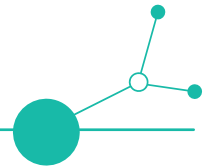


Report on SMERF Diagnosis Tool testing pilot action

D2.2.2



Final version

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Introduction

This report provides a summary of the pilot action conducted to test and validate the SMERF Diagnosis Tool across project partner regions. The tool was developed to assist SMEs in self-assessing their transformation readiness across four key pillars: Innovation Culture, Digital Manufacturing, Open Innovation & Sharing Economy, and Green & Circular Economy & Sustainability.

The testing pilot was implemented in three phases:

- Phase 1: Internal testing by project partners.
- Phase 2: Testing by a sample of SMEs.
- Phase 3: Testing by SMEs from partner networks.

The objective of this report is to evaluate the results of each phase, analyse key feedback, and outline improvements made to refine the tool based on user insights.

The findings of this pilot testing will directly guide the final development of the SMERF Diagnosis Tool. Based on the feedback collected from SMEs and project partners, targeted refinements will be implemented under Activity A2.4, resulting in a fully upgraded and final version of the tool to be made available to SMEs across Central Europe.

1. Pilot action testing methodology

Testing framework - approach and collecting feedback

The testing methodology was structured to progressively refine the tool based on structured feedback (as described in the document D2.2.1 Methodology for implementing joint pilot action). The objectives of testing included:

- Assessing accessibility and user experience.
- Evaluating the quality of the self-assessment questions.
- Measuring the relevance of transformation scenarios.
- Identifying the overall value of the tool for SMEs.

Each phase had specific goals and methodologies aligned with the project's objectives. Feedback collection included structured questionnaires (implemented in a cloud-based platform Monday.com), technical logs, and partner observations to identify areas for improvement.

Role of project partners

The successful execution of the pilot testing depended on the coordinated efforts of all project partners.

Project partners were solely responsible for conducting the first testing phase, where they assessed the tool's core functionalities, accessibility, and usability internally. This phase allowed them to identify critical issues before engaging SMEs.

During the second and third testing phase, they worked closely with SMEs, providing guidance and support throughout the assessment process. They facilitated SME participation, assisted in navigating the tool, and ensured that feedback was collected systematically to drive improvements.

Their role and contribution to refining the tool were crucial in the following areas:

- **SME participation:** Each project partner was responsible for recruiting SMEs from their respective regions, ensuring a diverse representation across sectors.
- **Coordination of testing activities:** Project partners oversaw the structured execution of the three testing phases, ensuring a smooth flow of activities. They provided SMEs with necessary instructions, technical support, and follow-ups to maximize engagement and participation.
- **Collecting and analysing feedback:** Using standardized questionnaires and feedback forms, project partners gathered insights from SMEs on usability, question clarity, and the relevance of transformation scenarios. This structured approach ensured consistency in data collection across all participating regions.
- **Contributing to tool refinement:** Based on the feedback gathered, project partners actively collaborated to propose improvements to the tool's content, structure, and functionality. They analysed testing results and agreed on necessary modifications to increase the tool's effectiveness.

The coordinated work of all project partners ensured that the SMERF Diagnosis Tool evolved into a well-structured, user-friendly, and practical resource for SMEs, capable of supporting their transformation journey in a meaningful way.

Results/Findings overview by objectives

By systematically testing various aspects of the SMERF Diagnosis Tool, project partners were able to highlight areas that required refinement. Each phase of testing provided insights into specific strengths and weaknesses of the tool, helping to shape targeted improvements. The structured approach allowed to progressively validate the tool's functionality, ensuring that it met the needs of SMEs effectively.

The fulfilment of set objectives was assessed as follows:

- **Accessibility and user experience**

The tool was found to be generally easy to use and user friendly; however, some SMEs faced challenges with email verification, navigation, and clarity of instructions. These issues were addressed through technical improvements and clearer guidance.

- **Quality of the self-assessment questions & outputs**

Most SMEs said that the questions and the output encouraged them to reflect about the company's current practices and ways to improve them, and many found the tool valuable in helping identify areas for improvement of their business. Feedback revealed also that while most questions were relevant, some were perceived as unclear and/or ambiguous, overly detailed, and repetitive and/or unnecessary. Immediate adjustments were made to improve clarity and remove redundancy.

- **Relevance of transformation scenarios**

The tool successfully provided actionable insights, but some SMEs reported too many recommendations or scenarios. To address this, filtering mechanisms based on the implemented concept of "Traffic Lights" were introduced, resulting with the list of the most important gaps that need to be addressed. The majority of SMEs found the tool's recommendations useful and relevant, particularly for identifying areas where they could focus their transformation efforts. However, few key issues like the lack of customization for SME profiles and challenges in understanding some recommendations emerged.

- **Overall Value for SMEs**

As stated in chapter 2.3 Testing phase 3: Second round of testing performed by SMEs from partner networks, most SMEs found the tool useful in identifying areas for improvement (93%) and see the tool as valuable enough to recommend it to other businesses (92%).

Through this structured and iterative testing approach, the SMERF Diagnosis Tool has already undergone significant changes. There is still space for further refinements, especially in terms of improving the customization of transformation scenarios based on SME profiles, simplifying the language of the questionnaire and of the recommendations to enhance clarity and refining the filtering mechanisms to prioritize the most relevant recommendations for each SME.

2. Key findings and feedback

This chapter presents a detailed overview of the testing results collected throughout the three pilot phases. Each phase targeted specific aspects of the SMERF Diagnosis Tool, from verifying basic functionality and technical performance to evaluating the quality and applicability of outputs in real SME environments. The analysis draws on multiple data sources, including structured feedback from SMEs, observations recorded in testing logs, and the professional insights of project partners.

By systematically analysing the tool's performance across various SME profiles and regional contexts, this chapter highlights both the progress made and the areas that require continued refinement. It provides the foundation for final development decisions in the next project phase.

2.1 Testing phase 1: Internal testing by project partners

The first phase of testing focused on verifying core functionalities, accessibility, and usability before engaging SMEs in later stages. This internal assessment, conducted solely by project partners, aimed to ensure the tool's basic stability, reliability, and ease of use.

Verification of core functionalities:

- Several **technical issues** were identified, including navigation errors, response recording failures, and system crashes when users attempted to modify previous answers. For example, clicking "Submit" without selecting an answer resulted in a system error and forced users back to the beginning of the questionnaire.
- Challenges with **registration and account verification** were reported, with confirmation emails frequently landing in junk folders or taking excessive time to arrive.
- The system failed to save responses after certain questions, requiring users to restart the assessment, disrupting the testing flow.

Initial assessment of accessibility and usability:

- Project partners encountered **navigational difficulties**, particularly in moving back and forth between questions. The inability to easily return to previous responses or adjust selections without errors was noted as a major usability issue.
- The **interface was not intuitive**, as testers found the "Submissions" section unclear, with no clear instructions on how to begin the assessment. The terminology used for different steps was also found to be confusing, requiring clearer labelling and instructions.
- **Question clarity issues** were identified, with several questions containing typos, ambiguous phrasing, or inconsistencies in answer formatting. Partners recommended standardizing response structures and implementing information bubbles to clarify certain terms.

Following this initial testing phase, several improvements were made before advancing to SME testing:

- **Technical fixes** addressed response saving errors and improved navigation between questions.
- **Refinements to registration and verification processes** ensured emails were properly delivered and users could log in without delays.
- **User interface improvements**, including clearer instructions and adjusted button labels, improved the overall navigation experience.
- **Language adjustments** corrected typos and clarified ambiguous questions, making the tool more comprehensible for SMEs.

These refinements provided a more stable foundation for subsequent testing phases, ensuring a smoother experience for SMEs in later stages.

For detailed findings and logged issues, refer to APPENDIX 1 - Testing log - Testing phase 1: Internal testing by project partners

2.2 Testing phase 2: First round of testing performed by a sample of SMEs

The second testing phase introduced the tool to a small sample of SMEs (16 SMEs, 2 per project partner - see APPENDIX 2 - List of SMEs that tested the tool), with each partner organization selecting up to two companies to participate. The goal of this phase was to validate the tool's accessibility, user experience, and clarity of self-assessment questions with a sample of SMEs, supported by project partners.

The evaluation of transformation scenarios in this phase included two parts:

- **Direct feedback from SMEs**, collected through a questionnaire in the cloud-based platform Monday,
- **Feedback from project partners** to assess how accurately the tool's transformation scenarios correspond to the specific responses provided by each SME.

