



Synergy and Empowerment Concept

Based on good practices shared and implemented in
the Interreg BSR project EmplInno

Energy

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Synergy and Empowerment Concept – Energy

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EmplInno – S3-Empowering for Innovation and Growth in Medium-Sized Cities and Regions

To turn the Baltic Sea Region (BSR) into Europe's most dynamic, innovative and competitive economy of the continent, the regions need to apply and constantly improve their Research and Innovation Strategies for Smart Specialisation (RIS3). Since 2016 the Interreg BSR project EmplInno supported partner organisations from twelve regions in Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden to foster the implementation and improvement of RIS3. The project provided strategy owners, strategy implementers and other innovation actors with resources to better work with the RIS3 approach, and boosted cooperation and knowledge exchange between stakeholders within and beyond the partner regions.

The partners developed and implemented numerous R&D transfer workshops, matchmaking and networking events as well as training formats. By doing so they provided companies, universities and other actors with knowledge and resources to implement innovative and competitive ideas. Furthermore, EmplInno helped to improve and update regional smart specialisation strategies by transferring experiences and recommendations to regional authorities as well as strategy implementers to adapt and use the RIS3 for the benefit and growth of the region.

Further information: www.empinno.eu

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Introduction

The Baltic Sea Region (BSR) has the potential to develop into Europe's most dynamic, innovative and competitive economy of the continent. Continuing high and stable rates of economic growth above EU level, a close network of universities, a general high spending on education and research or a high density of patents and entrepreneurship throughout the BSR build a stable basis for further progress and development.

The energy sector is an important and stabilizing factor in the economic development of the BSR. However, the situation in certain BSR countries is diverse and requires many interventions to ensure a balanced development of the economy in this sector. In particular, research and development of new organisational and technological concepts and their entrepreneurial implementation are needed to further evolve existing economic potentials. The acquisition and availability of specific skills and competencies is necessary. Additionally, transnational and trans-sectoral coordination of the whole innovation chain, the development of innovative ideas by SMEs and the diffusion and adoption of innovative products and services are needed.

A fragmented system of research and innovation can be indicative of weak internal links and a low level of cooperation between actors of innovation ecosystem. Recent competitive advantages but also above average growth can be only anticipated if existing university expertise in R&D can be linked to the available entrepreneurial potential across the BSR. A second precondition is that R&D activities of the entire BSR should be embedded and linked into a regional and transnational network. Thus, to make full use of existing resources and potentials and to leverage the innovativeness and competitiveness of the BSR in the Energy sector, much will depend upon identifying market and funding opportunities and developing strategies to support the regions and their different stakeholders from research, business and politics with access to resources, knowledge, networks and suitable empowerment tools for actual needs.

In line with identifying unique market opportunities and exploiting available resources for development and growth, the European commission started an initiative to encourage European regions to develop their own Research and Innovation Strategies for Smart Specialisation (RIS3) based on their socio-economic conditions and challenges. EmpInno (empinno.eu) – an EU-Interreg project aiming at fostering the

implementation and improvement of RIS3 in medium sized cities and regions in the BSR – accompanied twelve partner regions in Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland and Sweden since 2016 to provide i.a. business support organisations, science parks and universities (so called innovation intermediaries) with the needed resources to work with the RIS3 approach and to boost cooperation with SMEs within and beyond the partner regions.

Based on main specialisations of the 12 project partners' RIS3, key enabling technologies and market opportunities, EmpInno has chosen six thematic priorities, in which the partners exchanged and applied customised synergy and empowerment tools. These can help innovation intermediaries to

- enable (more) R+D transfer to/between SMEs to build a knowledge-based sustainable economy,
- promote cross-sectoral knowledge exchange to identify future markets,
- offer matchmaking opportunities to/between SMEs to make use of existing capacities and strengthen regional competitiveness,
- offer capacity building for more knowledge-based economies,
- foster cooperation between regional/transnational stakeholders to enhance global competition,
- and thus capture opportunities and implement innovation projects in the BSR.

The present document focuses on the priority group Energy, led by the EmpInno project partner: Foundation for Lubelskie Development, Lublin, Poland and the following project partners: South Denmark European Office, Denmark; Lubelskie Voivodeship, Poland; Kaunas Science and Technology Park, Lithuania; Prizztech Ltd., Regional Council of South Ostrobothnia and South-Eastern Finland University of Applied Sciences, Finland; Östergötland County Council/Region Östergötland and Gävleborg County Council, Sweden.

The EmpInno partners exchanged and applied a variety of synergy and empowerment tools for the Energy industry in the BSR that can:

- **help stakeholders and in particular innovation intermediaries to identify practices, events,**

platforms and partners in their region and areas of activity and/or

- **may function as a pool of suitable methods and tools ready to adapt for own activities and needs.**

The aim of this document is thus to provide innovation intermediaries with innovative formats and lessons learned to foster innovation and growth in their own region.

Before presenting specific formats and lessons learned, a more detailed overview of the priority areas in energy sector, specific needs and challenges of regions will be given. These identified needs and challenges are the basis for identifying different formats and lessons learned that will help innovation intermediaries to find the best solutions for promoting the knowledge about energy innovation.

In the next chapter an overview is given of good practices of R&D transfer methods and other business supporting infrastructures successfully

institutionalised by project partners in their region. The subsequent chapters introduce specific tools like workshops, matchmaking events or delegation trips for SMEs, research institutes and other so-called end-users. These synergy and empowerment tools are mostly based on the exchanged good practices and have been transformed and adapted to specific needs and challenges of the EmplInno partner regions – thus, showing their general transferability to other regions and actors. Finally, successful activation channels of EmplInno project partners to promote cooperation, knowledge exchange and networking for all regional stakeholders from authorities, entrepreneurs, universities to business support organisations are presented.

We hope you will enjoy reading the shared experiences of our project partners!

