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RECOMMENDATIONS FOR THE ŁÓDŹ REGION IN TERMS OF INFORMATION PROCESSING IN NETWORKS OPERATING IN THE OPEN INNOVATION PARADIGM

Abstract

The broadly understood cooperation of science and economy is a priority in the present reality. In spite of this, the awareness of business entities and scientific units regarding the applicability of the Open Innovation (OI) model is marginal. It is advisable to promote the idea of OI in line with the trends of the world economy, in which companies are involved in the development of advanced technologies. In practice, however, the low interest in OI or innovativeness as such may pose a threat to the economic development of the Łódź voivodeship. This article focuses on studies carried out under the InfoPro project among the members of the Bioenergy for the Region Cluster to show good practices and recommendations that can be used by stakeholders and those involved in the process of transferring knowledge and innovation. At the same time, postulates were formulated, which should play a key role in the development strategy for Łódzkie voivodeship in the context of promoting and taking into account innovativeness as an economic propulsion.

Key words

bio-energy, inter-sectoral cooperation, regional policy, innovation, capital exchange, promotion, pro-innovation services development tools, technology transfer, OI, cluster, Open Innovation, cooperation of science and economy

Introduction

In the present reality, one of the priorities is the broadly understood cooperation of science and economy. A representative of well-developed scientific and economic cooperation in the Łódź region is the Bioenergy for the Region Cluster. The aim of the article is to present the recommendations using the SWOT analysis scheme, which was formulated on the basis of the study carried out under the InfoPro project among the members of the Bioenergy for the Region Cluster. At the same time, the results of the study and the recommendations made on their basis can be used by all stakeholders involved in the process of transferring knowledge and innovation.

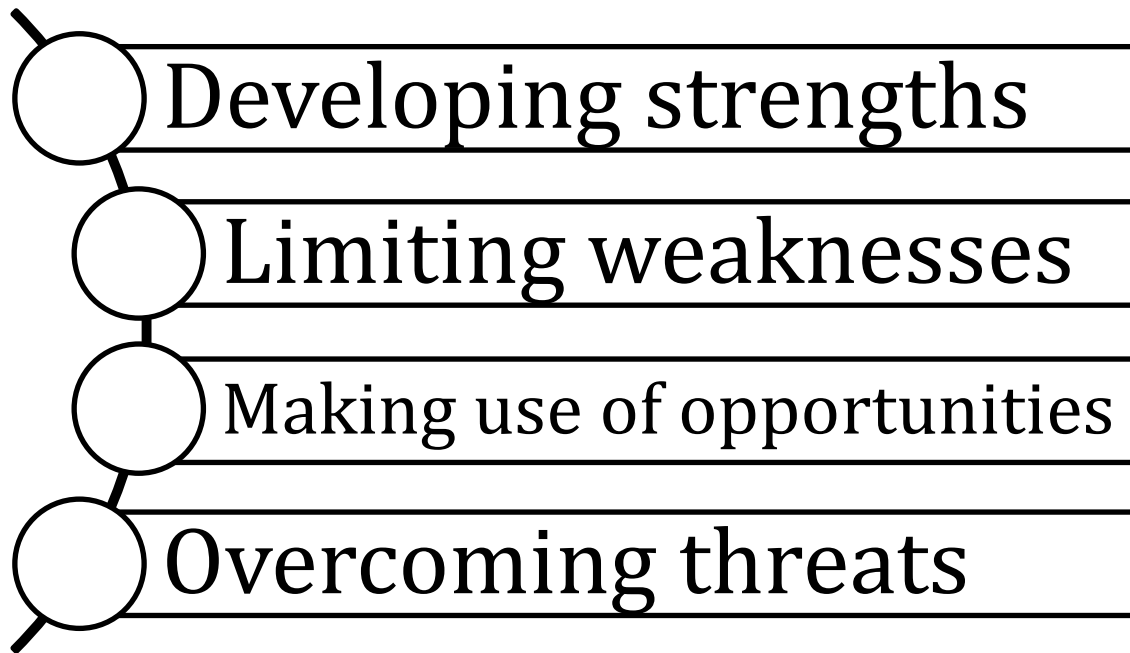


Diagram 1. Recommendations using the SWOT analysis scheme.

