

THE STRATEGY FOR THE INTERNAL DEVELOPMENT OF ECOLABNET'S ECO-INNOVATION PARTNERS IN THE BALTIC SEA REGION – ANALYSIS AND EVALUATION

Robert KUČĘBA¹, Waldemar JĘDRZEJCZYK^{2*}

¹ Czestochowa University of Technology; robert.kuceba@pcz.pl, ORCID: 0000-0002-3904-0523

² Czestochowa University of Technology; waldemar.jedrzejczyk@pcz.pl, ORCID: 0000-0001-7820-8352

* Correspondence author

Purpose: On the basis of the obtained research results, an attempt was made to answer the following research question: what actions should be taken within the framework of the main strategic directions adopted in the developed strategy for the internal development of the research project partners, co-creating a network of service providers supporting eco-innovation of SMEs?

Design/methodology/approach: In the research process, the authors applied both quantitative and qualitative approaches. The primary quantitative tool was a survey questionnaire, and the qualitative tool was a panel discussion. The evaluation was based on 12 evaluation criteria which relate directly to the established procedures for preparing and implementing the Internal Development Strategy. These criteria have been divided into four groups concerning different stages of strategy implementation: 1) initiating, 2) preparing, 3) implementing, and 4) monitoring.

Findings: The article focuses on the evaluation of a comparative strategy for the internal development of Research and Development Institutes providing their eco-innovation services to SMEs, along with other consortium partners, intermediary organizations and companies, and the Ecolabnet eco-innovation network, also referred to as the Ecolabnet network of eco-innovation services.

Research limitations/implications: 1) The great diversity of project partners for whom the internal development strategy was developed. 2) The specificity of the project, as its main objective was to create a cooperation network for the provision of consulting services for the development of eco-products and eco-services for SMEs in the region of the Baltic Sea States.

Practical implications: Development of conception of internal development strategy of the project teams.

Originality/value: The summarized findings and reflections relate to the international network of eco-innovation service providers in SMEs (Ecolabnet), established under the Interreg Baltic Sea Region program for 2014-2020. The authors of the article co-founded the network as partners of a project consortium on behalf of Czestochowa University of Technology. The consortium consists of eleven partners from six countries in the Baltic Sea region.

Keywords: internal development strategy, eco-innovation, network of eco-innovation services, enterprises.

Category of the paper: Research paper.

1. Introduction

In the era of sustainable economic development, there is a growing phenomenon of diffusion of eco-activity, not only in enterprises but also in other organizations, in the areas of design, implementation, and utilization of various services, products, or technologies, referred to as eco-innovations (OECD, 2018). At the same time, this diffusion is reflected in the sustained and persistent improvement of competencies in creativity, entrepreneurship, communication, and cooperation with the R&D environment, business, and the competitive environment in a cooperation model. This cooperation is increasingly taking formalized forms in the shape of networks of competencies of various groups of entities, including: scientific and research units, such as universities and research institutes, business organizations, public utilities, local government entities, and intermediary organizations. The temporary structure of the network is adjusted depending on the entities' competencies in terms of designing, creating, and implementing particular eco-innovations (Triguero et al., 2013). Based on the results of secondary research, as well as observations and own research, it is noted that there is a lack of unambiguously defined in time and space interrelationships of the entities forming such networks, a lack of common strategies for the development of eco-innovation, and a lack of entities' own autonomous strategies for internal development.

In this context, this article attempts to assess and, at the same time, justify the essence of developing autonomous strategies for the internal development of eco-innovation service network partners. An attempt was also made to assess the impact of these strategies on the synergistic increase in the value of the created eco-innovation service networks. At the same time, the conducted scientific discourse is an attempt to answer the research question: what actions should be taken within the framework of the main strategic directions adopted in the developed strategy for the internal development of the research project partners, co-creating a network of service providers supporting eco-innovation of SMEs?

In order to realize the above research problem, it was important to select a research sample – entities already forming such a network of eco-innovative services and, at the same time, entities that have already defined, determined, adopted, and often already implemented strategies of internal development in the field of broadly defined eco-innovative services. Thus, the research results and the conducted scientific discourse concern the international network of eco-innovation services Ecolabnet, formed by service providers supporting eco-innovation (Ecolabnet, 2021). The Ecolabnet network was initiated within the framework of the European project Interreg Baltic Sea Region. The Ecolabnet network was formed by a founding consortium – project partners, from six Baltic Sea Region countries, such as: Finland, Lithuania, Estonia, Sweden, Denmark, and Poland. Currently, the network is formed by 41 European entities (dynamic number, as of 31.07.2022) including: Research and Development Units (RDIs), Small and Medium-Sized Enterprises (SMEs) and Intermediary Organizations (IOs) (Kuceba, Zawada, 2019; Kuceba et al., 2020).

