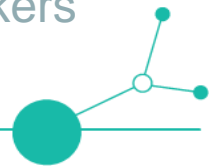


D3.1.1 Methodology for selecting manufacturing technology seekers

A.3.1. Screening and selecting GREENE solution seekers



Date of Report: 20.5.2024

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A. Introduction

A.1 Scope of document

This document provides guidance and concept definition to enable the PPs to deliver A3.1 SCREENING AND SELECTING GREENE 4.0 SOLUTION SEEKERS according to the Application Form (AF). This document is structured to enable each partner to plan and organize the activity as well as to implement them appropriately. Thus, this guidance provides the PPs the following benefits and insights to deliver the Activity 3.1:

- build a common understanding of the objectives of A3.1 and the interlinks with the project
- provide strong and detailed processes to implement A3.1 with focusing on D3.1.1 Methodology for selecting manufacturing solution seekers, and D3.1.2 Selection report (Period 3)
- describe a step-by-step process to report on the activity implemented by each partner

These process steps will be further described in the sections below.

A.2 Audience

This document is addressed to all project partnership members, because all members of the partnership should participate in WP3 ideation and implementation, more specifically A3.1 through this report. It should be considered an internal document.

A.3 Role of WP3

The aim of the WP3 is to create, evaluate, and implement innovative models for smart and environmentally sustainable manufacturing value chains in 7 predefined industry clusters. This will be achieved through the implementation of 3 innovation programs designed to facilitate collaborative solution development between selected manufacturing companies and solution providers.

Within WP3, different tasks from A3.1 to A3.6 play specific roles: A3.1 helps to find and choose companies looking for Greene 4.0 solutions, A3.2 sets up a contest for innovative ideas related to Greene 4.0, A3.3 puts in place Greene 4.0 Innovation Programs to use digital and green solutions effectively, A3.4 pilots and tests new Greene 4.0 value chains, A3.5 brings together and deploys the Greene 4.0 innovation platform, and A3.6 disseminates and shares updates and results of the project.

This document provides guidance and concept definition to enable the PPs to deliver A3.1 Screening and selecting Greene 4.0 solution seekers according to the Application Form (AF). The following diagram presents the plan of activities within Work Package 3:

WP3 GREENE 4.0 INNOVATION PLATFORM

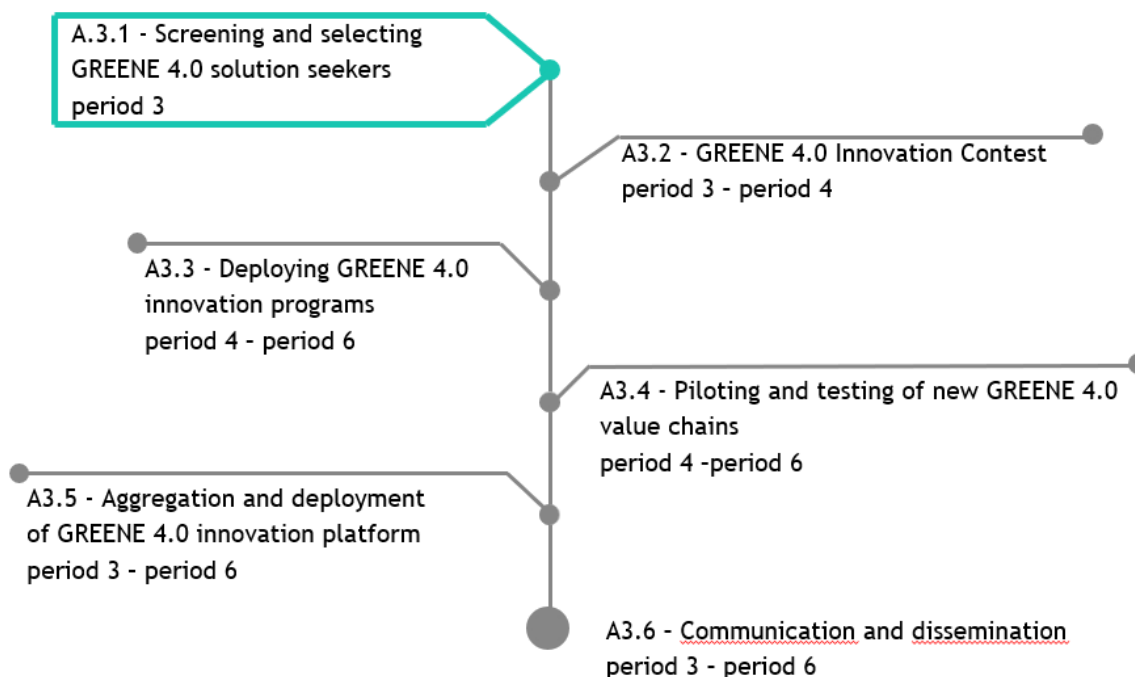


Diagram no. 1. Activities within work package 3

A3.1 Role of Activity 3.1

The objective of Activity 3.1 is to establish and refine the process for selecting manufacturing solution seekers. In each project region, LP, PP2, PP3, PP6, PP7, PP8, and PP9 will take steps to identify these seekers using the developed methodology. From each region, these partners will select 10 manufacturing solution seekers, assess their needs, and categorize them into up to 7 sectorial clusters. Then PP3 will conduct two collaborative seminars to define and detail the Terms of Reference (TORs) for each cluster. This TOR document will support partners in the process of finding solution providers who will be subsequently connected with solution receivers. In the next stage online conference involving all partners to gather feedback on the drafted TORs will be organized by LP. After the conference PP3, PP2, PP7, and PP9 will incorporate this input into the final TORs. The following diagram presents the plan of activity 3.1:

A.3.1. SCREENING AND SELECTING SOLUTION SEEKERS OVERVIEW

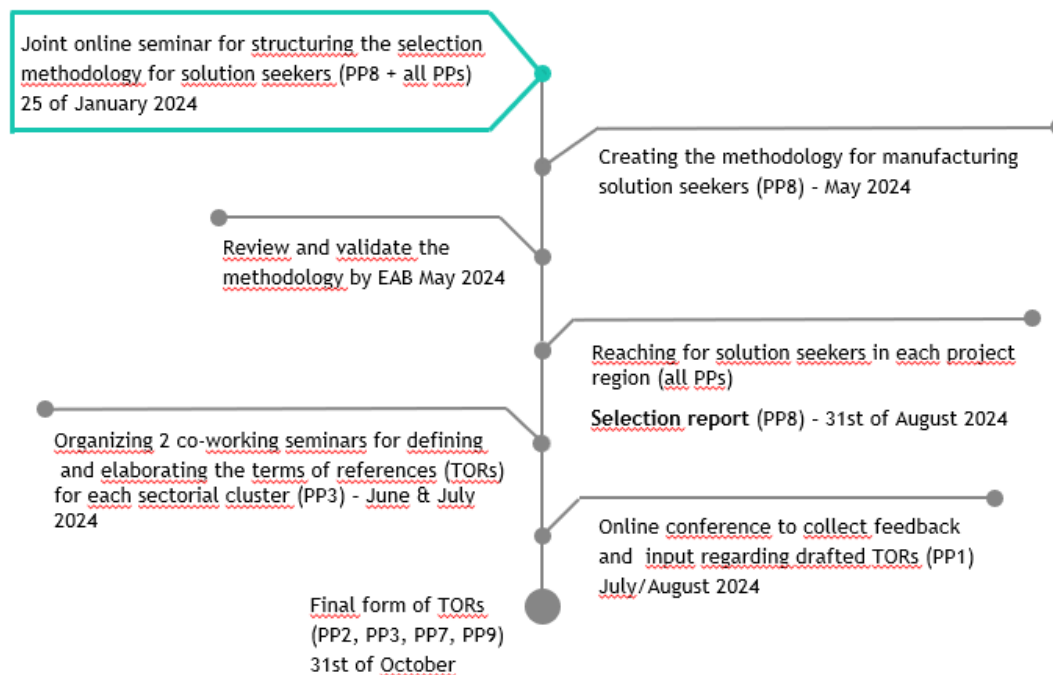


Diagram no. 2. Plan of Activity A.3.1.

A3.2 Deliverables of Activity 3.1

Activity 3.1 yields several key deliverables crucial for the success of the project. These deliverables provide essential frameworks and documentation to guide the selection process and facilitate effective collaboration within the manufacturing sector. In this document we will focus on D3.1.1. and D3.1.2.

