped creating a more positive business environment and expectations towards the chances for innovative products and processes, which in turn over time increases the number of SMEs becoming interested in innovation.

3.2.5 Risk and success factors of the good practice

As for other public initiatives, a possible risk factor is the dependency on public financial resources even though the innovation voucher is subsidised by both Brandenburg and the federal level. Another difficulty may occur when the demand from enterprises cannot be covered by research institutions. It is therefore necessary to promote research institutions, especially in rural and/or remote areas, that especially develop applied sciences. Corresponding research activities should match with the regional economic structure and the strongest sectors.

A main success factor is the use of intermediaries as first contact points for enterprises. This way, SMEs can circumvent the initial inhibition of directly contacting the research institution. As regional contact points the intermediaries know the specific local and regional framework conditions much better than a central contact point or state ministry, for example.

The initial phase of the first cooperation between business and research might be the most crucial phase for the whole process as contacts are entirely new and the establishment of good personal and professional relationships takes some time. Both sides have to develop mutual understanding for each other before transfers take actually place. It is therefore helpful for enterprises that, when trying to establish first contacts with research institutions, all expenses are covered through the innovation voucher and enterprises do not have to be afraid of spending (loosing) own financial resources.

Another success factor is the focus on innovation activities. As the money for the two long-standing vouchers is transferred to the research institution, the SME cannot directly benefit from the financial means. This way, the enterprises show great interest that the research activities are directly related to their need and offer suitable solutions in the end that help them to adapt to competitive pressures. The newly added vouchers in 2014-2020, build a cascade that fills gaps e.g. for SME that wish to build own research capacities.

⁵ <https://www.destatis.de/DE/Themen/Gesellschaft-Umwelt/Bildung-Forschung-Kultur/Forschung-Entwicklung/Tabellen/bip-bundeslaender-sektoren.html>

3.2.6 Lessons learned and transferability

The main strengths may be summarised as follows:

- focusing on SMEs as most important economic actors in rural areas;
- involving regional contact point as competence centres instead of central contact point (ministry for example), which is a means to reduce entry barriers especially for micro and small enterprises;
- establishing new contacts between research and business as starting point for new activities, synergies and networks and better embedding SMEs in the innovation eco-system;
- higher funding quota for new enterprises and the very first contacts that reduce barriers further;
- by combining over time different vouchers SMEs receive a chance to follow-up on first successful R&D activities and contacts.

The main weaknesses may be summarised as follows:

- only if continuously supported the measure can develop its impact, which implies a need for permanent public financial resources;
- while there is no specification regarding the location of the research institutions, SMEs benefit only if there are research institutions with matching activities (processes, sectors etc.);
- capacities at transfer offices may be limited, not allowing to perform services as required by SMEs;
- for the transfer vouchers enterprises do not get reimbursed but still have to spend time and personnel for the cooperation, i.e. making an investment in kind, which may not be always feasible.

Compared to most stakeholder territories the variety of research institutions may be relatively high in Brandenburg, with several of these working at least partially in applied research. In addition to universities this includes colleges and a total of 18 public research institutions belonging to one of the four German research communities.⁶ Several of these are thematically closely linked to key sectors in the Berlin-Brandenburg region and embedded in the RIS strategy building on a wide network of stakeholders from different spheres of innovation ecosystems. In addition, despite the low population density for German comparison, the number of potentially interested SMEs should not be overestimated.⁷ Thus, apart from funding volume etc, size and ambition certainly also need to be adjusted to the respective regional environment.

Nevertheless, the example may give inspiration for new ways to approach SMEs and make appealing offers to establish first research contacts and consider simultaneously how to better embed different players in innovation.

⁶ This does not include additional institutions located in Berlin.

⁷ Total number of enterprises in Brandenburg was 98,423 in 2018 (<https://www.statistik-berlin-brandenburg.de/BasisZeitreiheGrafik/Bas-Unternehmensregister.asp?Sageb=52001&creg=BBB>).

3.3 Further information

https://www.th-wildau.de/nc/suche/?tx_rsmsearch_pi1%5BsearchQuery%5D%5BsearchArea%5D=&tx_rsmsearch_pi1%5BsearchQuery%5D%5BqueryString%5D=innovationsgutschein

In German:

<https://www.wfbb.de/en>

<https://www.ilb.de/de/wirtschaft/zuschuesse/brandenburgischer-innovationsgutschein-big/index.html>

Programme documentations incl. OPs and AIR of different programmes and years.

For follow-up development:

https://efre.brandenburg.de/sixcms/media.php/9/Fonds%C3%BCbergreifende%20landespolitische%20Priorit%C3%A4ten_2021-2027.pdf

<https://mwae.brandenburg.de/de/innovationsgutschein-big-digital-ist-gut-nachgefragt/bb1.c.639885.de>

4 Financial instruments in Małopolskie – an effective way to support SMEs in need

SUMMARY

The main objective of the financial instruments implemented in Małopolskie is to provide enterprises, especially micro, small and medium-sized enterprises, with access to the capital necessary at the stage of their creation and development, and to increase their survival in times of emerging difficulties.

From the point of view of stakeholders, mechanisms using financial instruments to support companies at **certain stages of development** (e.g. start-ups), operating in **specific industries** (RIS), operating in **specific areas** (e.g. areas with a low entrepreneurship rate), **experiencing specific and unpredictable difficulties** (e.g. floods, natural disasters, COVID-19) may be particularly interesting.

Measures to ensure access to the necessary capital for companies, and to increase their survival, are implemented as financial instruments in the repayable (loans) and partly repayable (loans with redemption) forms. The measures are implemented both within the framework of ERDF-financed Regional Operational Programmes (2007-2013, 2014-2020), and the framework of the regional FI implementation strategy financed from returned resources.

The majority of the area of the Małopolskie region, where financial instruments are implemented, are rural (65%) and rural-urban (26%). They are also border areas and areas at risk of natural disasters such as floods and landslides.

Activities related to financial instruments may be fully transferable to other regions. The parameters of the financial products offered (e.g. loan size, grace period, interest rate, Atate aid and other preferences) may need to be adapted to local needs and conditions.

4.1 Policy objective, context and rationale for selection

4.1.1 Main policy objective of the good practice

The main objective of the financial instruments implemented in Małopolskie is to ensure that companies in the financial gap have access to the capital necessary at the stage of their creation and development, and to support companies operating in specific industries or experiencing specific difficulties.

4.1.2 Policy context of the good practice

A significant proportion of Małopolskie's micro and small enterprises, as well as start-ups, are experiencing the problem of a financial gap in access to banking sector capital. This problem is particularly visible during the crisis and economic slowdown. For this reason, they cannot obtain the capital necessary to establish, maintain or develop a company.

Some rural areas of Małopolskie are characterised by a very low entrepreneurship rate. This translates into a higher level of unemployment, less investment and less wealth for the inhabitants of these areas. For this reason, it was necessary to introduce mechanisms to ensure preferential funding for the upkeep and development of such companies.

Within the framework of the Regional Intelligent Specialisation (RIS), Małopolska has identified 7 industries that are the driving force for the region's economy. Financial and preferential support for the creation of new and development of existing companies in these industries is extremely important for the further economic development of the region and the creation of new jobs.

Małopolskie is also a region threatened by natural disasters in the form of floods or landslides. For this reason, it was necessary to introduce mechanisms to provide preferential funding for the upkeep and reconstruction of companies affected by natural disasters or other events caused by force majeure.

At present, many entrepreneurs in Małopolskie are experiencing problems with keeping their company on the market as a result of the economic crisis caused by COVID-19. Their greatest need is the availability of working capital. For this reason, it was necessary to introduce a mechanism in the form of a preferential liquidity loan to enable these companies to survive.

The above activities have been financed under the Małopolskie Regional Operational Programme (ROP) for 2007-2013 (axis 2) and 2014-2020 (axis 3), and from resources returned from financial instruments.

4.1.3 Rationale for selecting this good practice

Good practices from Małopolskie concern the following areas of interest to stakeholders:

- Improving access to finance with respect to financial instruments,
- Increasing enterprise survival.

Similarities to stakeholder territories concern: the important role of SMEs in the structure of enterprises; the problems of the smallest and start-up companies in accessing capital (financing gap); specific needs of companies in rural areas.

The mechanisms presented in the good practice can be fully transferable to other regions and can be easily adapted to their specific needs.

4.2 Description of the good practice

4.2.1 The need addressed by the good practice

Among the main problems that have been in favour of implementing the special support mechanisms in the form of financial instruments are the following:

- 1) lack of external financing for start-ups and companies in the intensive development phase;
- 2) low investment activity of companies operating in areas with a low entrepreneurship rate and lack of investment incentive mechanisms for companies operating in RIS industries;
- 3) the risk of bankruptcy of companies that have experienced natural disasters or other extraordinary events caused by force majeure as well as companies affected by COVID-19.

4.2.2 Objectives of the good practice

The direct objectives of the good practice in the implementation of financial instruments are:

- 1) Providing external financing for start-ups and companies in the development phase.
- 2) Creating an incentive mechanism in the form of preferential financing for companies operating in areas with a low entrepreneurship rate and in RIS industries.
- 3) Increasing the survival of companies experiencing difficulties due to natural disasters and COVID-19.

Indirect objectives include creating a strong, viable SME sector, creating new jobs and preserving existing ones, increasing innovation and the competitiveness of enterprises, increasing investment in the region - especially in the area of RIS, bridging intra-regional disparities, reducing factors that destabilise the market position of enterprises at a time of economic crisis and limited opportunities to use bank loans.

4.2.3 Detailed good practice description

The financial instruments in Małopolskie were mostly implemented under Regional Operational Programmes co-financed from ERDF. Launching of the financial instruments was preceded each time by an analysis of the demand for the designed support and financial products.

In the 2007-2013 financial perspective, in the Regional Operational Programme approximately €35 million has been allocated for financial instruments. The resources went to 14 financial intermediaries selected in a competition by the ROP Intermediate Body. The entry condition for participants in the competition was the national status of a Business Support Institution. The evaluation criteria referred to such issues as: experience of the entity, area of operation, scope of benefits achieved as a result of project implementation, own contribution.