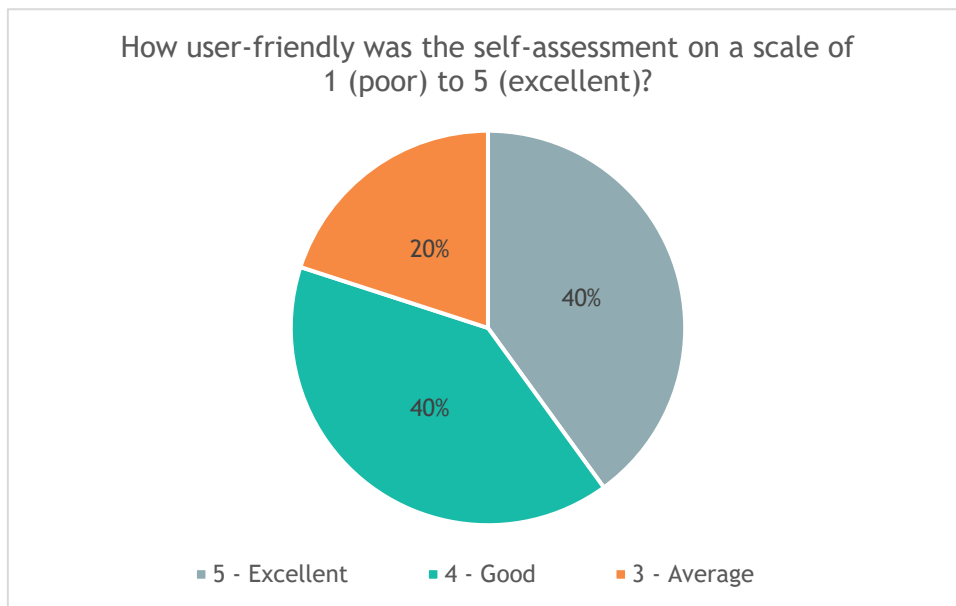
Main findings based on the direct feedback from SMEs

These are the **main findings** based on the feedback from SMEs:

User experience and accessibility validation:

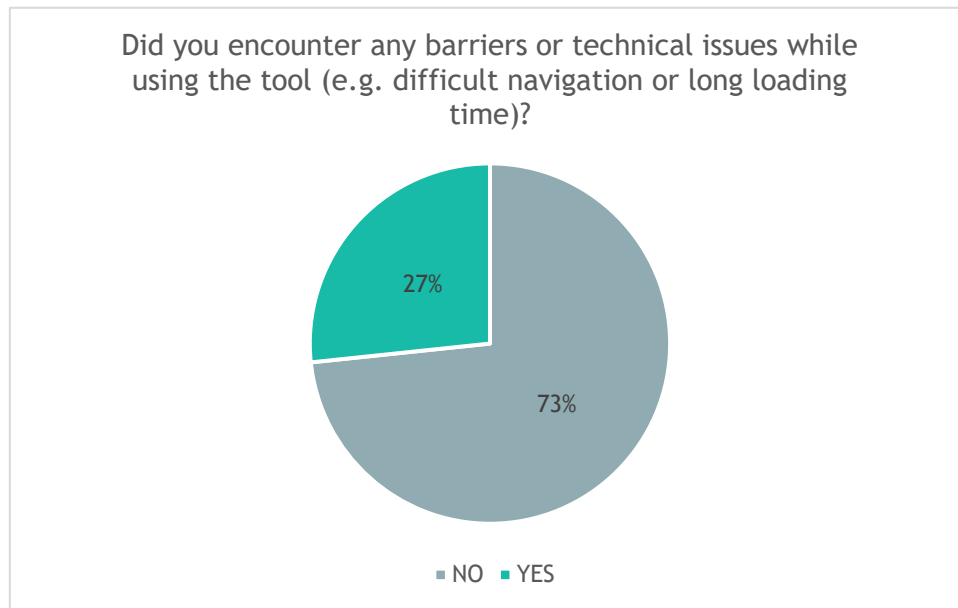
SMEs provided mixed feedback on **navigation and accessibility**. As shown in Figure 1, the tool was classified as user-friendly by most of the companies.

Figure 1: Feedback about the user-friendliness of the self-assessment tool



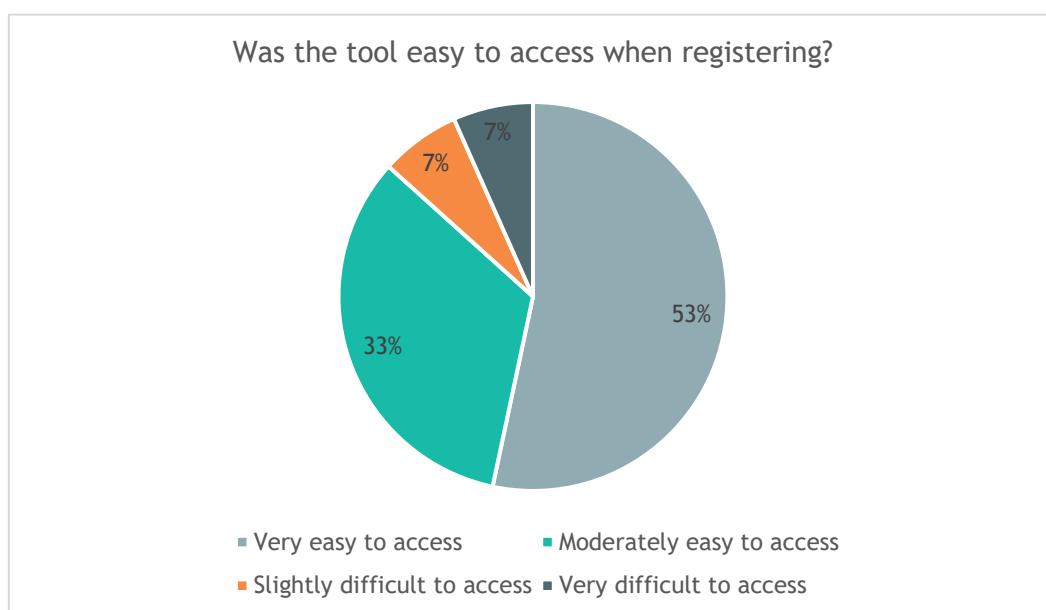
Technical barriers were reported by a **portion of SMEs (27%)**, particularly related to email verification issues, slow response times, and navigation difficulties when attempting to go back to previous questions.

Figure 2: Feedback about the barriers or technical issues while using the tool



Based on the feedback shown in Figure 3, 53% of SMEs found the tool **very easy to access** when registering, while 33% rated it as **moderately easy**. However, 14% of SMEs experienced some level of difficulty, with 7% finding it slightly difficult and 7% rating it as very difficult. These challenges were mainly related to email verification issues, browser compatibility issues (as certain features did not function properly on Safari but worked correctly on Chrome), and unclear registration instructions, as noted in the testing feedback. This highlights the importance of continued improvements to the registration process to ensure seamless access for all users.

Figure 3: Feedback about how easy the tool was to access

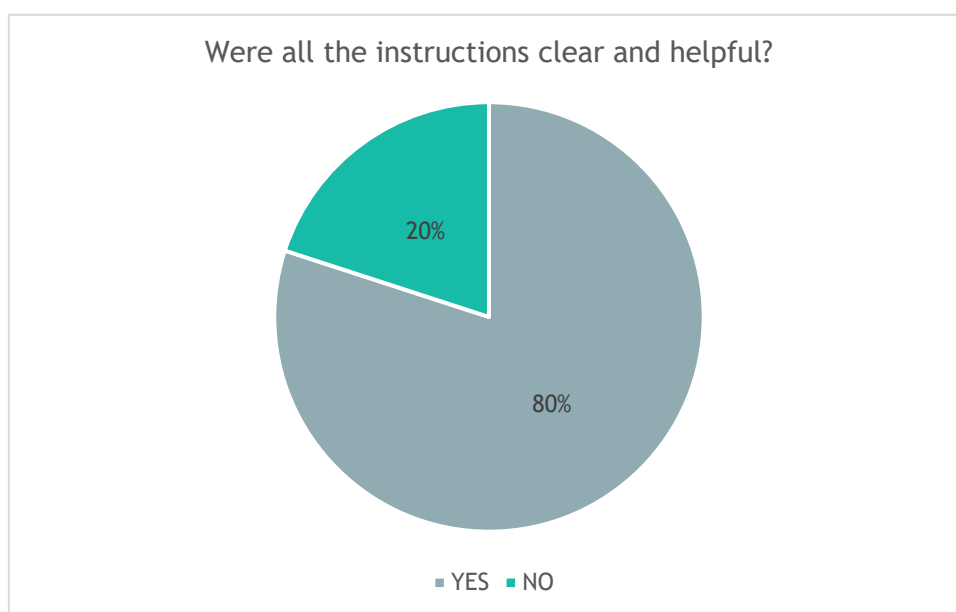


Preliminary feedback on question clarity:

Several **questions were flagged** as too complex, redundant, or ambiguous, particularly by SMEs without prior knowledge of digital transformation and sustainability concepts. Respondents noted that some questions were difficult to interpret without additional context.

As shown in Figure 4, **80% of SMEs found the instructions clear and helpful**, while 20% reported difficulties. This indicates that while most users could navigate the tool without issues, a portion of SMEs required more structured guidance. SMEs suggested that explanations, tooltips, and definitions should be incorporated to clarify technical terms, industry-specific jargon, and key concepts.

Figure 4: Feedback on the clarity and helpfulness of the instructions



A need for **better question customization** was identified, as some SMEs found that certain questions were not relevant to their business model (e.g., service-oriented SMEs versus manufacturing SMEs). SMEs suggested a filtering mechanism to tailor the questionnaire more effectively based on industry type.

Initial review of the transformation scenarios:

As shown in Figure 5, **93% of SMEs reported that the questions encouraged them to reflect on their company's current practices**, demonstrating the tool's effectiveness in prompting strategic thinking and self-assessment.