D3.1.1. Methodology for selecting manufacturing solution seekers – a guide outlining the process, methods, and criteria used by project partners to select manufacturing solution seekers for smart and green manufacturing (Industry 4.0 innovation). Responsible Partner PP8 with all PPs support, deadline **31st of May 2024**

D3.1.2. Selection report – report summarizing the selection process and naming the 70 manufacturing companies chosen as smart and green manufacturing solution seekers. Responsible partner KPT with all PPs support, deadline **31st of August 2024** (**please note:** the draft of the selection report will be delivered by PP8 in a separate document)

D3.1.3. Sectorial Term of References - a document defining the requirements and conditions that solution providers or developers must meet to fulfill the needs of each sectorial cluster, known as Sectorial Terms of Reference (TORs). Responsible Partner PP3 with all PPs support, deadline **31st of October 2024** (**please note:** the draft of the selection report will be delivered by PP3 in a separate document)

B. GREENE 4.0. Innovation Program

The project takes on a company-centric approach and aims to deliver the targeted solutions to large companies and SMEs as well as to start-ups. Therefore the goal of the activity is to meet the identified needs of selected solution seekers and to design the innovation support package based on them. The process will involve three types of bodies, presented in the graph below:



Diagram no. 3. GREENE 4.0 innovation programs

Technology solution providers act as organizations having concrete solutions (products, services, PSS) to foster the twin transition, namely digital and green transformation, of technology seekers. They will be in different stages of development (in terms of different organisational maturity, as well as – more importantly – in terms of the technology or solution they create). **Please note:** technology solution providers will be selected according to the methodology created by partners under Deliverables D3.1.3 (Sectorial TORs) and will be described in a separate document.

Solution seekers with specific demands, for example for TRL (Technology Readiness Level) selected by partners. The selected manufacturing companies will be described within Selection Report.

GREENE 4.0. Innovation Program acts as intermediary between solution providers and solution seekers. Knowing best innovation environment and potential as well as deficiencies of technology providers it will help to shape the framework of the matchmaking for both startups/SMEs and large companies. According to the Application Form, we estimate the participation of at least 50 manufacturing large enterprises, and 80 SMEs engaged as solution seekers in 3 dedicated innovation programs. Solution seekers with solution providers will participate in the process of developing and scaling up innovative smart and green manufacturing products/solutions in **Transnational Digital Transformation Sites**. Their solutions/technology needs will be used through GREENE 4.0 innovation platform to generate at least 2 smart and green manufacturing new value chain models based on supply-demand co-creation approach in prototyping, business modelling, product development processes applied through innovation programs in 7 pre-defined sectorial manufacturing clusters.

C. Key concepts, methodology, tools

C1. Solution seekers – key characteristics

The key characteristics of the main actors in the innovation program - solution seekers - are outlined below. The identification of their characteristics was made on the basis of interviews with people involved in acceleration programmes on the part of Kraków Technology Park (PP8) - the catalogue was expanded with the conclusions from the online workshop conducted by PP8 on 25 January. The characteristics were assigned to a priority matrix constructed according to the diagram below:

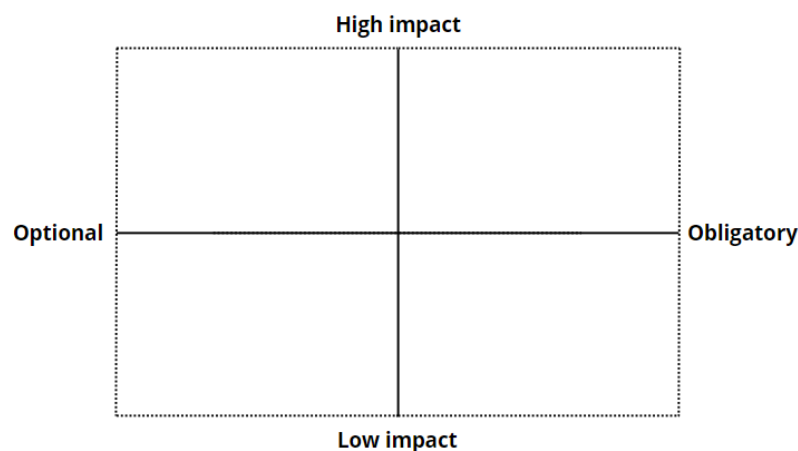


Diagram no. 4. The priority matrix

We take into account those features that have been assigned high importance (the top two boxes of the diagram), dividing them into mandatory and optional.

