



GREENSMARTMED

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GREENSMARTMED: Green and Resilient European Excellence Network for Smart MED SMEs

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PROJECT PARTNERS

University of Bergamo (Italy) • Eurecat Foundation (Spain) • Centre for Research and Technology Hellas (Greece) • Regional Development Fund of Western Macedonia (Greece) • Stara Zagora Regional Economic Development Agency (Bulgaria) • University Consortium for Industrial and Management Economics (Italy) • Polymeris (France) • Lombardy Intelligent Factory Association (Italy) • Confederation of the Textile Industry (Spain) • University Claude Vernard Lyon

The GREENSMARTMED methodology represents an integration and upgrade of different methodologies, and related toolkit, of GREENOMED and FinMED projects, already financed and implemented in the frame of the Interreg Euro-MED programme, leveraging the GREEN GROWTH community as well.

This methodology aims at enhancing transregional cooperation among the 4helix stakeholders in different Regions to create a European community able to uptake innovations for a green and resilient manufacturing, helping SMEs to turn sustainability challenges into opportunities and establish sustainable business development opportunities. Based on the Research and Innovation Smart Specialization Strategies (RIS3), the DG REGIO instrument to analyse and strengthen the productive sectors of the EU regions, the **target sectors of GREENSMARTMED project** are:

- **Machinery;**
- **Textile;**
- **Plastics;**
- **Agri-food;**
- **Mobility&Batteries.**

The GREENSMARTMED methodology, validated after being tested in the 5 Regions of the project, is divided in 9 steps. A toolkit has been also developed to support its implementation, addressing specific phases of the methodology. These tools serve as a minimum standard and can be adjusted based on regional needs. The toolkit differs between general tools and content tools. They facilitate analysis, collaboration, and alignment with regional and EU objectives, fostering innovation and green transitions in the manufacturing sector.

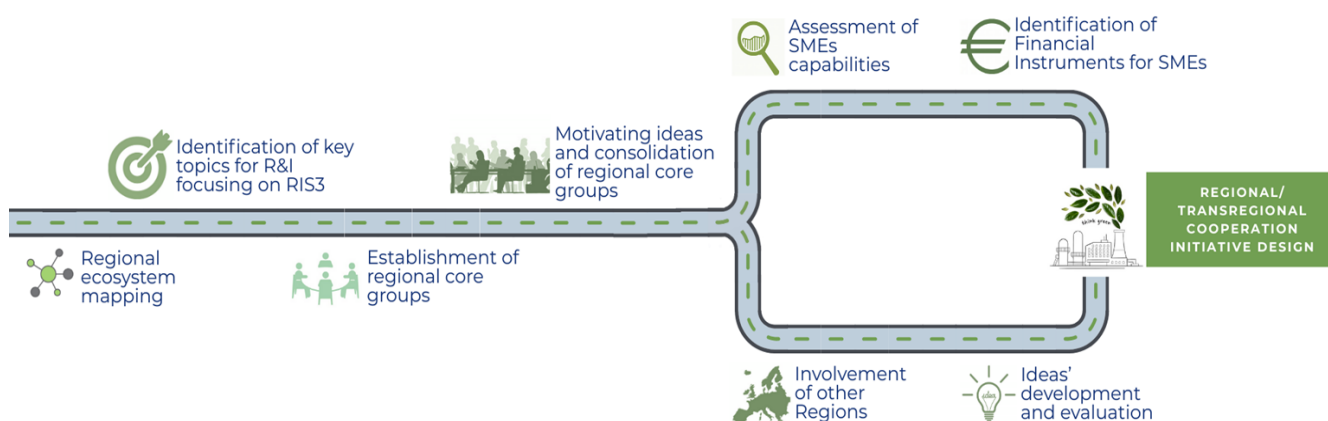


Figure 1: GREENSMARTMED Methodology

1. Regional ecosystem mapping

Step description

The first step of the methodology is the identification of the players and topics which are particularly sensitive to the target territories. To do so, the first step is to carry out a **regional ecosystem mapping**, which aims to define the key actors in each target territory, explaining their needs and interests in the project topics, with the idea of being potentially involved. The mapping allows to define the criteria for participant identification. In fact, identifying the stakeholders at the regional level allows for the preliminary definition of both the themes to be addressed and the stakeholders to be involved, particularly in the creation of the core groups.

Tool: Stakeholder's Map Template

To support this phase a Stakeholder's Map Template has been created.

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Figure 2: Stakeholders' Map Template

As shown in the picture above, the template distinguishes the **key actors** as follows:

- **Industrial Manufacturing Companies;**
- **Policy Makers;**
- **Intermediaries and Business Support Organizations;**
- **Higher Education Institutions and Research Centers.**

Identifying the key actors, topics and regional priorities, which must be pursued during the activities of the working groups, the mapping, together with its correct fulfilment and implementation by the project partners, represents a preliminary and crucial step

for the overall methodology, and is integrated by the identification of the RIS3 priorities in each target territory.