Figure 5: Feedback about the usefulness of the transformation scenarios



While most SMEs found the transformation scenarios useful, some **felt overwhelmed by the number of recommendations**, making it difficult to identify **which actions to prioritize**. To address this, the functionality of the **traffic light system** was further refined to select the most critical areas for improvement.

A need for **better question customization** was identified, as some SMEs found that certain questions were not relevant to their business model (e.g., service-oriented SMEs versus manufacturing SMEs).

Main findings based on the feedback by project partners about the transformation scenario relevance

Project partners played a crucial role in assessing the alignment between the SMEs' input and the tool's recommended transformation scenarios. Given that partners know the participating SMEs and have insights into their business profiles, they were able to:

- evaluate whether the tool's suggestions made sense in the context of each SME's unique circumstances,
- identify if the tool paired specific question-answer to meaningful transformation recommendations.

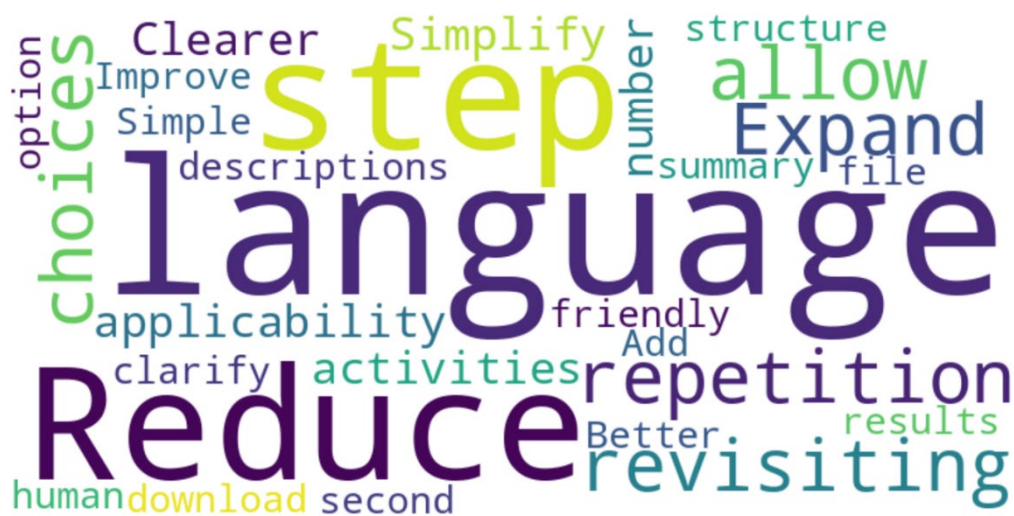
The assessment performed by the project partners showed that the SMERF Diagnosis Tool successfully delivered structured and coherent recommendations:

- **Scenario completeness & coherence:** The majority of partners confirmed that the **transformation scenarios were well-structured and logically consistent**. In some cases, SMEs received many recommendations, which was seen as overwhelming, but this was addressed through refinements such as the traffic light system for prioritization. However, the way the results are presented is sometimes unclear to the user and the structure of the report containing the transformation scenario should be improved.
- **Accuracy of scenario:** The tool **effectively aligned recommendations with SME responses**, with most partners confirming **high relevance** to the self-assessment inputs. Minor discrepancies were noted in some cases, particularly for service-based businesses, indicating the need for improved customization for different industry types.

- **Feasibility of actions:** Most recommendations were **practical and implementable**. SMEs found that the tool provided **actionable insights**, although some suggestions would benefit from clearer explanation or examples. Certain SMEs, particularly those in highly specialized fields, indicated that some actions were less applicable to their operations, reinforcing the need for better sector-specific filtering.
- **Quality of scenario:** The **quality of the generated scenarios was generally rated as high**, with SMEs appreciating the structured approach and insightful recommendations. Some partners suggested simplifying language and improving graphical representations to increase clarity.
- **Usefulness & agreement:** **SMEs largely found the tool valuable**, with many stating that it helped them **reflect on their business practices and identify areas for improvement**. Some partially agreed with recommendations, particularly where a high volume of suggestions made it difficult to prioritize next steps. However, overall feedback confirmed that the tool is a useful resource for SMEs seeking structured guidance on transformation strategies.

Figure 6 shows the main suggestions for improvement identified by the project partners in their reports of transformation scenarios.

Figure 6: Project partners suggestions for improvement



Following this testing phase several key refinements were made:

- **Improved navigation and accessibility**, including adjustment to button labels, additional instructions, and refined back-navigation functionality.
- **Question and answers restructuring**, removing redundant items and simplifying complex language.
- **Improved output** that reduces information and summarizes key insights in a readable format.

These refinements laid the groundwork for Phase 3 testing, where a broader group of SMEs would validate the tool in real-world conditions.

For detailed findings and logged issues, refer to APPENDIX 3 - Testing log - Testing phase 2: First round of testing performed by a sample of SMEs.

Project partners overall feedback about the course of the testing phase 2

In addition to direct SME feedback, each partner organization provided a sub-report summarizing their observations and insights from the second testing phase, during which SMEs initially interacted with the tool. This chapter presents a joint summary of the key findings and lessons learnt, focusing on:

- SMEs' understanding and engagement with the tool,
- Challenges faced during the testing process,
- The perceived relevance and applicability of transformation scenarios, and
- General feedback on improvements needed before scaling the tool for wider use.

KEY FINDINGS AND LESSONS LEARNT

Most project partners reported that **SMEs generally found the tool understandable**, with questions presented in a clear and logical sequence. However, **some SMEs required support to interpret certain terms or more complex questions**, particularly those related to digital maturity or sustainability. The involvement of project partners helped bridge this gap and facilitated smoother engagement with the tool. **The engagement level varied**, with some SMEs showing strong interest due to the reflective nature of the questions, while others found the tool less engaging, especially when selecting "Not applicable" frequently.

Among the challenges noted, the most common were **the length of the questionnaire** – especially in Step 1 – and **the lack of clarity about how long the process would take**. These factors occasionally reduced motivation to complete the assessment. Language barriers also emerged, particularly for SMEs using the English version without localized support. **Minor usability issues**, such as not being able to go back and edit answers, were also reported.

In terms of transformation scenarios, most **partners confirmed that the tool provided relevant and useful insights**. Nevertheless, **alignment with specific SME sectors was not always optimal**—particularly for service-based or highly specialized firms. This emphasized the need for further customization, especially for micro-enterprises and businesses outside the manufacturing sector. While many SMEs found the scenarios reflected their internal perspectives, others felt a clearer connection between their inputs and the outputs was needed.

Partners offered **several suggestions to enhance the tool** before its broader deployment. These included:

- Reducing repetition and **streamlining questions** to improve user flow;
- Providing **clearer instructions and estimated completion time** upfront;
- Improving the **structure and visual design** of the transformation scenarios;
- Adding **interactivity**, such as options to revisit choices and download scenario results;
- Enhancing the **user interface and visual appeal** to increase engagement.

The insights gathered here provide valuable qualitative feedback that complements the quantitative data from SME responses and serves as a **foundation for refining the tool further** and ensuring that it meets the needs of SMEs across different industries and regions.

For detailed findings refer to APPENDIX 4 - PPs' sub-report on the course of the testing process - Testing phase 2 / overall feedback

2.3 Testing phase 3: Second round of testing performed by SMEs from partner networks

The goal of the third testing phase was to validate the SMERF Diagnosis Tool in a broader SME network, assessing usability and accessibility across different SME profiles, applicability of transformation scenarios, feasibility of the recommendations and the overall added value for SMEs.

The table below summarizes SME participation levels during the third testing phase, broken down by project partner. It provides insights into the level of engagement at each step of the tool and the extent to which SMEs completed the full assessment. Notably, the set KPI of engaging at least 160 SMEs in the testing was successfully reached, with 172 SMEs participating in total.

Table 1: Number of SMEs that tested the SMERF Diagnostic Tool

PARTNER	PHASE 2	PHASE 3			TOTAL REGISTERED USERS	TOTAL KPI
		Just registered	Step 1	Step1 & Step 2		Phase 2 + Phase3
WUST	2	8	1	23	34	25
CRIT	2	7	1	22	32	24
KIT	2	2	0	19	23	21
TUKE	2	18	4	18	42	20
BIZ-UP	2	4	2	18	26	20
PBN	2	1	1	19	23	21
UNIGE	2	2	1	19	24	21
STEP RI	2	2	1	18	23	20
TOTAL	16	44	11	156	227	172

The key objectives of this phase were:

- To confirm that the tool is ready for wider use by SMEs across different sectors and business contexts.
- To evaluate whether the tool's recommendations remain relevant and actionable for a larger and more diverse user base.
- To collect feedback on any remaining usability barriers or customization needs before finalizing the tool for implementation.

This phase was the final step in determining if the tool needs additional refinements, and the insights gathered will serve as a foundation for upgrading it to its final version.