2. Project team effectiveness

The project teams is a key resource that determines the success of a project. The qualifications of the team members and their commitment to the ongoing project determine the outcome of the project. The role of the project manager is also highly significant – they assign the work to the other team members, motivate their efforts, and hold them accountable for their tasks (Birkinshaw, 2001).

Building a project team is a crucial, though often marginalized stage of project work, including research projects (Bizjak, Faganel, 2020). This is usually due to the desire to quickly begin work on the project concept itself but is to the detriment of the project's merit.

Project management is one of the typical fields describing the concept of work in teams (Michalczyk, 2013), and the functioning of teams is the dominant form of work organization (Spalek, 2016). The project implementation usually places higher demands on employees compared to those of repetitive activities. Hence, in project management, the issue of creating and managing task teams becomes crucial (Skalik, 2009). Several models of project team structures can be distinguished in the literature. However, four classic (basic) ones are indicated: – surgical structure; – expert structure; – isomorphic structure; – collective structure.

Each of the mentioned models can be applied to projects in relation to the specific characteristics of the project, such as the type, scope, size, or culture of the parent organization (Słonec, 2015). In relation to research projects, the expert structure is predestined.

The expert structure is equivalent to the matrix structure of an organization. In such a structure, team members (experts) deal with tasks of different types but related to a specific specialization, while the project manager is the coordinator of all the work (Słonec, 2015). Expert structures are characterized by the effective use of team members and their high degree of independence, however, they are also fraught with problems characteristic of matrix management (an unclear division of duties and responsibilities).

The processes occurring in the projects force the constant updating, upgrading, and changing of employees' qualifications and skills. Thus, a key challenge for project implementers becomes increasing the team members' competencies in the subject area of the project. This requires the acquisition of new competencies and continuous learning from the project team members (Gładys-Jakóbiak, 2000).

The development of the project team must be planned. It should be conducted in accordance with the adopted development strategy. Developing the desired competencies among team members requires recognizing their current skills and work capabilities. Based on the current state of competencies in the context of project tasks, it is possible to determine the target state of competencies of the project team, which further allows determining the directions and ways of development of project team members.

3. Strategy for internal development of project teams co-creating the Ecolabnet network of eco-innovation services and products – primary assumptions

The strategy for the internal development of project teams in the ECOLABNET project is oriented toward improving cooperation with the SME sector and developing eco-innovation initiatives in relation to their needs, both current and prospective. The strategy defines a set of guidelines for any decisions or actions taken in a coordinated manner in specific areas with regard to both resources and time frames. The strategic management methods and techniques adopted in the strategy express the basic assumption that the entity interacts with its environment, which is a source of both threats and opportunities for its development. It was assumed that each project team (Project Partner) has certain strengths and weaknesses (Aaltonen et al., 2008).

In the adopted strategy for the internal development of project teams, the following eight main directions of strategic activities were identified:

1. research and scientific development of the teams in the design and manufacture of eco-innovative products and services in various areas of science,
2. strengthening the potential of research infrastructure,
3. expanding cooperation with intermediary organizations and SMEs in the region,
4. development of a portfolio of eco-innovation services for SMEs, taking into account current and planned research and development capabilities with current and planned laboratory infrastructure,
5. sustainable and continuous development of the team based on the growth of knowledge, skills, and experience in developing eco-innovation initiatives,
6. applying in heterogeneous competitions for research and development projects, among others, in the diffusion of eco-innovative solutions in SMEs – projects funded by European and national institutions,
7. preparing and conducting training courses on increasing the competitiveness of enterprises by raising awareness and introducing eco-innovative measures,
8. development of a system for collecting and presenting eco-innovative products and services, providing a source of professional knowledge about eco-innovative solutions.

In addition, the procedure for creating and implementing strategies for the internal development of project teams was unified. Unification concerned the definition of procedures governing the creation and implementation of internal strategies of individual Project Partners. First of all, based on the presentation of own experience, knowledge, competence in design, implementation and/or utilization of eco-innovation services, as well as the discourse during the brainstorming conducted in the group of entities co-founding the consortium of ECOLABNET eco-innovation services network, 12 corporate procedures/criteria governing the