1. Specifics, needs and challenges of the energy sector in the Partner Regions

1.1. Priority areas in the energy sector

For particular regions, priority areas in the energy sector are as follows:

- Energy Efficient Technology and Offshore Energy (Oil&Gas and Wind) in the Region of Southern Denmark;
- Low-carbon emission energy sector in Lubelskie Voivodeship in Poland;
- Energy and sustainable environment in Lithuania;
- Bioeconomy in Satakunta Region in Western Finland;
- Smart and energy efficient systems in South Ostrobothnia Region in Finland;
- Energy, including a new specialisation in gas; energy security; intelligent networks; energy storage; storage and equalisation technologies; separation and use of carbon dioxide in Region Östergötland in Sweden;
- Smart sustainable cities and societies and Bioeconomy in Region Gävleborg in Sweden;
- Renewable energy systems including wood energy in South Savo Region in Finland.

1.2. Priority specific needs of regions

One of the tasks of group Energy was to find possible solutions to improve the implementation of Regional Innovation Strategies, based on the needs identified in the regional energy eco-system. For this purpose, during the implementation of the EmpInno project partners identified the following priority specific needs for each region:

- availability of skilled workforce, RDI financing and RDI support especially for SME, a home market that demands, tests and demonstrates the latest solutions, exploits the possibilities of digitization and the increasing amount of data, higher degree of internationalization and standardization in the Region of Southern Denmark;
- strengthening the regional research and innovation system to be based on the quadruple helix (government, industry, academia, and civil participants) that joins together all stakeholders

interested in the cooperation in Lubelskie Voivodeship in Poland;

- coordination of solutions in the areas of energy and sustainable environment in Lithuania;
- availability of skilled workforce, RDI financing, and internationalization in Satakunta Region in Western Finland;
- more companies with strong R&D, especially SMEs in South Ostrobothnia Region in Finland;
- increasing regional ability to win and gather resources to areas with growth potential for the region's industry, reinforcing international position and attractiveness of the region as a collaboration partner in Region Östergötland in Sweden,
- increasing the implementation capacity for cutting edge innovation in the energy sector in Region Gävleborg in Sweden;
- increasing the level of investments, especially foreign investments in South Savo Region in Finland.

Based on the abovementioned needs, Partners identified *common needs* for Partner Regions, such as:

- *strengthening the regional research and innovation system,*
- *availability of skilled workforce, investor acquisition and internationalization,*
- *higher degree of standardization in energy sector.*

Based on this knowledge, the Partners planned activities as part of the project implementation. By realization of tailor-made activities Partners wanted to respond to the identified needs of particular regions.

1.3. Priority specific challenges of regions

Within the activity of the group Energy the Partners also identified the main challenges for the RIS3 goals they would like to take up to help improve the situation in the energy sector in Partner Regions. The main challenges for particular regions are as follows:

- lack of skilled workforce, too few scale-up companies and increasing international competition, which places great demands on the industry on innovation and development, and lack of standardization challenge the prerequisite for reducing costs of offshore wind power for the Region of Southern Denmark;
- identification of real barriers to cooperation between entrepreneurs, universities and science and research units in the renewable energy sector searching for solutions eliminating these barriers and their implementation in Lubelskie Voivodeship;
- cost-effective and efficient use of energy, reduction of adverse energy impact on the environment and bringing business and science together to address and solve RIS3 challenges for Lithuania;
- the highlighted themes in RIS are: industrial renewal, bioeconomy, robotics & automation, welfare technology, tourism, blue growth and safety. Challenge is to connect these to energy sector for Satakunta Region in Western Finland;
- creating sufficient concentration of skills and capital and increasing the number of growing companies or with strong R&D for South Ostrobothnia Region in Finland;
- Innovation and market barriers for both environmental and environmental technology driven companies – finding business and routes to the market; Value-adding system solutions (which

relate to knowledge and collaboration; Green structural transformation and achieving reality in the ongoing work within “Business models and arenas for sustainable system solutions” for Region Östergötland in Sweden;

- reaching a critical mass in knowledge, commitment and mobilization for development and implementation of new energy solutions for Region Gävleborg in Sweden;
- increasing the consumption of bioenergy and biofuels for South Savo Region in Finland.

After analysing the challenges in particular regions, the Partners identified the following *common challenges* for Partner Regions:

- *increasing the consumption of bioenergy and biofuels;*
- *development and implementation of new energy solutions;*
- *concentration of skills and growth of R & D companies;*
- *increasing international competition of companies and regions.*

The Project Partners’ activities carried out under group Energy were a response to the needs identified in particular regions and aimed to meet the challenges faced by particular regions to the greatest possible extent.

2. Support innovation and growth at regions in the energy sector - good practices

In order to meet the abovementioned challenges, Project Partners have identified good practices in their regions, which show different methods with different objectives and focus to support innovation and growth in those regions. During the realization of the project, Partners used this knowledge to improve RIS implementation process in their regions. Additionally, Partners have described the selected practices that they recommend to RIS stakeholders interested in improving the RIS implementation process.

The main objective of this activity was to find optimal and effective solutions in the field of promoting knowledge about innovations in the energy industry and to initiate and develop cooperation between RIS stakeholders in the field of innovation implementation.

2.1. The challenge: concentration of skills and growth of R & D companies

2.1.1. Strengthen cooperation between researchers and companies in the field of new project ideas

Supporting SMEs into EU supported RTI Projects

Description: Late December 2017 South Denmark European Office (SDEO) and TEK Innovation at the University of Southern Denmark (SDU) organised two workshops to strengthen the cooperation between researchers and companies within the business areas of clean-tech and robotics.

Prior to the two workshops, SDEO had collected innovation ideas and challenges from the interested companies. On that basis TEK Innovation identified and engaged relevant researchers at the University of Southern Denmark. This meant that during the actual workshops the exchange between companies and research was very focused and concrete.

Objectives and results: The overall goal of the workshop, was to explore how companies and researchers can co-create new ideas, find new opportunities together and initiate value-added cooperation. Claus Amtrup Andersen from EURISCO, a company based in

Odense specialized in software development for energy systems, contributed to the workshop, which according to him was a very positive experience.



“Prepared by the organisers to make relevant match-making between the participants was really good. In the group I was in everyone was working in the field of energy. This meant that we could find a case faster and complement each other within each other’s interests, both in terms of the academic world and the companies involved. The workshop was well prepared and relevant methods were used to facilitate the process, such as mind maps and other process drawings,” says Claus Amtrup Andersen.

The concrete outcome of the two workshops were 8 project ideas for possible EU funding streams like Horizon 2020 and Eurostars.