- **preferred** – most relevant to the process, a company must have them if it is to be included in the innovation programme
- **optional** - their presence increases the chances that a company will be a valuable part of the innovation programme

The following overview is intended to assist project partners in their search for solution seekers:

- **preferred characteristics:**
 - Large and SMEs manufacturing companies (all 7 sectors are welcome)
 - concrete and specific digital or/and green needs or a predefined use case- solution seekers are able to identify specific areas for improvement
 - Ability and ambition to implement the innovation - the solution seeker must have adequate human, organisational and financial resources to implement the new solution. Particularly important is the role of staff responsible for the contact between the solution seeker and the technology donor and their real commitment
 - openness to innovation - readiness to change the existing work model, delivery model, active search for new solutions outside the company structures
 - flexibility of action - understanding that working on new technologies often means working with less experienced business partners and requires quick decisions

- the depth of knowledge in their own field
- **optional characteristics:**
 - previous participation in Greene 4.0 project activities - participation in a survey and/or User Acceptance Model tests
 - long-standing presence in the partner ecosystem - companies already know and have a high degree of trust in the participating institutions
 - openness to interact with supra-regional/international organisations and companies
 - digitalisation/green transformation recognised as a priority in the company's strategy
 - more than 10 employees
 - openness for further joint R&D activities
 - quite high TRL at least 6 TRL level

C.2 Screening and selection process for solution seekers

The following figure captures the various stages of solution seekers selection:

THE STAGES OF THE SCREENING AND SELECTION PROCESS

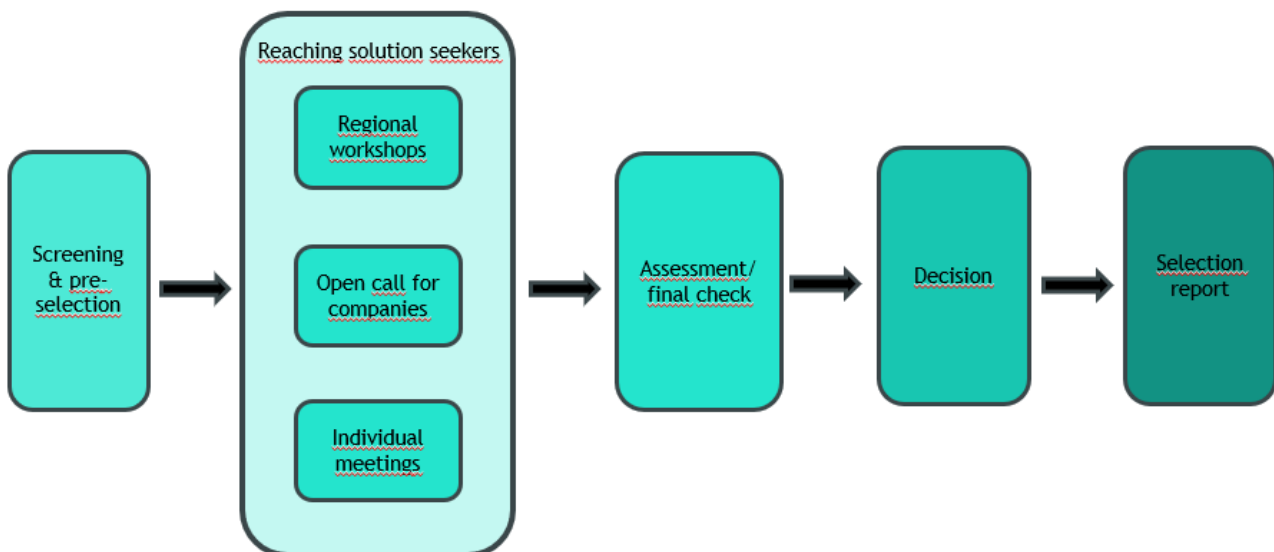


Diagram no. 5. The stages of the screening and section process.

The different stages of this process are understood as follows:

screening and preselection - the phase of searching for potential solution seekers within the partner ecosystem and beyond. Includes activities such as desk research and personal contact with representatives of potentially interested companies meeting criteria described above. **Each partner fills Excel file (attachment #1) placed in dedicated folder (in [Screening and preselection](#)), identifying potential solution seekers. Our recommendation is that each PP will identify minimum 20 solution seekers**

- **reaching solution seekers** - at this stage, partners take steps to make contact with companies. Several methods are available to partners:

- a. conducting regional workshops (hereafter referred to as Open Innovation Workshops). We assume that no more than two workshops will be organised in each region
- b. open call for companies (Partners interested in Open call gather in a meeting and define a one pager for attracting companies to join the Open call).
- c. individual meetings and interviews with company representatives

Partners are free to choose the method(s) they will use - this will allow for better adaptation to local conditions. Methods can also be combined; partners can, for example, organise one workshop and an open call.

