Interreg CENTRAL EUROPE

Co-funded by the European Union

D4PACK

D4PACK Action Plan for Technology Transfer Services

D4PACK – Delivarable 1.5.2 - Activitv 1.5

Version 1

05/2025

D4PACK ACTION PLAN FOR TECHNOLOGY TRANSFER SERVICES

D4PACK

PROJECT TITLE	Support the transition of the Central Europe food industry Towards Next-Gen Packaging models
PROJECT CODE AND ACRONYM	D4PACK - CE020082
DELIVERABLE TITLE AND NUMBER	D4PACK Action Plan for Technology Transfer Services (TTS) – D.1.5.2
ACTIVITY TITLE AND NUMBER	D4PACK Joint Strategy and Action Plan action plan to provide new Technology Transfer Services about next generation packaging solutions – Activity 1.5
COMPLETION DATE	30/05/2025

Introduction

The D4PACK Action Plan is part of the broader framework defined by the D4PACK Joint Strategy, which was developed to support SMEs in the Central European agri-food sector in their transition toward more sustainable packaging models.

The strategy responds to the growing need to align the food industry with the objectives of the European Green Deal, particularly regarding the adoption of innovative and environmentally sustainable packaging solutions. While large companies are increasingly adapting to these changes, small and medium-sized enterprises—which represent the vast majority of businesses in the sector—continue to face significant challenges due to a lack of technical knowledge, limited financial resources, and regulatory complexity.

To address these issues, the D4PACK project set out the development of a Technology Transfer Service (TTS) as its main objective. This service is designed to help SMEs identify, assess, and adopt sustainable packaging solutions through a structured, step-by-step approach. The TTS will be supported and delivered via a digital interface—the Electronic Guidance Tool (EGeT)—making the service accessible, user-friendly, and adaptable to different industrial and territorial contexts. The EGeT (Electronic Guidance Tool) will be the useful output of the D4PACK project in order to deliver to SMEs an accessible and easy to use technology Transfer Service (TTS).

The purpose of the TTS and the EGeT is threefold:

- **Identify technically feasible solutions:** SMEs will interact with a digital platform—accessible via a web interface or app—by answering standardized questions. The tool will use this input to assess their specific needs and suggest up to three alternative packaging solutions.
- **Evaluate innovation risks associated with the solutions**: for each proposed solution, the tool will provide companies with a risk analysis related to its adoption, both from technical and environmental sustainability aspects, and from the more general profiles of economic and strategic planning of the investment, adequacy of production factors, as well as compliance. This analysis will highlight opportunities, constraints, and potential impacts of a new packaging solution on the SME's production layout and overall business operations.
- **Enable informed decision-making:** based on the insights provided by the tool, SMEs will be equipped to select the packaging solution that best aligns with their business needs while minimizing risks.

To achieve this objective, the D4PACK partners have structured an action plan divided into two complementary phases. The first phase focuses on the development and pilot testing of the Technology Transfer Service (TTS) with 12 pilot SMEs. This phase is essential for refining the TTS based on practical insights and feedback from participating companies, ensuring the service is both effective and user-friendly.

The scientific partners in the D4PACK project decided to exclude the Packaging Relative Environmental Impact (PREI) method for packaging assessment because they found that it does not fully address the specific characteristics of innovative packaging solutions, such as alternative barrier coatings. PREI evaluates the balance between the environmental load of packaging and the food product, primarily focusing on global warming potential (GWP) and the impact of food waste. However, it is more suited to conventional packaging materials and may not fully capture the broader sustainability aspects of new packaging technologies.

The D4PACK project, on the other hand, focuses on advancing packaging solutions that incorporate novel materials and technologies, which go beyond just environmental load based on GWP or food waste impact. These new materials, like paper-based packaging with innovative barrier coatings, aim to replace plastics and prioritize factors like biodegradability, compostability, and the reduction of overall environmental impact—elements that PREI does not fully address.

Given these limitations, the D4PACK partners opted for a more tailored methodology that aligns better with the project's objectives, including the evaluation of both environmental and technological innovations in sustainable packaging. This new approach will provide a more comprehensive assessment of the environmental, technological, and economic benefits of these emerging packaging solutions, ensuring that the evaluation process supports the project's overarching goals of sustainability and the circular economy.