The positive effects of the implementation of the financial instruments in the years 2007-2013 have led to almost doubling their scale in the following years. In the current financial perspective (2014-2020), €60 million has been allocated to support entrepreneurs. Due to the greater scale of implementation of the instruments, the Managing Authority first selected the Fund of Funds Manager by way of a public-public agreement, who then selected financial intermediaries (Fund Managers) by way of tenders. Currently, resources for supporting enterprises have been transferred to 16 intermediaries.

Financial intermediaries selected in a competition or tender developed internal documents and procedures related to granting financial support to entrepreneurs, including State aid (regulations, loan applications, contracts, declarations). The recipients of the support are always micro, small and medium-sized enterprises, and they receive financial products of most commonly loans or financial guarantees. Some financial products are dedicated to specific sectors, e.g. SMEs from the tourism and catering industry or companies experiencing specific difficulties, e.g. floods, natural disasters, economic problems caused by COVID-19.

The SME applying for the support must have its registered office in the Małopolskie region, demonstrate its ability to repay the borrowing, and meet the specific requirements of the Rules of Conduct for the provision of support, e.g. industry, period of operation on the market. The support could be used for expenses related to the activity of the company – i.e. of an investment and turnover nature.

The following specific support mechanisms and specific financial products are the key elements of the good practice in implementing financial instruments:

- 1) **Separate allocation for supporting start-ups operating on the market for up to 24 months and introduction of microloans.**

Start-ups are most affected by problems in obtaining external financing. In an access to bank credit they suffer especially from the lack of collateral or the lack of financial history. A separate allocation to support start-ups offers the possibility of selecting financial intermediaries to serve only such companies, simplifying the formal requirements for granting loans for smaller amounts and ensuring that larger or longer existing companies do not block access to capital.

Two Sub-measures (3.4.1 and 3.4.2) have been identified within the Priority Axis 3 of the Regional Operational Programme. Sub-measure 3.4.1 with an allocation of 20 million EUR is dedicated to start-

ups, and Sub-measure 3.4.2 with an allocation of 40 million EUR supports the development of companies at further development stages.

2) Introduction of preferential interest rates for companies investing in the RIS and for companies operating in areas with low entrepreneurship rates

The mechanism in the form of a loan with a preferential interest rate encourages companies to be more active in investing in key areas of the region, building its competitive advantage. Moreover, it increases the activity and competitiveness of enterprises in less developed areas, contributing to the reduction of intra-regional differences. Apart from the benefits for the region, the mechanism itself is very attractive for enterprises (average interest rate below 2%). Preferential interest rates are granted under de minimis State aid scheme. The basis and justification for granting a preferential loan to an entrepreneur is indicated in the loan application.

3) Introduction of dedicated and preferential financial products to increase the survival of companies experiencing specific and unforeseeable difficulties

In 2010, part of the Małopolskie region was affected by floods and the accompanying landslides. As a result, over 500 companies suffered huge losses and were threatened with bankruptcy. In order to rescue these companies, a special financial instrument was created which provides for low-interest loans with the possibility of partial redemption. It was available for all SMEs in the region, which could prove that they suffered direct material losses as a result of a natural disaster or other extraordinary event caused by force majeure. Entrepreneurs, after the completion of the investment project for which the loan was granted and after paying off 50% of the capital, could apply for the redemption of the loan up to 50%. Preferential loans with redemption were granted under de minimis State aid scheme.

In 2020, companies from the Małopolskie region were affected by the negative economic effects caused by the COVID-19 pandemic. Companies from the region's key tourism industry and industries related to this sector suffered most. In order to save these companies from bankruptcy and maintain the jobs they created, a new, preferential instrument in the form of a liquidity loan was launched. All the SMEs in the region that show a decrease in turnover and a deterioration of the situation as a result of, for example, forced lockdown/closure, may apply. The support which goes to enterprises is interest-free and can be allocated to expenses of a turnover nature (do not need to be documented). Preferential loans are granted under de minimis State aid scheme.

Effective implementation of financial instruments, and innovative financial products and solutions, requires openness and close cooperation between the following: Managing Authority, Intermediate Body, Fund of Funds Manager, financial intermediaries (Fund Managers). All these institutions need to have experienced staff who can anticipate and respond to the needs of enterprises. Activities related to the implementation of financial instruments also require promotion of the instrument itself (i.e. the financial products of loans or guarantees), and the Fund Managers offering the products.

4.2.4 Results achieved

Under the ROP for 2007-2013, a total of 2,769 enterprises with a total value of approximately €80 million (more than twice the allocation thanks to the revolving of funds) received support in the form of financial instruments. So far, under the Programme for 2014-2020, 1,452 enterprises with a total value of approximately €60 million have received support.

Direct results of the good practice:

- 1) 299 start-ups supported with approximately €9.5 million;
- 2) 430 supported enterprises from areas with a low entrepreneurship rate (€3.6 million); 121 companies supported in the RIS area (€ 550 000);
- 3) 299 companies saved from bankruptcy due to natural disasters (approx. €11.3 million); 198 companies saved from bankruptcy due to COVID-19 (€35 million).

4.2.5 Risk and success factors of the good practice

Thanks to the good design of financial products that respond to the needs of businesses, promotion and a wide network of product distribution, including in rural areas, support goes to the most needy companies. 80% of funds go to micro-enterprises, and over 60% of funds go to companies in rural areas. Recent analyses have shown that preferential interest rates on loans for entrepreneurs from areas with low economic activity have translated into greater investment activity. This is the main success factor. In addition, unlike grants, the advantage of financial instruments is the revolving nature (i.e. repayments from companies are used again as lending capital to next companies). The same €1 over several years may support several different entrepreneurs, and moreover, the funds ultimately remain in the region (as the lending capital for the future).

The only disclaimer that needs to be made is that support aimed at increasing the survival of companies is very much needed, however, it is also risky in terms of the possible insolvency of such entities. Therefore, a good tailoring of the products and a professional risk assessment by the Fund Managers needs to be employed in a successful delivery of financial instruments.

4.2.6 Lessons learned and transferability

The main strengths of the presented solution are the following:

- Targeting SMEs (including microenterprises), which are the main drivers of many national and regional economies;
- The application of mechanisms which encourage enterprises operating in rural areas and those with low rates of economic activity to become more active in investment and creating new jobs;
- A realistic and tailored response to current problems of companies (natural disasters, economic crisis).

There are also some potential challenges which need to be addressed while setting up of the presented solutions:

- the need to provide funding for the management costs of the Managers, which are depleting the amount of funds available to businesses;
- the need to have experienced financial intermediaries who will be able to distribute support to businesses in an efficient way.

The proposed good practice represents a model approach to supporting specific groups of companies with dedicated financial products. They can be fully transferable to other regions with the possibility of being adapted to their specific needs and conditions (e.g. in terms of the target groups that will receive

preferential support, mechanisms for rapid response to emerging events affecting the company, the size of the loan/guarantee, interest rates, repayment period, State aid).

4.3 Further information

- 1) Parameters of financial products in Małopolska under the Regional Operational Programme for 2014-2020 (PL):

<https://www.bgk.pl/pozyczki-unijne/oferta-pozyczek-unijnych/pr-malopolskie-43/>

- 2) Website of the Małopolska Regional Operational Programme (description of Axis 3) (PL):

<https://www.rpo.malopolska.pl/o-programie/poznaj-zasady-dzialania-programu/dla-kogo-jest-program-i-co-mozna-zrealizowac/os-3--przedsiębiorcza-malopolska>

- 3) Information on liquidity loans (PL):

<https://www.rpo.malopolska.pl/aktualnosci-fundusze-a-koronawirus/pakiet-plynnosci-finansowej-dla-malopolskich-firm>

- 4) Reports and analyses on financial instruments in Małopolska (PL):

<https://www.obserwatorium.malopolska.pl/wp-content/uploads/2016/05/Analiza-w-zakresie-mo%C5%BCliwo%C5%9Bci-zastosowania-zwrotnych-instrument%C3%B3w-finansowych-w-wojew%C3%B3dztwie-ma%C5%82opolskim-w-okresie-programowania-2014-2020.pdf>

<https://www.obserwatorium.malopolska.pl/wp-content/uploads/2016/05/2015-07-20-UMWMP-ex-ante-IF-wer-20vii-ze-streszcz-PLen-fin.pdf>

- 5) Local Entrepreneurship Ecosystem, Case study of Małopolskie (EN):

<https://www.obserwatorium.malopolska.pl/wp-content/uploads/2019/05/OECD-entrepreneurship-case-study-Malopolskie.pdf>

- 6) EC DG REGIO, Ex post evaluation of Cohesion Policy programmes 2007-2013, focusing on the European Regional Development Fund (ERDF) and the Cohesion Fund (CF) – Work package 3 – Financial Instruments for enterprise support, Case study of Małopolskie (EN):

https://ec.europa.eu/regional_policy/sources/docgener/evaluation/pdf/expost2013/wp3_final_en.pdf

5 Cluster development measure on digital innovation

SUMMARY

Starting in 1990, the main objective of the digital cluster implemented in Małopolskie has been to stimulate the growth of the region (i.e. be one of the 'growth engines') based on entrepreneurship and innovation. The cluster was created around a specialised business environment institution, which combines different integrating functions.

Małopolskie has been developing entrepreneurship and innovation from a relatively low level of economic development and was characterised by economic and territorial disparities, in view of rural areas and the border area.

Establishing the Małopolskie digital cluster, integrated by KTP, was a measure of the national and regional development policy. For these activities, KTP has been receiving further support from the national government and regional and local authorities. Moreover, KTP was supported from EU-funded programmes in different programming periods.

Besides the regional capital in Kraków and some urban areas, the majority of the region is rural (65%) and is located at a border that was similar to an external border until EU accession in 2004.

The good practice can be fully transferable to other regions, upon adaptation to the local needs and conditions, which may require detailed parameters of the solution, in particular the need to take into account the local socio-economic structure (i.e. the structure of enterprises, research and educational institutions, infrastructure equipment, administrative capacity of local authorities), the possibility of creating an SEZ, technology parks, business and technology incubators focused on the digital sector.

