Cooperation Strategy and Action Plan

Guidelines for R&D service providers and SME's in Baltic Sea Region





Network of Service Providers for Eco-Innovations in Manufacturing SME's - "ECOLABNET"

ECOLABNET

Network of service providers for eco-innovations in manufacturing SMEs

Project number #R077

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INTRODUCTION

This document is the cooperation strategy and action plan for ECOLABNET project that is funded by Interreg Baltic Sea Region (BSR). The vast network of 11 project partners from six BSR countries aims to create an international network of service providers to support development of eco-innovations among manufacturing small and medium sized enterprises (SME). Therefore, the main objective of this document is to promote various networking activities between current and potential project partners by sharing the mission, vision and strategic aims as well as key actions of the network. All project partners will use this document to communicate about Ecolabnet's benefits and operations internally in their organisation and externally to SMEs, intermediary organisations and all others that will be willing to support development of sustainable eco-innovations in Baltic Sea Region.

The Action Plan will be evaluated and updated regularly to ensure that Ecolabnet activities are aligned with the needs of SMEs and that resources are allocated to the development activities and approaches likely to lead to concrete results and measurable impacts. The success of Ecolabnet will depend on the active participation and collaboration of SMEs, RDIs, intermediaries and relevant partners, both in identifying and mapping the specific needs, and in building the partnerships that will result in effective transfer of experience and knowledge.







REASONS FOR ACTION

Eco-innovation has gained considerable support among researchers, businesses and policy makers as a relevant though not self-sufficient approach to environmental sustainability. This is because, the underlining's of eco-innovation such as efficient and effective use of material, energy and human resources, are directly in-line with societal visions for a circular economy and the broader sustainability agenda. Thus, as part of a variety of strategies to stimulate eco-innovation on different societal levels, companies are challenged to engage in the development and/or adoption of eco-innovations. This can be attributed to the environmental pressures associated with production and consumption activities (e.g. depletion of material and energy resources, biodiversity loss, and climate change) but more so with the potential benefits associated with eco-innovation such as the realisation of new competitive offerings, together with material, energy and financial savings.

However, the process of effective eco-innovation implementation can be challenging. For example, some small and medium sized enterprises may be in lack of the competence, recourses or partners needed to eco-innovate. In addition, eco-innovators face challenges in marketing eco-innovations beyond niche markets due to externalities. And oftentimes SMEs use unstructured and non-systematic approaches to manage environmental sustainability-related issues. Furthermore, literature in the field of eco-innovation argues that, given the systemic, and complex nature of eco-innovations, they are unique in that cooperation with external stakeholders is more important in the eco-innovation process than in the development of other innovations. Subsequently, evidence of the significance of networking, and collaboration activities with suppliers and universities, and along the supply chain for eco-innovation has been established. Since SMEs infrastructures might be in lack of the essential competence, they need to connect to and access external support to tackle some of the challenges associated with eco-innovation.



Various European and Baltic Sea Region program aims to strengthen the integrated territorial development and cooperation for more innovative, better accessible and sustainable environment. Therefore, Ecolabnet network aims to acquire and integrate professional RDI facilities and competences of sustainable design and manufacturing in order to ease the access of SMEs to the facilities and competences. In addition all the network seeks to support improved institutional capacity through knowledge and competences, governance structures and organizational set-ups, efficient use of human and technical resources. Moreover, ECOLABNET aims to gather the knowledge of SMEs, intermediary organisations and RDI institutions needed for collaborative sustainable design, manufacturing and experimentation of new and sustainable ecological approaches.





SUPPORT FOR SUSTAINABLE ECO-INNOVATIONS

Due to the constantly rising customer needs for ecological production many of the existing and emerging industries (especially in SMEs) often face challenges in development and commercialization of sustainable eco-innovations. To tackle this issue ECOLABNET project partners have come together to promote international activates and close cooperation that tackle challenges on the global markets and help to win the competitions, as SMEs need constant and intelligent innovation in the Baltic Sea Region.

