

Projekt dofinansowany w wysokości 85% ze środków Norweskiego Mechanizmu Finansowego w ramach Funduszu Współpracy Dwustronnej dla Programu PL04 pn.: „Oszczędzanie energii i promowanie odnawialnych źródeł energii”.

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INNOVATION-IN-NETWORK – TESTING A NEW KNOWLEDGE AND TECHNOLOGY TRANSFER MODEL IN THE POLISH REGIONAL INNOVATION SYSTEM

Seeking for innovativeness

Innovativeness and competitiveness are key words met in policies and strategies developed by European countries from 2004, when the Lisbon Treaty was signed. Poland, which joined EU in the same year also entered the race to be more innovative country, contributing to build competitive position of EU towards. Poland is still in an ongoing process of developing tools and methods which will help to build Polish innovation capacity. Relevant innovation statistics are slowly growing, still it should be not seen as spectacular and significant success. It is obvious that Polish SMEs have a still long way to go in the field of innovation activity. Norwegian enterprises seen in the same survey perform far better and oscillate on the level of European average. That what requires the biggest attention and the fastest incentives is innovation capacity of business hiring less than 50 people. It is clear that Poland still need to discover efficient set of tools and incentives with help to boost innovation level in SMEs. Availability public funding mechanisms, especially Norwegian Financial Mechanism and EEA Mechanism enable also to use and transfer best practices

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developed in other, more successful countries, and this is exactly the case of POLNORECO project and Innovation-in-network concept being the case for present article.

Barriers of innovation in Poland.

To see innovation-in-network concept in wider perspective it is also necessary to have a closer look on barriers for technology transfer in Poland:

- 1) market barriers (regional diversification of demand, competition);
- 2) financial barrier related to financing institutions, fiscal policy and absence of reliable information about business partners;
- 3) barriers connected with government policies and laws;
- 4) barriers linked to production, largely concerning factors of production, employment, technical infrastructure, and space limitations;
- 5) barriers connected with access to local information.

Apart from the structural barriers it is also necessary to add low level or even lack of cooperation between R&D and industry and low innovation culture in Polish SMEs (which mainly considers human capital and creativity as the biggest potential for innovation).

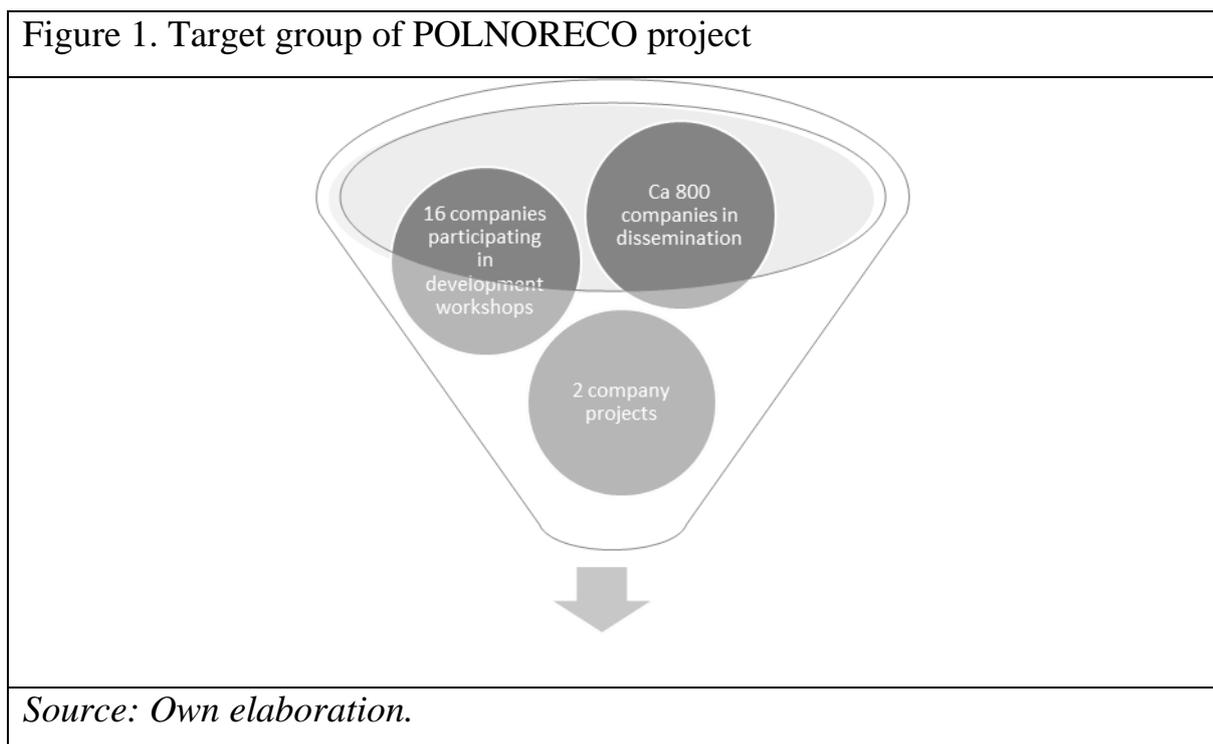
Polish Norwegian cooperation for environmental friendly and innovative solutions in SMEs (POLNORECO)