5.1 Policy objective, context and rationale for selection

5.1.1 Main policy objective of the good practice

The main objective of the digital cluster implemented in Małopolskie since the 1990s has been to stimulate the growth of the region (i.e. be one of the 'growth engines') based on entrepreneurship and innovation.

The cluster was created around a specialised business environment institution – the Kraków Technology Park (KTP). It has been combining the functions of an integrator of the cluster initiative, a modern Digital Innovation Hub (DIH), a technology park, a technology start-up incubator, and hosts the manager of a special economic zone (SEZ).

5.1.2 Policy context of the good practice

In today's economy, competitiveness, productivity, innovation, high level of digital activities, and improving the process of information exchange are key factors for advanced growth. The role of clusters, which are increasingly often called the 'regional growth engines', is invaluable in this respect. Apart from significantly increasing competitiveness and innovativeness of individual entities involved in a cluster initiative, on macro scale, they stimulate cooperation between the business sector and the science and research sphere, which means that they contribute significantly to stimulating economic growth based on innovation. Therefore, cluster initiatives in the sectors of modern technology and high productivity, such as the digital innovation and IT, are particularly relevant for regional entrepreneurship and innovation policies.

Establishing the Małopolskie digital cluster, integrated by KTP, was a measure of the national and regional development policy. For its activities, KTP has been receiving further support from the national government, the regional and local authorities. Moreover, KTP was also supported from the EU-funded programmes implemented at EU, national and regional level and covering in different programming periods.

5.1.3 Rationale for selecting this good practice

Małopolskie is a good practice example for developing entrepreneurship and innovation from a relatively low level of economic development (i.e. as a region lagging behind according to EU cohesion policy categorisation), through the use of cluster initiatives as one policy tool. In this respect, attention should be drawn to the particularly successful digital cluster and the KTP as an entity responsible for the cluster formation, integration and further development. This institution started more than 20 years ago, firstly by launching of the Kraków Special Economic Zone (SEZ), before moving to some further, and more advanced, types of operations.

Furthermore, Małopolskie voivodship has been characterised by economic and territorial disparities. Besides the regional capital in Kraków and some urban areas, the majority of the region is rural (65%) and rural-urban (26%). Being at the border to Slovakia, the region experienced similar conditions of external border relations prior to EU accession.

Considering that the above-mentioned circumstances may be comparable with the BusDEV stakeholder territories, the good practice may show interesting and relevant insights.

5.2 Description of the good practice

5.2.1 The need addressed by the good practice

The main needs for establishing the Małopolskie digital cluster and the KTP with an SEZ for this purpose, were the following:

- supporting the development of the region and stimulating its innovativeness, improving the competitive position (also international) of Małopolskie enterprises,
- strengthening cooperation between enterprises and the scientific and research sphere, unused potential in academic centres, facilitating technology transfer from local research and academic centres to companies and organisations operating in the Technology Park,
- actively responding to the needs of business and industry in the Małopolskie region,
- utilising the investment potential of the region – among other things, the available resources of employees, including qualified ones, social infrastructure.

5.2.2 Objectives of the good practice

The objectives of the Małopolskie digital cluster and the KTP include:

- development of the high-tech sector using scientific and research potential of Kraków's scientific community,
- creating favourable economic, infrastructural and organisational conditions for domestic and foreign investors,
- support for the development and restructuring of existing enterprises in the field of product standardisation regarding European standards, innovation and technology transfer, consultancy and training in the field of restructuring, organisation and protection of intellectual property, raising funds for innovation and for joint ventures with scientific institutions,
- supporting education in Małopolskie's universities on the basis of the development of laboratories, increasing the level of scientific research, introducing desirable changes in the profile of education in cooperation with the economy, transfer of modern technology and technology.

In addition, the KTP aims to contribute to:

- increase the level of investment,
- develop exports,
- create new jobs in the region,
- increase the competitiveness of the services provided,
- maintain a competitive environment encouraging innovation in various sectors.

5.2.3 Detailed good practice description

Business services and IT started to develop in Kraków in the 1990s as result of domestic and foreign investments (and with high significance of the latter), taking advantage especially of a supply of labour and the local academic base. For example, in 1993 a current Polish IT champion Comarch started-up endogenously. One of the first most significant foreign investors was the consulting firm PriceWaterhouse (now PwC), which in 1996 started providing accounting services for the British oil and energy champion BP.

In recognition of an opportunity of attracting further investors, and therefore, building an ICT/digital cluster in Małopolskie, in 1997 the KTP and the SEZ under its management were established. The initiators and shareholders of the KTP, having the status of a limited liability company, were: State Treasury, Małopolskie Voivodeship, AGH University of Science and Technology in Kraków, Cracow University of Technology, Jagiellonian University, Municipality of Kraków and ArcelorMittal Poland (the owner of the Kraków steel mill).

In 1999 the first major investments from the digital sector were attracted to the SEZ, i.e. from the American IT and telecom major player Motorola, which started its R&D activity. and the above-mentioned Comarch. The business services and IT activity prevailed in the first years of development of the industry in Kraków, and the investors were mainly American companies. In 2003, the first shared services centre, the Airline Accounting Center, owned by the German airline Deutsche Lufthansa, was established in the city.

Many companies started their business in Kraków with simple processes such as basic accounting, IT support, telephone customer service or human resources administration. Nowadays, the advancement of services offered there is often the same as in their branches in Western European countries and the United States. After over 20 years of development, Kraków is more and more often regarded as a mature market, which can no longer compete with other locations in terms of labour costs, but in terms of employee competence and the provision of the highest quality services with the highest added value.

This area has now become an attractive place to invest, mainly because of:

- a current high concentration of companies providing IT, outsourcing or industrial services, whose presence stimulates the growth of entrepreneurship and exacerbates competition;
- a good academic base, with a scientific and research base, which enables the development of innovation among the academic community, and provides for a high level of knowledge and practical skills of graduates;
- the location – constantly improved communication with large industrial centres, such as the Upper Silesian Industrial District, Wrocław or Rzeszów, which has a positive impact on the

growth of cooperation between enterprises from the above-mentioned regions and with enterprises from Małopolskie.

Since the beginning, the role of the KTP has been to support the economic development and innovation in Małopolskie, especially by: actively responding to the needs of companies, creating tools to aid in their development, offering services at various stages of their development, and supporting other environments interested in technological development.

The KTP-managed SEZ has been the first of the elements attracting investment from the digital sector. It enables entrepreneurs to operate on preferential terms, i.e. income tax exemption. The zone's objective is to create areas with attractive business conditions, which translates into increased investment in the region.

The next element of KTP's activity has been a technology park. The park supports the development of companies by, among others, creating space and technical facilities for the growth of business, consulting and training, supporting investments.

Furthermore, the KTP has been running an incubator. This is the KTP's support tool for start-ups in the IT sector. Companies have the opportunity to take part in workshops and training sessions, which are to prepare the company to function efficiently in the market reality. They are also entitled to a lower price of office space rental.

The most recent, and at the same time very crucial for supporting digital development tool of KTP's activity is the Digital Innovation Hub – 'hub4industry'. The DIH status is defined by the European Commission to endorse the high-level of proficiency of an institution, and also relevance for the digital development of the region. DIH is a service dedicated to manufacturing companies. It includes a comprehensive support point (the so called 'one-stop-shop') for industrial companies that are interested to introduce 'Industry 4.0' solutions to their factories. DIH combines key technologies and solutions of the 'Factory of the Future', such as: 5G network connectivity, automation and robotization, Internet of Things (IoT), artificial intelligence (AI), augmented and virtual reality (AR and VR), cloud computing, BIM technology, 3D printing. In such a way, DIH helps companies to improve their competitiveness on the market, especially by working on production processes.

DIH supports manufacturing companies in introducing solutions of 'Industry 4.0', e.g. through

- scanning (company potential analysis) and benchmarking carried out by experts,
- free trainings and workshops,
- implementation strategy,
- mentoring and consultancy from concept to implementation,
- test before invest - pilot implementation projects,
- showroom of the 'Factory of the Future' in Kraków,
- advice on obtaining funding for new technologies.

5.2.4 Results achieved

Over the last three decades Małopolskie achieved important results in their entrepreneurship and innovation development, among other things, owing to the digital cluster initiative and the KTP.

A dynamic growth of business entities and employment was observed especially in business services and IT sectors. Kraków, with 238 centres of business activity, is currently ranked the 2nd in Poland ESPON 2020

with the highest number of such establishments, after Warsaw. It is also the leader in employment – about 90 thousand people work in BPO (business process outsourcing), SSC (shared services centres), IT and R&D centres. Additionally, it has the highest share of R&D centres among the 8 largest metropolitan areas in Poland, amounting to 17% (2019).

According to Poland's National Statistical Office, the number of jobs in R&D in the region increased between 1999 and 2018 by over 11 thousand and reached 26 thousand (2018). Moreover, the internal expenditure on R&D in the same period increased from PLN 430 million (or c.a. EUR 0.1 billion) to PLN 3.7 billion (or over EUR 0.9 billion). This means an increase of more than eight and a half times. The region has almost 600 entities conducting R&D activities, which is 3rd in the country but translates into the 2nd place in terms of population. 60% of those entities are in the business sector. International companies such as ABB, Aptiv, Motorola, or CH2MHill have chosen Kraków as a place to develop their R&D activities. Małopolskie has also been transforming a significant part of its regional economy from an imitation process into an innovative process of economic development. The entire structural transformation of the region over the last years has been evidenced, e.g., by the current classification of the region as a 'moderate innovator' in the EC's regional innovation scoreboard.

At the same time, Małopolskie has become a base for numerous cluster initiatives, including those concerning IT. There are about 15 cluster initiatives in the region, including those with the status of National Key Clusters, and also involving technological and industrial parks.

The Małopolskie digital cluster is regarded as one of the best developed cluster ventures in Poland, having one of the largest innovative potential. At the same time, the KTP has been regarded as one of the most effective tools for building a cluster in the area of digital innovation. It is currently ranked as one of the best business environment institutions in Poland. Over 20 years of operation translates into excellent knowledge of the market environment. Over 1500 companies use the services of KTP every year. Among its current and former clients are companies related to technological innovations in various industries, including the digital sector (e.g. Comarch, CD Projekt Red, Synerise, Revolut, Visiona and others).