SDEO is still in dialog with the companies that participated, one of which, by October 2018, had partnered in EU project applications – one for the Interreg North Sea Programme and one for Horizon 2020.

Success factors: In order to succeed with the described workshop format, it is essential to have close cooperation between the BDO (identifying companies), the Research Support Unit at the University (identifying relevant researchers) and an organisation with knowledge about funding opportunities for innovation projects with and for SMEs.

Further, a key to success are the thorough preparations made by the organisers before the actual workshop takes place. This includes meetings with the participating companies to identify their innovation challenges and formulate their knowledge needs on the one hand, and

identifying the corresponding research competencies and researchers on the other. The preparations assure that companies, people and academics are prepared to meet and exchange from the very beginning of the workshop and do not waste time on presenting basic information about needs, challenges and possible academic responses.

Finally, follow-up meetings between the participating companies, researchers and an (EU-)funding support organisation is essential in order to match the identified projects with relevant funding opportunities and further support the project application process.

Transferability: The concept can be transferred to regions and settings where there are already relatively good relations between BDOs and University. However, the format is rather work intensive and it takes a lot of resources preparing and executing the workshops and to do the follow-up activities with the companies ultimately leading to innovation projects.

2.1.2. Tailor made trainings for innovation enterprises

Scale-up Denmark



Description: It is an ambitious training concept for entrepreneurs and small enterprises. The aim is to establish an elite of high growth companies in Denmark. Scale-up Denmark is a cross-regional (national) initiative. Its foundation is Denmark's five regional business development strategies (S3), and some of Europe's most competitive innovation ecosystems.

In line with regional S3 in Denmark, a total of 12 scale-up hubs have been established, hereof five are anchored in the Region of Southern Denmark: 'Energy Efficient Technologies', 'Health and Welfare Technology', 'Offshore Industry', 'Robotics' and 'Experience Economy and Tourism'. The cross-regional scope ensures critical mass of businesses and skills, while regional specializations are supported and utilized.

Scale-up Denmark is governed by the founding partners and supported by an advisory board with key private and public sector stakeholders.

Objectives and results: Scale-up Denmark got its inspiration from the world's best eco-systems for business growth, and, out of this, was arranged with the aims to attract high performing enterprises (Danish and international ones), provide access to seed capital and venture capital, engage market leading firms from the regional eco-system, involve leading universities, research institutions and science parks and to provide easy access to the services of the entire Danish business support system. At Scale-up Denmark's hubs, participating enterprises will get access to intensive 3 - 6 months acceleration training and mentoring programs, and a fast track to investors. The initiative is funded by regional development funds, ERDF and private funds.

Success factors and transferability: The format is based on a solid financial framework, which is guaranteed by the Danish regions and the Danish Business Authority, and on good cooperation across regional borders, which also ensure a professional coordination and a critical mass of high growth potential companies. These factors should be in place, when considering the transferability of the action.

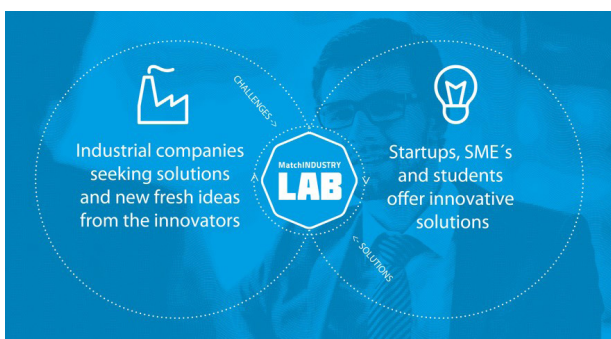
To keep the participation level high, it is important that the format insists on excellence, i.e. involves only those companies that actually have a significant growth potential. Furthermore, to keep the public sector as stable basis with reputation involved, it is important to limit the risk on this side via a contribution (co-financing) from the private sector, which also assures a high level of commitment on the companies' side.

2.2. The challenge: development and implementation of new energy solutions

2.2.1. How to find solutions to innovatively industrial problems and challenges?

MatchINDUSTRY LAB

Description: Industrial renewal and modernization is one focus area in Satakunta region's smart specialization strategy. The region's industrial structure is strong and diverse, and the export orientation is very strong, double the Finnish average. The backside of this structure is not so strong start-up culture or number of companies working in software industry etc., which makes it



difficult to e.g. utilize the potential of digitalization for industrial use. To tackle this challenge and implement smart specialization strategies in the region, Prizztech introduced the concept of MatchINDUSTRY LAB (MI LAB).

MILAB is a hackathon, which provides a conceptualized and solution-oriented way to solve innovatively industrial problems and challenges. *Problem owner (industrial company)* describes his challenge or need, and *developers (start-up, technology provider, university team)* study this challenge and present their suggestions to problem owner. It is very common and even encouraged that developers network and team up in order to be able to provide more comprehensive solutions. After that, problem owner chooses the best solution or solutions, and starts cooperating with the developer. *Facilitator (Prizztech)* organises the events and makes sure that all parties are treated equally and provided same info, etc.

Launching the challenge to developers studying the challenge in factory premises and preparing the approach.

Objectives and results: Connecting industrial companies, start-ups and developers. Another objective is to accelerate the utilization of latest ICT and digital applications in industrial sector. Results include refined investment plans, modernization of region's industry and new cross-industrial collaboration of large companies and SMEs.

Success factors: Careful planning of workshops and in-depth discussions with potential participants concerning confidential business information and ownership of created innovations. Also, lots of encouragement is needed to collect start-ups from different sectors.

Transferability: The concept is fairly easy to transfer to various industries, but it is valuable to have an experienced facilitator who has answers to questions. Also important is to have an idea or create a network of developers beforehand. In Satakunta region this concept was started in metal industry, and now it has been applied to food industry and circular economy.

3. R+D transfer workshops & empowerment tools for SMEs - How to support knowledge transfer and innovation and strengthen the competitiveness of enterprises?

The main aim of this activity was to adapt the transnationally compiled good practices to local needs / combine them with existing and accepted formats and test/carry them out for the relevant stakeholders in Energy. Organised events were directed to representatives of universities and research institutions, companies and innovation intermediaries. Participation in events was an occasion for testing different formats of events. During the events participants upgraded the competences in important topics such as “digitalization” and “internationalization” as well as specific skills in the sphere of R+D transfer and implementation of innovation.