creation and implementation of strategies for the internal development of this network's partners were identified. The development of these corporate procedures ensured the unification of the methodological approach to the formulation of these strategies by individual partners and, from the point of view of the adopted research problem, guaranteed the evaluation of the strategy of internal development of this network's entities in accordance with the unambiguously adopted corporate procedures. The procedures, which are also the evaluation criteria, were divided into four groups: initiating, creating, implementing, and controlling, depending on the stage of implementation of the internal development strategy. Each group was assigned three consecutive chronological procedures. In the initiating procedures group, the consortium of ECOLABNET eco-innovative services network partners distinguished: 1) Identifying or creating a team in charge of internal development; 2) Determining by the identified/created team the priorities and strategic actions in the context of collaboration and support for SMEs; 3) Identifying by the internal development team the needs of SMEs in the scope of eco-innovative actions. Subsequently, in the creating procedures group, further procedures were identified, such as: 4) Identifying competence gaps in particular areas of knowledge within the partnership; 5) Determining lines of action so as to eliminate competence gaps; 6) Drawing up the internal development strategy with regard to determined primary lines of action. The next group of three consecutive procedures, identified as implementing procedures, includes: 7) Decomposing strategic objectives into specific goals; 8) Indicating key development actions/activities – minimum three activities; 9) Establishing an action plan and task implementation within the developed strategy. The last group – the controlling procedures group – relates directly to control and therefore includes: 10) Periodical monitoring of the progress of undertaken actions; 11) Developing and accepting indicators of internal development evaluation; 12) Evaluating implementation of internal strategy.

4. Dimensions of evaluation of internal development strategies of partners of eco-innovation services network Ecolabnet

An evaluation of the internal development strategies of the Ecolabnet partners, the eco-innovation services network, was carried out in six countries of the Baltic Sea region. Specifically, the research was conducted in 11 units forming the consortium of this organizational network. Collectively, project partners possess relevant experience in technology, business, and design for eco-innovation. In addition, they perform different roles in the eco-innovation system – the consortium consists of seven research, development, and innovation organizations, two intermediary organizations, and two small and medium-sized enterprises. The multidisciplinary and diversity of organizations within ECOLABNET ensure high quality and the ability to meet the needs of SMEs and other stakeholders. The MUOVA

Design Center (project leader) at VAMK University of Applied Sciences Ltd. is a highly experienced design unit specializing in product and service concept design and prototyping them in close cooperation with companies. The Centria University of Technology brings biomaterials for 3D printing, plastic processing technologies, and recycling expertise to the project. Centria also performs LCA analyses for sustainable prototypes and compares them to conventional solutions when possible. A partner from the Kaunas University of Technology specializes in synthesizing, modification, and researching biobased polymers, biodegradable polymers, and biocomposites from renewable resources. A partner from the Vilnius University Laser Research Center provides expertise in incremental manufacturing and infrastructure for the verification of biobased resin compositions for optical 3D micro- and nano-printing (lithography). The University of Tartu's Intelligent Materials and Systems Laboratory possesses expertise in computational materials science, material science, robotics, chemistry, computer science, and electronics. VIA University College conducts research that combines creativity, technology, and business skills. It focuses on sustainable business models, cross-cultural competence, in- and outsourcing, and export opportunities for SMEs. A partner from the Częstochowa University of Technology brings expertise in business development, environmental impact assessment, and marketing. The CUT project is working on a digital collaboration tool and ECOLABNET service packages. Labsamera MB develops and manufactures special materials for 3D printing using SLA (resin 3D printing) technology. The company provides 3D printing services to other SMEs, including prototyping, small batch production, and production of custom design products. Estrotech Ltd is an SME providing RDI & rapid prototyping services for designing and integrating electronics in industrial and consumer products. The Business Confederation of Lithuania is developing an internal cooperation model for ECOLABNET as part of the project. Sustainable Innovation has an unrivaled position in the Nordic countries in implementing sustainable solutions in cooperation with leading companies, entrepreneurs, and researchers. Sustainable Innovation introduces market-ready eco-innovations to the general public through demonstration and scale-up activities.

The research was carried out in two stages:

1. Questionnaire survey, which aimed to identify the activities conducted under the previously indicated 12 procedures/criteria by individual partners and aggregate all these activities at the level of the formed consortium.
2. Panel discussion, a remotely conducted explanatory and inference discourse, to evaluate the key strategic actions. For the generated activities in the questionnaire survey assigned in procedures/criteria 2, 4, 5, 6, 7, 8, a joint evaluation was established during the panel discussion on the basis of consensus (brainstorming). The evaluation was conducted on a five-point Likert scale (from 1 – no importance to 5 – very high importance) for aggregated activities in the database system assigned to

12 procedures/criteria, whose number of indications by individual surveyed consortium members was greater than half the number of surveyed entities, $N > 5$.

Both stages were conducted among all survey participants – 11 partners of the ECOLABNET eco-innovation services network consortium.

With regard to the first initiating procedure/criterion – *identifying or creating a team in charge of internal development*, all 11 consortium partners confirmed the formation of a team in charge of internal development. The assigned common role of these teams is to create and implement their own strategies for internal development, frequently separated in the network of partners. It refers to strategies oriented towards improving cooperation with, among others, the SME sector and developing eco-innovation initiatives with reference to their needs. Here, in the context of the conducted comparative assessment, a common determinant was the initiation and, for the first time, the establishment of such teams in the surveyed entities with the number of people in each team varying from 2 to 8.