In the KTP-managed SEZ, by the end of 2018, 263 business permits were issued, more than 28 thousand jobs were created, and the declared amount of investment reached PLN 5 billion (or c.a. EUR 1.25 billion). One of the largest and longest-term investors operating within the zone is the above-mentioned Comarch, currently a global provider of business IT solutions. The company's total investments exceeded PLN 330 million (or c.a. EUR 82.5 million) and created over 1600 jobs.

The KTP is also one of the most developed centres of its kind in Poland. There are currently about 350 companies operating within the park. The park is supported by more than 50 specialists with unique know-how and many years of experience and is also one of two certified Living Labs. Furthermore, over more than 10 years, more than 140 companies have been supported by the incubator, 80% of which are still operating.

The KTP also coordinates the Digital Entertainment Cluster and the Incubator of Digital Dragons Academy. The effect of the aforementioned activities is a significant contribution to the development of the computer games industry in Poland, and the numerous representatives from Małopolskie in this industry. Since 2013, CD Projekt, the publisher of „Wiedźmin” (The Witcher) or “Cyberpunk 2077”, listed on the Warsaw Stock Exchange, and several companies listed on NewConnect, such as Bloober ESPON 2020

Team, 7levels, Polyslash, One More Level, Moonlit and Starward Industries, have their offices in Kraków. Apart from the production process of titles with a chance of global reach, an important element of the value chain for the industry is promotion and distribution, especially on foreign markets. Cooperation is established, among others, through industry events (e.g. Digital Dragons and other conferences).

As far as the latest DIH initiative is concerned, the showroom of 'Fabryka Przyszłości' (Factory of the Future) was created in two locations in Kraków. In cooperation between the KTP, ASTOR and T-Mobile, a space has been created in which the solutions and technologies of Industry 4.0 are demonstrated in practice. The showroom is open to all entrepreneurs. In addition, the Hub conducts pilot implementation projects (the so-called 'Proof of Concept'), which help to verify the planned investment before the actual implementation to achieve the best results for the company. At the same time, a diagnosis according to the ADMA (Advanced Manufacturing) methodology shows companies development paths to implement 'Industry 4.0' solutions to the company and help increase their market competitiveness. Companies that take part in the ADMA expert scanning can obtain 'the Factory of the Future' status.

5.2.5 Risk and success factors of the good practice

When considering the key success factors for the good practice, it should be noted that the main value-generating resource in the digital and creative industry chains is intellectual property. At the same time, in the context of regional competitiveness and global value chains, it should be stressed that this value is created mainly through resources available locally. Taking this into account, the key success factors for this good practice have become the elements which the Małopolskie region, and Kraków in particular, has sought to provide both to the attracted external investors, and to businesses that are created and growing on the ground.

The first of these success factors was ensuring access to the highest possible quality human capital. In this respect, a significant role was played by the presence of Kraków's higher education and research institutions (including economic and technical universities), as well as the offer of education in important fields of study (both degree and life-long), and thus ensuring the supply of skilled labour.

Another factor was connecting with the demand for IT and digital services. The key elements in this aspect were attracting new investors (that have established their business service centres in Małopolskie) and developing communication infrastructure (especially digital and transport infrastructure that allowed to provide their services from Małopolskie countrywide and worldwide).

One of the key elements of success was also the direct activity of the KTP. An important role was played by infrastructural endowment provided by the KTP and support in the management and environment of the company. Access to technical infrastructure, incubation activities as well as educational and promotional activities – have all been significant for entrepreneurs. It was also important that the KTP activity has been integrating the spheres of entrepreneurship, science and public administration. In this respect, the offer of direct access to knowledge (including industry research) as well as assistance in obtaining support from public industry programmes was regarded as highly relevant. Last but not least, a key element was also the integration of businesses in a cluster format, by offering joint activities, services and events.

The risk factor has been, above all, the effectiveness of multi-level management in the need to integrate actors from many sectors, i.e. public administration, business and science. However, the key decisive element has been to create favourable conditions for the development and response to the needs of all participants in this triad.

5.2.6 Lessons learned and transferability

The mechanism used in Małopolskie, consisting in the establishment of a regional integrator of the cluster initiative – the KTP – should be considered effective at individual stages of regional development. At the stage of lower level of development of the region, the KTP started with the activity consisting in running a SEZ aimed at attracting investors in the field of IT and digital technologies, among others by granting tax exemptions, promoting the region's offer, servicing contacts between local authorities and investors. Further activity has involved a technology park and an incubator, which have been creating space and technical facilities for starting-up and development of micro, small and medium-sized IT and digital companies. Then the activity in the DIH formula was launched, in which especially manufacturing companies receive comprehensive support in the area of digitization of the activity and introduction of 'Industry 4.0' notions and technologies (from the stage of the concept to the selection of the solution and its implementation). Over the three decades, the KTP has become a competent, comprehensive 'one-stop-shop' with a full range of tools to help companies grow better and faster. Together with entrepreneurs, scientists and local governments, it creates a cluster solution which is an important element of the ecosystem of entrepreneurship development and innovation of the Małopolskie economy.

The presented digital cluster measure can be fully transferable to other regions, upon adaptation to the local needs. It is conditioned by the possibility of creating SEZs, technology parks, business and technology incubators focused on the digital sector. This fact is also confirmed by the EC's initiative to create DIHs in various regions of individual EU Member States. Possible adaptation to local needs and conditions may require detailed parameters of the solution, in particular the need to take into account the local socio-economic structure (i.e. the structure of enterprises, research and educational institutions, infrastructure equipment, administrative capacity of local authorities).

5.3 Further information

- 1) hub4industry Digital Innovation Hub - Industry 4.0 in Polish companies

<https://www.kpt.krakow.pl/przemysl/digital-innovation-hub/>

- 2) Polish Investment and Trade Agency, Invest in Poland - Kraków Technology Park

https://www.paih.gov.pl/strefa_inwestora/sse/Kraków

- 3) "Why do we need special economic zones?", Portal of the National Bank of Poland

https://www.nbportal.pl/wiedza/artykuly/gospodarka/po_co_nam_strefy_ekonomiczne

- 4) Summary of 2018 in the Cracow Special Economic Zone

<https://www.malopolska.pl/aktualnosci/biznes-i-gospodarka/podsumowanie-2018-roku-w-Krakowskiej-specjalnej-strefie-ekonomicznej>

- 5) Kraków Technology Park website dedicated to Comarch

<https://www.kpt.krakow.pl/success-stories/comarch-rosnie-w-sile-reinwestuje-i-zatrudnia/>
ESPON 2020

6) Official website of hub4industry - Digital Innovation Hub

<https://hub4industry.pl/co-robimy/>

7) External conditions for the creation and development of clusters in the Małopolskie Voivodeship, Scientific Papers of the Cracow University of Economics

6 JuEX – Female start-ups in Saxony-Anhalt

SUMMARY

The project's main objective was to facilitate female self-employment and start-ups by motivating them to realise their ideas and offering support for challenges particularly relevant for female entrepreneurs.

This experience may be interesting for stakeholders of the ESPON BusDev project since it was implemented in a region suffering from out-migration and a lack of entrepreneurial people. Both further enhance demographic change and ageing in the region and lead to an unbalanced gender development in rural areas, with a lack of young well-educated females affecting future perspectives for regional development.

The measure is a small-scale intervention developed bottom-up by a non-governmental organisation and was applied for as ESF project. Its success lies in its dual approach that addressed more than one challenge of the region, i.e. demographic and socio-economic challenges.

In addition to out-migration pressures and ageing the region is among those German regions with the highest unemployment rates. The project was implemented in a predominantly rural environment with a relatively low population density.

However, compared to most stakeholder territories the region is less sparsely populated. Thus, the number of participants benefiting from such an intervention may be lower in the stakeholder territories. At the same time, a critical mass is necessary to ensure high quality services/consultation.

6.1 Policy objective, context and rationale for selection

6.1.1 Main policy objective of the good practice

The main objective of the juEX project was to motivate women to realise their ideas for long-term self-employment and economic autonomy, and to support them in tackling challenges that are especially relevant for female start-ups and careers in the first years after founding the business.

6.1.2 Policy context of the good practice

The project was implemented in the federal state of Saxony-Anhalt (NUTS 1), one of the Eastern states of Germany, covering the whole territory of the state.⁸ It was funded by the ESF and the Ministry for Science and Economics of Saxony Anhalt and implemented between 2009 and 2015. The project was implemented under the programming period 2007-2013.

Motivating and supporting women as young entrepreneurs constitutes a preventive measure particularly aiming at the success of (female) start-ups. In general, this shall support the labour market and reduce the vulnerability of the Saxony-Anhalt labour market, which is among the German federal states with the highest unemployment rates. This unfavourable labour market situation has led to continuous outmigration of highly qualified women in Saxony-Anhalt, which weakens the regional and local labour market and further development potentials in the long-run. The project is considered a good practice because it takes into consideration both the specific vulnerability of the Saxony-Anhalt labour market and the individual information and coaching needs of the female entrepreneurs. Furthermore, a survey of the first two-year period participants indicated a high degree of satisfaction with the offered services of the project. Finally, the project has initiated several follow-up measures (see results achieved).

⁸ Saxony-Anhalt had a population of close to 2.2 million inhabitants in 2019 compared to nearly 2.9 million in 1990. The current state population corresponds to a population density of slightly above 100 inhabitants per km².

6.1.3 Rationale for selecting this good practice

This good practice is related to the following interests of the ESPON BusDev stakeholder territories:

- encourage re-emigratory processes and/or young people to stay in their region of origin;
- improve support for business creation, tackling entrepreneurship and required consultancy services.

There are certain similarities with some of the stakeholder territories:

- Especially in the period when the project was implemented the East German labour market was suffering heavily from outmigration. Within the East German states this trend was particularly pronounced in Saxony-Anhalt, which then led to numerous interventions of which JuEX is only one.
- Due to the significantly higher out- than in-migration for a long time, the region (still) experiences considerable ageing. This trend has been accelerated as especially the well-educated young people continued to leave the region, most of which are females. This resulted in unbalanced gender development, particularly in rural areas with further effects on future natural population development.
- Within Germany Saxony-Anhalt has a relatively low population density. At state level this is the third lowest in Germany⁹, and differences within the state are considerable.
- The project addressed the need to increase entrepreneurship in the state, still resulting from the socialist period, which was lacking start-up activities to create new employment opportunities.