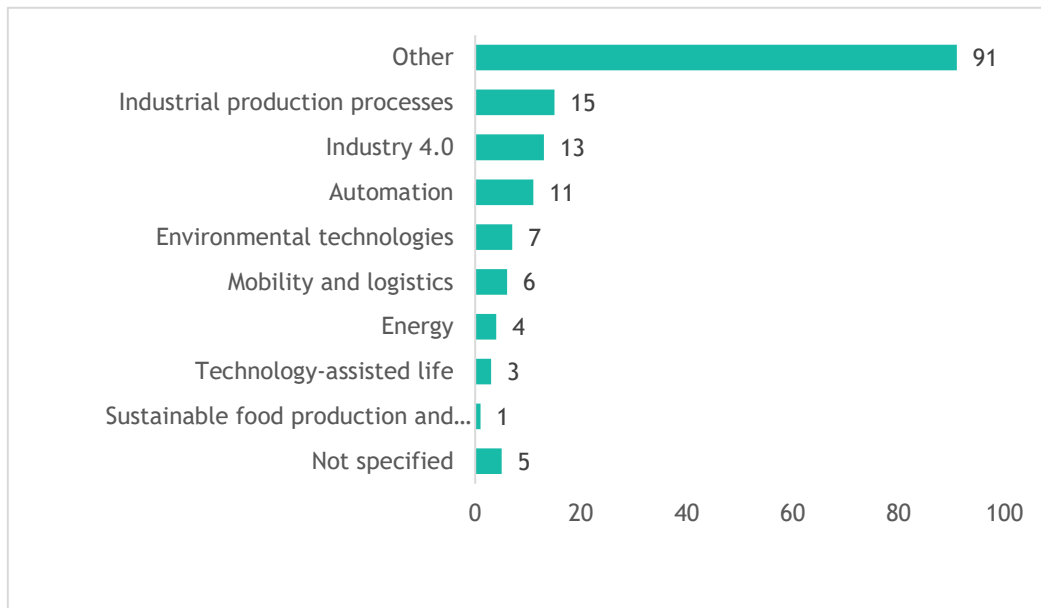
Demographic overview of participating SMEs

The third testing phase was performed by 156 SMEs (see APPENDIX 5 - List of SMEs that tested the tool). It included a **diverse group of SMEs**, varying in terms of **sector, company size, and geographic location**. The exact numbers and details are extracted from the demographic dataset and the key characteristics of the participants are structured as follows:

1. Industry sectors:

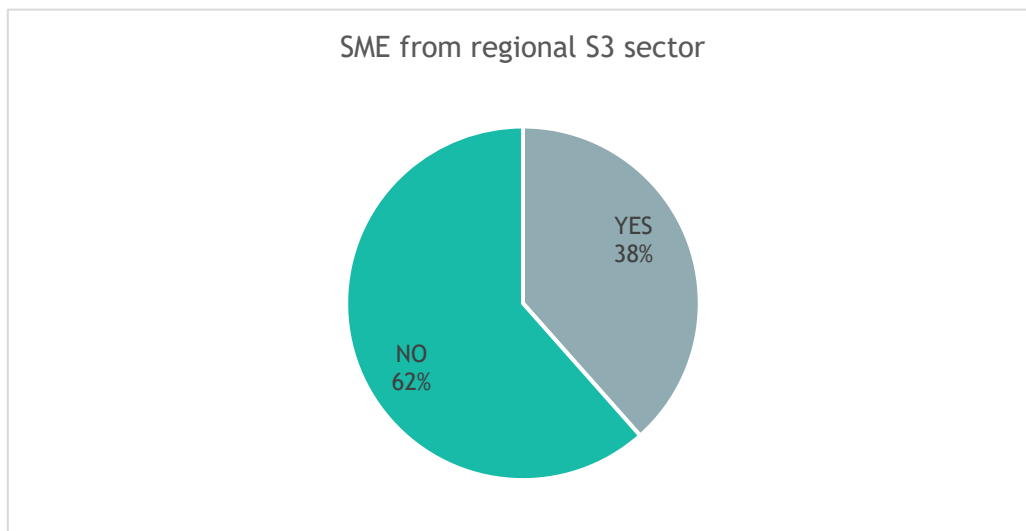
SMEs from a broad spectrum of sectors participated in the third testing phase. While a significant proportion of companies (91 out of 156) fell under the "Other" category – indicating a diverse range of niche or cross-sector activities – many were clearly aligned with key Smart Specialisation Strategy (S3) sectors. The most represented S3-related sectors included Industrial Production Processes (15 SMEs), Industry 4.0 (13 SMEs), Automation (11 SMEs), and Environmental Technologies (7 SMEs).

Figure 7: SMEs per industry sectors



Importantly, 38% of the participating SMEs reported operating within their region’s defined S3 sectors, demonstrating alignment with the project’s strategic goal of supporting innovation within priority domains.

Figure 8: SMEs from regional S3 sectors

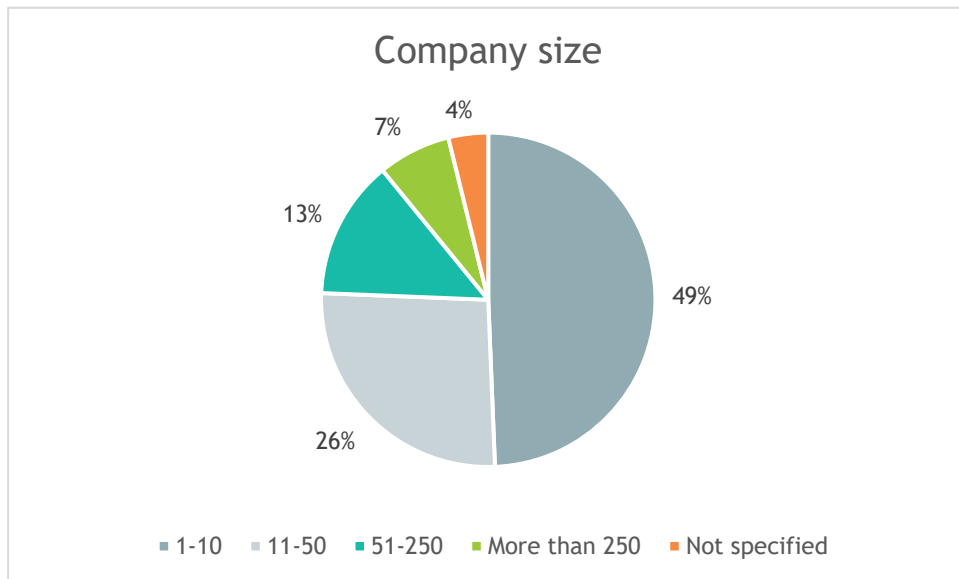


2. Company size:

The sample included micro enterprises (1-10 employees, 49%), small enterprises (11-50 employees, 26%), and medium-sized enterprises (51-250 employees, 13%). Additionally, 7% of participants were larger companies with more than 250 employees, while 4% did not specify their size.

This distribution allowed the testing to capture a wide range of operational complexities and resource capacities. Understanding how companies of different sizes interact with the tool helped assess the scalability and adaptability of the recommendations to suit varying organizational needs.

Figure 9: SMEs per company size

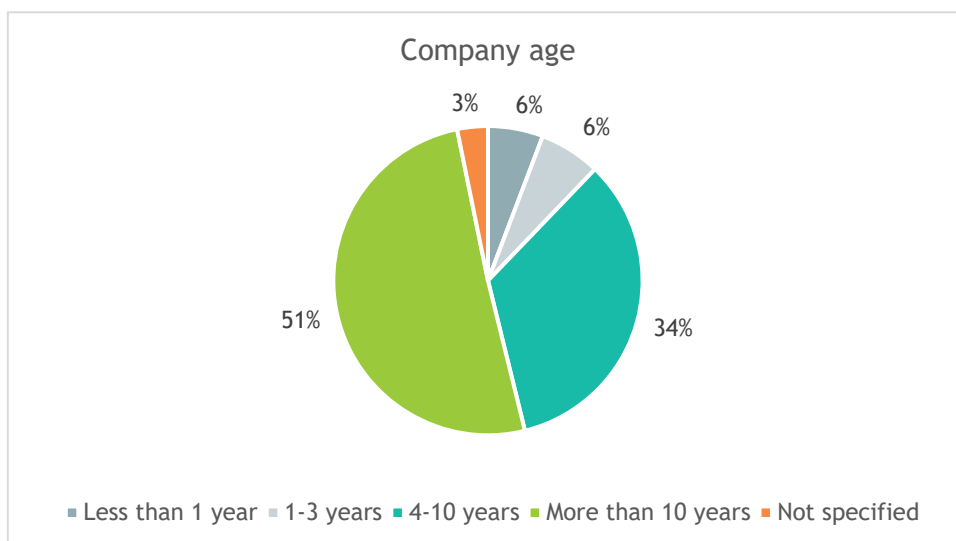


3. Company age:

The SMEs participating in the testing phase varied significantly in their years of operation, categorized as follows:

- Less than 1 year (6%) - Start-ups and newly established businesses exploring early-stage transformation.
- 1-3 years (6%) - Young companies still shaping their operational and innovation strategies.
- 4-10 years (34%) - Established SMEs with growing business models and structured decision-making processes.
- More than 10 years (51%) - Mature companies with long-standing operations, often requiring more complex transformation strategies.
- Not specified (3%)

Figure 10: SMEs per company age



This distribution highlights that the tool was tested by a wide spectrum of SMEs at different stages of business maturity—from newly launched startups to well-established enterprises—ensuring that

its usability and relevance were assessed across varying levels of strategic development and transformation readiness.