In the questionnaire survey on the identification of the most relevant activities assigned in the strategy initiation group, for the second procedure/criterion – *determining by the identified/created team the priorities and strategic actions in the context of collaboration and support for SMEs*, a total of 35 strategic actions were identified by 11 entities of the ECOLABNET consortium – actions, which were aggregated in a common database. During the discussion panel, the priorities of strategic actions whose number of indications was greater than half of the number of surveyed entities ($N > 5$) were evaluated on a five-point Likert scale. Figure 1 summarizes in the form of a radar visualization the joint assessments of the highlighted priority strategic actions established through discussion and consensus.

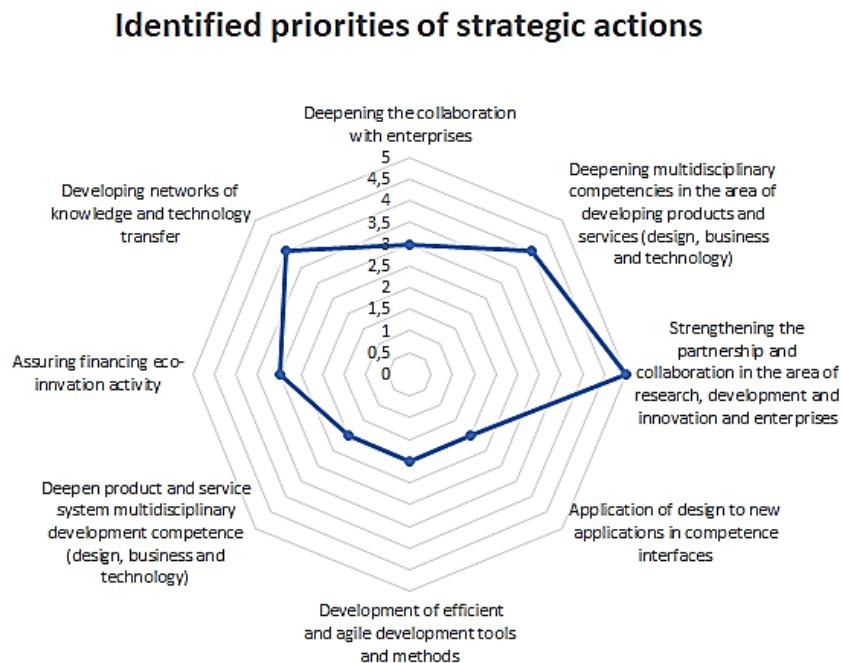


Figure 1. Assessment of the key expected priorities for strategic actions in the field of eco-innovation services – identified by the ECOLABNET network consortium.

Source: own elaboration.

Referring to the Likert scale ratings established through discourse and consensus by the 11 partners of the studied eco-innovation services network consortium, the highest rating of 5 (very high importance) was assigned to strategic actions that stimulate the strengthening of partnerships and cooperation in research, development, and innovation. This is also confirmed by the high consensus rating (4 – high importance) assigned to developing networks of knowledge and technology transfer. The cooperation in the diffusion of eco-innovation solutions was also granted a high rating (4), assigned to cooperation activities stimulating the growth of multidisciplinary competence in the development of products and services (design, business, and technology). The other priorities summarized in Figure 1 received lower ratings, respectively: Assuring financing eco-innovation activity – 3, Application of design to new applications in competence interfaces – 2, Development of efficient and agile development tools and methods – 2. However, it should be noted here that they were already selected in the quantitative measurement (questionnaire surveys), meeting the condition – the number of indications was greater than half of the number of surveyed entities ($N > 5$). The quantitative assessment, as the second selection stage of identified priorities for strategic actions, justifies the essence of including cooperation, especially within the framework of eco-innovation networks, in the strategies of the entity's internal development in the sphere of eco-innovation. Since the measurement has already been conducted in entities that have established and now cooperate within the framework of eco-innovation services networks, the essence of including cooperation in the strategies and establishing networks of eco-innovation services is determined as *best practices*.

In the case of the third procedure – *identifying by the internal development team the needs of SMEs in the scope of eco-innovative actions*, the consortium used the results of the pilot study that was the justification for the implementation of the ECOLABNET project. In justifying the creation of the ECOLABNET eco-innovative services network consortium, the partners, using identical research techniques and methods, identified the needs and barriers of SMEs in their own countries (Marin, Marzucchi, Zoboli, 2015, pp. 671-705). Research on the identification, measurement, and assessment of the significance of the heterogeneous eco-innovation needs of SMEs in the Baltic partner countries, as part of the ECOLABNET project, was carried out in the second half of 2019. In total, $N = 296$ SMEs in the countries of the project consortium partners participated in the research, including: Estonia – 23,31% (69), Poland – 19,26% (57), Finland – 18,24% (54), Lithuania – 15,88% (47), Sweden – 12,84% (38), Denmark – 10,47% (31). Analyzing the subject structure of all surveyed SMEs, micro enterprises accounted for 42.23% (125) of the research population, and small enterprises – 27.36% (81). The remaining group – 30.41% (90) are medium-sized enterprises. In the scope of developmental needs of the research enterprises, the following are distinguished: development of eco-innovative products and services (highlighted needs 32,08% and possible needs 32,55%) and packaging development (highlighted needs 23.58% and possible needs 37,26%). In the project of the IT system, also life-cycle assessments (highlighted needs 19,81% and possible needs 38,21%)