Fields containing personal or potentially sensitive information (e.g. names and contact details) are flagged as intended for internal stakeholder management only. These flagged fields may be removed or anonymised before the stakeholder mapping is shared with other project partners or external audiences.

Prioritisation rubric and cross-helix field (P1-2)

Each stakeholder record includes:

- Priority level — from low priority to high strategic relevance, to help partners focus engagement on the most relevant actors.
- Supporting 1–5 scores — willingness to be engaged, capacity to implement the project methodology, and level of collaboration with industry — giving the priority rating an evidence basis.
- Additional Quadruple-Helix role — capturing actors who belong to more than one helix (e.g. a university that also acts as a business-support organisation).
- Value-chain position — recording where each actor sits in the value chain. This field feeds the Value Chain Mapping Template (Step 2) and the transregional match briefs (Step 5).

2. Identification of key topics for R&I focusing on RIS3

Step description

The second step of the methodology concerns **the identification of key topics for R&I focusing on RIS3**. Each region has its own defined objectives and priorities at the regional and/or national level in the RIS3, as shown in the [S3 Observatory](#), a public website developed by DG Regio where all the different strategies, and monitoring data, are collected.

These strategies have been introduced at the European level starting from the 2014-2020 cohesion policy, as an ex-ante conditionality to access European funding. It is therefore essential that **each project partner involved, for the establishment of the regional working groups, is familiar with their reference strategies**, in order to establish a direct link between the needs and interests of the stakeholders involved in the mapping phase and the objectives and priorities of the regional or national authorities.

Tool: RIS3 table

To help the project partners in the identification of key priorities in their respective RIS3, the toolkit includes a RIS3 table.

S3 - TARGET TERRITORY (EX. LOMBARDY REGION) – PROJECT PARTNER (EX. AFIL)		
S3 PRIORITY	DESCRIPTION	POSSIBLE SOLUTIONS
New methods, tools, and technologies for industrial design, co-design, and interaction with the end-user	Industrial design is a key focus of Lombardy Region. In particular, the manufacturing context is characterized by high value-added, flexible, and customized productions that require special attention to customer requests and a strong interaction from the design phase and throughout the entire lifecycle, also to gather information from the product/component usage phase, as well as from the end-of-life phase.	Resources and infrastructures that can make creative design more accessible and effective (e.g. makers), as well as approaches of open innovation and methods capable of providing 'remote' and immersive experiences

Figure 3: RIS3 Table

Having identified the key stakeholders and the topics to tackle, it is now possible to set up the regional working groups.

3. Establishment of regional core groups

Step description

The third step of the methodology foresees the **establishment of regional core groups**, which will focus on the key topics previously identified through the mapping and the analysis of the respective RIS3. The core groups cannot focus only on the companies perspectives and their needs, but, according to the principle of involving the 4-helix stakeholders, in line with the general criteria of RIS3, **research institutions, BSOs, and support entities must be included in the definition of the working group as well.**

Tool: guideline for the creation of regional core groups

The tool to support this phase are a set of guidelines for the creation of the regional core groups explaining how to actively these players in the working groups activities.

Guideline 1:

The core group should reflect the skills and resources present in the target territories, including at least three categories:

- **Industrial stakeholders**, such as producers, service providers, IT companies, etc., which are involved in the production, supply, and distribution of goods, as well as those providing raw materials, components, equipment, and services that support manufacturing processes;
- **Higher Education Institutions and Research Centers**, which will provide technological support to industrial stakeholders, under the coordination of the Business Support Organizations;

- **Business Support Organizations**, which will implement the methodology developed and enable the systematic identification and exploitation of synergies with other Mediterranean regions. They will be the recipients of the training activities related to the methodology and its related toolkit, and will be responsible for transferring results to other business support organizations and policymakers.

The combination of all the three categories will represent the full manufacturing value-chain, following a holistic approach. Consequently, excluding one of these categories would jeopardize the success of the working group's activities and put at risk the development of synergic and innovative ideas for a green and sustainable transition in the manufacturing sector.

Guideline 2:

On the other hand, it is recommended that project partners contact the target policymakers at this stage, to anticipate the objectives of the working groups, which are in line with the national and regional RIS3, and highlight the definition of innovative solutions that could be included in the project design phase.

Guideline 3:

The Stakeholders Map represents a starting point for the identification of individual stakeholders. However, **the mapping must be supported by ongoing research of future participants**, through the contacts already reached during the mapping phase, because they can have further suggestions on which entity could be interested to the initiative. Furthermore, the project partners, thanks to their experience with European projects, can help each other with integrating the working groups' member list.