4. Annual revenue:

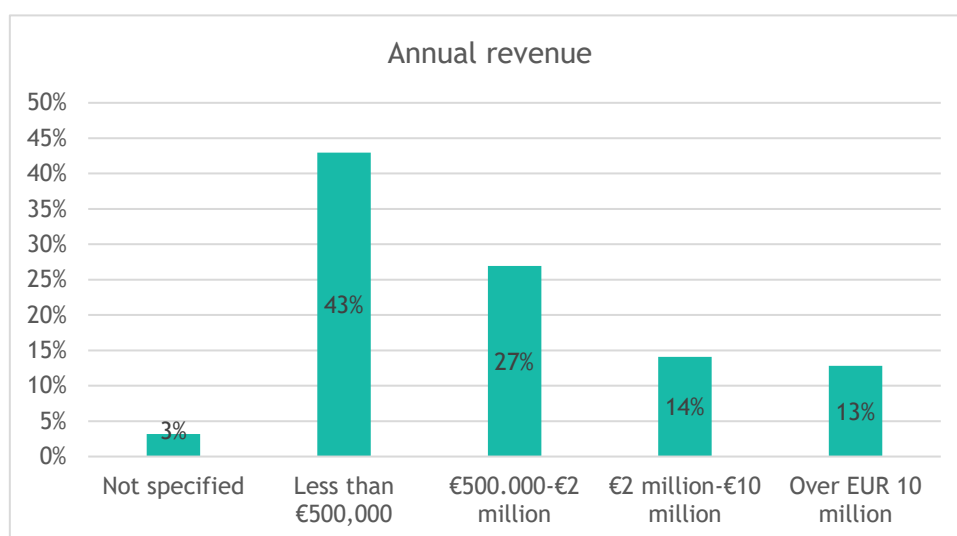
The sample included companies with a revenue lower than 500.000 EUR to larger companies with a revenue of over 10 million EUR.

Understanding the level of revenue helped assess how financial capacity may influence SMEs' ability to engage with transformation strategies and implement recommended actions.

The distribution of participating SMEs by annual revenue showed a strong representation of smaller businesses, with 43% reporting revenue under €500,000. These companies may face limitations in resource allocation, making it essential for the tool to offer practical and scalable recommendations.

Meanwhile, 27% of SMEs had annual revenues between €500,000 and €2 million, and 14% reported revenues between €2 million and €10 million, indicating a group of moderately to well-established businesses with more flexibility in implementing transformation measures. Larger SMEs, representing 13% of the sample, reported revenue over €10 million, suggesting strong potential for investment in innovation and long-term strategy. A small portion of respondents (3%) did not specify their revenue.

Figure 11: SMEs per annual revenue

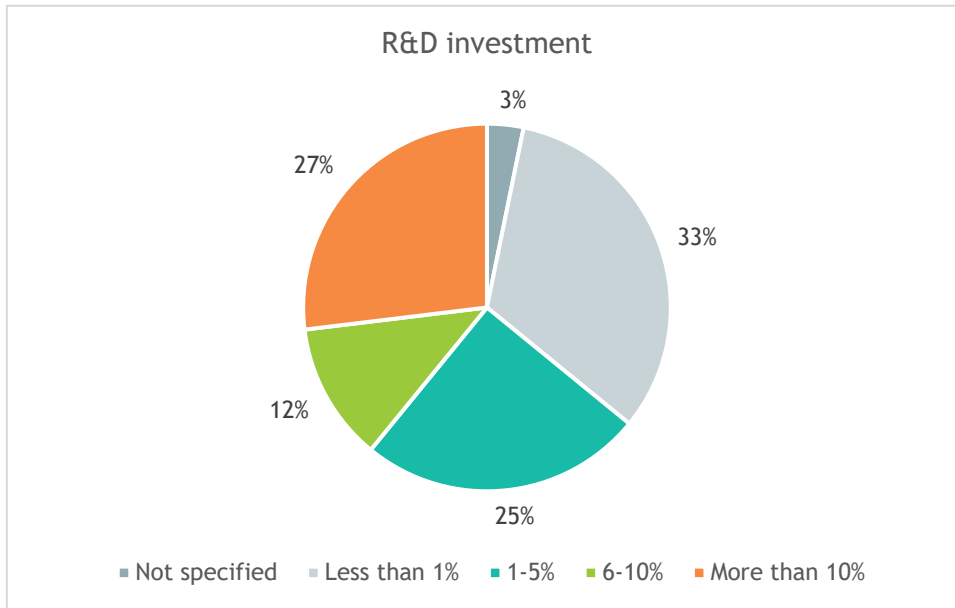


5. Level of R&D investment:

The companies that participated had different levels of R&D, ranging from those investing less than 1% to those allocating more than 10%. The level of R&D investment provides insight into a company's willingness to innovate and remain competitive. Companies that allocate significant resources to R&D are generally more open to adopting new technologies and innovative business models, whereas those with little to no R&D investment may require stronger external support to engage in digital and sustainability transformations.

This variation reflects the differing innovation capacities among SMEs. Specifically, 27% of the SMEs reported investing more than 10% of their resources into R&D, showing a strong orientation toward innovation and future readiness. In contrast, 33% of SMEs invest less than 1%, indicating a considerable segment that may face barriers in implementing transformation initiatives without targeted guidance or support. This diversity provides meaningful insights into how innovation readiness influences the way SMEs perceive and apply the tool's recommendations.

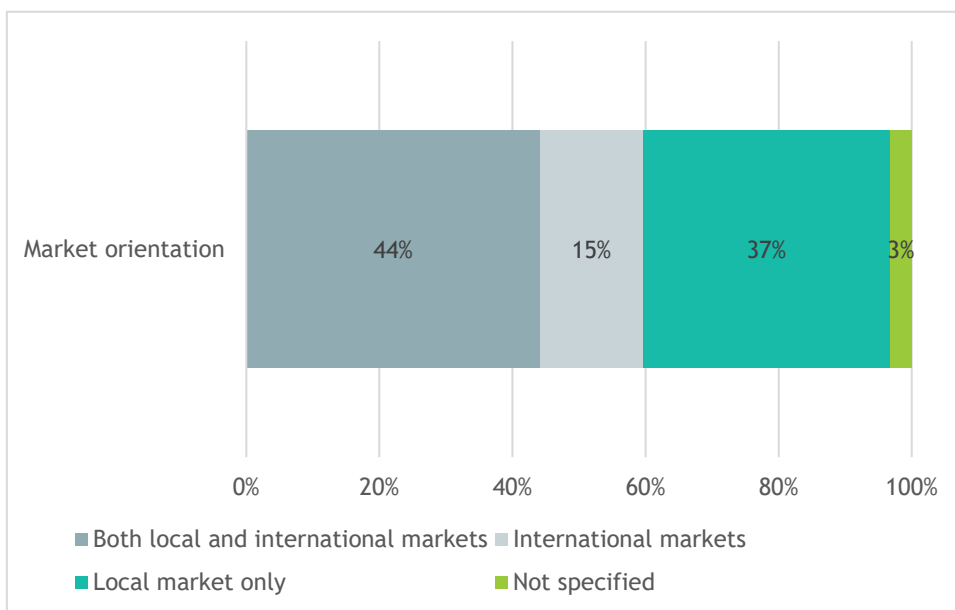
Figure 12: SMEs per level of R&D investment



6. Market orientation:

Understanding the market orientation of SMEs provided insights into how transformation recommendations align with the global competitiveness of companies and their expansion potential. The participating SMEs varied in their market reach: 44% engaging in both local and international markets, 37% serving only local markets, and 15% operating exclusively in international markets. This distribution highlights the importance of ensuring the tool accommodates a variety of business scales and market ambitions, supporting both globally oriented SMEs and regionally focused enterprises.

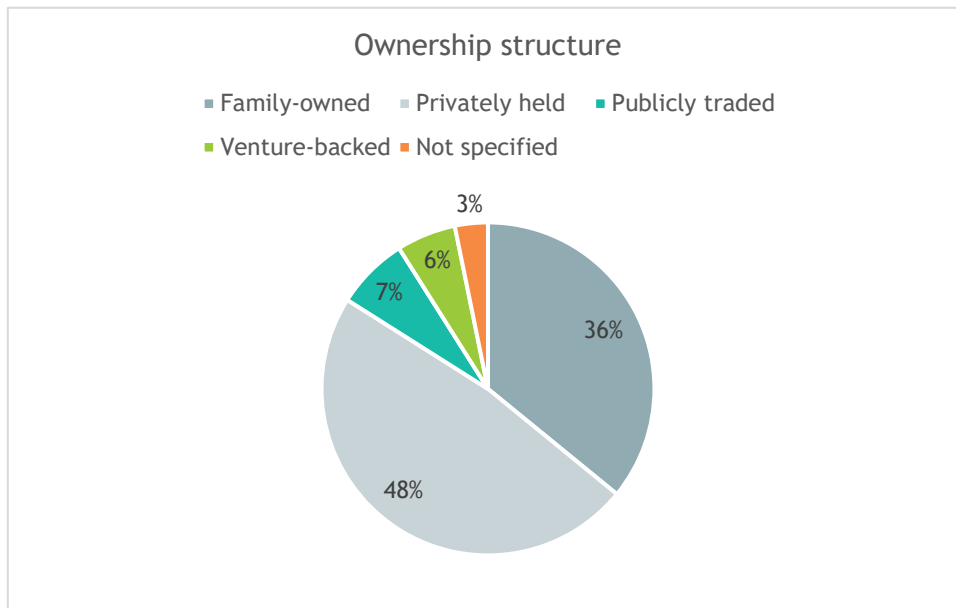
Figure 13: SMEs per market orientation



7. Ownership Structure:

Ownership structure plays a role in strategic decision-making, particularly regarding investment in transformation initiatives and long-term business sustainability.