Project partners are willing to use newly developed systematic approach called product-service system (PSS) design for development of sustainable solutions in business. PSS design aims to satisfy customer needs in a competitive way and simultaneously, to reduce environmental impact on both consumption and production sides. PSS design calls for different short and long-term strategies for "going green" requiring changes both internally and externally related to the collaboration with customers, intermediate stakeholders and suppliers. When companies implement PSS strategies, the range of special expertise required is vast: design, materials, analytics, certifications, prototyping and manufacturing solutions, logistics, branding, business models and marketing. Scarce resources and lack of knowledge set obstacles for SMEs to fully implement PSS and accomplish sustainable strategies. These changes and challenges call for new answers. Therefore, effective and holistic network across the value chain will work to support their endeavors in implementing sustainable eco-innovations.



The network will focus on private and public actors with high-quality expertise and facilities related to bio-based materials, additive manufacturing, design, eco-branding and sustainable business development. These close partnership will also assist in creating consortiums for joint RDI programs and stimulate effective research collaboration after the project lifetime.





This is the context in which Ecolabnet seeks to take action and support eco-innovations. All activities are intended to support manufacturing SMEs to develop eco-initiatives as well as active cooperation between partners within BSR countries. The framework of action plan will set the overall vision and provide basic guiding principles; proposals, strategic steps and tasks to organizations.

STRATEGIC APPROACH

Vision & mission

The main vision of the "ECOLABNET" initiative is to create a network of service providers for supporting eco-innovations in manufacturing SMEs of Baltic Sea Region. In order to achieve the vision & mission of the "ECOLABNET" initiative we aim to:

Address the problem of lack of a professional network to provide consulting services in ecoproduct development for SMEs in Baltic Sea Region. It will develop a network of professionals who will sell their expertise in eco-friendly manufacturing processes to the SMEs. RDI experts in the Baltic Sea Region provide the solutions in the network.

Increase access to the knowledge of new product applications to the local SMEs in Baltic Sea Region. The aim is to change the delivery time for eco- innovations by providing access to knowledge network locally. At the same time, it aims to provide access to RDIs to local markets by offering a network for commercializing their expertise.

Apply knowledge available in RDIs of Baltic Sea Region to the manufacturing SMEs to support their competitiveness. The current areas of expertise offered by RDIs in the network include additive manufacturing using bio based materials, material testing for bio composites, product prototyping, product design, service design, life cycle analysis, eco-branding and business model development.

Project objective

It is evident that the scale of expertise and infrastructures required in developing and commercializing eco-innovations is very broad, and SMEs need to complement their scarce resources. RDI actors, on the other hand, constantly study and develop new issues, and possess high-level expertise and infrastructures. An active dialogue and cooperation between SMEs and RDI actors is needed for commercializing eco-innovations ideated by SMEs as well as transferring research findings into business. In addition, RDI actors need to find research areas significant in the future. In order to tackle the challenges and opportunities related to sustainability, companies and RDI actors need better collaboration practices and skills.





Therefore Ecolabnet network will work to enable the development of a well-managed, multidisciplinary network, established and institutionalized practices and tools for collaborating between RDI actors, SMEs as the users of RDI infrastructures and their stakeholders such as business support associations.

Here are the key objectives that Ecolabnet seeks to address:

- Establish long-term partnerships and cooperation of competence providers and infrastructures needed to support SMEs in development of sustainable eco-innovations and enhancement of their market uptake.
- Improve the capacity of SMEs in exploiting transnational RDI network's competences and infrastructures in developing sustainable eco-innovations and launching them into market.
- Increase awareness about eco-innovations among SMEs and intermediary organizations in the Baltic Sea Region.
- Develop digital collaboration & cooperation tools for RDI and intermediary organisations to serve the needs of SMEs.
- Organise various events for SMEs, intermediaries and general public about eco-innovations in manufacturing sector.
- Develop various prototypes using knowledge of 3D printing and biomaterials, life cycle assessment, product service systems design and value chain analysis to demonstrate capabilities of the network for companies.

