



DELIVERABLE D.T1.3.5 "REPORT ON FINAL BUSINESS SUPPORT SERVICE"

Prepared by: WP T1 project partners

INTRODUCTION

The **Business Support Service (BSS)** is a package of services that has been developed during the project timeframe in order to assist companies and stakeholders willing to move away from fossil-based plastic with a final goal of creating novel eco-friendly packaging solutions based on paper and bioplastic/biopolymer materials. The concept of the service was discussed and developed at an early stage of the project, however, it was step-by-step revised and refined on the base of the comments received from PPs and stakeholders during the implementation of the pilot actions. The last phase of pilot action, partially conducted during the COVID sanitary emergency allowed to preliminary check the feasibility of the BBS also from remote.

The BBS is meant to provide decision makers in private companies and public bodies with a set of comprehensive information tool available on an open website platform (www.paperbiopack.eu) regarding the current status of legislation, technologies, end-of-life waste management options and market opportunities in the Central Europe region. This package of services will be managed by the Transnational Biocomposite Packaging Centre (TBPC) through the use of an integrated on-line platform using both internal resources and cooperation with well identified external experts thus **creating new cross-sectorial connection** in bio-based economy clusters to linking the complete value chain, from bio-based raw material to end-users and public authorities.

In the paper/plastic supply chain different actors maybe interested in different aspects the business support service, therefore, stakeholders of the supply chain may access preliminary information directly through the web-platform where the material developed for the training courses and pilot action conducted during the three phases of the project is posted and can be easily downloaded. Interested companies can approach the field of biocomposites sustainable packaging solutions interacting with the platform where FAQ are present and/or asking for specific support as well. As a function of the request It will be up to the specific expert to decide how to proceed contacting the interested company and eventually conducting a preliminary audit to identify the most critical needs of the company. The support service will be useful also for public bodies/authorities especially regarding those aspects related to waste management of the new products supposed to be placed on the market. In this context the actual implementation at member state level of the EU circular economy package and Single Use Plastic directive will have to be taken into account whenever implementing sustainable innovation in this field.

The Business Support Service is based on an audit tool constituted by the following three elements:

- Questionnaire to assess Feasibility of framework conditions
- Questionnaire to assess Technological feasibility of new solutions
- Financial feasibility report

FEASIBILITY ASSESSMENT OF FRAMEWORK CONDITIONS

The potential to develop and place on the market an innovative sustainable bio-composite packaging product made of paper and bioplastics is function of the **internal framework conditions of the company** (innovation potential,

economics) as well as the **country context and conditions of the local market** (legislation framework, status of value chain, local infrastructures, consumers' perception).

The assessment is based on a physical or remote audit conducted by a TBPC expert team with the aim to identify the potential of the company to develop innovative bio-based packaging to place on the CE market.

The assessment scheme is based on the general structure of the audit tool prepared during the first phase of the project that was subsequently refined during the pilot actions' phases. The scheme comprises a first set of general questions to depict the status of the company and its propensity to address new challenges in this field whereas the second part relates to the general knowledge with regards to legislation, sustainability and bio-based materials.

The TBPC experts will use a set of operational instruction and information guidelines present on the web platform (**see training courses, handbook and pilot actions**) developed by project partners to guide and coach the companies to overcome bottlenecks and the lack of knowledge in specific items.

TECHNOLOGICAL FEASIBILITY ASSESSMENT

The technological assessment is based preferably on physical audit conducted **by a TBPC experts** at the company premise with the aim to identify the main bottlenecks of the companies in the context of their production process.

A check list is developed in a form of a questionnaire (Annex) that TBPC experts will use to conduct a structured interview with the companies covering raw material availability, bio-based additives, proper technology production and potential end-of-life options.

The check list helps to find out:

- Type of packaging application
- Material quality requirements
- Desired functional properties of the final products
- End of life option targets
- Regulation requirements (e.g. Compliance to Waste Packaging Directive, food contact etc.)

The aim of the interview is to collect the most relevant information regarding their technological potential and help the company to identify their major needs and follow up actions. The technological assessment covers many different aspects which often maybe difficult to assess by a single expert. On the basis of the discussion during the audit the consultant TBPC expert may need to share information within the network in order to define the most suitable team of experts capable to address the issue. Eventually the team will be able to return an **expert report** which may range from simple solutions (e.g. recommendation on new materials, laboratory tests, voluntary certification schemes) up to more complex investigations such as studies of Life Cycle Analysis (LCA) to guide the companies towards the best environmentally oriented options.

The experts will use a set of operational instruction and guidelines (bio-based material catalogue, screening LCA approach) developed by project partners to guide and coach the companies to overcome bottlenecks and the lack of knowledge in specific items.