- **assessment/final check** - a summary of the experience gained from contact with companies. If necessary, it also includes the collection of additional information about the company, useful for decision-making
- **decision** - selecting 10 solution seekers per region. PPs have to prepare company cards for selected solution seekers. Template is attached as attachment #3 in Annex located here: [Identified Solution Seekers](#). Each solution seeker must have its own company card. We need 10 company cards per PP, 70 in total. PPs upload their company cards to Identified Solution Seekers
- **selection report** - preparation of a report describing the selected solution seekers. PP8 will prepare draft of the report on the basis of company cards provided by PPs. The selection report will be delivered as a separate document.

C.3 Reaching Solution Seekers

This section provides initial knowledge on the ways of reaching companies. Most space was devoted to the description of Open Innovation Workshops – this is the most complex method of acquiring solution seekers. However, PPs are free to use the methods described below as they see fit

In each region, the above-mentioned PPs will select 10 manufacturing solution seekers coming from 3 different sectors/clusters and define each seeker's needs, requests and will group the needs in maximum 7 sectorial clusters.

C3.1 Open Call

PPs have the opportunity make use of an open call for companies to apply as solution seekers. This will take place under the B2GreenHub, an ecosystem built by seven European projects focused on the topic of green and digital transition, including Greene 4.0.

The Open Call aims to attract solution seekers by highlighting the benefits of joining the B2GreenHub ecosystem, specifying the Greene 4.0 target sectors, and providing a short customer journey to facilitate understanding of the process.

PPs will be encouraged to disseminate the Open Call through various channels, including social media (primarily LinkedIn and Facebook but also other platforms), their organizations' websites, other project websites, local partner institutions' social media channels, websites and email outreach, direct outreach, events, and newsletters.

To support these efforts, a promotional kit will be created, containing key messages for social media and websites, including graphic materials. PPs will be asked to report their Open Call communication and dissemination activities in an Excel sheet created for this purpose.

Additionally, the LP will request partners to provide some social media content related to available innovative solutions, infrastructure and experts within their ecosystem, as well as existing tools that can help companies optimize their business and boost their green and digital transition. To ensure consistency, partners will receive templates for preparing their content.

The Open Call will have three cut-off dates, **31st July 2024, 30th September 2024, and 30th June 2025**, to encourage solution seekers to join the ecosystem and its projects promptly.

Solution seekers will apply to the Open Call through Microsoft Forms (link: <https://forms.office.com/e/nxFefx8ecj>), where they will select their associated PP. If the solution seeker does not select an associated PP, the LP will assign an appropriate PP based on the country chosen by the solution seeker in the application form. Subsequently, a Key Account Manager will be designated to the solution seeker to address and process their needs.

C3.2 Individual meetings with companies

Partners may choose to conduct one-to-one interviews with representatives of companies operating within the ecosystem. This method assumes a good knowledge of the local business community and having an extensive base of individual contacts. It can of course be combined with open call announcement. As proof of each meeting, PPs should provide, list of participants, photos or list of meetings conducted.

C3.3 Open Innovation Workshops

This section ensures the consistency between partners who would like to deliver open innovation workshop(s) in their regions. The table below summarise the key insights and information representatives of each PP delivered during the online workshop organized by KPT 25.01.2024 on MIRO. During the online workshop partners were asked four questions. Below we present questions and selected answers provided by participants:

Question #1: What is the goal of the workshops?

Answers:

- To establish first contact and raise attention & attract SMEs
- To kick start a trustworthy relationship and show professionalism and convince SMEs that participating in GREENE project is worthwhile
- To identify common interest and the most tackling issues of solution seekers and to gain more in-depth knowledge about challenges/needs/wishes
- To present the international component of the program/project
- To determine problems encountered by SMEs when looking for digitization solutions
- To present the process of the project to ensure future partnerships
- To define the best solutions in line with SME's practical needs
- To clearly explain the benefits for solution seekers (focus on business value)

Question #2: What are the key elements of the workshops?

Answers:

- Use interactive tools (mentimeter, slido) to gather feedback
- Personal exchange of information
- Time for open discussion/networking between companies including solution providers

- Describing the process of cooperation (matching, single steps, piloting)
- Presentation of the benefits starting from concrete needs of the solution seekers
- To clarify the process of solution seekers involvement/collaboration
- To invite few organisations but aware of their willingness to cooperate (good selection process)
- To clearly articulate the purpose, goals and expected outcomes of the workshop
- To facilitate group discussions to allow for the exchange of ideas and perspective

Question #3: What are the key elements of the GREENE Innovation Programme?