Guideline 4:

Moreover, the analysis must not stop with the definition of the working groups. Indeed, those stakeholders not initially included may be involved later on in the working group sessions, thus expanding the relevance and impact of the effects in the target territories, in order to replicate this model in other regions.

Guideline 5:

Once the working group is established, **it is important to set how the working group should be held**. This aspect is very important, as a good combination of in-person and remote meetings must be provided. Indeed, the provision of only one typology of meeting could be feasible for a good participation of the stakeholders (in the case of in-person meetings), or would not be sufficient for the organization of the activities in the proper way (in the case of online meetings). The typology of meeting depends on the scope of it and from the output the organizer wants to reach. To this end, it is highly recommended that the meetings are provisionally scheduled, with preferably one

meeting per month, during the preparation phase, according to the Testing Plan timeline as well.

Guideline 6:

As abovementioned, the core groups must have specific objectives, which are common for each target country, that are:

- **Training:** during the meetings, the participants should be involved in upskilling and re-skilling activities, as the green manufacturing involves not only technical aspects, but covers a social, economic and political dimension. Therefore, specific thematic events, workshops, matchmaking sessions should be organized, to help prioritizing the main themes already underlined in the respective RIS3. It is also recommended that the participants are involved in external meetings attended by the project partners on the project's relevant topics, to strengthen their knowledge, to expand their network of contacts and to make them more aware of the project's benefits.
- **Innovation:** during the meetings, the participants must be invited to discuss about the current challenges of the transition of the manufacturing sector to a greener, more sustainable and more resilient way. To facilitate the discussion, the project partners can invite during the meetings innovators and/or innovative technology providers, to share best practices with the working groups' members. To this aim, the project partners must prepare and share the agenda of the meetings, leaving open the possibility to the participants to present an own innovative idea or solution, in line with the topic of the meeting and, more generally, to the project's goals.
- **Project Management:** during the meetings, successful project experiences can be presented. As well, the organizers can underline the financing opportunities currently available, especially Regional, National and EU calls open for submissions.

Guideline 7:

These criteria must not follow a chronological nor hierarchical structure. Indeed, these factors can be touched following different timelines for each region, depending on the level of maturity of the working group itself. Furthermore, the activities require a dynamic approach by the organizers, as different activities require an ongoing analysis, with constant review, of the scenario at the regional, national and European level.

Tool: collaborative workshop guidelines

This tool refers to the organization of a workshop during the working groups meetings. The workshop would help defining the objectives of the working groups, in line with the respective RIS3 for each target territory. In this sense, the

tool highlights the steps to be held for its successful implementation. The workshop needs some preliminary steps:

- Focus on Clear Goals: make sure that everyone understands the purpose of the session.
- Open Communication: Make the participants feel free to share their ideas, all contributions are valuable.
- Embrace Feedback and Adapt: The discussion can introduce new needs, challenges and opportunities, therefore the initial goals can be re-adapted.

Based on its structure, the workshop would be preferably presented during the in-person meetings, but it can be reproduced also during the remote meetings.

Workshop setting:

As first step, the workshop requires the presence of a moderator, who will introduce himself/herself to the group and ensure that all participants have the necessary materials for the workshop, such as a big white paper (at least A3 size), post-it notes, pens, and stickers.

Once you've ensured that everyone is equipped, you can proceed by starting a "Tour-de-table" where each participant will briefly introduce themselves. Ask them to state their name, position, and organization, making sure to limit each introduction to one minute to keep the pace flowing.

After the introductions, you'll introduce the topic that the participants, divided in 3 groups, will focus on. There are three main areas to explore:

1. NEEDS: The goal is to gather information on the needs and challenges that stakeholders are facing, which could potentially be addressed with the support of the regional core groups. This will help identify the key issues that need to be solved.
2. SUCCESS FACTORS OF THE CORE GROUPS: Information gathered here will assist in shaping the sector across various dimensions. Understanding what the key-factors for the development of the sector are will be crucial in defining the core groups priorities and objectives.
3. AWARENESS AND PROMOTION STRATEGY: The feedback from this session will help to design the tools and actions required to effectively engage and communicate with different stakeholders, including the public community. It will help in identifying the best way to reach out and promote the core groups outputs and expand their effects in other regions for a future replication.

Once you've set the stage, ask the participants to start filling in their post-it notes. They should focus on one idea per post-it and address each of the three pillars linked to the target sector. Encourage them to write as many ideas as possible, even if they might seem outlandish or unrealistic. It's important to create an environment where creativity is fostered, and out-of-the-box thinking is encouraged.

You can guide the participants with a few questions to stimulate their ideas:

NEEDS:

- In your opinion, what does the ecosystem need?
- What problems do you face in your daily activities?
- Are there any gaps or unmet needs that current solutions don't address?