In addition, the Ecolabnet members will focus on the specific sub-objectives for cooperation:

- Develop access to various technological synergies, near-future results of general scientific knowledge and relevant complementarities of technologies for SMEs, intermediary organisations as well as new-comers of the network.
- Reach out to additional partners who can join the network to provide their own services
- Promote the network of professional eco-innovation experts that will support and help to advance technological innovation in the Baltic Sea Region.
- Share and advance useful scientific and/or technological knowledge (e.g. joint research activities, sharing the technology, etc.);

In short, the project aims at establishing long-term network of competence providers and infrastructures to support SMEs in development of sustainable eco-innovations and enhancement of their market uptake.





Targets & expected results

Created new partnerships between Ecolabnet members will become more than just collaboration to develop sustainable eco-innovations. It is about promotion of equal responsibilities in order to reach the highest results that could not be accomplished independently. In order to reach this goal the network will involve multidisciplinary actors from public and private sectors, which operate at regional, national and international levels: universities, enterprises, and intermediary organisations in order to support cross-sectoral and multilevel approach. Established network will aim at efficient and engaging progress.

Improved cooperation capabilities of research, development and innovation infrastructures, capacities and competences related to sustainable design and manufacturing through established network, cooperation practices, joint service concepts and collaborative demonstrations. It will strengthen collaboration between RDI facilities, intermediary organisations and SMEs across the countries of BSR by creating understanding about the needs of both private and public actors. The project will increase knowledge about transnational collaboration, the special competences and facilities required in sustainable innovation as well as creating practices for developing sustainable innovations with RDI facilities, intermediary organisations and SMEs.

The Ecolabnet network of partners from Denmark, Finland, Sweden, Estonia, Lithuania and Poland will create institutionalized knowledge and competences, governance structures, efficient use of human and technical resources as well as capability to work in transnational environment. The multidisciplinary competences will create a strong connection between different areas of sustainable design and manufacturing, which support collaboration between RDI facilities. In addition, the project will increase commercialization competences, capabilities and structures among RDI facilities, intermediary organisations and SMEs, which enhance uptake of research based innovations. All ECOLABNET members will increase the use of facilities and expertise among SMEs by developing and co-implementing pilot products related to sustainable design and manufacturing in order to improve in the field of sustainable innovation.







Value for the future

ECOLABNET project moves from the assumption that the RDI infrastructures of sustainable design and manufacturing are not equally distributed, networked and coordinated in various European and Baltic Sea Region countries. Therefore, they fall behind in creating a consistent value chain for supporting SMEs in sustainable design, manufacturing and business, which require highly specialized expertise. Therefore a network of multiple actors from different fields is needed.

The transnational and constantly growing cooperation will create unquestioned value for supporting SMEs in their sustainable innovations. The SMEs in the Baltic Sea region lack RDI resources and special expertise, which the RDI infrastructures possess. The network, the ways of collaboration and collaboration concepts will create access to the resources from different countries in an effective way. The network will boost sustainable innovation at a concrete level and bring well-managed and well-functioning chain of resources closer to SMEs use.

INFRASTRUCTURE FOR SUSTAINABLE COOPERATION

Project's capacity and already established cooperation

Current Ecolabnet network consists of eleven partners that include seven research and development institutions (RDIs), two SMEs and two business support organizations. All the existing partners will enable the development of a well-managed, multidisciplinary network, establish and institutionalize practices and tools for collaborating between RDI actors, SMEs as the users of RDI infrastructures and their stakeholders such as business support associations. Already created cooperation and partnerships will cover complementary and unique competences of both public and private RDI actors possessing specialized infrastructures and expertise. Such project partners as:

- Design Centre MUOVA and VIA University College will bring product-service system design and business model competences and facilities that will benefit the network.
- Vilnius University, Tartu University, Czestochowa University of Technology, Kaunas University and Centria will bring additive manufacturing RDI infrastructures and competences for development of new bio-based materials.
- Labsamera MB and Estrotech Ltd will bring 3D printing, RDI & rapid prototyping services as well small-batch production and production of custom design products.
- Lithuanian Business Confederation and Estrotech will bring expertise and competences related to the facilitation of collaboration with SMEs.
 - Sustainable Innovation Sweden will bring useful network from Sweden.





A multidisciplinary and complementing combination of top expertise from different countries of BSR already establishes a unique value network for sustainable innovations.



