6.2 Description of the good practice

6.2.1 The need addressed by the good practice

The share of self-employed women is low in Saxony-Anhalt. Not least because of the socialist period there is little entrepreneurial tradition, even less among women. Networks and experiences are missing that may help young entrepreneurs during the first years of their business.

The first years after founding a business are crucial and determine whether the idea becomes a success or failure. During this time, women face specific challenges like the reconciliation of family and working life but also general challenges like the use of social media, successful negotiation processes, business management or PR. Thus, there is demand for providing them with individual support.

6.2.2 Objectives of the good practice

The overarching objective of the juEX project was to increase sustainable self-employment in Saxony-Anhalt. It aimed to motivate women to realise their ideas for long-term self-employment and economic autonomy. By increasing the share of self-employed women several effects were to be achieved

- creation of new jobs in a high-unemployment region;

⁹ <https://de.statista.com/statistik/daten/studie/1242/umfrage/bevoelkerungsdichte-in-deutschland-nach-bundeslaendern/>. Only the states of Brandenburg and Mecklenburg-Vorpommern have lower population densities (83 and 69 inhabitants per km² in 2014) (<https://www-genesis.destatis.de/genesis/online?operation=abruftabelleBearbeiten&levelindex=0&levelid=1606476512957&auswahloperation=abruftabelleAuspraegungAuswaehlen&auswahlverzeichnis=ordnungsstruktur&auswahlziel=werteabruf&code=12411-0050&auswahltext=&werteabruf=Werteabruf#abreadcrumb>).

- supporting the young female entrepreneurs in tackling challenges that are especially relevant for female start-ups and careers in the first years after founding the business;
- developing new options for women to find a job in the region rather than migrating; and
- avoiding an accelerating rate of depopulation and ageing (no babies without young women).

6.2.3 Detailed good practice description

The juEX project followed the motto “Promote personality. Develop strength.” The project supported female young start-ups working in the fields of craft, health and social affairs during the first years after the foundation of their enterprises.

The support consisted of joint workshops, networking and thematic events with external speakers and consultants on the one hand, and individual coaching sessions on the other hand. To avoid additional financial burden for the young enterprises, the entrepreneurs got a small non-repayable financial aid for six months as compensation for their participation and missing working hours respectively.

The individual coaching sessions were the core activity of the project. Each participant could take part in two different coaching processes of which each process comprised 12 individual coaching sessions. The juEX team and the entrepreneurs jointly agreed on the content and the coaches for these sessions. In a first ‘talk’ the entrepreneur could decide whether she thinks that the selected coach is right for her (personally and content wise). The sessions aimed to provide self-help to the female entrepreneurs and provided skills that are useful for coping with other related challenges in the future of the enterprise.

The juEX intensive workshops last 2.5 days and dealt, among others, with management, communication, personality, marketing, PR, bargaining, social media, online marketing, time and project management, speech training and presentation skills.

The juEX networking activities involved the participants, cooperation partners and multipliers. JuEX collaborated with 23 regional and national institutions. Among them were e.g. the regional Chambers of Commerce, regional Chambers of Trade, a national environmental association (BUND), the local economic development board of Magdeburg (capital city of Saxony-Anhalt), the responsible state ministry, several thematically relevant federal networks and the federal labour market agency, to name only a few. Among the cooperation partners were furthermore four projects that dealt with similar problems of start-ups in general or family specific issues of young entrepreneurs. Thus, the project was embedded in a wider set of networks and measures. Above list of cooperation partners indicates the variety of involved institutions which result in a corresponding variety of roles and activities these institutions play in juEX. Some provided specific services young entrepreneurs need prior, during or after foundation. Others are general networks providing branch or SME relevant information to all their members. Some conducted conferences, networking events etc. Coaches for individual or workshop coaching were usually contracted externally by means of public procurement procedures. This approach ensured the recruitment of the most suitable coaches.

The juEX networking activities promoted the development of networks between the entrepreneurs and the external participants so that the established contacts could continue to exist after the end of the project period.

The thematic events took place in different municipalities in Saxony-Anhalt. They did not only focus on the participating female entrepreneurs but were open to the wider public. Depending on the type of event and institution organising the event (e.g. chambers) promotion happened through different channels beyond the juEX own activities. The discussed topics covered a wide range and addressed topics that are especially relevant for women and female entrepreneurs. External speakers were invited to report about their experience, provide new inputs and discuss together with the participants.

The project was carried out by a non-profit umbrella association (Landesfrauenrat Sachsen-Anhalt e.V.) that represents women's organisations and groups in Saxony-Anhalt. Three to four employees of the association advised female entrepreneurs and organised coaching sessions, workshops and other events. Thus, necessary financial resources had to cover the association's personnel costs and expenses to conduct additional activities and events (external coaches, cooperation partners etc.). The project furthermore compensated partially for the entrepreneurs' loss of salary due to their participation in the project activities as outlined above.

The umbrella association was, thus, also the main contact point for interested females. In a first step, individual plans consisting of specific qualification activities and coaching sessions were developed for every interested female entrepreneur. In a second step, the entrepreneurs took part in the abovementioned coaching sessions with external coaches and visited workshops, networking sessions and thematic events.

6.2.4 Results achieved

In the first project phase from 2009 to 2011, 30 women were supported during the first years of their self-employment. Due to the success a second phase was started in 2011 and lasted until 2014. In this period 43 women were supported and more than 80 different events were organised and conducted. These events covered different thematic fields like marketing, communication, networking or personality development. Because of its success, the project had been prolonged beyond the programming period until February 2015. In total, more than 80 female entrepreneurs have been supported.

Furthermore, three networks were established in the first project phase from 2009 until 2011: An association of female entrepreneurs, a regional group and an association of professional coaches and consultants ("Coaches for Magdeburg").

The project contributed to recognising the need and the potentials of such support and helped in establishing continuous support in Saxony-Anhalt that offers target-oriented support and advice for females seeking to establish an enterprise. This is now continuously funded under a state measure benefiting from ESF support in 2014-2020 and state co-funding. In particular, an ESF-sub-programme (ego.-Konzept) funds projects that want to implement innovative measures in support of start-ups. One example of a project funded under this sub-programme is the support of the "strong network" founder centre for women at state level, which aims to further increase the number of female start-ups and is a new service with offices in two regional cities and offering mobile consultation throughout the state. These measures are further complemented now by so-called welcome centres in different counties that offer one-stop shops for re-migrants or others interested in moving to Saxony-Anhalt together with matching services with enterprises seeking qualified personnel.

Finally, the project has initiated further action by the umbrella association itself, mainly on the level of campaigning. These campaigns illustrate every day life of women in the state and offered insights into potentials for women living in Saxony-Anhalt.

6.2.5 Risk and success factors of the good practice

The project highly depended on the availability of public resources. Given the pronounced need indicated above, so far, the state of Saxony-Anhalt renewed the funds from their ESF resources to prolong the project as indicated above.

Further risks were in the design of appropriate events and finding appropriate coaches. However, to avoid disharmony between the coach and the entrepreneur they had a first meeting to test their understanding before the actual sessions start.

One of the success factors was the simultaneous considerations of the need of the state of Saxony-Anhalt as such (labour market) and the individual female entrepreneurs. The continuous consulting provided by the Landesfrauenrat Sachsen-Anhalt e.V. created trust into their skills and appropriateness of the measures.

Given the usually tight budgets of young entrepreneurs, it was certainly beneficial to provide not only support in terms of coaching, networking etc. but also to offer financial aid for the foregone working hours.

6.2.6 Lessons learned and transferability

The main strengths may be summarised as follows:

- Specific problems of / challenges for female entrepreneurs were addressed.
- The project highlighted development opportunities for women and encouraged them to found own businesses.
- The positive evaluation for the first phase 2009-2011 proved the usefulness of the approach and supported the prolongation.
- The focus on health, crafts and social affairs, i.e. on economic sectors that usually do not attract interest of economic and small-scale business promotion could act as eye-opener.

As of the very positive responses of the mentioned survey, no major weaknesses were observed.

Compared to most stakeholder territories Saxony-Anhalt is less sparsely populated, thus, expectations towards the number of supported females may have to be reviewed, while a critical mass is necessary to ensure high quality services/consultation. Communication channels and possibly the fields of entrepreneurship also may require adjustment depending on local circumstances and preferences.

In addition, this example may give inspiration to

- developing interventions for business support (e.g. as part of ERDF or ESF programmes) in a way that invites innovative approaches taking an integrated perspective (e.g. tackling more than one challenge);
- addressing different groups of potential enterprise founders rather than solely females (e.g. youth after graduation, farmers who search for additional income opportunities or their spouses) through a broader approach such as a sub-programme.

6.3 Further information

In German:

<https://www.landesfrauenrat.de/projekte/abgeschlossene-projekte/junge-existenzgruenderinnen>

Documentation of the first phase 2009-2011:

https://www.landesfrauenrat.de/images/inhalte/projekte/junge_existenzgruenderinnen/juex_doku.pdf

Study:

https://www.frauenmachenneuelaender.de/documents/5728034/5974486/121016_FMNL_Studie_2012_WEB.pdf/c9747777-d4ac-4176-9995-7bf3db6955d1

Other relevant projects conducted by the Landesfrauenrat Sachsen-Anhalt e.V.:

<https://www.landesfrauenrat.de/projekte/abgeschlossene-projekte/jung-weiblich-engagiert-in-sachsen-anhalt>

<https://www.landesfrauenrat.de/projekte/abgeschlossene-projekte/wir-sind-hier-frauen-in-sachsen-anhalt-gestalten-ihr-land>

Further information on follow-up measures:

<http://www.quedlinburg.de/de/aktuelles/sachsen-anhalt-foerdert-neue-anlaufstelle-mit-rund-800000-euro.html>

<https://welcomecenter-sachsen-anhalt.de/>

<https://www.foerderdatenbank.de/FDB/Content/DE/Foerderprogramm/Land/Sachsen-Anhalt/ego-konzept.html>

7 Demography coaching

SUMMARY

The project aimed to raise awareness among local and regional decision makers not only about problems but opportunities in view of demographic change (ageing and out-migration). This way, the project addresses the needs for adapting to a changing environment (here demographic change) and linking this with regional development questions (e.g. improving living conditions).