Figure 14: SMEs per ownership structure



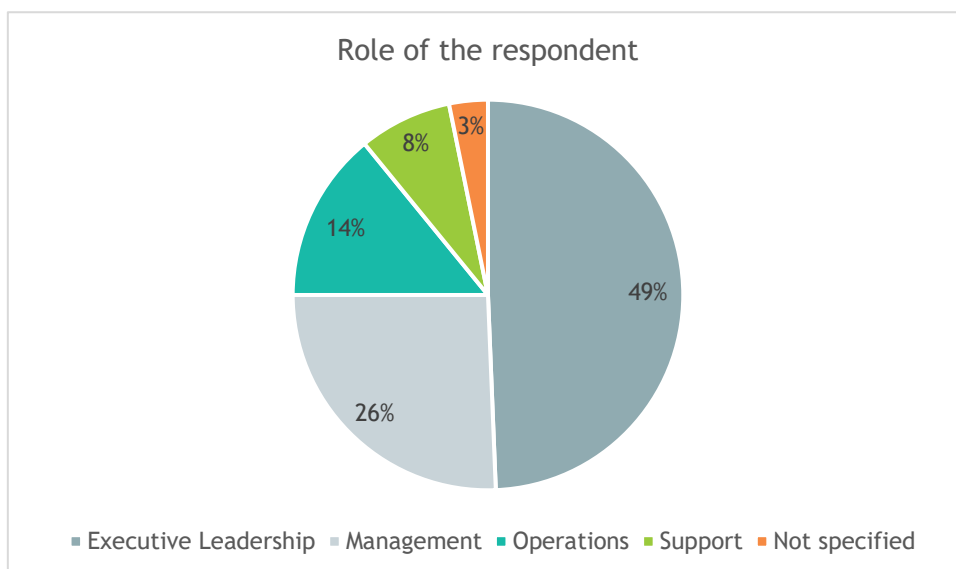
The participating SMEs included family-owned (36%), privately held (48%), publicly traded (7%), and venture-backed businesses (6%). This distribution reflects a strong representation of privately held and family-owned enterprises, two ownership models that often rely on internal decision-making and resource planning. Family-owned businesses may prioritize gradual changes, while venture-backed or publicly traded companies might focus more on growth and innovation-driven strategies.

8. Role of the respondent:

The feedback forms were completed by respondents from various positions within their organizations, including 49% from executive leadership (e.g., CEOs and founders), 26% from management, 14% from operational roles, and 8% from support functions.

This variation allowed for a comprehensive analysis of how different roles within SMEs perceive and use the tool. The diverse respondent base provided insights into how decision-making levels influence engagement with digital and sustainability transformation tools.

Figure 15: Role of the respondent



This demographic diversity – encompassing company size, age, sector, market orientation, ownership structure, and innovation capacity – ensured that the tool was tested under a wide range of real-world conditions. The inclusion of both early-stage startups and mature enterprises, micro-sized companies and larger SMEs, as well as service-based and manufacturing-oriented businesses, demonstrates the adaptability of the SMERF Diagnosis Tool.

These insights confirm the tool’s potential to provide meaningful and actionable guidance to SMEs with varying profiles, making it well-suited for broader implementation across Central Europe.

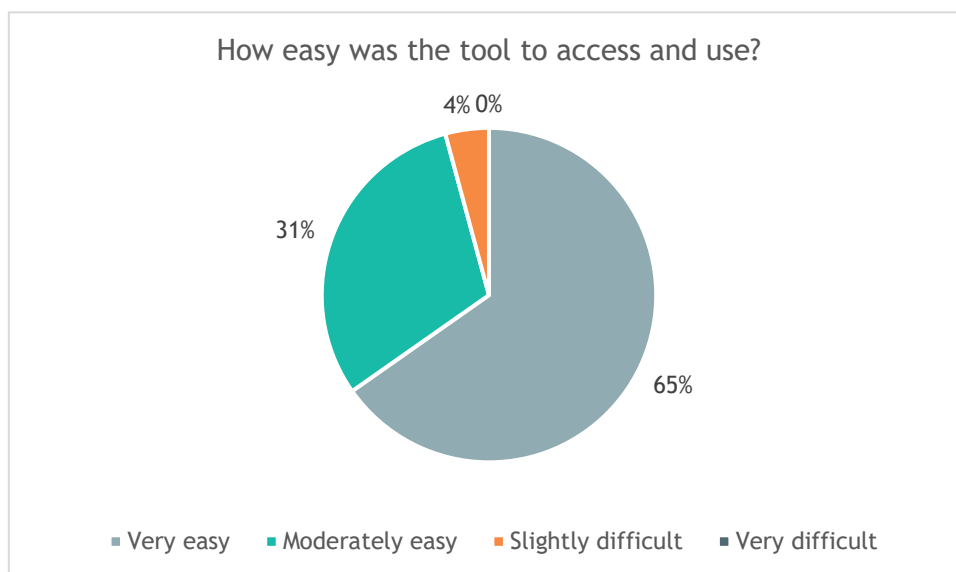
Main findings based on the direct feedback from SMEs

These are the **main findings** based on the feedback from SMEs:

Full assessment of tool usability and accessibility:

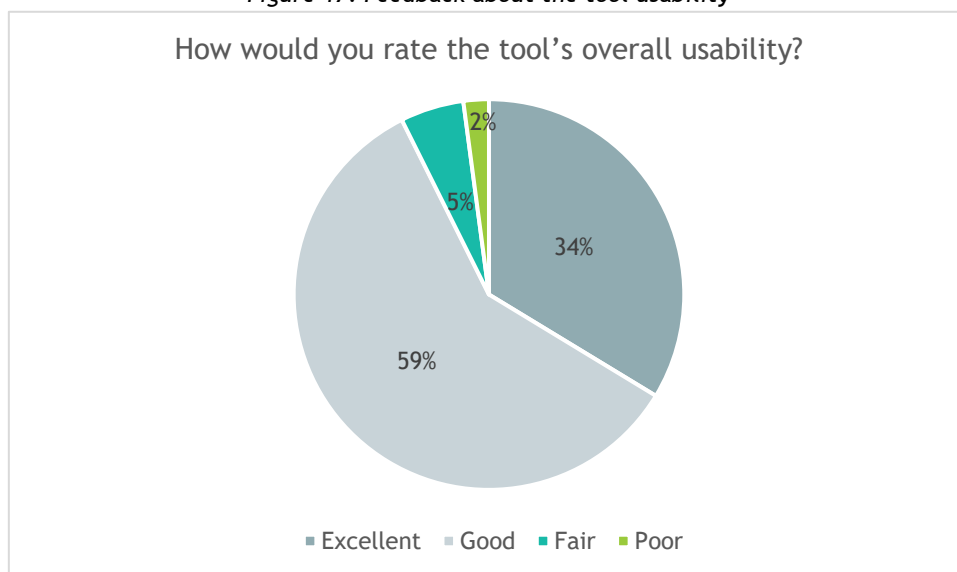
Overall, the tool was rated positively in terms of ease of use and accessibility. As shown in Figure 16, **65%** of SMEs found the **tool very easy to access and use**, while **31%** rated it as **moderately easy**. Only 4% of respondents experienced usability issues, finding the tool slightly difficult, while none rated it as very difficult. This indicates improved accessibility and clarity following refinements made after Phase 2.

Figure 16: Feedback about the tool accessibility



Regarding overall usability, feedback presented in Figure 17 confirms that the tool was well received. **59%** of respondents rated it as **good**, while **34%** considered it **excellent**. Only 5% rated it as fair and 2% as poor, highlighting the strong performance of the tool among a wider audience of SMEs.