have been considered as a need of external support – perceived by enterprises in which eco-innovations are in line with the company's strategy, and even in their mission. While referring to the need defined as Technology/Production high activeness and at the same time needs of European enterprises in the scope of energy saving are fully confirmed. In the context of the obtained research results, 81,60% of the investigated entities expect support in the scope of energy optimization. In the case of: biocomposites, bioresins, or 3D printing, current needs of Baltic SMEs are low. Due to the fact that these indications came from enterprises where eco-innovations are in line with the mission or/and strategy of the company, they have also been considered in the project of the IT system. Details regarding the measurements of eco-innovative needs have been published among others in the scientific paper of joint authorship with the author of the present paper (Kuceba, 2019).

Analyzing the implementation of the fourth procedure – *identifying competence gaps in particular areas of knowledge within the partnership*, a total of 21 competence gaps in terms of eco-innovation activities were identified in the first stage of the questionnaire survey conducted in a group of 11 members of the ECOLABNET eco-innovation services network consortium. In the second part of the research, during a panel discussion, the evaluation on a five-point Likert scale carried out during the discussion based on consensus was subjected to those distinguished competence gaps whose number of indications by individual subjects was greater than 50% of all survey participants ($N > 5$). The evaluations of the distinguished competence gaps obtained during the panel discussion of the 11 consortium members are summarized in a radar diagram (Figure 2).

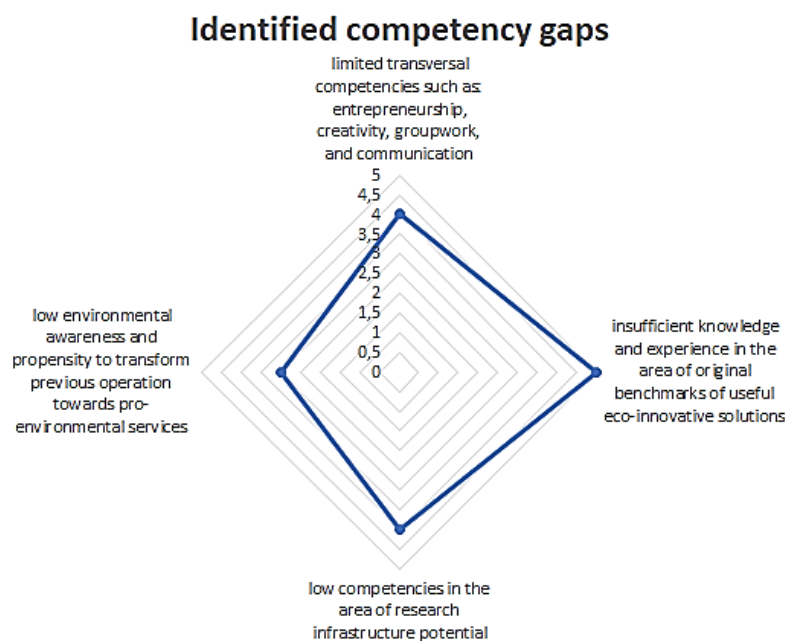


Figure 2. Assessment of the key competence gaps in eco-innovation services – identified in the ECOLABNET consortium.

Source: own elaboration.

A key competence gap of very high importance (rating of 5 obtained through a consensus), identified by panel members in the field of eco-innovation services, is insufficient knowledge and experience in access to benchmarks – useful eco-innovation solutions implemented primarily in the SME sector. The panelists thus confirmed the priority of strategic actions referring to cooperation with external entities, which will synergistically increase the value of the individual entities forming the cooperation network, both intellectually through the growth of knowledge, skills, and experience, as well as expanding their portfolio of eco-innovation services. Individual entities participating in the panel survey (members of the ECOLABNET eco-innovation services network consortium) highly rated cross-cutting competencies: entrepreneurship, creativity, teamwork, communication skills, and also, as emphasized, limited access to modern research infrastructure (limited in-house capabilities) in the context of perceived competence gaps (rating of 4 obtained through a consensus). All entities participating in the study indicated environmental awareness (Kuceba, Zawada, 2019, pp. 67-72) and the propensity to transform their existing activities towards ecological services (Gładys-Jakóbiak, 2000) as competence gaps at the level of medium importance (rating of 3 obtained through consensus), still too insufficient in their organizations, despite declaring at least one area of activity offering eco-innovative services before entering the consortium. The above competence gaps identified as key gaps, highlighted from a portfolio of 21 indications and assessed in the panel discussion, constituted an argument in justifying the creation of internal development strategies for eco-innovative services by individual ECOLABNET partners.