The second phase builds on the outcomes of the first by integrating the refined TTS into a technological tool. This tool will then be tested over 60 SMEs, allowing for further adjustments to enhance its usability and adaptability across various business contexts.

The two phases are interconnected, with the success of the second phase heavily reliant on the groundwork established in the first. During the initial phase, in-person sessions with SMEs will provide flexibility to address company-specific needs and adapt the TTS to reflect real-world challenges. This hands-on approach ensures the service is tailored beyond technical specifications, capturing nuanced business requirements.

In the second phase, the insights and data collected during the first phase will inform the development of a user-friendly technological tool. This tool will replicate the in-person process digitally, enabling companies to interact with the TTS efficiently. By aligning the design of the tool with practical realities, the iterative approach ensures it effectively meets the needs of SMEs while maintaining scalability and ease of use.

Activities

Phase 1: Pilot testing of the Technology Transfer Service in 12 SMEs

The first phase aims to establish the framework for the Technology Transfer Service (TTS) by implementing and testing it with 12 pilot SMEs across key sectors: meat, dairy, and

food and vegetables. During this phase, the D4PACK partners will conduct in-person sessions at the SMEs to implement the TTS, allowing for flexibility in adapting questions and responses to reflect real-world business conditions. This iterative approach ensures that the TTS aligns with the practical needs of companies, while simultaneously gathering critical insights and data to inform the development of the EGeT tool. The outcomes of this phase will be instrumental in refining the service and ensuring that the subsequent technological tool accurately replicates and enhances the in-person process.

Activities to be carried out

1) Engagement and selection of pilot SMEs

The selection of the 12 SMEs that will participate in the pilot activities represents a crucial step in ensuring the proper launch and full effectiveness of the Technology Transfer Service (TTS). Each project partner representing the four pilot areas will be responsible for identifying three companies operating in the key sectors targeted by the project: one from the **meat** sector, one from the **dairy** sector, and one from the **fruit and vegetable** sector. This approach will enable the TTS to be tested in different production environments, ensuring a comprehensive validation of the proposed methodologies.

To facilitate the selection process and ensure transparency, an **invitation form** will be prepared and sent to the identified companies. This document will provide a clear overview of the project's objectives, a detailed list of the partners involved in the meetings along with their affiliations and roles, as well as a description of the expectations for company participation and the benefits foreseen for them. The goal is to give SMEs a clear understanding of the opportunities offered by the initiative and the added value that their participation can generate.

During the selection phase, **priority will be given** to companies that have already participated in **Activity 1.1**, recognizing the work already carried out and leveraging the synergies established in the initial stages of the project. If there are not enough voluntary participants from this group, an **open call** will be launched to allow other interested SMEs to apply. This process will then be followed by a **technical evaluation** to verify the eligibility of applicants based on predefined selection criteria.

The partners responsible for selecting the companies in the different participating countries are as follows: **CEVI for Italy, FFDI for the Czech Republic, CCIS-CAFE for Slovenia, and INNOSKART for Hungary**. The selection process will be conducted using clear and transparent criteria to ensure fairness and balanced representation across regions. Several factors will be considered, including company size—adhering to the EU definition of an SME (fewer than 250 employees and an annual turnover of less than €50 million)—sector eligibility, which requires companies to belong to one of the three targeted sectors, and prior engagement in **Activity 1.1**. In addition, preference will be

given to companies that demonstrate a strong commitment to actively participating in project activities and a clear ability to implement the recommendations emerging from the Technology Transfer Service. Special attention will be given to the **geographical distribution** of selected SMEs to ensure balanced coverage across the project's target regions.

The entire selection process will follow a **structured approach** divided into multiple phases. Initially, each partner will compile a list of potentially suitable SMEs within their respective sectors and geographical areas. This will be followed by the distribution of formal invitations, accompanied by clear and detailed information on the objectives and benefits of participation. Applications received will then undergo an **initial screening** to verify compliance with the selection criteria. If the number of applications is insufficient, a public call for participation will be launched through industry networks and specialized online platforms. A **technical evaluation** will then be conducted to rank applicants based on predefined parameters. Specifically, **COBRO (LIT)** will be responsible for assessing companies in relation to new packaging materials, **CBHU** will evaluate SMEs based on next-generation production processes, while **PROMA** will focus on technological forecasting and sectoral evolution. Once this process is completed, the partners will finalize their selections and formally notify the chosen SMEs.