SUCCESS FACTORS OF THE CORE GROUPS:

- What outcomes would you expect from the regional core groups?
- What would make being part of the core groups more efficient or enjoyable?
- How could the core groups' activities and results impact your day-to-day tasks or workflow?

AWARENESS AND PROMOTION STRATEGY:

- Which actions are appealing to you?
- How do you prefer to be reached out?
- Which communication channels do you use the most?

Assessment of the results

As final step, the process will focus on assessing the ideas. The participants will be asked to rate the ideas (written on post-its). Each participant will receive dot stickers, and they can place up to two stickers per post-it, indicating their agreement or preference for the ideas they find most valuable. To rate the ideas expressed through the post-its, the participants can put two stickers if they strongly agree with the idea, one sticker if they agree; if they do not put stickers, it means that they do not agree or they believe that the idea is not relevant enough.

If they have a new idea that hasn't been addressed yet, they can add it to the post-its as well.

Finally, as the session is coming to an end, the moderator needs to summarize the key points and findings from the co-creation panel. This summary should include:

- A commentary on the post-its that received the most votes, providing insight into the ideas that resonated most with the group.
- A mention of any outlier ideas that were less conventional but still noteworthy.
- If there was any significant debate or discussion, highlight the key topic or issue that sparked interest.
- Address any other points that arose during the session that might be useful for all attendees to consider.

By the end of the session, you will have a clear picture of the stakeholders' needs, success factors, and strategies for awareness and promotion that can guide the ongoing activities of the regional core groups

Tool: Facilitator Role, Checklist, Cross-sectoral Facilitation Menu

Pre-session: review SME onboarding files to identify shared bottlenecks; design a dedicated end-of-session time-block for the Action Plan (Step 4); prepare physical or digital workspaces.

In-session: log participation across the Quadruple Helix; actively bridge cross-sector discussions; walk SMEs through the Action Plan template so nobody leaves with a blank form.

Post-session: send a wrap-up next-step email within 48 hours; issue the Opportunity Pack within 5 business days.

When a core group bridges multiple industrial sectors, active facilitation is required:

- Identify circular intersection points — structure discussion around shared systemic needs (e.g. sustainable packaging, industrial energy efficiency) rather than sector-specific issues.
- Establish a common language — avoid sector jargon in plenary; use neutral Green-Manufacturing / Circular-Economy terminology.
- Structured sub-groups — allocate ~50% of workshop time to mixed-sector breakout tables on a single shared regional challenge.

- Identify comprehensive opportunities — scout events, calls and topics addressing cross-cutting macro-themes rather than single-sector initiatives.

Tool: Minimum SME Support Package

To reduce regional discrepancies in support satisfaction, every facilitating entity delivers a baseline of support to each participating SME during a core-group cycle:

- Pre-engagement / onboarding meeting (with matchmaking introduction) — as above.

A single individual meeting is held with each SME before its first collective session, combining the pre-engagement and onboarding purposes. Format: one-to-one, online or in person, 30–45 minutes.

- Set the context (≈10 min) — introduce the project and the regional value-chain focus.
 - Walk through the SME assessment tool (≈15 min) — explain what data is needed and how the results reveal the SME's green and smart gaps.
 - Highlight concrete business benefits (≈10 min) — funding (RIS3, Eurostars, etc.), strategic partnerships, technical knowledge.
 - Secure commitment and next steps (≈5 min) — confirm attendance at the first co-creation workshop; the SME arrives already contextualised, not starting from scratch.
 - Two opportunity packs per cycle — tailored updates after sessions, each detailing at least two relevant funding calls, open innovations or regional growth initiatives matching the SME's mapped needs.
- Action Plan review — an optional, SME-owned closing check-in on the 30/60/90-day Action Plan (Step 4). The facilitator offers and runs the review; the depth of commitment and any sign-off remain at the SME's discretion, in line with the toolkit principle that tools are a minimum standard adjustable to regional needs.
 - Facilitator verification checklist — the facilitator records completion of onboarding, opportunity packs, matchmaking introduction and (where taken up) the Action Plan review, for consistency across regions.

Tool: Expanded Modular Facilitation Menu

A menu of proven facilitation modules that partners can select from depending on the workshop objective:

- Module A — Digital engagement & problem-framing (Mentimeter live polling + Problem-Framing Wheel) for early-stage consensus on regional challenges.
- Module B — Financial instrument (targeted EU-call briefings, subsidies matrix, European calls template) for advanced sessions where SMEs are ready to form consortia; links to the transregional matchmaking mechanism (Step 5).
- Module C — Industrial peer-learning site visits (host-facility profile + tech demonstration) to build trust and reduce technological scepticism.
- Module D — Smart Specialisation (RIS3) strategic canvas (regional priorities mapping + RIS3 table) to align challenges with official priorities and inform policymakers.
- Module E — Expert-led training & needs alignment — a short in-workshop capacity-building slot (pre-session needs assessment, then a 30-minute targeted expert intervention). Module E is the in-workshop instance of the capacity-building framework described immediately below (P3-3).

