Interreg Baltic Sea Region
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

WP 3.5. SERVICE PACKAGES

report by CUT

ECOLABNET

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ECOLABNET
Network of service providers for eco-innovations in manufacturing SMEs

Project number #R077

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1. PROJECT APPLICATION

1.1 Description of the group of activities

This group of activities will develop and evaluate the transnational service packages for the users of RDI facilities and competences. Service packages will be collaboratively produced products of RDI service providers and intermediary organisations, i.e., business support organization and SMEs as intermediate supporters of business development.

GoA leader will organise the evaluation of service journeys developed in GoA 3.3. Associate partners and other business partners will evaluate the concepts. At least 3 business actors in each country will evaluate the service packages. The activity leader develops evaluation criteria, in order to choose 5 service packages for ECOLABNET (feasibility, viability and desirability of the services). Partners 1,2,3,4,5,6,13 will carry out the evaluation. Based on feedback, the GoA leader will develop the concepts into joint packages for different user profiles/personas. Service packages are detailed descriptions of RDI infrastructures and capacities related to sustainable design and manufacturing and they include the value of the service, the production system, and use processes. PP1 visualises the packages in order to make them understandable in SMEs and intermediary organizations.

1.2 Output Description

5 collaborative service packages of ECOLABNET will be documented. Each package is a separate document which includes:

- the aim of the service package
- the partners and their capabilities and infrastructures as well as role in the service package
- the ways of using the service packages

The service packages describe transnational collaboration.

Service packages will be disseminated via the collaboration tool, project web pages and social media, via partners' own communication channels, co-communicating with associate partners, and in the meeting places. The GoA leader is responsible for producing the communication material and provide the relevant information for Leading partner, while partners are responsible for disseminating their results in their own channels. The RDI service providers use the service packages in developing their services and the accessibility of their facilities and competences. The service packages structure and guide transnational collaboration and supports expansion of the network. New members of ECOLABNET will be integrated to the service packages, which enhances long-term impact of the project. Intermediary organisations can use the service packages in connecting SMEs and service providers, and SMEs in identifying the relevant service providers for their innovation activities

1.3 Timeline

Activity: Period 3-4
Output: Period 4

2. ACTIVITY REPORTING PERIOD 4 TEMPLATE

2.1 WP 3.5. Services Packages – description, goal, way of disseminating service packages

Within the confines of international collaboration the partners participated in developing service packages. Eight common packages of ECOLABNET services have been developed. Each package includes the goal, description of infrastructure, capabilities of each of the partners, their role in the project and the way of utilising the service packages.
The packages will be disseminated through the developed Digital Collaboration Tool (DCT), project websites and social media. Each of the partners disseminates service packages also during meetings organised with SMEs, intermediary organisations and other project partners as well as through own communication channels. The CUT Team (the Polish Partner) has prepared communication materials regarding the description of the developed service packages. These materials have been provided to all the partners who are responsible for dissemination of this information in their own, abovementioned channels. Service packages direct the international collaboration and support development of the network. They can be on an ongoing basis developed within improving competences and fulfilling the needs of potential service recipients, contributing to bridging the identified gaps. As a consequence, these activities will strengthen the long-term impact of the project.

The goal of service packages is to use them by intermediary organisations so as to facilitate contacts between SMEs and service providers. On the other hand, the SME sector enterprises may search for proper service providers and make use of their services in their innovative activities.

The followig service packages have been developed within the project:

- SP1 Business strategy
- SP2: Eco-innovation management
- SP3: Bio-based materials
- SP4: Product design and development
- SP5: 3D printing
- SP6: Environmental assessment
- SP7: Marketing
- SP8: Other eco-innovation expertise

2.2 Developed service cards offered in the Ecolabnet network

The Project Partners have developed the following services within the distinguished packages:
CUT:

- Analysis of the compostability of plastics
- Eco-innovations as a source of competitive advantage
- Analysis of the potential of waste heat
- Analysis of the possibility to recover and utilise waste heat
- Utilisation of waste heat to minimise energy consumption
- Analysis of the impact of investment on the environment
- Advisory in the scope of conducting marketing research

CENTRIA:

- Development of plastic and composite materials for 3D printing
- Environmental impact assessment
- Material and product testing
- Project preparation and implementation
- Prototype and test series manufacturing
- R&D on end-of-life solutions to improve sustainability

VIA

- Business development for sustainability
- Training for ECO-innovation and implementation
- Marketing research and advisory
- Material testing & advice

VU

- Additive manufacturing employing optical 3d micro/nanoprinting
- Testing suitability of photo-curable materials for optical 3d micro/nano-printing

LBC

- Partners search and networking
- Promotion for innovative services, products and knowledge (technology transfer)
- Innovation funding opportunities

KTU

- Characterization of biopolymers and polymer biocomposites and investigation of their properties
- Design and synthesis of biopolymers and polymeric biocomposites