To encourage SME participation and maximize awareness of the initiative, various engagement strategies will be adopted. In addition to direct email invitations to selected companies, collaborations will be established with industry associations, business support organizations, and sectoral networks. Project updates and announcements will be published on the partners' websites and social media channels, particularly LinkedIn, to reach a wider audience and generate interest among companies in the target sectors. To ensure effective communication, personalized follow-ups will be conducted, including one-on-one meetings or phone calls to address any questions and provide clarifications on the project details.

While inviting the companies, it is essential to ensure the availability of three key roles during the pilot action meeting:

- **Administrative Manager** – needed to address the economic aspects and decision-making drivers.
- **Production Manager** – needed to provide technical insights on packaging processes and feasibility.
- **Quality/Sustainability Manager** – needed to cover regulatory, compliance, and ESG-related considerations.

These representatives are not required to stay for the entire session (maximum 4 hours), but if these roles exist within the company, their participation during relevant parts of the meeting is mandatory to ensure a complete assessment.

The entire selection and engagement process will be structured to guarantee the **active involvement** of selected SMEs, ensuring that each participating company can effectively contribute to the development and enhancement of the Technology Transfer Service. This will not only benefit their own business but will also have a broader impact on the **entire sustainable packaging ecosystem**, fostering innovation and sustainability in the industry.

Output: Selection of 12 SME to be involved in the pilot actions

Deadline: May 2025

2) Collection of company information

The collection and analysis of company-specific data represent a fundamental step in understanding the needs of SMEs regarding production processes and packaging requirements. This activity aims to create a solid foundation for the TTS, ensuring that the scientific partner will be able to select an alternative packaging solution in line with the operational, economic, and regulatory realities of the SME involved.

To achieve this goal, the scientific partners will prepare a **flexible exploratory question outline** designed to gather essential information about production layouts, current packaging materials, and the specific needs of each company. These technical questions, developed by the scientific partners, will be complemented by additional questions prepared by CEVI, focusing on an in-depth risk assessment and supporting the development of a comprehensive SWOT analysis. This combined approach will also ensure that the information collected during the pilot phase can be more easily transferred as structured input for the functional digital tool described in the later phases of this document.

It is important to note that only a selected portion of these preliminary questions will be sent to the companies by e-mail prior to the meeting. The majority of the in-depth questions, including those aimed at risk analysis and SWOT development, will be addressed during the pilot meetings themselves.

The flexible exploratory question outline will be structured with a first preliminary section in which identify the company's profile, including its industry classification, size in terms of employees and revenue, production capacity, geographic location, and target markets. This will provide a contextual understanding of the SME's positioning within its sector, helping to identify specific constraints and opportunities related to packaging solutions.

The first section of the questionnaire will delve deeper into the company's technical, production, and commercial aspects related to packaging.

- Understanding the **production structure** is crucial for identifying potential inefficiencies, bottlenecks, and sustainability considerations. The questionnaire will explore also the current manufacturing methods, the challenges companies face in integrating new packaging solutions, and any existing limitations imposed by their operational setup.

- Additionally, it will assess their packaging **needs** by examining the types of packaging materials currently in use, the company's preferences regarding materials, and any regulatory or compliance requirements that must be considered.
- Another key aspect covered in this section is **innovation and improvement opportunities**. Companies will be asked to indicate their level of interest in adopting new packaging solutions, including their willingness to invest in such changes and any financial constraints that may impact decision-making. To ensure the feasibility of these solutions, the questionnaire will also investigate whether SMEs require technical support or logistical adjustments to implement new packaging systems effectively.
- **Market positioning and competitive dynamics** will also be addressed, as these factors often influence packaging choices. The survey will examine how companies differentiate themselves from competitors, the prevailing market trends in their industry, and the expectations of their customers regarding sustainability and product presentation. This information will help shape the packaging solutions offered by the TTS, ensuring that they are aligned with broader industry trends and business strategies.

The second part of the flexible exploratory question outline will focus on risk assessment related to the adoption of new packaging solutions. The objective is to evaluate whether SMEs have the necessary preventive and control measures in place to mitigate key risks associated with implementing changes in their packaging processes.