Tool: Capacity Building Micro-sessions

An optional tool to close a knowledge gap — in ESG concepts, innovation methods or digital skills — that can hold a core group back, common in transition regions and less-mature ecosystems. A micro-session follows three steps:

- Topic — pick from what the core group wants (a quick poll or open question at an early meeting); never impose a curriculum.
- Deliverer — source from the quadruple-helix network (a university, business-support body, technology centre, or a peer company already doing it well); the facilitator need not be the expert.
- Format — short and applied (1–2 hours, not a course), tied to a live core-group challenge and usable immediately.

Used at the facilitator's discretion, when a knowledge gap is blocking participation rather than merely when convenient.

Worked example — AI / digital-skills session (SZREDA pilot): SZREDA's core-group SMEs expressed interest in AI and digital tools, so a dedicated session was run during the workshop phase instead of generic training. It closed a digital-skills gap holding SMEs back from innovation opportunities and aligned the group with the EU green-and-digital transition agenda

4. Motivating ideas and consolidation of regional core groups

Step description

The fourth step of the methodology consists of **motivating ideas and consolidation of the regional core groups**. The idea is that the regional core groups have not only to be constituted, but they also have to be effective. In fact, starting from the common needs, the working groups have to identify their common interests, and translate them into operational solutions to be implemented in their target territory of reference.

The participants involved will interact and engage with the stakeholders for a proper discussion, around hot topics of the manufacturing sector, particularly the green transition and how to turn the sustainability challenge into an opportunity.

As mentioned before, the working groups must have 3 minimum objectives:

- **Training**, meaning the involvement of the stakeholders in upskilling and re-skilling activities;
- **Innovation**, meaning the sharing of best practices for enhancing the transition of the manufacturing sector to a greener, more sustainable and more resilient way;
- **Project Management**, meaning the presentation of projects experiences and funding opportunities.

These must be seen as the minimum requirements to reach. In fact, the working groups activities must have a dynamic view, as the aim is to be able to continue their activities even after the project's conclusion. Therefore, **every regional core group must continuously update their ideas and their strategies, in order to be seen as a key actor and a strong focal point in the target regions**, collecting all the needs, perspectives and opportunities in the medium-long term. Consequently, there are 3 following steps which can support the consolidation of the working groups:

- **Monitoring and Evaluation of the working group activities:** the organizers must track of the working groups activities, taking notes of the outputs and the KPIs achieved.
- **Involvement of the public authorities at regional, national or European level:** as mentioned in the previous paragraphs, the public authorities can support the working groups' initiative, as the topics of interest are already represented in the RIS3 for enhancing and strengthening the manufacturing sector, with the aim of boosting the transition to a more sustainable and greener value-chain. Moreover, the participation of the public authorities opens the possibility of underlining the priorities, needs and opportunities of the target sectors, beginning a useful dialogue with the policy makers which could potentially support the strategic vision. Additionally, the involvement of the public authorities could facilitate the integration of additional stakeholders to the working groups.
- **Definition and update of the action plan:** the organizers should set an action plan of the working groups to assess their achievement in an easier way. However, the action plan should provide also medium-long term objectives, which refer to the specific context of reference.

Tools

At the close of a core-group cycle or a collaborative workshop, the facilitator uses a short Action Plan template to turn the session's ideas into concrete next steps for each SME. It is a recommended closing step for implementers who want more of their ideation to convert into action, and one template serves both closing points (core-group cycle and workshop).

For each SME it captures: one or two priority challenges; two or three relevant calls or opportunities; suggested partners; SME and facilitator contacts; and a 30/60/90-day plan of next steps with owners.

It is completed jointly: the facilitator leads the structure — walking the SME through each field and connecting challenges to calls and partners — while the SME provides the content and keeps the plan. This prevents blank forms where SMEs are hesitant or short on time, while keeping ownership of the commitments with the SME.

5. Involvement of other regions

Step description

The fifth step of GREENSMARTMED methodology concerns the **involvement of other regions** in the definition and implementation of the ideas which came out from the regional core groups established in the target territories.

This methodology step would include both:

- **Target regions where other regional core groups are operating under the supervision of other project partners:** the link between the different regional core groups created is crucial, because it will be possible to compare the target sectors, the topics of interest and the ideas which came out from the groups' activities. This phase is crucial to identify what are the different priorities for each target territory and what are the possible innovative solutions. Furthermore, if the target regions present similar topics of interest or ideas, the project partners can work together to develop a transregional idea, which can be translated into a transregional project in the final design phase.
- **Nearest regions not initially involved:** other stakeholders should be included and involved in the definition of the innovative ideas, which can be modified after further discussion with these players. Furthermore, these stakeholders can potentially be included in the working groups too, in order to expand the positive effects and attract consequently other contacts; this point would strengthen the position of the regional core groups, looking forward to the project's conclusion.