MUOVA

- Product design
- Service design
- Service prototyping
- Project planning

- Branding

uTartu

- Preparation and characterization of various polymer (including biopolymer) composites
- Synthesis of custom made ionic liquids and development of biofriendly ionic liqudis
- Chemical analysis of various materials

Therefore, 32 different services have been distinguished that have been quantitatively assigned to the following packages:

- SP1 Business strategy – 11 services
- SP2: Eco-innovation management – 5 services
- SP3: Bio-based materials – 10 services
- SP4: Product design and development – 14 services
- SP5: 3D printing – 5 services
- SP6: Environmental assessment – 6 services
- SP7: Marketing – 6 services
- SP8: Other eco-innovation expertise – 9 services

It needs to be stressed that the portfolios in particular packages of ECOLABNET services will be open and developed, especially in the environment of the DCT tool.

2.3 Description of particular service packages, available infrastructure and sample services offered through Ecolabnet network

2.3.1 SP1 Business strategy

The services proposed in the package **SP1 Business strategy** pertain to counselling in the scope of designing and conducting marketing and branding research, customer behaviour, brand development, making marketing decisions, and also counselling in the buyer-supplier relations in the scope of sustainable development and circular economy, generating ideas, adjustment of solutions and acceleration of business model transformation. Within this package the network also proposes services related to searching for partners, establishing contacts and collaboration among appropriate entities, designing products and services with the use of 3D models, project planning, the process of brand development as well as strategic and operational activities related to branding.

2.3.2 SP2 Eco-innovation management

In service package **SP2 Eco-innovation management** the network proposes services related to conducting expert training in the scope of eco-innovations as a source of competitive advantage considering the aspect of effective implementation of these innovations and benefits of this implementation. The training and counselling services offered concern the issues of eco-innovations (the concept of eco-innovations, characteristic features, types of eco-innovations, benefits of implementation). Other services proposed in this package include developing and implementing projects, planning project activities and training for ECO-innovation and implementation.

2.3.3 SP3 Bio-based materials

In the **SP3 Bio-based materials** package the offered services pertain to material and product testing, and the development of plastics and composites for 3D printing. The proposed research concerns the suitability of photo-curable materials for optical 3D micro / nano-printing and determining the properties and characteristics of biopolymers and polymer biocomposites. Chemical analysis services for various materials are also offered.

2.3.4 SP4 Product design and development

Services in the package **SP4 Product design and development** pertain to development of plastics and composite materials for 3D printing, preparation and characterization of various polymer composites, testing materials and products, manufacturing of prototypes and series tests, research and development activity on solutions withdrawn from exploitation in order to improve sustainable development, searching for partners and establishing contacts as well as collaboration through provision of effective counselling services. Another group constitute services pertaining to designing products and services (collecting essential information, generating ideas, developing concepts and 3D models), prototyping industrial services and providing the basis of science and practical know-how for prototyping services in VR environment. The proposed services also include planning the projects, branding-related activities, and the process of brand developing as well as conducting research of users, information, and conclusions from which may be used to inspire the development of new products, services and business.

2.3.5 SP5 3D printing

Within the **SP5 3D printing** service package, the proposed services include testing the suitability of photo-curable materials for optical 3D micro / nano printing, prototyping, material and product testing, and the development of plastics and composite materials for 3D printing.

2.3.6 SP6 Environmental assessment

The services offered within the service package **SP6 Environmental assessment** pertain to the analysis of the impact and evaluation of investment's influence on the environment, determining the protective measures, limiting or minimising the impact of the planned investment's execution, testing materials and products, and also research on the solutions withdrawn from exploitation in order to improve sustainable development.

2.3.7 SP7 Marketing

Within **SP7 Marketing** the network proposes services related to counselling in the scope of conducting market research pertaining to designing and concept of conducting research, consumer behaviour, branding, strategic and operational actions related to branding, developing, and co-creating prototypes, conducting tests and experiments, evaluating and making decisions pertaining to brand development and marketing activities. Other services in this package pertain to finding partners and establishing collaboration with appropriate partners.

2.3.8 SP8 Other eco-innovation expertise

Within the service package **SP8 Other eco-innovation expertise**, the proposed services relate to the analysis of the waste heat potential by conducting an audit in the scope of the sources, quantity, and quality of generated waste heat. The package also proposes services pertaining to the analysis of the possibilities of recovery and use of waste heat in order to minimize energy consumption. The aim of these activities is to advise and support entrepreneurs in the process of implementing modern, ecological technologies that use waste heat to minimize energy consumption and, consequently, lead to the minimization of production costs and maximization of profit. The package also offers services related to material testing, chemical analysis of materials, partner search, networking opportunities, opportunities to finance innovation and promote innovative products and services through technology transfer.