- **Economic and financial sustainability risks** will be assessed by analyzing potential increases in costs related to raw materials, machinery, personnel, logistics, and transport services.
- **Organizational and structural risks** will also be considered, particularly the company's dependence on strategic suppliers in high-risk countries, as well as the need for specialized personnel and training programs.
- **Compliance and legal risks** will be examined to ensure that the new packaging solutions meet European and regional regulations. This includes assessing the risk of potential sanctions or reputational damage due to non-compliance and evaluating whether contractual agreements are adequately aligned with the company's updated operational requirements.

To ensure that the data collection process is both efficient and comprehensive, a structured list of guiding questions will be developed. These questions will be designed to balance qualitative insights with quantitative data collection, maintaining flexibility to adapt based on company feedback while aligning with the project's objectives and available solutions.

The selection of appropriate packaging solutions will be closely linked to the findings outlined **in Deliverable 1.2,** which provides an overview of market-available alternatives.

The data collected from SMEs will be systematically cross-referenced with these solutions, allowing the scientific partners to identify the most suitable options for each company. This iterative process will ensure that the final service offering is refined based on real-world constraints and business priorities, incorporating feedback from SME interviews and feasibility assessments.

The drafting of the questionnaire is scheduled for completion by May 2025, allowing sufficient time for internal review before its pilot implementation. The initial testing phase will begin in June 2025 with the 12 SMEs participating in the pilot project. Their feedback will be used to refine and finalize the questionnaire before it is deployed on a larger scale and inserted in the technological tool.

The partners involved in this phase—CEVI, LIT, CBHU, and PROMA—will collaborate closely to ensure the successful execution of the data collection and analysis activities. Their combined expertise will ensure that the process remains methodologically rigorous while also being responsive to the dynamic needs of SMEs. Through this approach, the collected insights will serve as a valuable resource in refining the Technology Transfer Service, ensuring its relevance and impact across various industries and regional contexts.

Output: flexible exploratory question outline

Deadline: May 2025

3) Selection of alternative packaging solutions

The selection of alternative packaging solutions represents a key phase in the test of the Technology Transfer Service with SMEs, supporting them to identify one solution based on the specific needs of each SME. This step is designed to help SMEs identify and adopt innovative, sustainable, and technically feasible packaging solutions that align with their specific operational and market needs.

Based on the previously prepared flexible exploratory question outline and the document on market-available solutions, scientific partners will test the TTS to evaluate its utility and completeness in facilitating the selection of alternative packaging solutions.

The process begins with an **initial assessment**, where SMEs provide insights into their current packaging systems, material preferences, and operational constraints. This phase is essential in understanding the technical and regulatory challenges that could influence the selection of alternative solutions. Scientific partners will conduct online interviews with each SME, using the structured questionnaire to gather qualitative and quantitative data. The information collected will be cross-checked against existing packaging solutions in the market to ensure relevance and applicability.

Following this assessment, **partners will identify up to three packaging alternatives** for each SME. These alternatives will be selected based on multiple criteria, including compatibility with production processes, environmental sustainability, cost-effectiveness,

and ease of adoption. The involvement of various partners will ensure a multidisciplinary approach:

- **LIT** will focus on selecting appropriate packaging materials, emphasizing durability, recyclability, and compliance with sustainability regulations.
- **CBHU** will evaluate processing techniques to verify their alignment with the selected materials, ensuring seamless integration into production workflows.
- **PROMA** will conduct technology forecasting, identifying future trends in packaging innovation to provide SMEs with forward-thinking solutions.

To support this process, a **SWOT analysis** will be used, highlighting the strengths, weaknesses, opportunities, and **potential risks** associated with each option. This will be complemented by a RISK ASSESSMENT framework, allowing SMEs to quantify potential economic, operational, and regulatory risks. The objective is to give SMEs the necessary information to make well-informed decisions, balancing innovation with business feasibility.

To ensure a well-rounded evaluation, SME representatives will play an active role throughout the process. Each SME will designate a technical expert and an administrative representative to participate in interviews and discussions. This dual representation will ensure that both technical feasibility and business considerations are taken into account when selecting a packaging solution.

A product of this phase will be the Sustainability Report, prepared by **PROMA**. This document will provide an in-depth assessment of the environmental impact, economic viability, and regulatory compliance of each selected solution. The report will be essential in helping SMEs understand the broader implications of their packaging choices and align their decisions with long-term sustainability objectives.

The implementation of this activity follows a structured timeline:

1. Initial assessment of SME packaging needs and constraints.
2. Selection of alternative solutions by technical partners.
3. SME interviews and guided discussions, lasting **a maximum of three hours per SME**, to present and refine the selected alternatives.
4. Preparation and delivery of the final report.