The Project Partners organised many events in their regions. Each event was the answer to identified challenges and needs of Partner Regions. Delivered knowledge can be a useful tool at the daily work for representatives of regional clusters and chambers of commerce.

3.1. The challenge: concentration of skills and growth of R & D companies

3.1.1. How to identify and solve problems in cooperation between entrepreneurs and scientists?

A cycle of R+D transfer workshops

Description: Foundation for Lubelskie Development organised a cycle of R+D transfer workshops to present issues related to technology transfer, promoting innovation and cooperation in the field of R+D within the smart specialization of the Lubelskie Region.

Objectives and results: The main aim of the workshops was to present issues related to technology transfer, promoting innovation and cooperation in the field of R+D within the smart specialization of the Lubelskie Region - renewable energy between universities, scientific and research units and entrepreneurs, and promoting good local and foreign practices. The First R+D transfer workshop was organised on 24th



August with participation of 15 people (representatives of enterprises, universities, research units and institutions). During the workshop were presented, among others, the idea and assumptions of the EmplInno project, issues related to technology transfer, innovation and research and development cooperation between enterprises and universities; opportunities for the development of renewable energy industry in the light of the Regional Innovation Strategy of Lubelskie Voivodeship, projects supporting its implementation and the possibility of financing projects in the field of bioeconomy. Additionally, good practices regarding R+D cooperation and implementation of innovations were presented: „The Östgöta-challenge“ from Östergötland Region (Sweden) as well as Poleska Biogaz Network and Virtual Power Plant. In November 2017, the Foundation for Lubelskie Development organised two workshops on the promotion of research and development cooperation between enterprises and universities in the renewable energy sector and improvement of energy efficiency (on 9th and 24th of November). The workshops were attended by 29 representatives of enterprises, universities, research and development units, regional government and business organisations from Lubelskie Voivodeship. During the meetings, discussions on the development of R & D cooperation between entrepreneurs and universities were done. Two companies: PLANTALUX Ltd. and Vers Produkcja Ltd. presented their experiences in cooperation with universities. Additionally, the offers of the University of Life Sciences in Lublin, the Lublin University of Technology and the Institute of Agrophysics of the Polish Academy of Sciences in Lublin as well as possibilities of entrepreneurs' participation in the HORIZON 2020 were presented.

During the workshop, the participants discussed the possibility of adapting Finnish good practices in the Lubelskie Region: practice Hackathon – Hack Mikkeli regarding the organisation of events during which participants working in interdisciplinary teams develop new solutions for the problems existing in industry, as well as the idea and assumptions of the Mobile Monday & Incubators @Tartu project. The idea of the project is to initiate and intensify cooperation between entrepreneurs and universities in the field of searching for innovative solutions. At the meeting, the method of creative solutions for innovative products - Design thinking - was presented. During all the meetings, participants discussed the solutions and tools to improve the implementation of the Regional Innovation Strategy in the field of smart specialization - renewable energy. The conclusions from the discussion were forwarded to the Marshal Office of the Lubelskie Voivodeship.

Success factors:

- determination of the organiser;
- the interest of potential participants - local companies, universities, research and development units, regional government and business organisations;
- sources of funding;
- wide promotion of the event and various techniques of communication;
- presentation of good practices related to the transfer of innovations and new technologies;
- demonstration of benefits obtained by entrepreneurs, universities, research and development units, regional government and business organisations.

Transferability:

- the presence of companies from the energy sector, universities, research and development units, regional government and business organisations;
- local companies, universities, research and development units, regional government and business organisations are interested in acquiring knowledge on innovation and new technologies;
- the potential place for organisation of the event;
- good transport connection;
- involvement of universities, research and development units, regional government and business organisations.

3.1.2. How to build relationships in the industry between the SME's and universities?

R+D transfer workshop for SMEs in Energy sector

Description: In April 2018, an RDI transfer workshop under the theme of Energy was arranged in Alajärvi with the specific topic “Energy Self-sufficiency and Energy Village”. The workshop was held by the experts of Levón-institute of the University of Vaasa and Tampere University through a sub-contract as an activity of the EmpInno project. During the workshop, the “Market workshop” method used in Estonia was tested in action.

Objectives and results: Aims of the workshop were 1) to foster business in the energy industry, 2) to build relationships in the industry between the SME's and universities, and 3) to foster achievement of the goals of the smart specialization of the region. The structure of the workshop was the following: Phases of the workshop: 1) Introduction of the themes of the workshop, 2) An introduction concerning the contribution of the research on the development of companies, given by Dr. Juha Alarinta, 3) Discussions of the development of the co-operation in two groups, 4) Discussion concerning the business opportunities in the field of distributed energy as well as energy self-sufficiency, 5) Discussion together with all the participants about the ideas presented during the workshop, 6) Conclusion of the day. The workshop gathered together regional actors from various fields: private and public sectors, researchers, funding representatives and business development centres. After the workshop, various ideas concerning future activities were proposed, such as a survey for companies for finding out their needs.

Success factors:

- The workshop was structured in a way which offered a good platform for idea generation and development of co-operation. After the workshop, there were a lot of expectations expressed for new activities.

Transferability:

- The workshop is feasible in every country, as long as the situation and needs of the organisations participating are taken into consideration.

Seminar “The outlook of the forest sector and decentralized energy production in South Savo”

Description: South-Eastern Finland University of Applied Sciences organised “The outlook of the forest sector and decentralized energy production in South Savo” – a seminar held in January, 2018.

The seminar on R+D transfer in forest sector and bioenergy was organised together with the associated partner Mikkeli Development Miksei Ltd, Regional Forest Centre and LUT Savo (unit of the Lappeenranta University of Technology). There were 30 participants consisting of non-industrial forest owners, rural- and forestry companies and entrepreneurs, business supporting organisations, education- and research institutions that attended the seminar.