Referring to the next procedure/criterion from the group of creating strategies for internal development in the field of eco-innovation – procedure five – *determining lines of actions so as to eliminate competence gaps*, it should be emphasized that only five out of eleven partners of the ECOLABNET eco-innovation services network consortium explicitly determined the directions of actions reducing their competence gaps. The directions assessed by these five partners as directions of very high importance were: the growth of existing competences in terms of quantitative and qualitative expansion of the eco-innovation services portfolio dedicated, among others, to SME manufacturing enterprises. Multidimensional activities aimed to reduce the lack of knowledge or insufficient knowledge through, among others, internal training and the use of good practices and benchmarks in the field of eco-innovation services were also indicated as key directions for reducing competence gaps.

All 11 entities forming the ECOLABNET eco-innovation services network consortium, in accordance with the adopted sixth procedure/criterion – *drawing up internal development strategy with regard to determined primary lines of actions*, set strategic goals for their internal development. In the first phase of the adopted research – questionnaire surveys, 11 partners formulated a total of 23 strategic objectives. In the second part of the research (regarding the sixth procedure/criterion), the evaluation on a five-point Likert scale conducted during the panel discussion based on consensus was subjected to those distinguished key strategic objectives of internal development whose number of indications by individual subjects was greater than 50%

of all participants in the research ($N > 5$). The evaluations of the distinguished key strategic objectives of internal development, obtained during the panel discussion of the 11 consortium members, are summarized in the following radar diagram (Figure 3).

Key strategic objectives of internal development

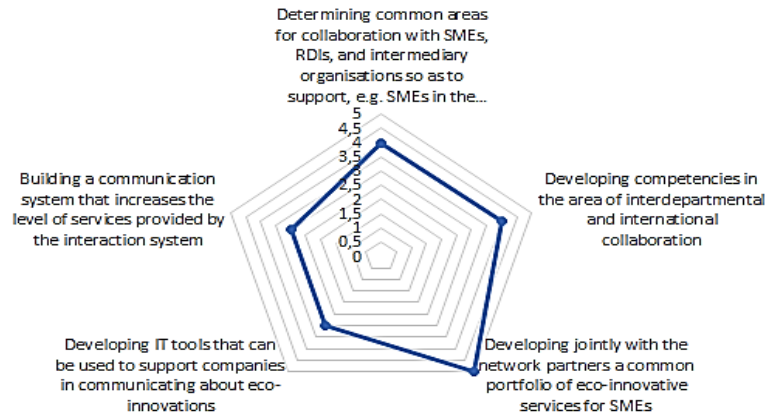


Figure 3. Assessment of the key strategic objectives for eco-innovation services – identified in the ECOLABNET consortium.

Source: own elaboration.

The $N > 5$ criterion, out of a portfolio of 23 strategic objectives, was met by five key strategic objectives for internal development. The highest rating (rating of 5 obtained through consensus) was given to the strategic objective, which, although it relates to the internal strategies of each partner, opens the given entity to the environment and to cooperation in the network, intending to develop a common extended portfolio of eco-innovation services, and thus expanding the market of recipients of these services. This goal is aligned with the identified competence gap of useful eco-innovation solutions – insufficient knowledge and experience in access to benchmarks. Highly rated objectives of internal development in the field of eco-innovation services (rating of 4 obtained through consensus) are formulating the unambiguous definition of cooperation areas with SMEs, R&D entities, and intermediary organizations supporting SMEs in the field of eco-innovation services, as well as developing and accelerating competencies in the field of interdepartmental and intergovernmental cooperation. The Panelists positively assessed (rating of 3 obtained through consensus) the virtualization of cooperation and the virtualization of eco-innovation services models through the creation of repositories, information portals, and digital integrators of the partner network, which supports communication, dissemination of information about eco-innovation services, and often their diffusion. In this context, a common strategic objective has been established, which should be identified also as a strategic objective for the internal development of individual network entities – the development, design, and implementation of a communication system that increases the quality of services provided through, for example, n-ary interaction.

Referring to the next implementing procedure/criterion – *decomposing strategic objectives into specific objectives*, specific objectives were specified, similarly to the fifth procedure/criterion, by five partners of the ECOLABNET eco-innovation services network consortium. In the process of comparative analysis conducted during the panel section, from the group of specific objectives highlighted by five consortium members, all of the 11 partners, searching for a common framework, distinguished as objectives of very high importance (rating of 5 obtained through consensus): 1) research and scientific development of the personnel of individual partners, 2) strengthening the capacity of the research infrastructure, 3) seeking new sources of funding for research and development for new eco-innovative services as well as for increasing productivity or promoting new products, 4) expanding communication channels for increasing the availability of services provided by related business structures, 5) lobbying for networking between business sectors, business organizations, and intermediary organizations. Specific strategic objectives, according to the panelists (rating of 4 obtained through consensus), should also significantly target branding and promoting the development and availability of the business ecosystem and RDI infrastructure of the partner network. In the context of the highlighted core strategic objective (sixth procedure/criterion) – virtualization of cooperation and virtualization of business models, the ECOLABNET consortium partners attribute quite significant importance (rating of 3 obtained through consensus) to specific objectives aimed at using the digital integrator of the partner network to: 1) gather and present knowledge about eco-innovative services and 2) increase the network's spread by registering and introducing new network partners' services and mobilizing these partners to create an eco-innovative image of the network.