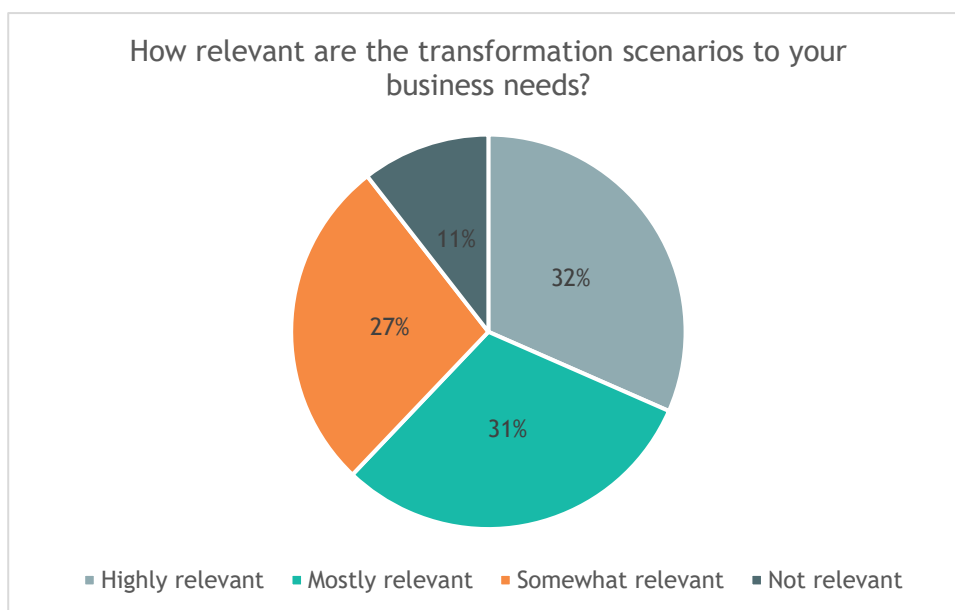
Figure 17: Feedback about the tool usability



Validation of the practicality and added value of transformation scenarios:

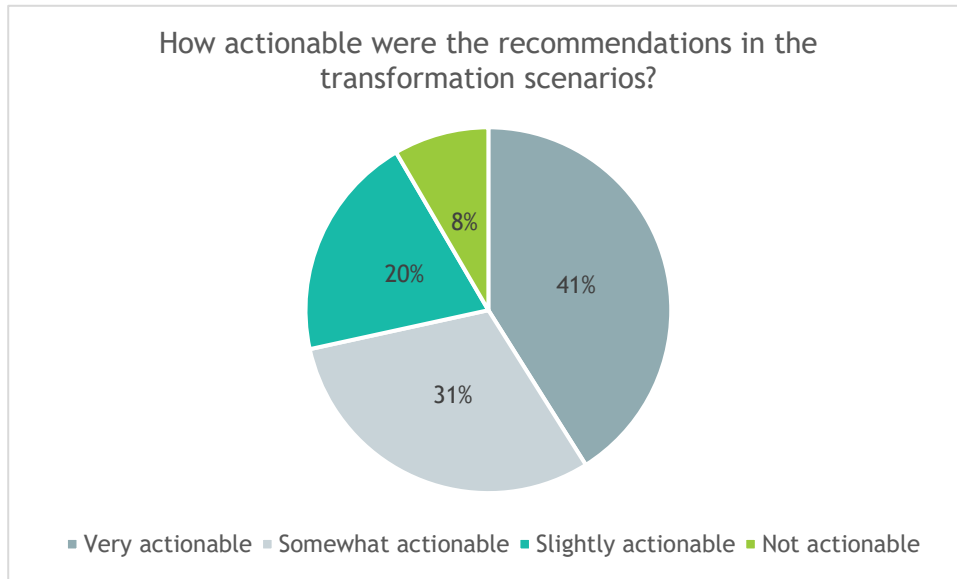
The relevance of the transformation scenarios was evaluated in terms of how well they aligned with the SMEs' needs. According to Figure 18, 32% of SMEs found the scenarios **highly relevant**, while 31% considered them **mostly relevant**. Another 27% rated them as somewhat relevant, and 11% found them not relevant. While the majority of SMEs found the scenarios applicable to their business, the results also indicate the need for continued refinement—especially in aligning recommendations more closely with sector-specific needs and SMEs maturity level.

Figure 18: Feedback about the relevance of the transformation scenarios



In terms of actionable recommendations, Figure 19 shows a positive outcome, with 92% of SMEs describing the recommendations as actionable (from highly relevant to somewhat actionable). Just 8% of SMEs found the recommendations as not actionable. These results validate the usefulness of the transformation scenarios, though they also suggest that some SMEs may benefit from more tailored or prioritized actions.

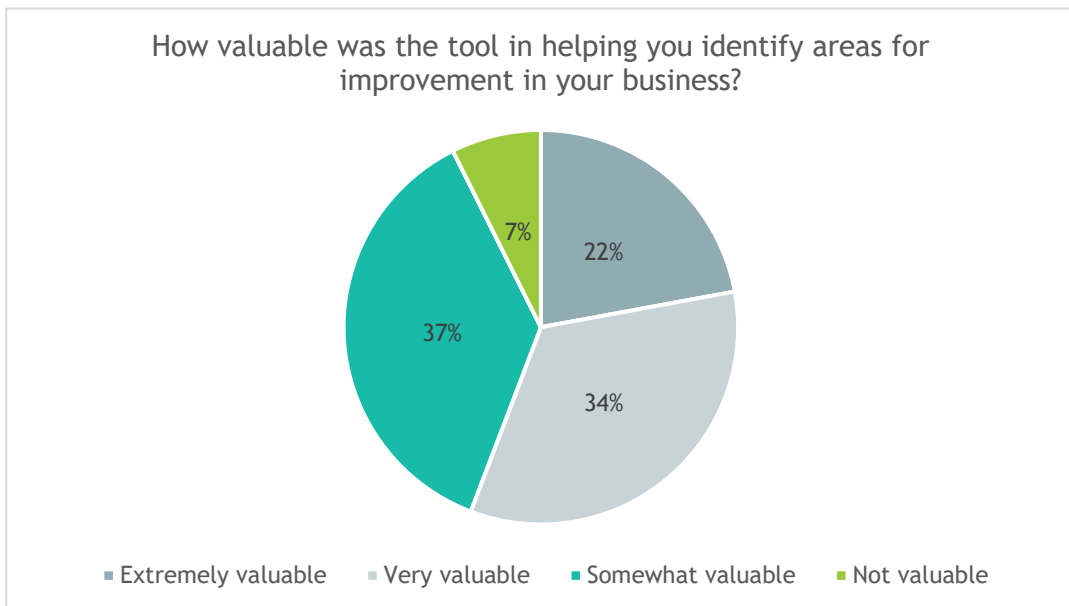
Figure 19: Feedback about how actionable are the recommendations



Evaluation of the overall added value for SMEs

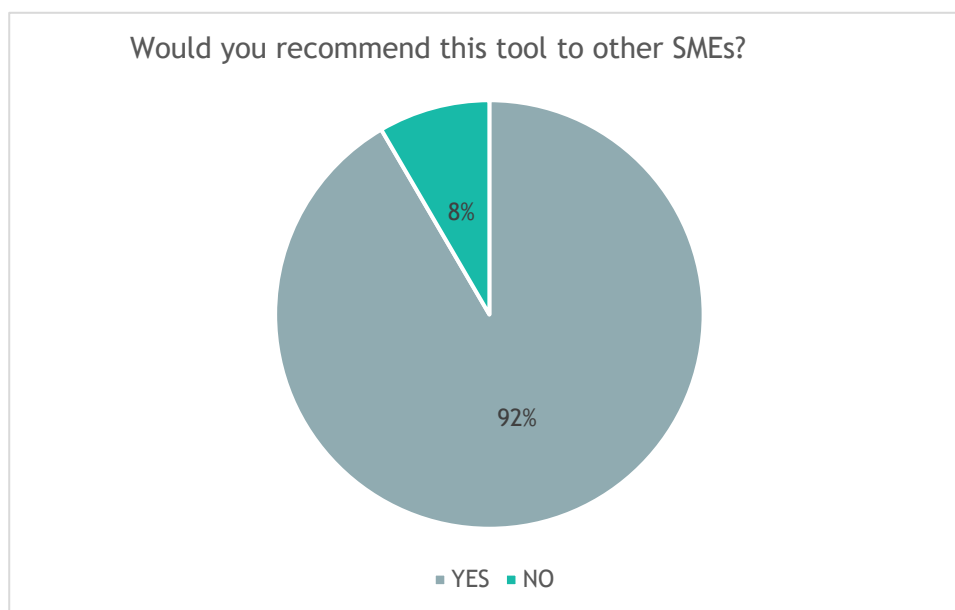
The perceived value of the tool in helping SMEs identify areas for improvement is illustrated in Figure 20. with **93% of SMEs rating the tool as valuable** (from extremely valuable to somewhat valuable) while only 7% did not find it valuable. These results confirm that the tool successfully guided most SMEs in recognizing areas where strategic changes could be made.

Figure 20: Feedback about the value of the tool



Importantly, as reflected in Figure 21, **92% of SMEs stated they would recommend the tool to other SMEs**, while only 8% said they would not. This strong endorsement indicates that the tool was perceived not only as functional but also as meaningful and relevant to businesses in different stages and sectors.

Figure 21: Feedback about the value of the tool



Project partners overall feedback about the course of the testing phase 3

As part of the evaluation process for the third and final testing phase, each project partner was invited to provide a structured reflection on the testing process and the tool's performance within their respective regions. These sub-reports serve to complement the direct feedback gathered from SMEs by offering the perspective of those who closely supported the testing implementation.

The sub-reports focused on several key themes:

- **User-friendliness of the tool:** Partners opinion about the overall experience of the SMEs with the tool.
- **Readiness of the tool for broader use:** Partners were asked to assess if the tool is sufficiently refined and stable for wider use across Central European SMEs.
- **Adaptability across sectors and regions:** Partners opinion about the tool's readiness for an effective support of the SMEs operating in different sectors and geographic contexts.
- **Added value of the transformation scenarios:** An evaluation of whether the recommendations and outputs generated by the tool provided meaningful and actionable guidance for SMEs.