Communication to SMEs will follow a predefined schedule:

- Initial questionnaire request e-mail will be sent 10 working days before the scheduled pilot action meeting. This will give SMEs 5 working days to reply, as indicated in the e-mail.
- SMEs will be asked to submit their responses no later than 5 working days before the meeting, providing enough time for the project partners to process and analyze the input.

- Partners will have up to 4-5 working days to elaborate on the answers and prepare for the pilot meeting, recognizing that late or incomplete responses might reduce this preparation time.
- A follow-up e-mail with the summary and next steps will be sent within 5 working days after the pilot action meeting to maintain engagement and ensure clarity on the outcomes and expectations.

Output: 12 interviews with the companies

Deadline: from June 2025 to October 2025

4) Evaluation of pilot test results

The evaluation of the first pilot phase will play a crucial role in refining and optimizing the TTS before its transition into the technological tool. After each interview conducted with SMEs, a systematic assessment will be carried out to identify the strengths and weaknesses of the service provided. This will involve a detailed review of the interactions, with a particular focus on recurring themes and critical areas that require further refinement. Adjustments to the questionnaire and interview approach will be made continuously, ensuring that the process evolves based on direct feedback from the participating companies.

A key element of the evaluation process will be the incorporation of targeted company evaluation questions designed to extract meaningful insights. The 12 SMEs will be specifically asked to assess the strengths and weaknesses of the service, providing recommendations for improvement. Their input will be carefully analyzed to guide the optimization of the TTS, making it more adaptable to the diverse operational and industrial contexts in which it will be applied. To ensure a structured and effective feedback collection process, a decision will be made regarding the most suitable method of data gathering. This will involve an analysis of whether a standardized questionnaire, open-ended questions, or guided feedback sessions would be the most efficient approach. Consideration will be given to the advantages and limitations of structured versus open-ended feedback, with the objective of obtaining actionable insights that can drive meaningful improvements.

The method of feedback collection will be another critical aspect of the evaluation phase. It will determine whether information should be gathered through in-person interviews or via a digital questionnaire sent to SMEs. This decision will take into account the availability and preferences of the participating companies, ensuring maximum flexibility to encourage engagement and obtain high-quality responses. Regardless of the method chosen, the priority will be to create an inclusive and accessible feedback mechanism that facilitates honest and constructive input from SMEs.

The responsibility for collecting and analyzing the evaluation data will be assigned to the scientific partners, who will ensure a rigorous and objective assessment of the information

received. Their role will not only be to synthesize the feedback into key findings but also to translate these insights into concrete improvements in the TTS framework. This means that feedback will not remain static but will be systematically incorporated into the service, enabling iterative refinements as new insights emerge.

To maintain a clear and efficient workflow, specific deadlines will be set for the analysis, refinement, and implementation of feedback-driven improvements.