In the subsequent research phase concerning Procedure 8 – *indication of key development actions/activities*, eco-innovation services network partners indicated at least three key actions they identify in their internal strategies for eco-innovation services. In the first phase of the adopted questionnaire research, 11 partners of the ECOLANBET eco-innovation services network consortium identified, in total, 54 key development actions. In the second part of the research (concerning the eighth procedure/criterion), the evaluation on a five-point Likert scale conducted during the discussion panel based on consensus was subjected to those distinguished key development activities whose number of indications by individual entities was greater than 50% of all survey participants ($N > 5$). The evaluations of the distinguished key development activities are summarized in Figure 4 in the form of a radar diagram.

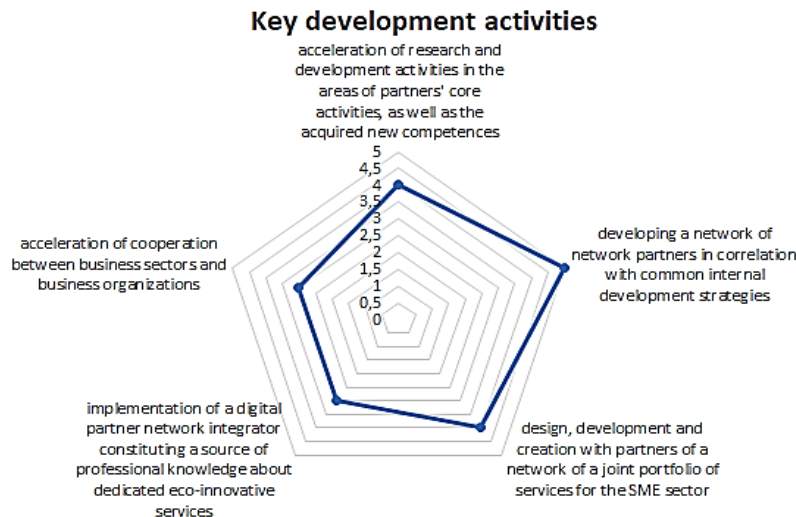


Figure 4. Assessment of the key development activities resulting from adopted strategies for eco-innovation services – identified in the ECOLABNET network consortium.

Source: own elaboration.

Analyzing the summary of key strategic activities of internal development, partners attributed the highest rating (very high importance – rating of 5 obtained through consensus) to the creation and networking of network partners in correlation with joint strategies of internal development. In addition, high importance (rating of 4 obtained through consensus) was attributed to all activities stimulating the diffusion of research and development activities in the areas of the partners' core business, as well as the acquisition of new competencies in new eco-innovation services. Key development activities, according to the partners forming the ECOLABNET eco-innovation services network consortium, should be fully convergent with the adopted key strategic objectives. Therefore, an activity of high importance (rating of 4 obtained through consensus) is, according to the strategic objective highlighted in the sixth procedure/criterion (Figure 3) – the development and creation of a common service portfolio for the SME sector with the network partners, which constitutes the added value of network integration in the dissemination and implementation of new heterogeneous eco-innovation services. In the context of the already highlighted strategic objectives, the partners also recommend intensifying development activities in terms of accelerating interdepartmental and, at the same time, interdisciplinary cooperation.

In the case of the ninth implementing procedure/criteria – *establishing an action plan and tasks implementation within the developed strategy*, in the first part of the questionnaire survey, individual partners of the ECOLABNET eco-innovation services network developed 11 autonomous plans for the implementation of the tasks concerning eco-innovation services within the framework of the internal development strategies created in each unit. In the second part of the research – panel discussion, it was found that the plans varied in the context of: place, time of implementation, and, to some extent, planned substantive tasks arising from the

developed strategic goals. Thus, the autonomy of the internal development strategies created by individual project teams was confirmed, despite their cooperation in a single network of eco-innovation services. In the course of the explanatory and inference discourse and the conducted brainstorming based on consensus, a conjunctive plan for the strategy implementation for the entire consortium was proposed. The unified plan includes the following phases: 1) definition of goals and priorities of activity; 2) diagnosis of the current competence level in the field of eco-innovation; 3) competence development, strengthening the image of eco-innovation (products, processes, and services) through the use of differentiated communication tools; 4) expansion of the financial and material resources portfolio; 5) strengthening the potential of research infrastructure; 6) expansion of the portfolio of eco-innovation services for the SME sector; 7) expansion of the network of contacts; 8) monitoring and controlling the progress of the implementation of the internal development strategy; 9) identification of risks and taking corrective action; 10) ongoing and periodic evaluation.