Answers:

- Opportunities to establish new transnational partnerships
- New knowledge on digital and green solutions
- Keep administrative part to a minimum, minimal administration/bureaucracy on company side
- Mentoring and acceleration services/tools
- Access to new solutions
- Test before invest pilots

Question #4: What are the benefits for solution seekers?

Answers:

- professional advisory service
- gaining new knowledge on the future of digital and green D&G and the future competitive advantages
- access to important information for greening and digitizing their business
- networking and knowledge exchange
- test before invest
- better adapted solutions and technologies to their needs
- reducing the cost and time of recruiting new solutions
- collaboration in problem solving (introducing new ideas)

Taking into consideration the above-mentioned insights from project partners we present guidelines below.

C3.3.1 Guidelines to organize the 1st regional open innovation workshop

Objective of the workshop: Conducting a workshop for entrepreneurs (solution seekers) focusing on mapping and prioritizing technological/business challenges for the purpose of seeking innovative solutions from external providers, with a special emphasis on the startup environment or micro, small, and medium-sized enterprises. The first workshop aims to establish first contact/cooperation with the companies, define key business/technological challenges in the participating companies and present benefits and innovation program framework.

Target group: Entrepreneurs (solution seekers) interested in implementing solutions in the green and digital transformation area (e.g., environmental protection, energy efficiency, etc.) with identified needs in this area.

The participants/audience does not have to necessarily be restricted to regional boundaries. It depends on your actual relationships. To have a fruitful workshop, it is suggested to involve around 10 solution seekers, represented by a maximum of 2-3 people from different departments/sections of the company. Each workshop should last maximum of 5 hours. A smaller number of people might not be representative for the region, while too many people might not be able to achieve the workshop goal. However, this is only a suggestion, the number depends on you.

Key elements/insight to develop agenda:

- introduction what has gone on Greene 4.0 project with focusing on presenting benefits for solution seekers
- defining technological/business problems for solution seekers
- transforming problems into technological/business challenges
- prioritizing technological/business challenges defined by solution seekers
- selecting key technological/business challenges for solution seekers and preparing their appropriate descriptions for external communication with providers, especially startups or micro, small, and medium-sized enterprises

Methodology: co-creation workshop with using digital tools or/and paper materials (canvases, post-its, etc.). Workshop activities will include introductory elements for all solution seekers and individual work for them within their own teams. The workshop might be moderated by GREENE 4.0. team or external moderators/trainers. An example of a workshop includes activities such as:

- an overview of companies that inspire and provide role models for workshop participants
- defining and prioritising problems
- turning problems into challenges
- identifying the most important challenges
- introducing participants to sources of knowledge about solution providers (e.g. start-up databases)
- participants seeking solutions on their own, which correspond to the challenges faced by the company

Date and location: the workshop should be organized between June and July 2024. It is suggested to hold it physically, in an informal location to facilitate the brainstorming phase. If it is not possible to physically gather all participants, it can be planned online or using a mixed/hybrid approach.

Report on the Open Innovation Workshop - after implementing 1st open innovation workshop, each PP is asked

- to collect the list of participants and some “facts and figures” of the workshop like for example photos, recording etc
- fill in the template placed in the **Napaka! Vira sklicevanja ni bilo mogoče najti.** as attachment #2 (**Napaka! Vira sklicevanja ni bilo mogoče najti.** innovation workshop located here: [Attachment #2.docx](#))
- send a communication note to Pomurje Technology Park (LP) responsible for the website and to Krakow Technology Park (PP8) responsible for project LinkedIn

Each PP must then upload the materials and filled template to the SharePoint (in the folder WP3 [T3.1.3 Open Innovation Workshops](#) as well as notifying KPT/PP8 and PTP/LP. Note: partners are not obliged to use name “Open Innovation Workshop” in their communication - it is recommended to use a name that is accessible and understandable to potential audiences.

C3.3.2 Guidelines to organize the 2nd regional open innovation workshop

Workshop #2: Depending on the progress in the GREENE 4.0 project, two options/variants are considered:

Option/variant 1: repeating Workshop #1 inviting another/different group of Solution seekers/ Technology Receivers

or

Option/variant 2: involving technology solution providers and creating a basic collaboration model with them and defining the best solutions according to the practical needs of solution seekers/ technology Receivers.

The second workshop will facilitate interactions between entrepreneurs and startups or micro, small, and medium-sized enterprises (solution providers) offering solutions in the green and digital transformation area.