Output: final version of the TTS validated

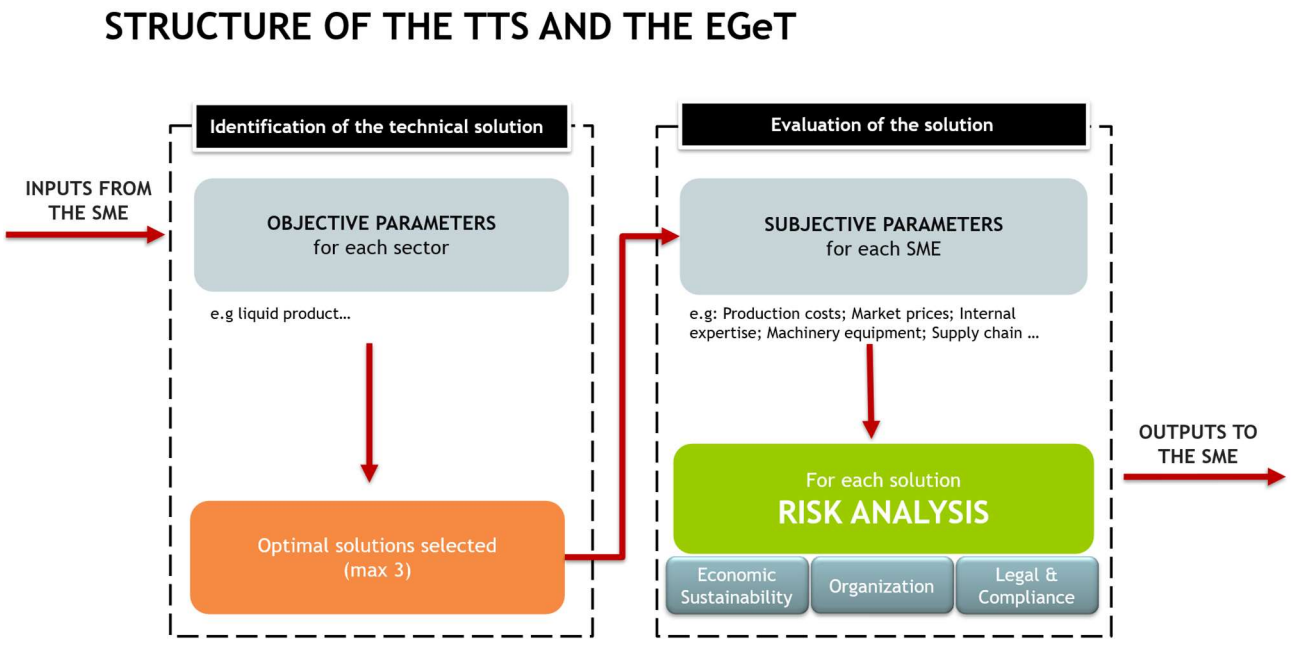
Deadline: November 2025

Phase 2: Development and testing of the EGeT tool with 60 SMEs

The second phase focuses on the development, testing, and refinement of the EGeT technological tool to ensure it is efficient, user-friendly, and economically accessible to SMEs. During this phase, the D4PACK partners will translate the in-person process established in the first phase into a digital platform. The technological tool will replicate the TTS by enabling SMEs to input data, assess alternative packaging solutions, and receive a detailed risk evaluation. Feedback from 60 SMEs will guide iterative improvements to ensure the tool's functionality, usability, and alignment with real-world needs, ultimately supporting SMEs in adopting sustainable packaging practices.

Activities to be carried out

5) Development of the technological tool



The EGeT tool will be structured into two main phases:

1. **Identification of the technical solution**

- The tool collects input from SMEs based on objective parameters specific to their sector (e.g., liquid products for the food sector).
- Based on this input, the tool identifies up to three optimal technical solutions, leveraging existing knowledge on market-available packaging options.

The structure and logic of the tool will be built using the data gathered from the pilot activities, combining the technical insights collected through the scientific partners' questionnaire with the additional risk-related data provided by CEVI. This dual input—covering both technical feasibility and strategic risk factors—will ensure that the tool delivers complete, actionable, and realistic recommendations. The combined questionnaire, developed in the pilot phase, will therefore serve as the blueprint for the digital tool's architecture, making the transition from in-person to digital use seamless and efficient.

2. **Evaluation of the identified solutions**

- Each solution is evaluated using subjective parameters, such as production costs, market prices, internal expertise, and supply chain compatibility.
- A risk analysis is conducted for each solution, focusing on economic sustainability, organizational impact, and legal and compliance considerations.

- The final output to SMEs includes a recommended alternative packaging solution or mitigation measures to reduce implementation risks.

Output: First version of the EGeT ready to be tested

Deadline: December 2025

6) Selection of SMEs for testing

The selection of the 60 SMEs that will participate in the Phase 2 pilot activities will follow a structured and transparent process designed to ensure representation from the three key food sectors: **meat, dairy, and fruit and vegetables**. The methodology will be consistent across the four pilot areas—Italy, Czech Republic, Slovenia, and Hungary—where specific project partners (CEVI, FFDI, CCIS-CAFE, and INNOSKART) will be responsible for outreach, evaluation, and engagement.

The selection process will begin with an open expression of interest, allowing SMEs to apply for participation while ensuring a fair and balanced representation of different food sectors and geographical regions. To maintain consistency and efficiency, the target number of SMEs per country will be predefined and agreed upon by all project partners before the launch of the selection process. This will help streamline the execution and ensure that the distribution of participants aligns with the objectives of the project.

Each partner will play an active role in their respective country, implementing a series of coordinated activities to engage SMEs and facilitate their selection. The responsibilities include conducting outreach through various communication channels, managing the engagement process with interested SMEs, and overseeing the application review and selection phase. Throughout this process, particular attention will be given to achieving a balanced sectoral representation, ensuring that the final group of selected SMEs adequately reflects the diversity of the food industry in their respective regions.