Tool

No tool was created for this step in the original methodology. During the fine-tuning of the methodology (Activity 2.3), two partner contributions were prepared for this step —

EURECAT's value-chain mapping approach and RDF's transregional matchmaking mechanism. As these are proposed directions rather than validated tools, they are offered as a recommendation rather than as part of the core methodology, and have been consolidated into a single standalone companion document: "Transregional Matchmaking — A Practical Guide for Facilitators."

The guide combines the two contributions into one practical, repeatable routine that a project manager or facilitator can follow after each regional core-group cycle to strengthen the involvement of other regions:

Map the value chain around a regional challenge, using EURECAT's Porter-based canvas, and identify which stages are strong (what the region can offer) and which are weak or absent (what it needs from another region);

Write a short match brief for each cross-regional need — the opportunity or problem, the type of partner sought, the relevant value-chain position, the benefit for the SME, and a possible funding or cooperation route;

Classify each brief by a bridge type (technology-to-application, waste-to-resource, supplier-to-user, research-to-industry, testing-and-validation, market-access, or funding-consortium), so that matches are made on value-chain complementarity rather than on sector similarity;

Record the briefs in a shared matchmaking log, so facilitators across regions work from the same picture and can track needs, available capabilities, proposed matches, responsible partners, status and next steps.

The guide is a recommended, optional resource: it is not mandatory and can be adapted to regional needs. Its purpose is to give this step — identified in the testing phase as the one most in need of strengthening — a concrete and trackable working method, while the validated cross-regional reference material of the methodology is preserved unchanged.

6. Ideas' development and evaluation

Step description

The sixth step of GREENSMARTMED methodology is the **ideas' development and evaluation**, concerning the monitoring and assessment phase of the innovative ideas elaborated by the regional core groups.

The assessment phase should be conducted by the project partners in charge of the respective working groups, and must be presented to specific meetings conducted in this sense.

The evaluation process is the preliminary step before the design of the project idea. However, only the content and technical part of the innovative idea has to be assessed, excluding the economic and financial sustainability of the idea. This last part will be specifically addressed into the next methodology steps, as it refers particularly to the assessment of SMEs and the identification of the most suitable financial instruments for the development of the project idea.

7. Assessment of SMEs capabilities

Step description

The seventh step of the GREENSMARTMED methodology refers to the **assessment of SMEs capabilities**, particularly their R&I skills and capacities. In fact, it is crucial to assess the SME maturity level, to understand if these entities can develop and implement the innovative ideas which came out from the regional core groups.

The SMEs have a specific assessment phase because they **represent the most vulnerable target group in the manufacturing sector**, concerning the transition to a greener and more resilient value-chain production. Indeed, the economic and financial costs, together with the organizational and internal structure, are a key challenge for these entities to struggle with. Therefore, it is essential to evaluate their maturity level, in order to define the best financial solution for their needs, as they will be directly involved in the deployment of the innovative ideas during the project design and implementation phases.

For a proper assessment, the project provides two specific tools, the explanation of which will be deepened in the next chapter:

- The **KTH Innovation Readiness Level Model**, elaborated by KTH Innovation to assess specific innovative ideas.
- The **SMEs questionnaire**, elaborated by AFIL together with the project partners in charge of the definition of the toolkit to assess the maturity level of the SMEs.

The combination of these tools is crucial to identify the vulnerable areas of an SME and propose possible solutions to improve the vulnerable sectors.

The assessment of the SMEs capabilities is directly linked with the identification of financial instruments for the development of the innovative ideas, which will be explored in the next step.

Tool: KTH Innovation Readiness Level Model

The **KTH Innovation Readiness Level Model** is a structured framework developed by **KTH Royal Institute of Technology to assess and guide the development of innovative projects or ideas**. The model is designed to help assessing their ideas toward market readiness, addressing key challenges in innovation development by evaluating various dimensions.