Infrastructure for activities

This section describes the strategies and activities that will help to deliver Ecolabnet vision and mission, and will help to achieve its objectives, as well as the infrastructure proposed to support panned eco-innovation activities. Suggested tools and operational framework schemes will present how Ecolabnet network activities will contribute in order to achieve the mission and vision. All activities will be implemented in a phased approach and will be aimed towards the development of sustainable cooperation between the partners. This phased roll-out of activities will allow all partners to test and develop various types of eco-innovations provided by the network. Moreover, it will enable network members to meet identify and discuss their technical and scientific needs.

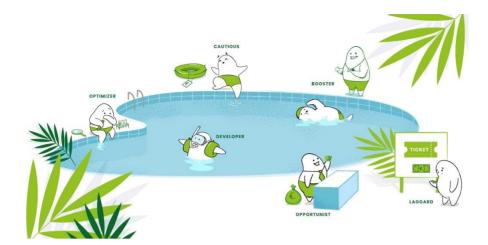
The main tools that will help to create international Ecolabnet network will include: 1) developed service packages; 2) digital collaboration tool for RDI and intermediary organisations; 3) web platform for external communication; 4) and prototyping of sustainable eco-innovations. Created online resources will be linked to relevant data bases, successful case studies and other useful resources. An active network of partners will be critical to successful development of sustainable eco-innovations and main network activities.

ECOLABNET will provide 5 collaborative service packages for manufacturing SMEs, intermediary and public business support organisations. These packages will support members in:

- Sustainable products development process for their end-users.
- Networking activities to connect SMEs and RDI service providers.
- Identifying relevant service providers for SMEs innovation activities.







ECOLABNET will also provide opportunities for broader international communication and partnership building among BSR countries through:

- Communication and outreach activities aimed to promote project activities and dissemination of outputs to external stakeholders.
- Already existing communication channels of the network members (web pages, social media accounts such as Twitter, Facebook, Instagram, as well as partners' own events and meetings).
- Public events or virtual partner meetings, which are aimed at SMEs, intermediary organisations and RDI actors, and in which sustainable innovation is discussed.

ECOLABNET network will provide the support for manufacturing SMEs by:

- Demonstrating network's transnational collaboration, services and successful stories on prototype development.
- Facilitating the development of physical prototypes based on the real need of SMEs, in which various bio-based materials and ecological products or services are used.

Furthermore, ECOLABNET will facilitate access to key resources, RDI facilities, expertise and services available online by:

- Developing a digital collaboration tool for RDI and intermediary organisations to serve SMEs.
- Providing contact information, classification of infrastructures and competences, ECOLABNET's member profiles of activities, potential users and use processes, and eco-innovative technologies.

Framework for cooperation

A simple and effective operational framework will be used to guide Ecolabnet activities and promote successful cooperation, based on the priorities for a network's cooperation strategy suggested by project partners. Specified needs and priorities for cooperation plan were identified during various online and physical steering group meetings, workshops of the network members.

Ecolabnet priorities are expected to evolve as needs of the target groups are identified and articulated, as Ecolabnet tools for cooperation are tested, as more network members are engaged and as additional resources become available. This operational framework will progress and will be created based on emerging experience and lessons learned.





Characteristics	Examples of associated implementation approaches
Simple and easily accessible network designed to address Ecolabnet member's needs.	International web platform to facilitate and support collaboration complemented by various forms of access. Support to SMEs, intermediary organisations or RDI services providers, based on specific user profiles
 Environmentally friendly initiatives and product demonstrations programme intended to inspire long-term collaboration. 	An operational framework based on the identification of sustainable and innovative practices to guide Ecolabnet activities
 Network-oriented approach to facilitate and support cooperation for sustainable eco-innovation initiatives. 	An approach to design services (Web platform, digital collaboration tool, user personas, methodologies) based on/responding to identified network needs.
Decentralized support opportunities for network through national and regional initiatives, meetings or events maintained by partner institutions.	The most effective means of developing strong cooperation will be explored through possible representative in different countries or regions, and/or partnerships with key institutions that serve as regional network knots.
5. Focused on BSR countries.	Ecolabnet services will be identified and designed to reach out to various eco-innovative projects and stakeholders in BSR countries. All activities will be based on the needs of members in the BSR countries.