This experience may be interesting for stakeholders of the ESPON BusDev project since it was implemented in a county suffering continuously from out-migration with heavy demographic change and ageing as well as an unbalanced gender development in rural areas, which in turn affects future natural population development. With above objective in mind, the example may be considered a mind-changing effort for local and regional stakeholders that is also addressing regional capacity building.

It is a pilot action developed by a public association responsible, inter alia, for rural development in Saxony-Anhalt and financed by the responsible state ministry. The project's success lies in its three-dimensional approach combining strategic, communication and implementation actions that could build on a comprehensive contribution of all concerned stakeholders, while being tailored to specific local needs.

In addition to out-migration pressures and ageing, the county is among those German regions with the highest unemployment rates. The project was implemented in a predominantly rural environment with a relatively low population density.

While not as sparsely populated as most stakeholder territories, the methodological approach is suitable for transfer, as the actual activities within municipalities are always individually designed by locals addressing their needs. In this sense, it is the method that can be transferred rather than the actual local projects.

7.1 Policy objective, context and rationale for selection

7.1.1 Main policy objective of the good practice

The main objective was to sensitise responsible decision makers at regional/local level for problems and opportunities, related to demographic change, through the involvement of different experts. This aimed at developing tailor-made approaches conjointly with the participating municipalities for the selected county, and at mobilising all local forces by using modern and innovative development tools.

7.1.2 Policy context of the good practice

The project was implemented in the Landkreis (county) Mansfeld-Südharz, located in the federal state of Saxony-Anhalt, which is one of the Eastern states in Germany. Implementation was on NUTS3 level and involved several municipalities located in this county. The project lasted about 1.5 years in 2009 and 2010 financed as a pilot action by the federal state (Ministry for State Development and Transport) and building on a previous model study initiated by the national government dealing with regional needs adaptation in view of demographic change.

Demography Coaching is an approach in which administrations, politicians, decision-makers, enterprises and civil society work together to develop a common understanding and to shape the transformation process in the local/regional territory at stake. By acknowledging and considering the psychological dimension, the public debate about demographic change and its consequences is not restricted to a technocratic process with regard to reducing services of general interest (SGI) but understood as a process that can be influenced and asks for newly designed solutions in regions affected by demographic change. Thereby, the project identified several access points for linking adaptability needs resulting from demographic change with regional development questions. By

means of practical examples it illustrates these access points in general and points out what different local/regional solutions could be.

7.1.3 Rationale for selecting this good practice

This good practice is related to the following interests of the ESPON BusDev stakeholder territories:

- improve the provision of public services and encouraging business development in the region;
- improve living conditions and strengthen the administrative capacity at local level.

There are certain similarities with some of the stakeholder territories:

- Especially in the period when the project was implemented the East German labour market was suffering heavily from outmigration. Within the East German states this trend was particularly pronounced in Saxony-Anhalt, which then led to numerous interventions of which Demography Coaching is only one.
- Due to the significantly higher out- than in-migration, the county still experiences considerable ageing which is expected to continue at least until 2030.¹⁰ This trend has been accelerated as especially the well-educated young people continued to leave the region, most of which are females. This resulted in unbalanced gender development, particularly in rural areas with further effects on future natural population development.
- Within Germany Saxony-Anhalt has a relatively low population density. At state level this is the third lowest in Germany¹¹. Population density in the county Mansfeld-Südharz is somewhat below the Saxony-Anhalt average.
- The project addressed the need to sensitise local and regional decision-makers to adaptation needs and thereby support the structural change expected for the region.

7.2 Description of the good practice

7.2.1 The need addressed by the good practice

Impacts resulting from demographic change and, in particular, from a decreasing population affect especially municipalities. Inter alia, provision of services of general interest becomes more challenging in view of decreasing available resources and changing demand (elderly requiring other services than young families etc.). At the same time, many municipalities are afraid of accepting this challenge and the corresponding consequences, mainly because regions are somehow stigmatised as problem regions as soon as they are known as shrinking regions. Correspondingly, the public discussion then only focuses on weaknesses and threats. This development leads to a decrease in public motivation, commitment and confidence, and ends up in a vicious circle with potentially increasing out-migration, lack of business opportunities etc. that finally lead to enhancing population decrease. This project is an effort to interrupt this vicious circle by opening the minds towards adaptation and opportunities.

¹⁰ <https://www.wegweiser-kommune.de/kommunale-berichte/demographiebericht/mansfeld.pdf>

¹¹ <https://de.statista.com/statistik/daten/studie/1242/umfrage/bevoelkerungsdichte-in-deutschland-nach-bundeslaendern/>

7.2.2 Objectives of the good practice

The project aimed at developing a strategic approach of partnership and mutual responsibility among the municipalities in the county of Mansfeld-Südharz to tackle demographic change. The project's more specific objectives comprised:

- to sensitise the central places for aspects of demographic change;
- to develop specific strategies for assuring supply of services of general interest;
- to develop concrete projects and illustrations of possible ways for their realisation;
- to strengthen the central places' functions;
- to develop a communication platform in the county for transferring innovative solutions;
- to design demographic change by means of trend insensitive future strategies.

Demographic change should thus not be perceived as a problem to be solved by technocratic solutions. Instead, the psychology of change and the competencies of stakeholders should be considered as important means to understand and tackle the challenges resulting from demographic change.

7.2.3 Detailed good practice description

Demography Coaching combined different aspects with regard to strategic, communication and implementation approaches. They were all based on the self-help approach and should support municipalities facing difficult changes. The project approach tied in with the psychological dimension of change, with new thematic fields, and with existing competencies of local stakeholders. Thus, demography coaching is a kind of 'fitness training' for municipalities that covers the following action fields that have been developed from above specific objectives:

- development of strategies to assure a sufficient level in services of general interest;
- development of concrete approaches and possible alternatives;
- strengthening of the functioning of central places;
- establishing a platform for discussions and exchange of innovative solutions;
- development of specific regional opportunities, i.e. 'shaping' demographic change by trend-based strategies for the future;
- actions that help to maintain and promote the quality of life in rural areas;
- highlight regional opportunities for families and young people to counteract out-migration;
- integrate potentials provided by the elderly and strengthen voluntary work;
- develop strategies for the future of cities from the perspective of touristic marketing;
- intensify cross-border cooperation with neighbouring states (Thuringia).

Hence, demography coaching uses five different levers: 1) Strategies, concepts and projects; 2) organisational structures; 3) competencies of people; 4) communication strategies; and 5) culture of change. By using these levers, the municipalities should 'shape' demographic change in a creative and courageous way, and this way conjointly maintain the regional quality of life. This process follows a dual strategy of innovative measures related to both adaptation and counteraction.

The Demography Coaching consisted of four successive and interrelated modules:

Module 1: Identification of the actual need

This module comprised different measures in the fields of sensitisation, identification of topics for the coaching and identification of opportunities. The annex shows a quick test employed by the project to assess local need for action in view of demographic change.

Module 2: Demography Coaching

This module focused on the communication of opportunities, exchange of experiences and adoption of good practices from other stakeholders and regions.

Module 3: On-site coaching processes

This module provided the stakeholders working in the field of demography and demography-related issues with the actual support (based on the self-help approach).

Module 4: Communication of results

The finale module included all measures to transfer and communicate the experiences and results, i.e. public relations.

The project was carried out by the Association for Rural Development Saxony-Anhalt (Landgesellschaft Sachsen-Anhalt mbH) in cooperation with komet – empirica, a German consultancy. The association has been founded to support the development of rural areas as living and working space by integrating all relevant fields of competence within the association. The project was initiated and financed by the Ministry for State Development and Transport of the State of Saxony-Anhalt (Ministerium für Landesentwicklung und Verkehr des Landes Sachsen-Anhalt). Necessary financial resources had to cover the experts' salaries to obtain external inputs. Besides that, also local stakeholders from enterprises, civil society and administrations had to be integrated. For those that were involved both, due to their job positions and on voluntary base, time was a relevant resource. For events, workshops etc. venues had to be made available.

7.2.4 Results achieved

One outcome of the project is a guidance paper on demography coaching that highlights the main management elements of demography coaching, shows practical examples, summarises success factors and methods to implement demography coaching and a service section that helps regions to identify the need for tackling demographic change actively and that provides further information sources.

Based on the project's experiences in the region one central aspect is the toolbox of management elements of demography coaching. This comprises:

- identifying challenges and chances;
- interpretation of data and facts;
- strategy development;
- find consequences and possible solutions for different fields of actions;
- design of communication strategies that strengthen the local identity and improve the regional image;
- organising the exchange between the differentiations;

- mobilising a culture of change and engagement;
- develop effective organisational and management structures
- test new ways of participation;
- establish a professional project management.

Projects were initiated in several municipalities within the pilot county. These projects focused on different topics like counteracting measures to prevent young people from emigrating, assuring the supply for the elderly and less mobile citizens, to guarantee services of general interest in the rural areas being long-lasting and affordable and to develop a new local identity by reactivating local potentials. Some projects resulted in new networks and town-twinning activities. Apart from the general description, each praxis example contains a list of success factors and transferability options.

7.2.5 Risk and success factors of the good practice

Given the pilot study character of the project and its approach to conduct different types of action in different municipalities of the county, always depending on the specific needs, no risks could be identified with regard to the study as such. More risks may occur in relation to the following two issues:

- It is not clear in how far the initiation of projects was sufficient to induce their implementation. Depending on the agenda of the local stakeholders the projects may not always be continuously implemented given the duration of the pilot. So, continuity of efforts may also depend on higher level awareness and support.
- A pilot study is most effective if projects and actions are not only applied in the pilot study region but are transferred to other regions. Public availability of the results is not always sufficient for actually realising the envisaged transfer of experiences. Providing the information on the official webpage of the state ministry is certainly helpful. Though the project contained a work package on public relations, it remains unclear in how far this was successful.