2.3.9 Sample services of the Ecolabnet network

The sample, proposed services in the Ecolabnet network pertain to the following aspects and activities:

- conducting marking of total oxygen biodegradation of a plastics based on organic compounds in the conditions of controlled composting,
- expert training that bring closer to the SME sector entrepreneurs the issues of eco-innovations, which can comprise not only products, but also processes and activities of organisational and market nature,
- training and counselling in the scope of developing the concepts of conducting marketing research, directed at various types of economic entities,
- counselling and support for entrepreneurs in the process of implementing modern, ecological technologies that utilise waste heat to minimise energy consumption, and as a consequence minimising production cost and profit maximisation,
- conducting audit in the scope of sources, quantity and quality of generated waste heat,
- analysis of the possibility to recover and manage waste heat to minimise production costs, in particular through minimised energy consumption,
- conducting a comprehensive analysis how a given venture (pertaining to carrying put new investments or expansion, modernisation of the existing ones) will influence on particular elements of the environment (air, water, soil) or other forms of nature, conservation and determining the protective measures, limiting or minimising the impact of carrying out a planned investment,
- counselling in the buyer-supplier relations in the scope of sustainable development and circular economy, counselling and facilitating development of business, processes and marketing, in the context of ecological innovations,
- training in the scope of ecological innovations for SMEs at an initial stage of working with sustainable development, circular economy and eco-innovations in the trades: production and trade in construction, production and trade of furniture and production and trade of textiles and clothing,
- support and counselling services provided by experts in branding and marketing, designing research in the scope of customer behaviour, developing and co-creating prototypes, testing and evaluation,
- testing materials on request, in accordance with the requirements of standards and needs of customers, results of the tests may be used in making decisions and comparing the qualities of an existing material and potential new materials in textiles,
- optical 3D printing of designed custom micro/macro structures of the resolution from micro to nanometres, characteristics of final product,
- testing materials on biological basis (or other types) with regard to their usefulness for optical printing, optimising print parameters for final typesetting, producing a prototype with final user,

- support directed at finding and promoting services in the scope of concrete research and development and infrastructure in the context of searching for partners and establishing contacts,
- collaboration and clusterization that lead to creation of networks and new partnerships through conferences, seminars, business brunches and forums as well as discussions concerning vital business matters with representatives of top-level authorities and representatives of supervisory bodies of business,
- active promotion of innovative services, products, and knowledge (technology transfer), providing advice pertaining to investment opportunities from the EU's structural funds,
- testing the qualities of biopolymers and polymer biocomposites (testing the kinetics of curing, thermal, swelling, mechanical, optical qualities and biodegradability of biopolymers and biocomposites),
- designing polymers on biological basis and polymer biocomposites from renewable sources, testing the synthesis of biopolymers and polymer biocomposites,
- designing products and services, collecting essential information, generating ideas, developing concepts and 3D models,
- research and practical know-how about prototyping services, prototyping of services used in training of servicing personnel, marketing and to inform stakeholders and technical programmers, technical and expert assistance in prototyping industrial services,
- user research, utilised to create and inspire development of products and services,
- services in the scope of planning, utilised to apply for financing and also in strategic development and informing stakeholders,
- branding, brand management, utilised to execute marketing and development of offer, knowledge in the scope of strategic and operational activities related to branding.

Partners possess properly qualified and competent advisory and training staff to be able to render the offered services. These are experts, advisors, trainers, who are experienced in providing services of this type for the SME sector. Partners also possess appropriate infrastructure that is indispensable to conduct training and rendering services, especially in the scope of research conducted in laboratories, necessary software, e.g. LCA, expert tools of computer engineering. Partners also possess appropriate specialist equipment, e.g. testing devices, optical 3D printers and equipment available in the indicated laboratories.

3. SUMMARY

Within WP 3.5. the CUT Team has developed a template of the service card in MS Word, which includes the following elements:

A. Name of service
B. Offeror's logo
C. Offeror of product
D. Category of service
E. Type of service
F. Description of service
G. Areas of interest/Trade
H. Related services
I. Status of service

as well as two forms in MS Excel, the first one containing 8 Service Packages, aimed at assigning the developed services to particular packages and the second one that includes the description of such elements as:

- Name of the service offered by the partner
- Infrastructure description in the context of particular service
- Description how a given service can be used
- Description of Partner's role and capabilities in the service package

These forms have been sent to all the partners of the project with a request to fill them in.

Assignment of the developed services to particular Service Packages and a detailed description of the partner's role, infrastructure, description of a given service and the way of using the service packages have been included in the document ***Service Packages - WP 3_5 - Ecolabnet Partners & description ver. 31-12-2021*** *(Appendix No 1)*. These elements have been developed by each of the partners and collected by the leader of WP 3.5, that is CUT.
Packages of Ecolabnet services have been physically aggregated together with services in the DCT tool https://dct-ecolabnet.pcz.pl
The present report constitutes the statements of the operations of the CUT Team for the reporting period 1.07.2019 - 30.06.2021.

APPENDIXES

Appendix 1. Summary of service packages of ECOLABNET