Project “Polish Norwegian cooperation for environmental friendly and innovative solutions in SMEs (POLNORECO)” was designed by Polish Chamber of Commerce and International Development Norway on the base of Norwegian innovation support concepts (Ideesøk of VRI and Network projects, both funded through Innovation Norway). Project is financed by Norwegian

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Financial Mechanism, in the framework of Bilateral Cooperation Fund for Programme PL04 Energy saving and promotion of renewable energy sources, managed by Environmental Protection and Water Management Fund. The focus of the discussed Project, required by the funding source is at most related to environment and energy efficiency but the models developed throughout the projects are connected to SME innovation support, nonetheless the branch considered. Both authors of the article paper have been involved in design and implementation phase of the Project. In addition, Leif A. Estensen has worked in innovation-in-network projects since the Program was launched in Norway, in 1982.

Figure 1. Target group of POLNORECO project



Goals of the Project should be seen in 3 dimensions:

1. Exchange of knowledge and transfer of experiences and best practices both on level of businesses and innovation stakeholders;

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2. Developing efficient and environmentally friendly solutions for industrial SMES;
3. Building innovation culture in SME participating in workshops.

Starting point for designing of discussed Polish-Norwegian cooperation project were knowledge and technology transfer programs from R&D institutes to small and medium sized companies (SMEs) implemented in Norway. POLNORECO assumes triple helix target groups: businesses, academia and public authorities.

Norwegian model -competence transfer (*kompetanse mengling*)

The model adapted from Norwegian technology transfer programme refers to still new and undeveloped in Poland competence brokering which was implemented under Pilot actions in two Polish companies visited by Norwegian team of experts who for improvement areas in industrial companies. The main task of a competence broker is to identify issues the companies can benefit from by use of research, and connect them with relevant researchers.

The main tasks for the competence broker include:

- Visit companies and systematically audit their needs and opportunities
- Clarify and identify R&D challenges, and establish contact with relevant R&D institutes, or other parties that match the challenges, like suppliers of machines, tools, equipment and so on
- Develop, plan, initiate R&D company specific projects, follow-up and conclude the projects
- Cooperate with regional parties for innovation projects and with the regional public support system for signposting and additional support, and provide contacts and competence through national and international networks

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Considering the time and financing limitation of POLNORECO, the project applied technology competence model with the successful response from participating companies in respective regions.

Table 1. Competence transfer model in POLNORECO project		
<p>Step 1: Pre-visit preparation</p> <ul style="list-style-type: none"> • Confidentiality agreement • Desk study for the company • 1st questionnaire (filled in by local chamber of commerce) 	<p>Step 2: Visit to the company</p> <ul style="list-style-type: none"> • Company visit • On site procedures (in depth interviews, documents reviews, workshops) • Milestone: draft report possible improvements 	<p>Step 3: Reporting and recommendation</p> <ul style="list-style-type: none"> • Desktop reviews • Identifying technologies and solutions applicable • Issuing draft/final report for the company
<p><i>Source: Own elaboration.</i></p>		