To ensure an inclusive and transparent selection process, SMEs will be invited to participate through an open expression of interest that will involve:

1. **An invitation form**:
    - A clear and concise document describing the project and EGeT, its objectives, and the expected commitment from participating SMEs.
    - Key benefits of participation, such as access to sustainability insights, sector-specific guidance, and the opportunity to shape a tool tailored to their needs.
2. **Promotion and outreach**:
    - In order to maximize SME engagement, multiple tools and strategies will be employed. Direct email campaigns will be used to provide targeted and

personalized invitations to potential participants, highlighting the benefits of involvement in the pilot phase. Webinars will serve as an essential tool for introducing the project, clarifying expectations, and addressing initial questions, ensuring that SMEs have a clear understanding of the objectives and potential outcomes. Additionally, local information events—both in-person and virtual—will offer networking opportunities and allow for a more interactive discussion about the initiative. These events will be strategically organized to reach as many SMEs as possible while addressing region-specific concerns and interests.

Beyond the initial selection phase, project partners will also be responsible for facilitating the onboarding and training of SMEs to ensure their effective participation. Introductory training sessions will be conducted to familiarize participants with the pilot tools, providing them with a practical overview of how to navigate and utilize the EGeT platform. These sessions will be delivered through a combination of online workshops, in-person demonstrations, and dedicated support materials to accommodate different learning preferences and ensure a smooth transition into the pilot phase.

The partners will further refine the communication strategy by tailoring outreach methods to the specific needs of each pilot area.

Dissemination of the letter through industry associations, food sector networks, business chambers, sustainability forums, agri-food fairs and project partners' local networks.

Direct outreach to SMEs that have shown interest in sustainability initiatives.

3. **Technical evaluation and final selection**

After receiving expressions of interest, a technical evaluation will be conducted to ensure that the participating SMEs meet the necessary criteria. The assessment will focus on:

- **Company characteristics** (e.g., size, production processes, existing sustainability practices).
- **Sector alignment** (ensuring participation from meat, dairy, and fruit/vegetable SMEs).
- **Geographical balance** (ensuring a fair distribution across countries).
- **Commitment to the pilot activities**, including willingness to test the tool, provide feedback, and participate in discussions.

Only SMEs that meet the necessary criteria and demonstrate a strong commitment to engaging in the pilot activities will be selected.

Output: 60 companies selected

Deadline: December 2025

7) Tool testing

The selection of SMEs for testing will follow a structured process to ensure that the EGeT tool is thoroughly evaluated in real-world conditions and refined for effective deployment. The objective is to define how the testing phase will be conducted and how feedback will be systematically collected to improve the tool's functionality, usability, and overall impact on SMEs. Two complementary approaches will be employed during the testing phase:

- independent testing, where SMEs will navigate the tool autonomously and provide structured feedback through surveys, and
- guided testing, in which experts will actively support SMEs in using the tool while collecting qualitative insights through direct interaction and observation.

The testing will specifically focus on evaluating both the technical functionality of the tool—reflecting the questionnaire and technical criteria developed by scientific partners—and the integrated risk analysis components designed in collaboration with PwC. This ensures that the tool provides a balanced output, combining technical feasibility with strategic risk assessment and SWOT-based recommendations, mirroring the methodology applied during the pilot meetings.

The preparation phase will involve finalizing the tool to ensure that all key features are functional and ready for testing. This stage will include developing detailed guidelines and instructions for SMEs, preparing structured feedback collection methods such as surveys and interview frameworks, and identifying and confirming the SMEs and experts who will participate in the testing process. Additionally, a clear timeline will be established, and testing sessions will be scheduled while maintaining open communication with participants to ensure smooth implementation.

During the **independent testing phase**, selected SMEs will engage with the EGeT tool on their own, following provided guidelines. A group of SMEs will be given direct access to the EGeT prototype via a dedicated online link. These companies will be invited to:

- Explore the tool independently, navigating its features and functionalities at their own pace.
- Assess usability, relevance, and accuracy, particularly regarding its applicability to their specific industry and sustainability needs.
- Provide structured feedback through surveys, feedback forms, or online reporting mechanisms. Their observations will focus on aspects such as:
- Ease of use and intuitiveness:
    - Clarity and relevance of sustainability recommendations

- Accuracy of the results and guidance provided
- Any difficulties or barriers encountered during use

This method ensures that SMEs with varying levels of experience in sustainability initiatives can test the tool in real-world conditions, simulating its eventual large-scale implementation.