The main success factor refers to the willingness to cooperate of the stakeholders. The comprehensive approach can only develop its main strengths when all stakeholders are involved and willing to contribute actively.

A second success factor is the positive basic attitude that population decrease can be 'shaped' or even used as a chance for future development. Even though fears and concerns must not be excluded, the basic perception of the involved stakeholders should be that demographic change can be tackled and that potentials exist that can be used to either counteract the current development (avoiding the vicious circle) or to find new ways to adapt regional development to demographic change.

7.2.6 Lessons learned and transferability

The main strengths may be summarised as follows:

- The three-dimensional approach combining strategic, communication and implementation actions;
- comprehensive involvement of all concerned stakeholders;
- a coaching process for different types of situations and agendas, i.e. different municipalities could engage in different actions etc. alone and/or together with other municipalities.

At the same time the chances for transferability remain unclear, since each activity initiated under the good practice individually targeted a very specific setting. So, it is more the overall methodological

approach on how to initiate a changing mind-set about regional and local challenges and development potentials rather than the individual activities that may be transferable. While the example takes demographic change as a starting point for the overwhelming challenge framing future regional development, this can be adjusted to other overarching regional changes.

This way, the good practice may give inspiration to

- develop projects at regional level offering help for self-help to interested municipalities in the region to initiate new processes on self-reflection and to create a more positive perspective and image in the municipalities and thereby for the whole region;
- consider innovative approaches for rural development within the EAFRD that go beyond (single) local projects but build a 'project family' across the region.

7.3 Further information

In German:

http://www.demografie.sachsen-anhalt.de/fileadmin/Bibliothek/Politik_und_Verwaltung/MLV/Demografieportal/Dokumente/Eckpunktepapier_Erfahrungen_und_Erfolgsfaktoren.pdf

http://www.demografie.sachsen-anhalt.de/fileadmin/Bibliothek/Politik_und_Verwaltung/MLV/Demografieportal/Dokumente/MSH_Demografie_Coaching.pdf

http://www.demografie.sachsen-anhalt.de/fileadmin/Bibliothek/Politik_und_Verwaltung/MLV/Demografieportal/Dokumente/Projekt_Mittelpunkt.pdf

On demographic development:

<https://www.wegweiser-kommune.de/kommunale-berichte/demographiebericht/mansfeld.pdf>

Annex

Quick test to assess need for action in view of demographic change. If you tick more than ten questions you have an urgent need for designing demographic change in your municipality.

Questions		Is there need for action? (Please tick)
1.	Has the number of inhabitants been shrinking in your municipality in the previous 10 years?	
2.	Are average age and the share of the population above 60 years increasing above the state average?	
3.	Is the share of pupils below 15 years of age below state average?	
4.	Is the sex balance of the 18-35 year olds below state average?	
5.	Is out-migration higher than in-migration?	
6.	Is the number of persons employed decreasing that are subject to social insurance?	
7.	Can you observe an increasing shortage of qualified labour force?	
8.	Are income and purchasing power decreasing?	
9.	Can you observe tendencies of increasing poverty?	
10.	Is the number of empty flats and business buildings increasing?	
11.	Do you have a demography strategy with guiding principles and a demographic concept for action?	
12.	Is the horizontal demography theme central for decision-makers in policy and administration?	
13.	Is the future-oriented demography management professionally and organisationally concentrated?	
14.	Do you have instruments to develop and select demographic flagship projects?	
15.	Do you have cooperation and forms of participation with citizen groups and enterprises to design demographic change?	
16.	Do you cooperate with neighbouring municipalities in a functional manner as a community of responsibility for demographic change?	
17.	Are you engaged with other municipalities and regions in an exchange of ideas and experience on demographic change?	

8 BioEnergy Villages

SUMMARY

BioEnergy Villages address several objectives simultaneously, aiming to improve rural development potentials and contributing to reducing greenhouse gas emissions. The objective is to have an instrument that can be flexibly adjusted and transferred to very different settlement structures and environmental conditions.

For stakeholder of the ESPON BusDev project this experience may be interesting by offering insights at a more general level and local individual activities that are mutually benefiting but not depending. The focus on different sizes of settlements including small and spread settlements allows for good adaptability. BioEnergy Villages address the need to develop new jobs and value added for regions suffering from depopulation and structural change.

The umbrella initiative has been implemented as a continuous support from the German federal government. Local investments build on individual solutions including cooperative funding of the inhabitants, local authorities and businesses as well as additional support from grants and/or loans from regional and EU programmes.

The platform approach of the umbrella initiative may be difficult to transfer as it requires a critical mass and continuous resources at a higher government level. In contrast, the transfer potential is high for the individual implementation of BioEnergy Villages. This can build on the knowledge gathered in different European countries, using the guidance documentation and adapting the own solution to the regional and local economic, social and natural environment.

8.1 Policy objective, context and rationale for selection

8.1.1 Main policy objective of the good practice

The support for BioEnergy Villages addresses several objectives simultaneously. They are particularly a means for development of rural regions creating value added and addressing negative impacts of structural change that contributes to poor development perspectives in these areas.

8.1.2 Policy context of the good practice

The BioEnergy Villages is an initiative at federal level in Germany. Local communities in any of the states can participate. The initiative is financed by the Federal Ministry of Food and Agriculture, which is, inter alia, responsible for policies aiming to support rural areas' development. The ministry finances a platform that continuously offers information about the development of BioEnergy Villages in Germany and provides support to their initiation. This is complemented by a biennial/annual competition. Actual implementation of BioEnergy governance processes and investments take place locally in municipalities or even villages within municipalities. The necessary investments are financed individually through different channels, they may build on capital in the region and/or apply funding from different support programmes, such as regional EAFRD programmes.

The rationale behind the initiative is the need to address climate change and simultaneously offer new development opportunities to rural areas to address their development perspectives in view of depopulation, ageing and a loss of jobs. Each BioEnergy Village develops its own place-based approach regarding the financing, governance structures, renewable energy sources used, networks and plants installed etc. The initiative provides the guide for how to start, develop and implement a BioEnergy village.

8.1.3 Rationale for selecting this good practice

This good practice is related to the interest formulated by some ESPON BusDev stakeholder territories related to opportunities from a transition towards renewable energy supply. It is a good example for a place-based approach that can be scaled down to very small local communities.

There are certain similarities with some of the stakeholder territories:

- The policy addresses rural communities suffering, inter alia, from structural change and a loss of jobs and the need to create new development perspectives for the inhabitants.
- The overall initiative is enriched below by two East German examples that illustrate the variety of approaches. These two examples have different settlement structures, one is concentrated on one village and the other combining several villages that are part of one municipality. Being located in East Germany, these are communities with low own financial resources and thus the need to create innovative business models and raise additional funding for making the investments of the plants happen.
- These examples are characterised by low population density. One example is in an area dominated by lakes and forests. The other example is characterised by forests and agricultural land.

8.2 Description of the good practice

The following description combines the support at federal level for BioEnergy Villages with concrete examples, to highlight the individual adaptability to different local circumstances. These illustrations refer to two Eastern German villages:

- **Bollewick in Mecklenburg-Pomerania:** A municipality consisting of four villages with a total of about 200 households / 636 inhabitants. The municipality is located in the county of Mecklenburgische Seenplatte and has a population density of about 24 inhabitants per km².
- **Feldheim in Brandenburg:** A village with 145 inhabitants living in 37 households. The village is part of the nearby small city Treuenbrietzen in the county Potsdam-Mittelmark.

8.2.1 The need addressed by the good practice

The federal government recognises the need to offer innovative opportunities for rural area development. In Germany, many villages experience out-migration, ageing, loss of jobs etc. At the same time, German spatial development is framed under the guiding objective of “equivalent living conditions” across the country for cohesion. Especially lagging regions need support in offering living conditions equivalent to those in other German regions. The bundle of policy measures addresses, inter alia, job creation in structurally weak regions, better digital and transport accessibility of these regions and more engagement of the civil society.

8.2.2 Objectives of the good practice

BioEnergy Villages have several objectives. First, they acknowledge the limited availability of fossil raw materials and offer ways to replace their use. Second, they are one means to address climate change by reducing greenhouse gas emissions. Third, they can contribute to reduce dependency on imports of fossil energy sources. Forth, many rural areas experience structural change with reducing job and infrastructure offers which risks a depopulation of certain areas. BioEnergy Villages create new perspectives through new jobs, keeping affordable energy prices and establishing a joint project

in the village. Finally, through the initiation of the joint task they also contribute to living quality, identity and community and can also be a means for better provision of services of general interest.

Example: Bollewick

The municipality aims at 100% regenerative heat, the use of power surplus for power to heat and the optimisation of the heat network. It aims at high participation of the municipality and citizens and making the change in energy provision culturally and socio-economically perceptible. Profit from renewable energy production shall be mobilised for SGI and living quality in the villages.

Example: Feldheim

Feldheim was the first energy independent village in Germany. It builds on a comprehensive concept aiming to prepare for future generations, contribute to a positive image thereby creating attention, obtaining financial benefits from taxes and land rented out, ensuring long-term energy security and a maximum independence from energy prices and other energy providers and creating jobs through planning, investments and maintenance and running of the plants.

8.2.3 Detailed good practice description

The platform continuously informs about the development of BioEnergy Villages in Germany and provides support to their initiation. The platform is run by the federal agency for renewable resources (Fachagentur Nachwachsende Rohstoffe e.V.) under the responsibility of the Federal Ministry of Food and Agriculture. Documentation on the platform offers step-wise information for communities wishing to establish a BioEnergy Village. This ranges from first activities and suggestions for how to organise the governance structures for implementation and running of renewable energy plants to different models for financing and participation. In addition to information material, the platform offers working materials with questionnaires and model contracts and calculations.

The biennial/annual competition makes achievements of BioEnergy Villages public. It offers insights into their approaches and initiates further development of these villages.

Overall, the initiative targets any local community, whether it is a municipality or a village belonging to a larger municipality. The target groups within the local communities can be groups of farmers, the local authority itself or local businesses who wish to establish structures for renewable energy production and supply conjointly with the inhabitants. For a successful implementation embedding the approach in the community and mobilising participation and civic engagement is considered crucial.