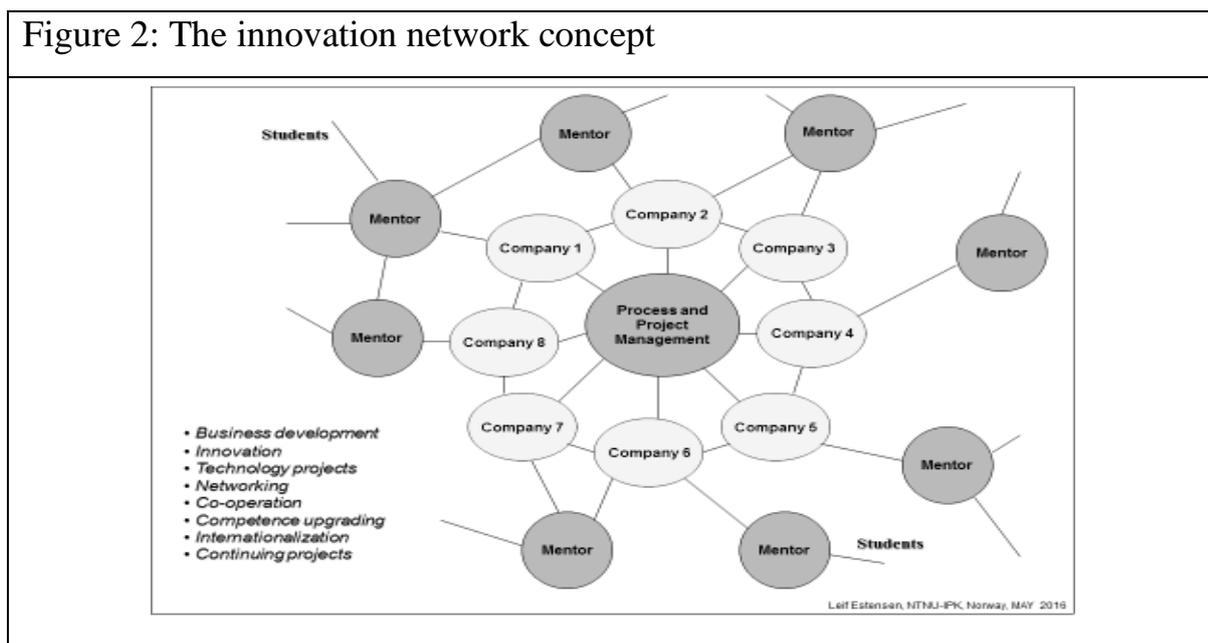
- Visited companies shared knowledge and were opened to discussion. It is need to be mentioned that Polish business culture rather assumes low trusts, so it is possible that the openness was the result of Polish-Norwegian relations
- Companies do have problems with systematization and externalization of knowledge in organization
- Companies reported that they see such a competence scheme as very relevant innovation and technology transfer support but at the same time they point the lack of communication with regional knowledge and research project.

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Norwegian model – Innovation in network (*innovasjon på nettverk*)

Second model adapted to POLNORECO project is an *Innovation-in-network* concept, also based on described earlier triple helix model. The concept is being implemented by Innovation Norway (main Norwegian state agency supporting development of companies) and SINTEF (the biggest Scandinavian research institute). The model assumes to create and Innovation-in-network group consisting of 8-10 industrial SMEs participate in the technology development process.

Figure 2: The innovation network concept



Innovation in network model adapted for POLNORECO purposes had a form of 2 innovation networks workshops and study visit of participating companies in Norway.

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Figure 3. Goals of innovation in network workshop in POLNORECO project

I workshop	II workshop
<ul style="list-style-type: none"> - To establish relation with the representatives of the companies participating in the workshop - To introduce the project and experts - To introduce concept of network projects and Ideesøk - To introduce energy efficiency for SMEs 	<ul style="list-style-type: none"> - To sum up and discuss experiences gathered by the participants in Norway - To present the concept of lean manufacturing as the way of introducing small scale innovation - To present possible funding sources of Bilateral Polish Norwegian projects - To identify project leads and develop project fiches

Workshops in POLNORECO project have been delivered by Authors of present Paper, therefore it is possible to draft some conclusion on Polish-Norwegian knowledge transfer:

- Since the trust barrier is recognizable, companies having memberships in local business associations should be the target group as the minimum trust level should be achieved there;
- Knowledge provided to SMES (for example regarding smart manufacturing and implementation of LEAN principles) needs to be decontextualized and more focus on putting it in context of CEE countries should be made,

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however it is relevant to operate with study cases, even coming from another business culture;

- More focus on presenting economic indicators and achievement: Polish business culture is not based on cooperation but on economic performance. Therefore, better understanding of knowledge delivered and its effectiveness would require to use more arguments of the type;
- It was noticed that companies learning ability of participating in the workshops increased after a trip to Norway, where they got a chance to see daily operations of Norwegian companies in practice, which confirms the argument about of designing longer networking period.

In conclusion, POLNORECO should be seen a successful and important project, testing innovation support model of Norwegian origin.

Administrative framework for regional innovation

At last, there is a need to consider possible place of the competence brokerage and innovation in network concept in the system of public law and policies of Poland. Building regional innovation should be then understood as task of the Marshall Office representing the self-government of voivodship. It also needs to be underlined that Norwegian programs are coordinated on national level, thus feasible nationwide implementation may be a good idea for Norway, whilst not for Poland. Competence brokerage programs focusing on the regional actors and relations should be then reflected in regional innovation strategies, developed in connection to smart specialization concept. Based on POLNORECO experiences it is possible to draft a conclusion that successful implementation competence transfer project will help to booster small scale innovation in SMEs but also enables to build long term relations between industry and academia.