Objectives and results: The aim of the R&D transfer seminar was to give a topical overview of the South Savo forest sector from forest- and bioenergy business perspectives. During the event, results of the ongoing projects were presented. The seminar was to inform wood harvesting and transport companies about the prospects and future needs in the energy wood sector. Further, the current situation of enhancing bioenergy sector in the South Savo region was introduced: the potential for investments in a biochar plant and efforts in exporting bioenergy technology were presented. There were also several presentations dealing with the new technologies of a small-scale CHP-plant, their users’ experiences and their technical and economical suitability for wood-based decentralized energy production on farms in the South Savo region. The seminar reached its objectives, as the topics were found useful and interesting in the feedback of the participants. The participants perceived the presenters as experts and enthusiasts of their field. The seminar was also considered to offer to participants a platform to find new potential partners for cooperation and strengthening of the network between the companies, business supporting organisations and education institutions. Although the bioenergy seminars are organised regularly, the participants wished to have them more often.

Success factors: In their feedback the participants expressed satisfaction with the topical content of the seminar as a whole. The seminar was found to be a compact entity being based on research turned into practice: presentations concentrated on bioenergy issues, not the forest sector as a whole. Further, the presentations were concise information packages. Especially, the concrete examples and experiences together with research results turned out to be a success. Also reporting results of several projects on the

same theme in one seminar was considered as a good idea. Finally, there was room for a lively conversation between the participants and presenters at the end of the seminar.

Transferability: The concept is fairly easy to transfer to various industries, themes within industries and to other regions as well. It is crucial to keep the content of the seminar restricted so that all the audience can find it useful and interesting. It is also essential to combine research results, experiences and practical examples into a compact entity offering good raw material for new ideas and potential cooperation among the participants.

Trainings for enterprises

Description: In response to the identified challenges concerning concentration of skills and growth of R & D companies and increasing international competition of companies and regions the Foundation for Lubelskie Development organised the trainings: a training on international cooperation on 6th November, 2017 in Lublin and a training in the field of commercialization, held on 24th April, 2018.

Objectives and results: The main aim of the training on international cooperation was to familiarize participants with issues related to international cooperation, such as: establishing cooperation with a future cooperation partner, export strategy, communication and promotion strategy on foreign markets, distribution strategy, selection of the price to the target market, product adaptation to market needs and distribution management. The meeting was attended by 16 representatives of enterprises from the Lubelskie Voivodeship.

The aim of the training in the field of commercialization was to familiarize participants with issues related to the commercialization of research results. Discussed were, among others, issues related to intellectual property, innovativeness, methods of commercialization of research results, innovation eco-system in Lubelskie Voivodeship and possibilities of financing innovation. In the event participated 15 representatives of companies, universities and R+D transfer entities from Lubelskie Region.

Success factors:

- determination of the organiser;
- the interest of potential participants - local companies, universities and R+D transfer entities;
- sources of funding;

- wide promotion of the event and various techniques of communication;
- demonstration of the benefits obtained by entrepreneurs, universities and R+D transfer entities.

Transferability:

- local companies are interested in acquiring knowledge on innovation, new technologies and internationalization;
- the potential place for organisation of the event;
- good transport connection;

3.2. The challenge: increasing international competition of companies and regions

3.2.1. How to enhance the competitiveness of SMEs at international level?



Development clinics for SME internationalization

Description: The internationalization clinics were organised in 4 sub-regions of South Ostrobothnia in April 2018. The clinics worked as a horizontal SME empowerment tool with the aim to enhance internationalisation of SMEs in all sectors. They were carried out as an activity of EmpInno project by a sub-contractor Xport, a company specialising in internationalization and export development.

Objectives and results: The aim of the clinics was to enhance the competitiveness of SMEs, give them tools to overcome the obstacles for growth (1. how to internationalize their business step by step and 2. how can an SME benefit from digitalization) and create synergy within the companies and organisations

attending the clinic. The clinics helped the SMEs to conduct a concrete internationalisation plan, to get familiar with digital tools helping to develop their business and supported the Smart Specialisation in the region by finding out the specific needs of the local SMEs.

Success factors: The content must be very concrete and help participants to take concrete actions towards internationalization.

Transferability: The clinics can easily be transferred to other regions as the challenges and solutions are similar everywhere

3.3. The challenge: development and implementation of new energy solutions

3.3.1. How to find solutions to innovatively industrial problems and challenges?

Östgötautmaningen

Description: Östgötautmaningen is a joint regional effort to significantly reduce greenhouse gas emissions from the transport sector in the municipalities of Östergötland and the Region Östergötland through actions that lead to the use of energy efficient, fossil-free vehicles and transports and increased use of renewable fuels.

Östgötautmaningen is a network of companies and public organisations that recognizes business opportunities to drive the development of fossil-free transport solutions with the vision of completely fossil-free transport. The network will help to rapidly disseminate knowledge, contacts and know-how. The aim is to increase the pace of pro-climate work and at the same time give companies in Östergötland a head-start in the conversion process that all companies will need to handle in the coming years.

Experiences from implementation are, so far, very positive. The network creates an uncomplicated forum for companies to share experiences and approaches on a non-competitive basis. The initiative is supported policy-wise through the regional ambition to reach fossil-free transport.

Objectives and results: Participating organisations should reduce emissions of greenhouse gases by at least 15% until the project ends in Dec 2020.

In the long run, reductions are expected to be even greater. The goal is to support the municipalities and the region of Östergötland:

- To develop goals and targets to reach fossil-free transport as far as possible.
- To develop a strategy for the conversion to fossil-free transport in the respective municipal organisation and Region Östergötland.
- To review and, if necessary, update policies so that they link with overall goals and conditions.
- With implementation activities and cost analysis for e.g. car and bicycle pools, availability of technology for non-stop meetings, and fossil fuels.
- To create behavioural changes in employees in such a way that the use of fossil fuels decreases, and that energy-efficient and non-free solutions are used to a greater extent.

Success factors:

1. Strong social support for reducing transport-related CO₂-emissions

2. Strong business interest in reducing fossil-fuel dependence and in saving transport/logistics-related costs
3. Supportive policy framework, e.g. the regional ambition to become fossil-free
4. Public-private initiative secures both long-term commitment and resources for facilitation and administration
5. Non-competitive, valued adding basis, i.e. issues and topics discussed are of general nature, not touching upon sensitive business secrets or key competitiveness factors. At the same time, though, learning through the network is highly valuable due to applicability of insights.