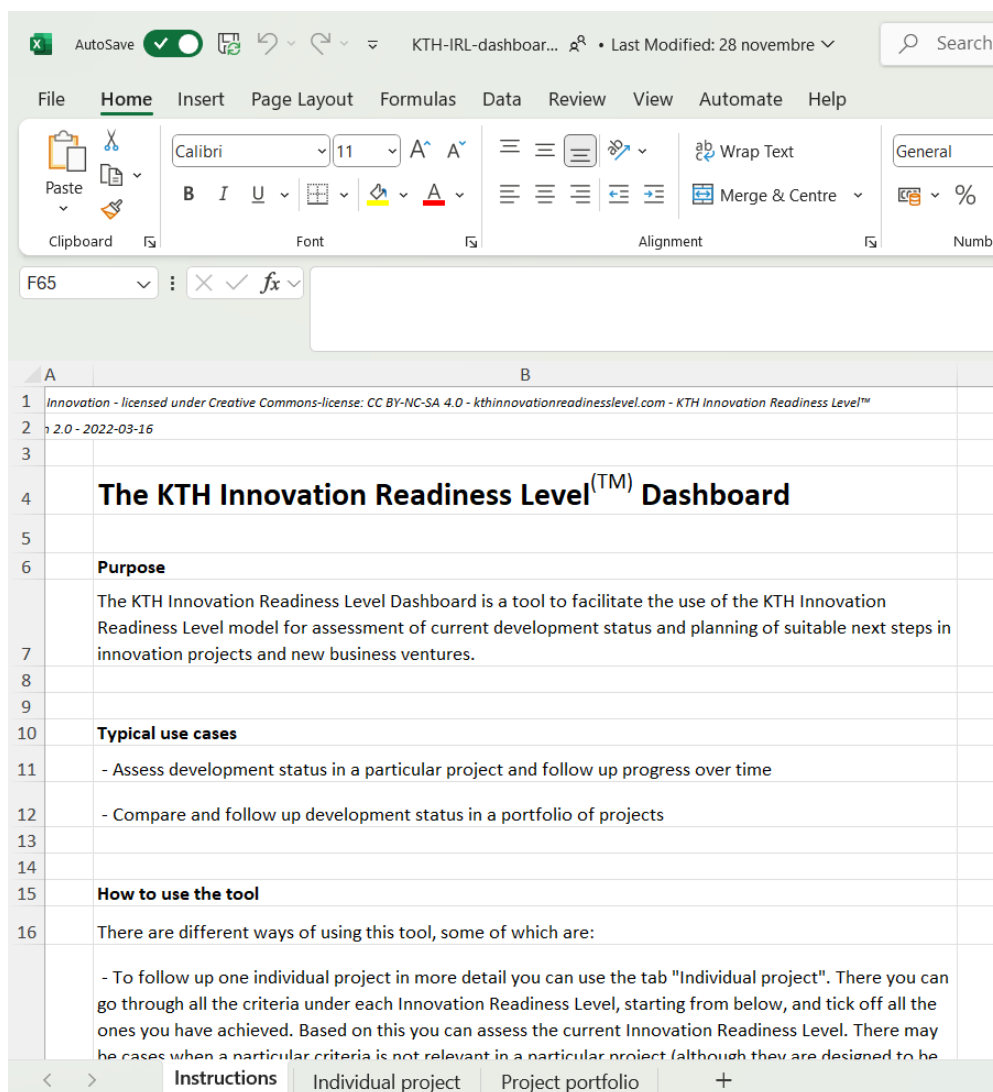


Figure 1: KTH Innovation Readiness Level dashboard

The objective of the KTH Innovation Readiness Level Model is to provide a practical tool to evaluate the maturity of their projects across various critical aspects.

Furthermore, the model is particularly tailored for early-stage innovations, offering clear benchmarks and pathways to move from conceptualization to commercialization.

The KTH Innovation Readiness Model addresses these challenges by focusing on seven key dimensions, crucial components of the establishment process of each innovative project or idea:

- Customer Readiness Level,
- Technology Readiness Level,
- Business Readiness Level,
- Intellectual Property Right Readiness Level,
- Team Readiness Level, and
- Funding Readiness Level.

The tool involves a self-assessment process, using a scale ranging from 1 (lowest level) to 9 (highest level) to evaluate their position within each dimension. This self-assessment is complemented by feedback, workshops, and tailored resources proposed by the consortium in the framework of the regional core groups. As the idea progresses, it is possible to re-assess the levels to track improvement and realign their strategies. On the other hand, although the criteria are designed to be relevant in the vast majority of all innovation projects, there may be cases when a particular criteria is not relevant in a particular project; in this situation, it is possible to skip the unnecessary criteria, after having discussed this with the project partner and having informed the consortium in this sense.

Finally, the KTH Innovation Readiness Level Model represents a fundamental tool to check the quality of the solution proposed and potential capacity to attract future regional and/or transregional collaborations around a project design. In line with this tool, the toolkit provides an assessment instrument of the SMEs' ESG performance, which will be explored in the next subparagraph.

Tool: SMEs questionnaire

The **SMEs assessment questionnaire is a self-assessment tool to evaluate areas for ESG improvement**, enabling target company to enhance long-term value, identify potential financial investments, improve business resilience, reduce risks, and contribute positively to society and the environment.