ECONOMIC FEASIBILITY ASSESSMENT

The economic feasibility assessment takes into account the current market status and demands at global and local level as well as the situation in the country, sector and company. In DT1.1.6 economic feasibility concerns are developed in a general form that identifies key factors influencing feasibility of a business development action in the area of sustainable biocomposite packaging. Strategy options are listed, through which a company can develop its business approach. The analysis outlines key policy instruments affecting feasibility. It gives an overview through the countries participating in project and identifies some best practice cases.

The feasibility assessment is based on break-even analysis taking into account primarily

- Economic conditions
- Trends in the economy, markets, awareness of the public and policy
- Currently available data concerning the size of the market (local and EU)
 - Potential to enter new global (locally based multinational companies sensitive to sustainability global mega trends) or local markets (e.g. closed communities- schools, public buildings- willing to go greener using and collecting only compostable products).

Additional items will be considered as far as reliable data will be available

- Potential envisaged future legislation requirements (present and envisaged for the future)
- Development of environmental awareness
- Gain vs. conventional solutions (company image)
- Positive or negative externalities

OPERATIONAL INSTRUCTIONS

GENERAL APPROACH

Target of the audit interview: reach the decision makers of the company.

Discussing with the company, it is important to select the most appropriate team for the audit taking into account the size of the company. Some general indication is given below:

- Micro-company (Owner)
- Small and medium company (Quality and Production manager/Market or purchasing office)
- Large company (Quality and Production manager/Marketing Director/R&D director)

In case it is not possible to gather all relevant persons, conduct the audit leaving them the possibility to send later feedbacks after internal discussion to complete the picture.

Case 1. Approach from a company asking for support

Explain via email the general target of the service and send an information leaflet.

Get back to them in no longer than two weeks making a phone call and when possible a physical appointment for the audit.

Case 2. TBPC approach of a new company

Approach the company on the phone or by email explaining the general target of the service.

In order to avoid misused of the material DO NOT SEND ANY DOCUMENT unless the TBPC expert has already good personal relationship.

Get back to them in no longer than two weeks making when possible a physical appointment for the audit

AUDIT TOOL

See DT1.3.3 with provisional scores

FRAMEWORK, TECHNOLOGY and ECONOMIC FEASIBILITY TOOLS

Ideally the audit shall be conducted by a team of people bearing different expertise (regulatory, technology and economy background). Otherwise, the single expert auditor will discuss and collect the information during the physical meeting on the basis of the questionnaire. Later he/she will select the most appropriate team of experts within the TBPC in order to produce a suitable report for the company.

PHASE 1: PREPARATION AND IDENTIFICATION OF NEEDS AND POTENTIALS			
Purpose	Enterprise inputs	Technical assistance (4 h including preparation and follow-up)	Outputs
Collect general information	General information about the enterprise	Information collected by phone call or by email exchange.	<ul style="list-style-type: none"> • Initial information exchange • Agreement on implementation of BSS including scope and rules for cooperation and data confidentiality • Customization of following steps
Value chain and stakeholder analysis: Collection of information on enterprise strategy	Basic information about enterprise position and strategy in the value chain, relationship with	First company visit or alternatively on-line meeting Aim: facilitate the	Preliminary SWOT analysis Assessment of strategic risks and opportunities resulting from enterprise

and relationship within the supply chain	stakeholders and knowledge of the biobased material and relevant legislations	discussion regarding the importance of a medium long-term strategy to develop sustainable packaging	strategy, knowledge of the material and position in the supply chain.
PHASE 2: VISIT THROUGH THE COMPANY- technology and economic evaluation tool			
Purpose	Enterprise inputs	Technical assistance	Outputs
Observation of current status at production site	Guiding of external consultant on a walk through the enterprise facilities.	External evaluation of the state of the art of production technology with focus on areas with potential for improvement	<ul style="list-style-type: none"> • Overview of findings: report indicating comparison with Best available technologies
Environmental indicators	Providing data for critical environmental parameters (e.g. energy, materials, additives, water, emissions, waste)	Assessment of most critical parameters affecting environmental performance	Identification of the areas with potential for improvement
Economic evaluation analysis	Providing data for a break -even analysis	Evaluation impact of material/production changes on production costs versus current solution	<ul style="list-style-type: none"> • Identification of areas with potential for improvement • Identification of additional potential benefits to balance costs • Identification of present and future market opportunities
PHASE 3: IDENTIFICATION OF MID TERM ACTION PLAN AND SPECIFIC MEASURES (EXAMPLES)			
Definition of a sustainable strategy	Suggestion from company	Recommendations for developing a clearer and effective environmental strategy. Definition of the most relevant targets.	Identification of most promising materials and processes based on LCA approach and circular economy.
Identification of potential partners within the supply chain	Partner and value chain description	Recommendations for: Material suppliers Technology improvements	Technology requirements and legislation compliance
Business plan revision	Existing business plan with listed improvement requirements	Recommendations on how to implement business development goals	Efficient business development