Transferability: This approach is highly recommended for transfer to other regional settings. The key factors to consider when doing so include 1) Securing non-competitive basis of collaboration, 2) Making sure a network facilitation resource is secured, 3) Keeping exchange as pragmatic and practical as possible.

4. Delegation trips and accompanying matchmaking events and round tables - How to create conditions for the development of international cooperation of innovative enterprises?

In the frame of this activity, Project Partners organised matchmaking events and round tables with participation of entrepreneurs, representatives of universities, research institution, business organisations, local communities and regional authorities. By participation in events, stakeholders got to know good practices, innovative products, technologies, as well as foreign markets. Participants acquired knowledge about the respective regional and international clusters and their value chains, trends and innovations in the Energy sector.

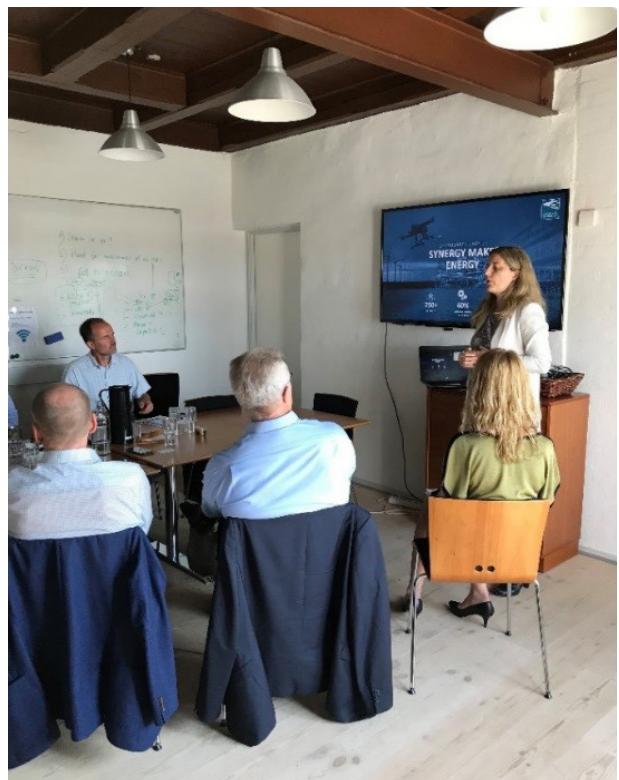
The activities gave a chance to foster the creation of transnational project groups to address common issues, enabled cooperation and enhanced business opportunities among BSR actors in the priority of Energy.

4.1. The challenge: increasing international competition of companies and regions

4.1.1. How to build the innovation eco-system at energy branch and strengthen international cooperation of enterprises?

EmplInno Offshore Wind Study Visit to Esbjerg

Description: The concept for the offshore wind study visit was developed by the partner consortium of the EmplInno project and successfully tested with delegates from Satakunta region (Finland), Riga (Latvia) and Rostock (Germany) in May 2018, which included companies, mainly SMEs, and port representatives as well as representatives of major business networks. Out of an analysis of the delegates' expectations and needs, the main fields of interest of the study trip were identified in advance. The questions „How has Esbjerg developed into a hub for offshore wind in the North Sea? How is the innovation eco-system around Offshoreenergy.dk organised? And what kind of public support is offered to the offshore energy industry in Esbjerg?“ were in the focus of the study trip. The German delegation with the participants from Rostock Business, Wind Energy



Network and a number of companies were especially interested in the Esbjerg's transition from being Denmark's fisheries port number one, over tapping into offshore oil and gas industry in the early 1970s, when the first oil was drilled by Dan-field in the North Sea, to becoming an offshore energy metropolis since 2002,

when the first large scale offshore wind park Horns Rev I was put in place in the North Sea. Ever since, Esbjerg has been a European leader in handling and shipping offshore wind turbines.

The event included guided tours and meetings with political representatives of the region as well as meetings with local SMEs and local representatives of larger companies, among them Vattenfall Renewables Wind, Atkins Company, Ocean Team Group and Blue Water Shipping, discussing, among others, information on demands and expectations which the company holds towards suppliers involved into their wind farm projects.

Objectives and results: The study trip aimed at business development and port development knowledge transfer, as well as matchmaking between companies from different BSR countries. It enabled the participants to make the optimum use of Esbjerg's vast experience in the OWE sector and to identify what good conditions for companies are and which cooperation structures among the different actors in the value chain help to make the local and regional industry innovative and robust.

Success factors:

- Identification of a destination that is exemplary for related developments in other BSR countries ("best practice place"),
- Concentration on one specific industry sector to allow high efficiency of the information transfer,
- Composition of multinational delegation teams that allow additional matchmaking within the study trip delegation,
- Identification of the topics of particular interest and most relevant questions already in the preparation stage,
- Involvement of local VIPs and practitioners as well as larger companies and experienced SME into the format.

Transferability: In case of format transfer to other places, it is important to keep up focusing on the one specific industry sector, the further specification tailored to the participant interests and the multinational structure of the delegation, as these are the factors that ensure a high attractiveness of the offers as well as an recognizable added value for all participants.

4.1.2. How to support entrepreneurs in establishing cooperation with foreign partners?

Lublin Fair for Energetics ENERGETICS 2017



Description: Lublin Fair for Energetics ENERGETICS 2017 is the flagship fair event in Eastern Poland, held since 2008 in Lublin - the capital of the region. It is a platform for discussing the most important topics and ideas for the development of technique and technology in the power sector.

On 15th November 2017 during the 10th Lublin Fair for Energetics ENERGETICS 2017 in Lublin (Poland) an international conference "Energy independence at the local level" was held as a part of the event. The conference was organised by the Foundation for Lubelskie Development - Coordinator of the Lublin Eco-Energy Cluster in cooperation with EmplInno Partners.