To ensure a more detailed evaluation, another group of SMEs will participate in guided testing sessions with the assistance of scientific partners or sustainability experts. In the guided testing phase, experts will facilitate SME interaction with the tool by providing step-by-step guidance and addressing any immediate questions. These sessions will allow for in-depth qualitative data collection through direct observations and discussions with SMEs. Experts will assess how well the tool aligns with SME needs and expectations, documenting challenges, usability issues, and suggestions for improvement.

These sessions will involve:

- Hands-on demonstrations, where SMEs will be introduced to the tool's functionalities with step-by-step guidance.
- Real-time observation and support, allowing experts to assess how businesses interact with the tool, identify usability challenges, and answer questions immediately.
- Structured feedback collection, where scientific partners will document SMEs' experiences, challenges, and suggestions on an ongoing basis.
- Deep-dive discussions and interviews, allowing for more in-depth qualitative feedback that goes beyond survey responses.
- This assisted testing approach ensures that SMEs receive the necessary support to engage fully with the tool while providing a richer understanding of how different companies use and perceive the platform.

Post-Testing analysis and refinements

Once the testing phase is completed, all collected feedback—both from independent and guided testers—will be analyzed to:

- Identify common usability issues or challenges.
- Assess the effectiveness of the tool's recommendations for various industries.
- Determine any necessary improvements or modifications before the final deployment.
- Optimize the user interface, functionality, and regional adaptability.

By combining independent SME testing with expert-supported sessions, the EGeT tool will be thoroughly refined to ensure it meets the diverse needs of businesses transitioning to greener operations.

Output: Feedback analysis and changes in EGeT

Deadline: May 2026

8) Validation and finalization

The final stage of the EGeT tool development, led by FFDI, focuses on validating and refining the tool to ensure its full functionality and readiness for large-scale implementation. This process follows a structured methodology, incorporating pilot testing, stakeholder engagement, and benchmarking against industry standards. The goal is to optimize the tool based on SME feedback while ensuring that refinements are implemented efficiently and effectively within a well-defined timeline.

To validate and finalize the EgeT tool, a structured approach will be needed to ensure its reliability, effectiveness, and usability for SMEs across different regions and sectors.

1. **Validation process**

   The validation will involve multiple stages:

   - Pilot Testing with SMEs: The tool should be tested with a broader pool of SMEs. This will help assess how well it adapts to different business environments and sustainability needs.
   - Stakeholder Feedback: Engaging industry experts, policymakers, and business support organizations (e.g., chambers of commerce) will provide valuable insights into its functionality and relevance.
   - Benchmarking Against Standards: Comparing EGeT's outputs with established sustainability frameworks ensures compliance and credibility.
   - Technical and Usability Testing: Ensuring that the tool is user-friendly, scalable, and capable of handling data efficiently for a wide range of SME users.

2. **Finalization and readiness for large-scale use**

   To prepare the tool for widespread adoption:

   - Refinement Based on Pilot Results: Any gaps or inefficiencies identified in testing will be addressed to enhance accuracy and user experience.
   - Localization and Adaptation: The tool must be tailored to specific regional regulations, industry-specific sustainability challenges, social and language requirements.
   - Training and Capacity Building: videointerviews demonstrating how to use the tool will be created and published on the project website, ensuring the accessibility of the tool to a wide range of possible users. Factsheets detailing the features and functionalities of the toolwill be sent to the

members of the agrifood business support associations, providing a concise overview of the tool's capabilities

- Partnerships and Endorsements: Collaboration with industry associations, governmental bodies, and sustainability organizations can enhance credibility and promote adoption.
- Ongoing Support and Updates: A system for continuous improvement, technical support, and periodic updates will ensure long-term effectiveness.

Output: Final version of the EGeT

Deadline: May 2025

GANTT

YEAR	2024	2025												2026				
MONTH	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
Engagement and selection of pilot SMEs																		
Collection of company information																		
Selection of alternative packaging solutions																		
Evaluation of pilot test results																		
Development of the technological tool																		
Selection of SMEs for testing																		
Tool testing																		
Validation and finalization																		