Example: Bollewick

The four villages of the municipality Bollewick have two biogas plants that provide heating via a local heating network. For power production this is complemented by photo voltaic plants that have been installed on public and private buildings. Excess power production is used for Power to Heat. These installations have been complemented with a local municipal wind turbine.

Heat covers about 70 % of local demand, power demand is covered by 100 % and allows power supply for an additional 2,800 households outside the municipality. In the municipality households (single houses and residential complexes), kindergartens, a cultural centre ('Die Scheune') which includes restaurants,

Example: Feldheim

Energy independence has been realised through cooperation and building on private heating and power networks that directly connects local energy users to heat and power produced in the village. The (local) heating network is owned by a local business founded by the connected households, enterprises and the municipality to which Feldheim belongs. The power network is owned by a separate company.

Apart from contributions from the municipality and households etc. additional support was obtained from programmes in Brandenburg and the EU to finance the investments for the networks.

trades and a hotel, handicraft buildings, a public community centre are connected.

Main players were the mayor, local farms and representatives of the municipality and its administration. The investments amounted to about Euro five million. Apart from farmers and the municipality also state/EU funding programmes were used. The project is a public-private-partnership with a regional and municipal provider concept. Installation and maintenance works are always assigned to regional businesses.

Complementary to the energy supply and use, farmers use fermentation residues as fertiliser replacing synthetic fertiliser and street lighting has been transferred to LED, which created municipal savings of annually about Euro 7,000 that can be used for other purposes.

Power supply is ensured by 55 wind turbines and a battery storage to regulate fluctuations. Apart from local households this wind park can provide power for 65,400 households. A photovoltaic park on a previous military area covers power demand for about 600 four-person households. For heating a biogas plant using mixed materials (slurry, silage, crushed cereals) produced locally and a woodchips heating plant have been installed.

The users are 37 households, two businesses, two local authority entities and three farms.

Complementary to the energy independence the village has a visitor centre "new energy forum Feldheim" that offers additional services such as guided tours, event and seminar rooms, e-bikes for rent and education project days for schools.

8.2.4 Results achieved

As of 2020 163 BioEnergy Villages have been listed by the federal agency and additional 46 villages and municipalities are listed as being under way in developing a BioEnergy Village. Due to the different and individual approaches and sizes, reduction in greenhouse gas emissions varies strongly.

Example: Bollewick

Greenhouse gas emissions have been reduced by annually 4,300 tons.

Example: Feldheim

Nearly 260,000 litre heating oil are saved annually in the village due to independent heating based on renewables.

The competitions collect examples of local communities that cover at least 50 % of their power and heat demand from regionally produced resources and that are good practices for combining the use of renewable energy with regional development. Winning examples show how added value creation, entrepreneurship and creativity can be maintained in rural areas. The competitions thus give examples for other villages.

Further studies show that BioEnergy Villages are one means to contribute to improving living conditions through civic engagement and participation, make them in the best case energy independent, and improve local and regional value added with new sources of income, jobs and a self-defined living and working environment.

8.2.5 Risk and success factors of the good practice

Both, the federal level platform and local implementation depend on financial resources. The platform needs continuous public support. For local implementation the investment phase often also depends on public funding. At later stages, however, investment loans can be repaid and the BioEnergy Village benefits from new income sources either as owner (e.g. in a cooperative) and/or from tax income from energy businesses etc.

Local implementation implies quite a few other risks that may be summarised by the following points:

- lack of creativity, engagement and willingness or ability to overcome obstacles that take time;
- developing too ambitious goals that endanger principal support of inhabitants for a transition;
- creating a dependency on large scale external investors;
- considering concerns of local citizens insufficiently.

One of the success factors at federal level may be the involvement of the federal agency in the Horizon 2020 project ISABEL (Triggering Sustainable Biogas Energy Communities through Social Innovation). The project ran from 2016 to 2018 and allowed to prepare and implement local and regional concepts to produce renewable energies. Knowledge obtained in this project fed into the further development of the already existing BioEnergy Villages and services for local public and private stakeholders wishing to develop or further expand BioEnergy Village activities.

Another success factor at federal level is the network of the agency. It cooperates with other relevant players who provide also specific support, including e.g. a research institute for applied material flow management, a climate protection contact office for municipalities at the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and a network of energy experts.

Success factors at local level are very individual and usually consist of several approaches keeping above risks in mind and addressing them.

Example: Bollewick	Example: Feldheim
<ul style="list-style-type: none">▪ The potential to create value added created incentives to become active.▪ The mayor showed a very high level of civic engagement. He continuously lobbied and persuaded in individual dialogues and made applications for financial support possible.▪ Excursions to other good examples created interest of farmers and initiated the process.▪ Development and implementation benefited from a good engineering business.	<ul style="list-style-type: none">▪ Energy self-sufficiency was achieved through a comprehensive integrated strategy.▪ A wide and open participatory approach took place, which involved inhabitants voluntarily according to individual competences (e.g. technicians).▪ Regular information, knowledge creation among the citizens and transparency helped to develop a social infrastructure and trust.

8.2.6 Lessons learned and transferability

The main strengths of the overall BioEnergy Village initiative are

- its flexibility acknowledging and encouraging a place-based approach;
- the explicit request for a multi-level governance and participative approach;
- the simultaneity of addressing different development hurdles in rural areas;
- the formulation of minimum standards to consider the transition towards renewable energy sources as BioEnergy Village (i.e. 50 % of power and heat use from RES);
- offering knowledge sharing support, detailed guidance and publicity.

The examples show that BioEnergy Villages can be developed for very different sizes of settlements and under various landscape conditions. While not every settlement may have perfect conditions, it is

still possible to adopt the principal approach to very different conditions including adaptations of size, scale, business models and of course sources and networks used. Thus, building on the knowledge available, both the platform and especially the individualised approach to developing BioEnergy Villages have a high transfer potential. This is illustrated for instance with the Horizon 2020 project BioVill (Bioenergy Villages – Increasing the Market Uptake of Sustainable Bioenergy) which transferred and adapted experiences from Germany and Austria, where such villages exist to countries with less examples in the sector. The regional focus for transfer was on Southeast Europe (Slovenia, Serbia, Croatia, North Macedonia and Romania).

For transfer and adaptation especially the following lessons should be kept in mind:

- A BioEnergy Village is not developed quickly. It requires time for preparation, development and implementation. One to two years of preparation should be calculated for information dissemination, excursions etc. Development and implementation require creativity and continuous engagement to overcome obstacles.
- Aiming immediately at energy self-sufficiency may be too ambitious. It is important to avoid dependence on few investors but to obtain many (different) energy producers to balance different supply over time.
- Large investments by external investors may suffer from low support from inhabitants. It may be better to develop the transition to RES step-wise with small plants. This makes financing more feasible and allows keeping profits in the region.
- Often concerns of citizens result from a lack of knowledge. It is thus important to adequately address these concerns by including them in the planning and development once their interests are touched.
- It may be convincing to start with public buildings to build photovoltaic, solar thermal plants etc. to give a good example for inhabitants. This does not require their involvement but may reduce their concerns if they see the benefits of these investments.
- A good approach needs to be well explained. For BioEnergy Villages it is important to illustrate the link between economic benefits for individuals, businesses and the local public authority and the ecological objectives and other benefits for the region.
- Finally, it is important to find a good balance between different land uses. Arable land can only be used once, either for food production or energy production. Thus, approaches for focusing on biomass from dedicated energy plants should not be the primary source. It is recommended to better use biomass from garbage and manure etc. and combine this with wind, sun and water sources, depending on the local resources.

8.3 Further information

Mostly in German:

<https://www.nachhaltigkeitsforum.de/garten-der-metropolen/erneuerbare-energien/bioenergiedoerfer-mecklenburg-vorpommern/>

https://www.bmwi.de/Redaktion/DE/Publikationen/Neue-Laender/bilanz-modellvorhaben-daseinsvorsorge-2030.pdf?__blob=publicationFile&v=3

<https://bioenergiedorf.fnr.de/wege-zum-bioenergiedorf/regionale-wertschoepfung/musterdorf/-wertschoepfung>

http://mediathek.fnr.de/media/downloadable/files/samples/b/i/bioenergiedoerfer_2014.pdf

<https://www.bioenergie-kommunen.de/wettbewerbsziele>

https://www.bmel.de/SharedDocs/Downloads/DE/_laendliche-Regionen/Regierungsbericht-Laendliche-Raeume-2016.pdf?__blob=publicationFile&v=3

<https://international.fnr.de/eu-activities/completed-eu-projects/isabel>

<http://biovill.eu/about/>

Examples:

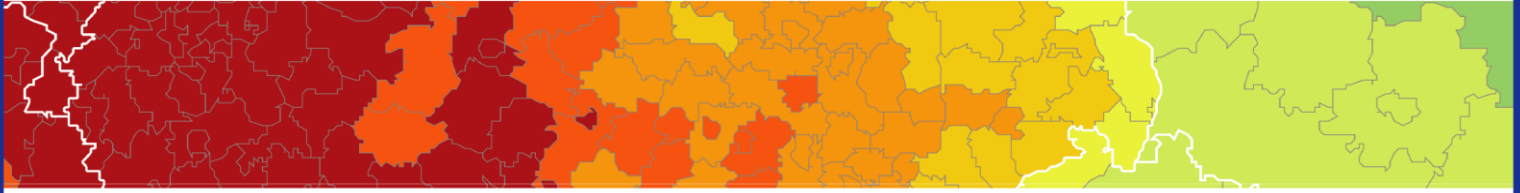
https://bioenergiedorf.fnr.de/fileadmin/bioenergiedorf/dateien/doerfer/bed_68.pdf

https://bioenergiedorf.fnr.de/fileadmin/bioenergiedorf/dateien/doerfer/bed_62.pdf

<https://nef-feldheim.info/energieautarkes-dorf/>

<https://zukunftscommunen.de/kommunen/bollewick/>

https://kommunalwiki.boell.de/index.php/Energieautarkie_-_das_Beispiel_Feldheim



ESPON 2020 – More information

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