9. SMEs Questionnaire					
INTRODUCTION					
The document aims to evaluate how your business integrates sustainability, responsible management, innovation, and financial stability into its operations. By completing this questionnaire, the company will gain insights into ESG performance and identify areas for improvement, enabling you to enhance long-term value, identify potential financial investments, improve business resilience, reduce risks, and contribute positively to society and the environment.					
DEFINITIONS					
Sustainability	The ability of a business of establishing a concrete strategy to operate in a way that meets the company's need to generate profit with the necessity of preserving the resources, safeguarding the needs of the future generations.				
Circular Economy	A system aimed at making the most of resources by reusing, recycling, and reducing materials throughout the product lifecycle, reducing environmental impact.				
Financial Status	The financial health and stability of the SME, assessed through metrics like profitability, revenue growth, and the ability to sustain operations over time. It also includes the ability to plan investments and identify financing opportunities, in order to ensure stability in the medium-long term.				
GUIDELINES					
SUSTAINABILITY	CIRCULAR ECONOMY	INNOVATION STATUS	FINANCIAL STATUS	INTERNAL MANAGEMENT	

Figure 2: SMEs questionnaire dashboard

The document is composed of:

- Guidelines, with an introduction and references section;
- 13 Sustainability questions;
- 17 Circular Economy questions;
- 6 Innovation Status questions;
- 9 Financial Status questions;
- 9 Internal Management questions.

The aim of this tool is to provide a general overview of the effective SME performance on ESG topics. Logically, the self-compilation of the questionnaire must be done together in addition to the KTH self-assessment tool, in order to define a clearer overview of the SME capacities of bringing up the innovative idea.

Finally, as for the KTH tool, the SMEs questionnaire is complemented by feedback, workshops, and tailored resources proposed by the consortium in the framework of the regional core groups.

8. Identification of financial instruments

Step description

The eighth step of GREENSMARTMED methodology includes the **identification of financial instruments**, which can be potentially adopted to economically sustain the innovative idea, as a result of the core groups' activities.

Tool: EU call templates

To collect and share the EU calls with the partners and the stakeholders, GREENSMARTMED toolkit includes an EU calls template, which can be used to store the most relevant calls for proposals and to summarize their essential information.

This **EU Calls Template is an excel sheet including all the most interesting EU calls, divided by programme of reference, for the manufacturing sector.**

	A	B	C	D
1	INTRODUCTION			
2	The document includes a comprehensive database for European project calls. It aims to provide an easy-to-navigate reference for identifying relevant funding opportunities across various EU programs. Each call is categorized by its specific program, with detailed information about the project title, the main objectives to be achieved, the funding amount, the key timeline and the eligibility and evaluation criteria. This resource is designed to support the stakeholders in identifying, understanding, and applying for European project funding, ensuring that they can access the most up-to-date, relevant and suitable opportunities.			
3				
4				
5	REFERENCES			
6	Interreg	European Union (EU) instrument that strengthens cooperation between regions and countries within the EU. As part of the EU's Cohesion Policy, Interreg plays a vital role in promoting regional development, cohesion, and reducing economic disparities. For the 2021-2027 period, Interreg is focused on addressing current challenges like climate change, digital transformation, and social inclusion.		
7	Horizon	EU's key funding programme for research and innovation. The programme facilitates collaboration and strengthens the impact of research and innovation in developing, supporting and implementing EU policies while tackling global challenges. It supports creating and better dispersing of excellent knowledge and technologies.		

Figure 3: EU Calls dashboard

The EU Calls Template includes a specific sheet for each EU programme, creating in this way an easy-to-use reference for interesting funding opportunities. The identified programmes are the following:

- Interreg programme, including the different sub-programmes (for example, Europe or Euro-MED).
- Horizon programme, including both Horizon Europe and Horizon 2020 sub-programmes.
- I3 programme.
- Erasmus+ programme.
- COSME programme.
- LIFE programme.
- Cascade funding, meaning sub-calls coming from EU projects financed by an EU programme.

The list is not meant to be exhaustive, it is based on the organization's experience with previous EU projects.

9. Regional/transregional cooperation initiative design

Step description

The ninth and final step of GREENSMARTMED methodology is the **regional/transregional cooperation initiative design**, which refers to the process of planning, structuring, and developing initiatives aimed at fostering collaboration among EU different regions.

Starting from the innovative ideas developed during the regional core groups meetings and activities, these projects should address common challenges in the selected sectors. The project should provide the possibility of replicating the project design model in different territories and sectors, helping the establishment of a low-carbon, resource-efficient manufacturing ecosystem.

As well, the project does not aim only to define a unique project initiative. Instead, the goal of the project is to make accessible and replicable its own methodology, fostering the sustainability of the manufacturing sector through the involvement and collaboration of various stakeholders operating in the value-chain. In other words, the **GREENSMARTMED methodology must not be thought as linear, but as circular**: the activity of the regional core groups does not end with the project design phase or the project's conclusion but must continue even after the end of GREENSMARTMED project. The project design should strengthen the regional core groups focus and finance their initiatives, to make their action sustainable over time.