Objectives and results: In the event, 110 people participated, including entrepreneurs, representatives of regional government, universities, research and development units and students. The participants of the meeting became familiar, among others, with the idea of creating and developing energy clusters; the role of renewable energy sources in achieving energy independence at the local level; development of cooperation between different environments for achieving energy independence of communities and

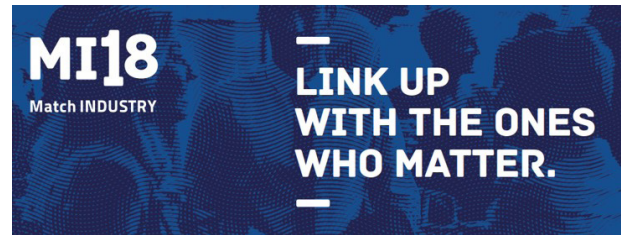
poviats, as well as technologies and innovations in the field of energy production and distribution management at the local level. During the conference, Mynttinen Sinnika from South- Eastern Finland University of Applied Sciences, Small Business Center, presented the Finnish experience in the development of cooperation between farmers and scientists to produce energy at the local level. Dr Vytautas Šiožinys, UAB Energy Advice from Lithuania, presented the Renewable Energy Integration project, based on innovative IT solutions. Integral part of the conference constituted the matchmaking meetings (B2B) with the participation of Polish, Finnish and Lithuanian enterprises and institutions. The meetings were organised by the Foundation for Lubelskie Development in cooperation with the Enterprise Europe Network Office managed by the Lublin University of Technology, Kaunas Science and Technology Park from Lithuania and the Regional Council of South Ostrobothnia from Finland. During the event, 12 representatives of enterprises and institutions held 15 meetings, which created an opportunity to get to know each other and discuss the possibilities of future cooperation.

Success factors:

- determination of the organisers;
- the interest of potential participants - local companies, representatives of regional government, universities, research and development units;
- sources of funding;
- wide promotion of the event and the various techniques of communication;
- presentation of good practices related to the transfer of innovations and new technologies;
- demonstration of the benefits obtained by entrepreneurs.

Transferability:

- the presence of companies from the energy sector;
- local companies' interest in acquiring knowledge on innovation and new technologies;
- the potential place for organisation of the event;
- good transport connection;
- involvement of local companies, representatives of regional government, universities, research and development units.



MatchINDUSTRY

Description: MatchINDUSTRY is an annual industry match-making event in Pori, Satakunta Region, Finland. It is an event for top players of marine, energy, offshore, automation and technology industries, where 20-30 companies are invited as 'main contractors' and 500 companies (mainly SME) will join as participants. The participant companies are suppliers, subcontractors and technology companies operating in various businesses. They are searching for new customers, business opportunities and networking possibilities in the event. Participants are chosen in a way that they meet the specific needs of the main contractors. The event comprises of a seminar on topical issues with international speakers involved and a contact day for f2f meetings that is implemented afterwards.





The experience of the past years has identified the event as an effective format for regional SMEs (suppliers, subcontractors, technology companies) to meet main contractors, i.e. to find new business opportunities and customers. The two-day event starts with the MI18 Pre-Event, where annually changing themes related to industry renewal and innovations are explored. The second day is a match-making event, aiming at helping the companies of marine, technology and energy industries to strengthen their supplier chains and find new business and technology partners. The event allows 40 and more meetings in one day, which makes the format particularly efficient and, thus, meets the expectations of highly professional business partners. In 2018, Prizztech introduced a web-based networking application done by a Finnish start-up company, to boost networking and event experience. Application was opened to main contractors and participants before the event, and they had the possibility to create their own profile, and then find matching partners, and arrange meetings. This pilot solution proved to be very practical and will be used again in the future.

Objectives and results: The event aims at mapping new business and technology partners and opening new business opportunities for SMEs, which again

will allow them to expand their existing business networks and, via this, their business activities and co-operations. To ensure a high quality of the format, a benchmarking and evaluation of the MatchINDUSTRY concept and other members' concepts is regularly implemented. Every year, after the event, Prizztech Ltd. conducts a participant satisfaction survey, and its results give guidelines for further development. The most important result is new business agreed during matchmaking, and according to participants' feedback, they say that every year the amount of new business amounts to tens of millions of euros.

Success factors: To make the event attractive for the participating companies and SMEs, it is important that the main partner companies are active on the global market, and that they have clear focus of what their current need for the event is. The most important success factor is that Prizztech's experts have in-depth discussions with every company that evaluates the possibilities of acting as a main partner. It is also important to regularly invite and involve new participants providing new ideas and solutions to main partners. To achieve this, the event is organised in cooperation with strong national and regional networks (Finnish Marine Industries, Finnish Technology

Industries, Business Finland, Satakunta Chamber of Commerce and the Federation of Finnish Enterprises).

Transferability: First attempts to transfer the concept were made, for instance, in Northern Scandinavia in order to speed-up business activities in the Arctic area out of newly established or intensified cooperation between companies (SMEs included) from Finland, Sweden and Norway. The transferability of concept is good, as far as the following points are considered:

- The SMEs are sorted beforehand by specific needs of main contractors, which makes the matchmaking particularly efficient and avoids contacts that are experienced as waste of time,
- The organiser actively seeks and invites new companies as both main contractors and participants,
- The event is organised in cooperation with strong networks and involves local important business actors and players,
- The concept is implemented in consideration of specific local knowledge, i.e. should be adapted to local structures and demands,
- Participants' comments and ideas should be surveyed in a systematic way, and the received information should be carefully considered.

4.1.3. How to build the innovation eco-system at energy branch and how to improve RIS implementation?

“Energy round table”

Description: On 14th of November, 2017 in Lublin (Poland), an “Energy round table” was organised by the Foundation for Lubelskie Development as part of the EmpInno Project.

Objectives and results: The main objective of the meeting was to discuss the tools and methods for implementing Regional Innovation Strategies (RIS) in partner regions of the EmpInno project, as well as to identify the main problems in cooperation between the research and development units and entrepreneurs. The meeting was attended by 15 representatives of enterprises, research and development units, universities, regional government and business organisations from Poland, Finland and Denmark. During the meeting, the areas of smart specializations, specified in individual RIS documents, were assessed in terms of their detail and the scale of impact on the regional economy; the methods and tools for

implementing RIS were discussed, as well as possible solutions which can improve their implementation and can increase the effectiveness to obtain objectives and results. The cooperation between the science and business was also evaluated. Ideas and projects that could improve this cooperation were also identified. Conclusions from the meeting will be delivered to the Marshal Office of the Lubelskie Voivodeship, responsible for the implementation of RIS.