The consecutive three implemented procedures (10 – *periodical monitoring of the progress of undertaken actions*; 11 – *developing and accepting indicators of internal development evaluation*; 12 – *evaluating implementation of internal strategy*) are strictly of controlling nature. These procedures were developed by four partners, and therefore, following the recommendation of one of the partners of the ECOLABNET eco-innovation services network consortium represented by the authors of this article, the uniform control criteria and restrictions were adopted during the panel section in all 11 analyzed entities. Adoption of the homogeneous control criteria and restrictions was justified by the identified significant importance of transparency, openness of the obtained control results, regularity, periodicity, and the possibility of comparing the implementation of key common strategic objectives in the network. In the case of monitoring the progress of undertaken actions, the ECOLABNET partners jointly adopted the essence of control and evaluation of the ongoing implementation of internal strategies at intervals of no more than one month and periodic evaluation at intervals of no less than six months. Based on the indications of the four partners of the analyzed network, during the panel section, the 10 most relevant quantitative indicators of internal development evaluation were aggregated and recommended to all 11 entities. The employment of the uniform indicators ensures transparency and comparability of the individual partners' development in the eco-innovation services network. The unified indicators are: 1) the number of held trainings/specialized workshops; 2) the number of publications in the field of sustainable development and promotion of pilot eco-innovation services; 3) the level of employment of the laboratory base (%); 4) the number of acquired partners from the business environment; 5) the number of developed new eco-innovation products and services for SMEs; 6) the number of designed new eco-innovation products and services for SMEs; 7) the number of prepared and submitted project applications for R&D grants; 8) the number of R&D projects accepted for implementation; 9) the number of developed patents and industrial models of eco-innovative services; 10) the number of conducted events/trainings/workshops supporting processes of

transferring eco-innovative services to business. It was assumed that partners of the eco-innovation services network have the voluntariness to expand the portfolio of measures for assessing internal development with further indicators tailored strictly to their own needs. In the context of evaluating the implementation of the strategy, an annual cycle of periodic evaluations was recommended for all partners.

5. Conclusions

The results of the conducted literature and empirical studies enable the authors to conclude that the effective work of project teams is a key factor in project success. It requires continuous improvement of team members, both in terms of their expertise and skills necessary to achieve the main project objectives in a highly effective manner. The development of the project team must be planned. It should be conducted in accordance with the adopted development strategy.

This article presents the internal development strategy of project teams co-creating the ECOLABNET network of eco-innovation services and products and evaluates it.

In the autonomous, independently determined strategies and resulting objectives and activities of the internal development of the partners of the ECOLABNET network of eco-innovation services, the fundamental common direction is unambiguously identified, which is the competence development in the partner network – a platform for transferring knowledge and competencies as well as exchanging experience and skills. The added value of network integration in the dissemination and implementation of new and diverse eco-innovation services constitutes a joint portfolio of eco-innovation services that expands the competence of each ECOLABNET partner.

In this context, a common strategic objective has been established, which should also be identified as a strategic objective for the internal development of the network's individual entities – the development, design, and implementation of a digital communication system that increases the level of provided services through n-ary interaction.

The conducted scientific discourse, the carried out analyses, and the aggregated information on internal strategies and their implementation by the partners of the eco-innovation services network is a cumulative knowledge of the strategic goals and tasks dedicated to business entities that have a propensity to develop new eco-innovation initiatives, as well as a propensity for self-improvement and strengthening of their value in the networks of partners – in this case, eco-innovation services networks.

The considerations presented in the article are not exhaustive and require further research. The principal limitations of the study are: 1) The great diversity of project partners for whom the internal development strategy was developed. Each of the distinguished stakeholder groups has its own objectives, which translated into different degrees of implementation of the

developed strategy. In order to determine the utilitarianism of the developed strategy, it would be necessary to test it on a larger number of project teams; 2) The specificity of the project, as its primary objective was to create a cooperation network for the provision of consulting services for the development of eco-products and eco-services for small and medium-sized enterprises in the region of the Baltic Sea States. The subject of the research determines the need for members of the project team to have specific competencies, the development of which requires the use of other methods and tools. Therefore, it would be necessary to study a larger number of project teams diversified in different fields.

Acknowledgements

The paper was published within the Ecolabnet project (#R077) financed by the Interreg Program of the Baltic Sea Region 2014-2020 and co-financed by the program of the Polish Minister of Science and Higher Education PMW 2019-2021; agreement No. 5006/INTERREG BSR/2019/2.

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