Source: the elaboration drawn up on the basis of the InfoPro research conducted among the members of the Bioenergy for the Region Cluster .

Developing strengths

Increasing the interest in implementing innovative solutions by network members requires active and targeted information about new solutions developed within and outside the network. Another important factor is the development of a clear and transparent form of information transfer that meets the needs of entrepreneurs.

The Bioenergy for the Region Cluster, in its very nature, is an independent research and development unit within which social and scientific research is conducted. This creates an excellent knowledge base that the members of the Cluster can use and draw inspiration from. Another advantage is the cooperation that the Bioenergy for the Region Cluster undertakes with other scientific and research units from the Łódzkie voivodeship. Scientific publications created within the framework of the Cluster are of an application elaboration nature, which, together with scientific values, have implementation aspects important for small and medium enterprises. As a result, a form of publishing that is friendly for business owners has been developed, supporting the full use of the knowledge presented.

One of the key stimulants for the exchange of information between network members is the Internet platform⁴⁸. Properly designed functionalities and graphics support the frequency of visits and feedback. The site was created in both Polish and English and it was positioned in the most popular search engines. In the future, it can be enhanced with additional Internet tools that increase the level of communicativeness. Furthermore, to overcome modern information processing challenges, creating databases and directories to help in finding specific content might be considered.

Another challenge was to develop an appropriate look for a website that would encourage users to engage. The look of the website was tailored to the content presented and care was taken to make it maintain the user's attention. The biggest challenge in creating a new website is the regular addition of new content. That is why a plan that clearly defined the type of content promoted on the site and the formula for reaching the audience was developed. The development of a virtual guide that helps new users navigate through the site map has been beneficial.

⁴⁸ Analysis of energy and other clusters in Polish, German and French environments - Desk Research report, http://www.mae.com.pl/files/analiza-klastrow_www-tryb-zgodnosci.pdf ; Polish Network of Technology Transfer and Innovation Support for SMEs "STIM", <http://imik.wip.pw.edu.pl/innowacje26/strona4.htm>

An important element of the Internet platform is data security, both of the administrator and the personal data of individual users. An important element in developing the idea of Open Innovation on the web is to build trust between the coordinator of the Cluster and its members. Maintaining communication continuity required the selection of the right tools and the right ratios between indirect and direct actions. Meetings, both in smaller groups and for all members, have proven to be the most effective way to build mutual trust, contributing to the continuity and smoothness of communication between the Cluster members and between the members and the Coordinator. In addition, during the interactions, the Coordinator inspired dialogue participants to develop further. One may reflect here that in the future, in the further development of the Bioenergy for the Region network, it will be necessary to open and make available new communication channels that would allow interregional contacts to be established.

Another observation involves working out the right balance between free of charge and paid services for Cluster members. Financing the Cluster activity requires the coordinator to seek external funds, which requires the creation of a package of fixed paid services that provide value for the members on the one hand, and on the other are a constant source of funding for the core costs associated with the coordination of the Cluster.

Limiting weaknesses

Two very significant problems were identified among the representatives of the Bioenergy for the Region Cluster:

- most do not perceive the real need to introduce innovative solutions in their organizational structure;
- only 13% collaborate with other entities on the implementation of innovation.

This raises concern because the presentation of best practices in implementing innovation and cross-sectoral cooperation is one of the most effective tools to motivate Cluster members.⁴⁹

Most of the entities participating in the Cluster were commercial companies, the level of awareness regarding the possibility of introducing innovative solutions of which, compared with production companies, is assessed below.⁵⁰ Consequently, the "show how" technique was used to inspire the presentation of organizational innovations and motivate entities to implement them.