Infrastructure to support cooperation

There are three key components that could be used to develop a successful cooperation between current and potential Ecolabnet network members: 1) web platform, 2) digital collaboration tool 3) representative events and thematic meetings.

1. Web platform for better communication

Ecolabnet web platform has been developed and will be maintained as a tool for dissemination of information regarding project activities and services. The platform was created in order to support Ecolabnet's communication strategy. Web platform will be used as the repository for all created data and case studies relevant to development of sustainable eco-innovations and implementation of various projects. It will promote a dialog with users via specific communication material such as:

- News and all the details regarding projects activities, outputs and new as well as upcoming events involving main target groups;
- Descriptions of services that the network offers to SMEs, RDIs and business support organisations;
- Details about existing partners and possibilities to join the network as a new partner.

An up-to-date online archive of resources relevant to Ecolabnet activities and possibilities for support from its members, as well as links to other initiatives, tools and technical solutions for SMEs, will be accessible through the web platform. It will be project partner's responsibility to provide potential communication material based on delivered results. Web platform will not duplicate resources that already exist on other projects websites or databases, but will instead provide short descriptions about them (metadata) and links to the respective websites.







2. Digital collaboration tool

Ecolabnet's digital collaboration tool is being developed and will be created as an open-nature WEB 4.0 application consisting out of two layers of functions: Layer 1 – Communication and Layer 2 – Ecolabnet knowledge repository.

The communication layer will provide users with a possibility to use real-time multimedia communication tools online and offline. It will become a platform for Digital Exchange where partners will have a chance to know more information about: RDI facilities -> Products -> Services -> Target markets -> Activity profiles -> Potential customers -> Eco-innovative technologies

The repository will contain information about environmentally-friendly technologies, materials, products and series as well as appropriate competences and structured knowledge about effective utilisation of human and technical resources, bio-based resources and materials. The set of instruments are based on data exploration and filtering tools, and reporting on task execution.

This digital tool will serve all Ecolabnet member by promoting opportunities for transnational cooperation between RDI service providers, intermediary organisations and SMEs. Therefore, it will be integrated in already existing structures and communication tools of Ecolabnet partners.

3. Public events and thematic meetings

Regional or national roundtables thematic meetings with SMEs, intermediary organisations and RDI actors will be held as needed to discuss sustainable eco-innovation. All meetings will be aimed towards the promotion of the projects potential, activities and results that may be interesting for various partners or groups that are developing similar initiatives.

Many countries and organizations have a wide specter of knowledge, experiences and lessons learned they may wish to share. Therefore, participation in such meetings or events will serve as a tool to promote closer cooperation within BSR countries. In many cases national and regional stakeholders or SMEs will be added to the network to share specific tools or approaches for eco-innovation development with interested members.





INTERNAL COOPERATION

In practice Ecolabnet network will operate as follows:

- SMEs and other organisations in BRS countries that require support or show interest to develop various sustainable eco-innovations will contact Ecolabnet network through the intermediary organizations in Baltic regions. All Ecolabnet members can be contacted via web platform, digital collaboration tool or other non-electronic means as well.
- If necessary, approached intermediaries will stay in contact with potential candidates to clarify and discuss the areas in which cooperation can be established through Ecolabnet.
- Approached intermediaries or other Ecolabnet members will determine what course of action is the most appropriate, including direct response to the candidates. Replies to the candidates will be based on specific profile and capacity of the candidate. **Potential** candidates will be forwarded to other Ecolabnet network members or added to digital collaboration tool. Other replies will provide candidate with all needed support if possible. All replies will include general information aimed to promote the network.
- Potentially linked organisations then will be processed by Ecolabnet members according to individual needs. All new-comers will be added to digital collaboration tool and provided with a possibility to reach out to the services and competences they need. The main aim is to provide all necessary support to SME's and network in relation to developing sustainable eco-innovations.
- ECOLANBET will maintain a close contact with media and relevant policy makers in each partner country to promote networks services available for SMEs. It will also help network to commercialize all developed products and successful results.
- The process will result in a newly developed partnerships or new project proposal that could be used to promote funding for new/current sustainable eco-innovation projects.