Below we present more detailed methodology for option 2:

Objective of the workshop: organize a meeting for entrepreneurs participating in Workshop #1, including dedicated sessions for collaboration between solution seekers and invited solution providers (startups or micro, small, and medium-sized enterprises). The workshop should involve working in two groups (Solution seekers/Technology Providers) and include matchmaking/networking. Based on the established GREENE 4.0 project assumptions, the workshop should lead to the creation of a basic collaboration model with startups (including foundation, process, goals, resources, metrics, etc.) by leaders designated for open innovation implementations and define the best solutions according to the practical needs of solution seekers.

The expected outcome of the meetings is to develop a collaboration model between entrepreneurs (solution seekers) and startups or micro, small, and medium-sized enterprises (solution providers), along with determining the scope of potential support from the GREENE Partners during the implementation of pilot solutions.

Target group:

- entrepreneurs (solution seekers) interested in implementing solutions in the green and digital transformation area (e.g., environmental protection, energy efficiency, etc.) with identified needs in this area
- startups or micro, small, and medium-sized enterprises (solution providers) promoting or implementing solutions in the green transformation for the industry and wanting to collaborate in workshops with technology receivers

The audience does not have necessarily to be restricted to regional boundaries. It depends on your actual relationships. To have a fruitful workshop, it is suggested to involve around 10 Solution seekers, represented by a maximum of 2-3 people from different departments/sections of the company. Each workshop should last a maximum of 5 hours. A smaller number of people might not be representative for the region, while too many people might not be able to achieve the workshop goal. However, this is only a suggestion, the number depends on you.

Key elements/insight to develop agenda:

- Introduction what has gone on Greene 4.0 project with focusing on presenting benefits for solution seekers, opportunities for technology providers and innovation program framework
- the discussion and creation of a basic collaboration model with technology providers (including foundation, process, goals, resources, metrics, etc.) and define the best solutions according to the practical needs of Solution seekers
- Dedicated sessions for collaboration between Solution seekers and invited Technology Providers (startups or micro, small, and medium-sized enterprises)

- Finalize with a needs exchange – is anyone looking for any specific service, or needs help with anything associated to circularity. Think about how GREENE 4.0 could bring solutions to these identified needs

Methodology: Co-creation workshop with usage of digital tools or/and paper materials (canvases, post-its, etc.). Workshop activities will include introductory elements for all solution seekers and technology providers and individual work for them within their own teams. The workshop might be moderated by GREENE 4.0. team or external moderators/trainers.

Date and location: The workshop must be organized between June and July 2024. It is suggested to hold it physically, in an informal location to facilitate the brainstorming phase. If it is not possible to physically gather all participants, it can be planned online or using a mixed/hybrid approach.

Report on the Open Innovation Workshop - after implementing 2nd open innovation workshop, each PP is asked

- to collect the list of participants and some “facts and figures” of the workshop like for example photos, recording etc
- fill in the template placed in the **Napaka! Vira sklicevanja ni bilo mogoče najti.** as attachment #2 (**Napaka! Vira sklicevanja ni bilo mogoče najti.** innovation workshop [Attachment #2.docx](#))
- inform and send a report or any other communication note to Pomurje Technology Park (LP) responsible for the website and to Krakow Technology Park (PP8) responsible for project LinkedIn
- to upload the materials and filled template to SharePoint ([Open Innovation Workshops](#)) as well as notifying KPT/PP8 and PTP/LP

C.4 Summary

Graphics below summarizes whole process:

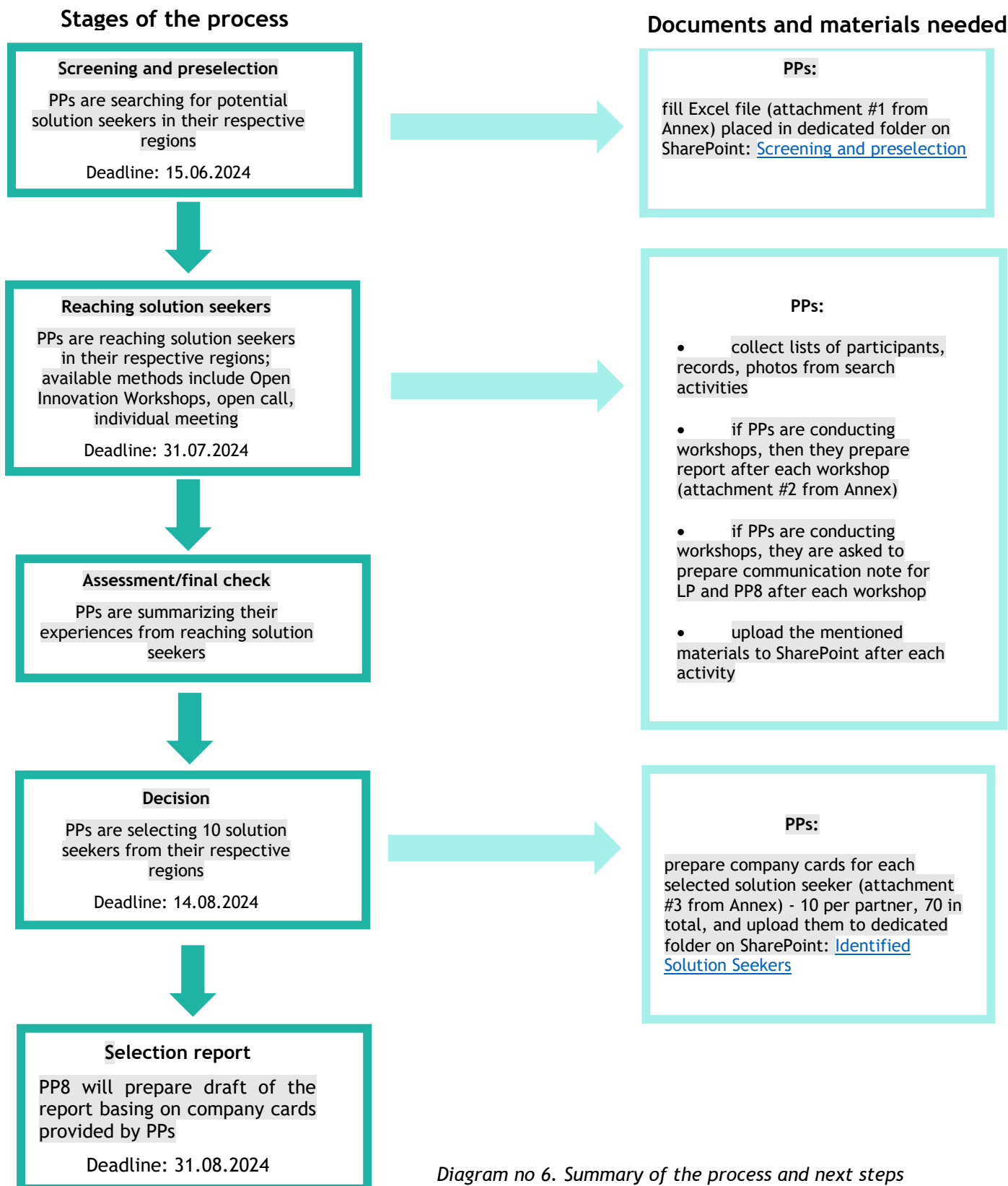


Diagram no 6. Summary of the process and next steps

Attachment #2

GREENE 4.0

Template to report on the regional Open Innovation Workshops. The following template should be filled in for each workshop hosted by the partners

Date of workshop			
PP name			
Location (offline/online)			
Title of the event			
Summary report	Description of the scope of the workshop		
	Description of the achievements of the workshop		
	Decisions, follow up actions		
Participants	Category	Present at the event (number)	Organisations' names
	SME (Solution Seekers)		
	Large Enterprises (Solution Seekers)		
	Startups, SME (technology providers)		
	Local public authority		
	Regional public authority		
	National public authority		
	Higher education and research organisations		
	Business support organisation		
	Other		
	Total number of individuals		
Promotion	Event promoted	Greene 4.0 project website (yes/no)	
		Partner own website (yes/no)	
		LinkedIn Greene 4.0 (yes/no)	
		Other (yes/no)	
	Event not promoted	Explain why (i.e. other topics confidential etc.), or Direct invitation	
Attachments to the present targeted event report	Possible attachments	Tick	Compulsory / recommended / voluntary
	Signature sheet/ List of participants		Mandatory
	Photos/prt screens if online		Mandatory
	Agenda		Recommended
	Proceedings / ppt		Recommended

Attachment #3

Company card template

Company's name	
Company's size (SME/Large)	
Contact person (name and last name, e-mail, telephone number, website)	
Country	
Sector	
Brief description of business/main product/TRL level etc. (max 500 characters)	
Identified issues/defining technological/business problems for solution seekers	

Attachment #4

Open Call <https://lnkd.in/dAmdreJz>.