Success factors:

- determination of the organiser;
- the interest of potential participants - local companies, universities, research and development units, regional government and business organisations;
- sources of funding;
- wide promotion of the event and various techniques of communication;
- professional moderator of the discussion;
- demonstration of the benefits obtained by entrepreneurs, universities, research and development units, regional government and business organisations.

Transferability:

- the presence of companies from the energy sector, universities, research and development units, regional government and business organisations;
- local companies, universities, research and development units, regional government and business organisations' interest in acquiring knowledge on innovation and new technologies;
- the potential place for organisation the event;
- good transport connection;
- involvement of universities, research and development units, regional government and business organisations.

5. Successful activation channels from Project Partners to their stakeholders and SMEs

During the realization of the project, Partners tried to find the best method of communication with stakeholders, especially with representatives of universities, research and development institutions, business organisations, local and regional communities and SMEs.

Within the project, Partners identified the following successful activation channels:

Sustainable Energy Forum in South Denmark

Description: In December 2017, the South Denmark European Office (Brussels-based EU Funding Office of South Denmark) and the Region of Southern Denmark jointly launched a “Sustainable Energy Forum” (SEF) with the aim to bring together the top competences and knowledge within the S3 area ‘Sustainable Energy’ to enhance cooperation and spur project development and project proposals for EU RTI funding schemes.

SEF has representation from the Institute for Energy Technology of Aalborg University Esbjerg, the Center for Energy Informatics and NanoSYD of the University of Southern Denmark, the clean-tech cluster CLEAN, the wind innovation cluster Offshoreenergy.dk, as well as the Region of South Denmark and South Denmark European Office (SDEO) - <http://emplinno.eu/news/launch-of-sustainable-energy-forum-south-denmark>

Objectives and results: The specific objectives of SEF are to:

- Support more high-quality project proposals with participation from South Denmark to EU’s funding schemes (primarily Horizon 2020, Interreg NSR / BSR / Europe, LIFE),
- Promote co-ordination and cooperation among energy actors in the region and thereby support cooperation in EU projects in the long term,

These specific objectives are pursued through:

- Sharing knowledge of current trends and strategic initiatives in the field of sustainable energy in South Denmark. This is done through SEF meetings and by e-mailing,

- Exchange of experience on EU project application processes and project participation. This is done through SEF meetings and by e-mailing,
- Identifying local, sub-regional and regional ideas, needs and priorities for research and innovation projects on sustainable energy, where it is reasonable to look at the possibilities for EU subsidies. This is mainly done via e-mailing and bilateral meetings among SEF members,
- Information on relevant EU policies and trends in sustainable energy. This is done by SDEO at the SEF meetings and via e-mail to either individual or all SEF members,
- Dissemination of specific EU project calls and EU project consortia seeking partners. Again, this is done by SDEO via e-mail to either individual or all SEF members,

One year after the Forum-launch, SEF partners have agreed on continuing meeting once or twice per year. Further, some SEF members have joint up to bilaterally develop projects. Through SEF, SDEO has gained valuable insights on the SEF members activities, priorities and EU project ambitions, and thus has supported them in several Horizon 2020 proposal processes.

Success factors: The most essential success factors are:

- To get it started, it is important that the potential Forum members see the point in meeting, communicating, sharing and cooperating. For this to happen, expectations management is important; it should be clear from the very offset “what’s in it for me” (knowledge, network, funding),
- The Forum members should be kind of high-level, e.g. experienced and respected civil servants from the public sector or professors from university, in order to assure high quality exchange within the Forum and that they, if necessary, will have a say within their own organisations,
- That communication within the Forum is sustained on an ongoing basis. It’s not enough to talk to each other only when meeting once or twice a year if you want to stay informed and ultimately enter into project cooperation.

Transferability: The format can be strongly recommended for transfer. The Forum concept is topic indifferent and therefore should be easily transferred to other specialization areas. Also, the transferability to other regions should be easily done if:

- The above-mentioned success factor on expectations management and “what’s in it for me” is skilfully managed by the Forum-initiator(s),
- There is a tradition to meet amongst leading persons within the concerned topic or specialization area (ultimately these persons also played a key role when the specialization area was defined as part of the regional S3),
- Resources are at hand in one or more organisations to hold meetings and facilitate an ongoing exchange of information and project ideas.

investment projects, on industry-related events such as seminars, workshops, conferences, fairs, cooperative meetings, trade missions. The cluster’s partners regularly receive information on the energy sector useful for running a business.

Success factors: Cooperation with members of the regional innovation system, ongoing analysis of the situation in the energy sector, fast and up-to-date information.

Transferability: Interest in the organisation of information activities addressed to a concrete group of recipients, delegation of tasks related to the promotion of information to an employee, systematic acquisition of information, and information transfer activities in various forms: by website, e-mails, meetings, workshops, conferences, newsletters.

Lublin Eco-Energy Cluster



Description: The Lublin Eco-Energy Cluster is co-ordinated by the Foundation For Lubelskie Development.

The cluster brings together entrepreneurs, science and research units, universities, local government and business support institutions from Lubelskie, Świętokrzyskie, Mazowieckie and Wielkopolskie Regions. The mission of this initiative is “to support all possible activities related to sustainable use of renewable energy sources based on the potential of the Lubelskie Region through development and implementation of technological, manufacturing and processing innovations, popularization of energy efficiency and energy-efficient buildings and to promote renewable energy sources in the region”. The objective of the Lublin Eco-Energy Cluster is to identify and prepare projects expediting the fund-raising for cooperation of cluster entities, organisation of meetings with the local self-government representatives, science and research centres, domestic and foreign businesses and financial institutions in order to share ideas, expertise and knowledge, as well as for lobbying and promoting this cooperation. In the daily work, the coordinator of the cluster uses many methods of communication with stakeholders: by website, e-mails, direct contacts, meetings, workshops, conferences, newsletters.

Objectives and results: Information on legal changes in the energy industry, on the sources of financing

Synergy and Empowerment Concept

Based on good practices shared and implemented in
the Interreg BSR project EmplInno

Energy