KEY FINDINGS AND LESSONS LEARNT

Project partners reported that SMEs in this final testing phase generally found the tool easy to use and accessible. Its overall usability was rated positively, and the interface was considered intuitive. However, minor issues were noted, including some confusion around the tool's two-step structure and occasional difficulty navigating between sections.

The transformation scenarios were viewed as insightful and valuable, with SMEs particularly appreciating the structured format of the recommendations. Nevertheless, some questions – especially within the Digital Manufacturing pillar—were seen as less relevant for service-based SMEs, pointing to the need for improved sectoral adaptability.

While most partners agreed that the tool is ready for broader use across Central European SMEs, they also offered a set of final suggestions to enhance its relevance and practical value:

- Provide a more intuitive introduction and clearer context for each step, especially to help first-time users understand the purpose and structure of the tool.
- Group related questions thematically and consider introducing optional “short versions” for SMEs with limited time or capacity.
- Ensure that the recommendation language in transformation scenarios is more tailored, actionable, and sensitive to business context (e.g., sector, size, digital maturity).
- Expand the transformation scenarios with links to follow-up support materials, such as case studies, expert contacts, or implementation guides.
- Offer SMEs the ability to export the results in a concise, visually structured format suitable for internal use or planning discussions.
- Refine outputs to ensure better alignment with non-manufacturing sectors and improve scenario relevance for service-oriented and micro-sized enterprises.

Overall, project partners recognized the significant improvements made to the tool over the course of the pilot. These final recommendations focus on increasing accessibility, adaptability, and practical utility ahead of the tool’s broader rollout.

The insights gathered here provide valuable qualitative feedback that complements the quantitative data from SME responses and serves as a **foundation for refining the tool further** and ensuring that it meets the needs of SMEs across different industries and regions.

For detailed findings refer to APPENDIX 6 - PPs’ sub-report on the course of the testing process - Testing phase 3 / overall feedback

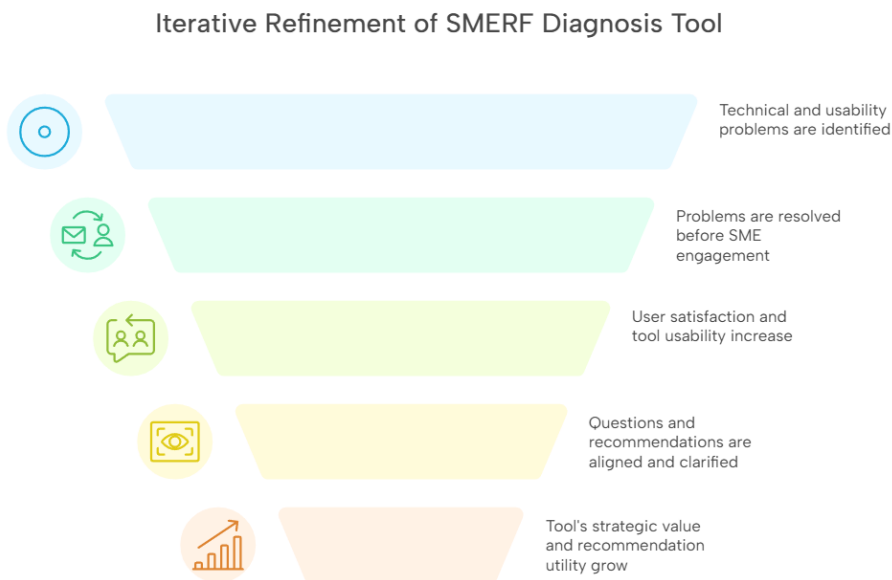
3. Overall findings

The pilot testing of the SMERF Diagnosis Tool – conducted in three structured phases – provided comprehensive insights into the tool’s usability, clarity, relevance, and overall value for SMEs. Throughout the process, the involvement of both SMEs and project partners ensured the tool was evaluated from multiple perspectives, enabling its progressive refinement.

Progressive improvement across phases

Each testing phase built upon the results of the previous one. While the first internal testing phase identified technical issues, navigation challenges, and inconsistencies in the user interface, these were successfully addressed before engaging SMEs. Subsequent phases showed continuous improvements in user satisfaction, with SMEs progressively reporting better usability, clearer instructions, and more relevant outputs.

Figure 22: Progressive improvement across phases



Accessibility and user experience

Overall, SMEs found the tool accessible and easy to use. Technical bugs, such as email verification issues or browser compatibility (notably with Safari), were identified and largely resolved. Later rounds of feedback indicated that over 90% of SMEs rated the tool as moderately to very easy to use, confirming the improvements in platform stability, clarity of navigation, and general user-friendliness.

Clarity and relevance of self-assessment questions

Testing revealed that while most questions were useful for stimulating reflection, some were perceived as too general, repetitive, or not aligned with specific business models—especially for service-based or digitally native SMEs. Feedback highlighted the need for better alignment of questions with business size and sector, as well as a clearer structure and more uniform language. These findings led to important revisions in phrasing and question organization.

Transformation scenarios: valuable, but need for refinement

A key feature of the tool – the transformation scenario – was recognized by most SMEs and partners as a valuable resource. However, issues emerged regarding:

- The **volume of recommendations**, which sometimes overwhelmed users;
- **Mismatch between company profile and recommendations**, particularly for specialized or service-focused SMEs;
- The need for **simplified, clearer language**, both in output descriptions and recommendations;

Added value and perceived usefulness

Feedback confirmed that the tool prompted strategic thinking, with most SMEs reporting increased awareness of areas for improvement. Most users stated they would recommend the tool to others, confirming its utility and practical value. In particular, the combination of a structured questionnaire and personalized recommendations was seen as a distinctive strength of the tool.

Lessons learned and areas for future development

The pilot action revealed that while the tool is broadly functional and well-received, further improvements would increase its usability and impact. These include:

- Offering **additional guidance material (e.g. a video tutorial)**
- Enabling sector-specific filtering for questions and scenarios;
- Continuing to simplify and refine the questions, answers and transformation scenarios
- Refining the output to make it less overwhelming

The structured and iterative approach of the pilot testing successfully enabled the identification of key strengths and improvement areas. These findings will directly inform the final development of the tool in Activity A2.4.

4. Future steps

Following the successful completion of the three-phase pilot testing, the SMERF Diagnosis Tool has reached a high level of maturity in terms of functionality, usability, and perceived value among SMEs. The feedback collected from SMEs and project partners throughout the testing process has provided a clear direction for the final stage of development.

This chapter consolidates the key feedback from all three testing phases and partner reflections, summarizing the main areas for refinement to guide the tool's final development.

The next step in the SMERF project will be the implementation of Activity A2.4 - SMERF Diagnosis Tool development - upgrade to final version. This activity will take place during Periods 5 and 6 (Months 25-36) and will focus on:

- Refining the tool's functionality and layout (graphical user interface) to address the remaining usability issues and ensure intuitive navigation;
- Enhancing customization options to better reflect sectoral differences, SME profiles, and business models;
- Simplifying the language, structure and quality of both questions and transformation scenario outputs for greater clarity and inclusivity;
- Improving the clarity and content of the generated scenario to make it easier for the user to understand;
- Improving the print layout;
- Improving the alignment between inputs and recommendations, ensuring the generated scenarios are precise, actionable, and tailored;
- Finalizing technical adjustments to improve performance across all browsers and devices;
- Integrating the Inspiration Knowledge Base, which will provide SMEs with direct access to resources related to the four transformation pillars;
- Conducting final technical testing to validate the tool's security and stability and performance before full release.

Upon completion of this activity, the final version of the SMERF Diagnosis Tool will be made available as an open, online solution, accessible to all Central European SMEs, HEIs, and innovation intermediaries. Registration will be free of charge, ensuring broad and equitable access to a tool designed to support transformation readiness and strategic development.

Conclusion

The pilot testing of the SMERF Diagnosis Tool provided strong evidence of its functionality, usability, and value for SMEs navigating digital, green, and innovation-driven transformation. Through a structured and iterative approach involving both internal partner testing and direct SME engagement, the tool has been continuously refined to meet the needs of a diverse user base.

Findings across all phases demonstrated that the tool is generally user-friendly, insightful, and capable of generating actionable transformation scenarios. SMEs appreciated the structured format, the relevance of the recommendations, and the ability to reflect on their own practices. At the same time, feedback revealed specific areas for enhancement—most notably the need for better customization based on company profile, further simplification of language, and improved filtering and prioritization of recommendations.

As the project moves into its final development phase (A2.4), these insights will be instrumental in shaping the final version of the tool. With its full release, the SMERF Diagnosis Tool will be positioned to become a widely accessible and impactful resource, supporting SMEs across Central Europe in their strategic transformation journeys.

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Quality Assurance Approval

Partner	Member of the Quality Assurance Team	Result of the quality check	Date of the quality check
(QAT1)	Jennifer Quoc (PP2 BIZ-UP)	<input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected	22.04.2025.
(QAT2)	Federico Manara (PP7 UNIGE)	<input checked="" type="checkbox"/> accepted <input type="checkbox"/> rejected	23.04.2025.

Comments (in case of rejection):