The basis for the low level of interest in the idea of Open Innovation also turned out to be the lack of knowledge in this regard, resulting from the term "innovations" most often being used as a general term, without diversifying it to Open Innovation.⁵¹

As noted, the frequency of the expected communication with knowledge brokers (Cluster Coordinator) turned out to be insufficient. That is why actions have been taken to increase and strengthen cooperation between the Cluster and its members. In order to maintain positive relationships and flow of information within the network, additional steps have been taken leading to the flow and dissemination of information. Based on the assumption that the Cluster should focus on the quality, type, content and form of information preferred by the network users, publishing information on the Cluster website was encouraged. As a result, this contributed to an increased information flow and dissemination of OI ideas. Furthermore, to provide Cluster members with full access to information, an attempt has been made to consolidate the existing knowledge base with external resources, including university resources.

Making use of opportunities

The assumptions of the Europe 2020 Strategy and the related budget for the years 2014-2020 are favorable for the development and implementation of OI ideas in networks. National and regional documents naturally support the emerging opportunity. The new Regional Innovation Strategy of the Łódzkie Voivodeship indicates the need to increase the level of innovation in enterprises⁵². They identify key economic areas to be emphasized, but they do not indicate specific actions that would foster the development of OI. One such solution could be the creation of a special fund, serving as a source of financing of:

- OI-related undertakings,
- own contribution needed in international projects.

⁴⁹ Regionalne systemy innowacji w Polsce – doświadczenia i perspektywy, PARP, Warsaw 2013.

⁵⁰ A. Wziątek-Kubiak, E. Balcerowicz, Determinanty rozwoju innowacyjności firmy w kontekście poziomu wykształcenia pracowników, PARP, Warsaw 2009.

⁵¹ E-biznes – innowacje w usługach. Teoria, praktyka, przykłady, M. Olszański, K. Piech (ed.), PARP, Warsaw 2013.

⁵² http://www.lodzkie.pl/wps/wcm/connect/eef36680486353db9502973a3a56f5ad/prezentacja_RSI.pdf?MOD=AJPERES

The Bioenergy for the Region Cluster currently consists of 40 enterprises, 7 scientific institutes and 6 local self-government units. However, expanding the number of Cluster members requires actions that boil down to developing the flow and access to information.

Creating and developing innovations in line with the Open Innovation concept is often a coincidence - two parties who can benefit from mutually sharing knowledge meet in situations that are difficult to clearly identify. That is why it is important to increase the number of Cluster members who are potential sources of new solutions. It is also important to encourage the accession of entities that can bring in new intellectual goods, and not to limit ourselves to companies or scientific institutions with a single profile.

Overcoming threats

The awareness of business entities and scientific units regarding the applicability of the Open Innovation model is marginal. It is therefore recommended to promote the idea of OI in both the SME and the academic environments.

Low interest in OI or innovativeness, as such, poses a threat to the economic development of the Łódzkie voivodeship. At present, companies that are engaged in the development of advanced technologies are becoming more and more significant in the global economy.⁵³ That is why a key role should be played by the promotion and inclusion of innovativeness as a driving force in the new development strategy for the Łódzkie voivodeship. In addition, networking and cross-sectoral cooperation should be promoted. Increasing and intensifying cooperation can be achieved through active and long-term regional innovation policy in the area of social capital formation and the promotion of development instruments such as capital exchanges, both in intellectual and financial terms.

There are no professional companies in Poland and the Łódzkie voivodeship which would deal with the provision of pro-innovative services. That is why, in perspective, the possibility of creating such a unit should be considered. The lack of experienced service providers supporting information processing forces the need for horizontal support for building the potential of this type of institution. In Poland and in the Łódzkie voivodeship, there are so-called technology transfer offices within universities and technology parks, but their activity is limited due to the low level of knowledge about supporting the idea of OI.

Conclusion

To sum up the considerations contained in this article, the following conclusions, observations and postulates may be formulated:

- increasing the interest in implementing innovative solutions by network members requires active and targeted information about new solutions (within and outside the network);
- the form of information transfer should be clear, transparent and correspond to the needs of entrepreneurs;
- the Bioenergy for the Region Cluster, as an independent research and development unit, conducts social and scientific research and works with scientific and research units from the Łódzkie voivodeship, creating an excellent knowledge base;
- scientific publications created within the framework of the Cluster are of an application elaboration nature, which, together with scientific values, have implementation aspects important for small and medium enterprises;
- information exchange between members of the network takes place thanks to the Internet platform with properly designed functionalities, suitable graphics, and Polish and English language versions;
- new content is added on a regular basis, according to a plan that defines the type of content to be promoted and their formula;
- an important element in developing the idea of Open Innovation in the network is to build trust between the coordinator of the Cluster and its members, which requires the right communication tools and the right proportions between indirect and direct actions;
- the most effective way to build mutual trust is through meetings, both in smaller groups and with all members;

⁵³ Negocjacje w transferze technologii, BPIiT, Warszawa 2004.

- positive results are achieved when the coordinator inspires the Cluster participants to participate in a dialog and to develop further;
- the next stages of development of the Cluster will require interregional contacts;
- most Cluster members do not recognize the real need of introducing innovative solutions in their organizational structure, and only 1/10 collaborate with other actors on the implementation of innovation;
- using the "show how" technique is conducive to inspiring organizational innovation and motivating the entities to implement them;
- publication of information by members of the Cluster on the website fosters cooperation, maintaining positive relations and the flow of information;
- the creation of a source of funding for OI-related projects, and of own contribution needed in international projects, could contribute to the increase of the level of innovativeness of the enterprises;
- developing the flow of and access to information may contribute to the expansion of the number of Cluster members through the inclusion of entities that can bring in a new intellectual charge of a different profile;
- low interest in OI or innovativeness may pose a threat to the economic development of the Łódzkie voivodeship;
- a key role in the development strategy of the Łódzkie voivodeship should be to promote and take into account innovativeness as economic propulsion, and cross-sectoral cooperation.

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REKOMENDACJE DLA REGIONU ŁÓDZKIEGO W ZAKRESIE PRZETWARZANIA INFORMACJI W SIECIACH DZIAŁAJĄCYCH W OPARCIU O PARADYGMAT OI

Abstrakt

Szeroko pojmowana współpraca nauki i gospodarki stanowi priorytet współczesnej rzeczywistości. Pomimo tego, świadomość podmiotów gospodarczych oraz jednostek naukowych na temat możliwości stosowania modelu Open Innovation jest marginalna. Zaleca się wprawdzie promowanie idei OI, zgodnie z trendami światowej gospodarki, w której na znaczeniu przybierają firmy, zajmujące się opracowywaniem zaawansowanych technologii, w praktyce jednak – niskie zainteresowanie OI lub innowacyjnością, jako taką stanowić może zagrożenie dla rozwoju gospodarczego województwa łódzkiego. W artykule skupiono się zatem na badaniach przeprowadzonych w ramach projektu InfoPro, wśród członków Klastra Bioenergia dla Regionu, w celu ukazania dobrych praktyk i zaleceń, do wykorzystania przez zainteresowanych oraz uczestniczących w procesie transferu wiedzy i innowacji. Sformułowano jednocześnie postulaty, które powinny odegrać kluczową rolę w strategii rozwoju województwa łódzkiego, w kontekście promowania i uwzględniania innowacyjności, jako napędu gospodarczego.

Słowa kluczowe

współpraca międzysektorowa, transfer technologii, bioenergia, współpraca nauki i gospodarki, polityka regionalna, wymiana kapitałowa, promocja, instrumenty rozwoju usług proinnowacyjnych, oi, innowacja, klaster, open innovation