Interreg CENTRAL EUROPE

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GREENE 4.0

D2.5.3 – Training Evaluation Assessment

Technical Report

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A. Executive summary

Technical Report: Training Evaluation Assessment (Deliverable D2.5.3)

Context and Objectives

The GREENE 4.0 project is dedicated to accelerating the "Twin Transition" (green and digital) for manufacturing SMEs and mid-caps in Central Europe. A core component of this mission is **Activity 2.5**, which involves the design and implementation of five specialized training modules delivered through both live workshops and a Massive Open Online Course (MOOC) platform. This report, **Deliverable D.2.5.3**, provides a comprehensive evaluation of these training programs, analyzing their effectiveness, relevance, and overall impact on human capital.

Methodological Framework

To ensure scientific rigor and practical utility, the evaluation utilized a dual-framework approach:

1. **Kirckpatrick Model:** Used as a conceptual map to measure Level 1 (Reaction) and Level 2 (Learning).
2. **Grohmann & Kauffeld (BEVA) Framework:** Functioned as a scientific tool to assess specialized dimensions such as **Instructional Quality, Perceived Utility, and Transfer Intent (Self-Efficacy)**.

   Data was collected between May and December 2025 using a 10-point Likert scale survey to ensure high granularity and sensitivity in capturing participant perceptions.

Key Findings

The assessment analyzed **124 valid responses** from a diverse demographic and sectoral cross-section (CEOs, R&D managers, technical staff).

Key results include:

- **Consistently Positive Feedback:** All five modules received mean scores well above the midpoint, indicating high overall satisfaction and successful awareness-raising.
- **Module Performance:** Module 3 (Digital Manufacturing and Open Innovation Toolkit Mastering) emerged as the highest-performing module, with scores above 8.0 across all indicators, showing an exceptional alignment with SME operational needs.
- **Robustness across Demographics:** Statistical analysis (ANOVA) confirmed that the training's effectiveness was largely independent of age, gender, or organizational role, highlighting the program's inclusiveness and broad applicability.
- **Identified Barriers:** Qualitative feedback from workshops identified the English language as a significant barrier for some participants and noted that certain modules were "text-heavy," suggesting a need for more visual and interactive content.

The GREENE 4.0 training program has successfully enhanced the perceived readiness of SMEs for the green and digital transition. To further capitalize on these results and ensure the sustainability of the "Open Knowledge HUB," the following recommendations are made:

- **Practical Orientation:** Expand real-world SME case studies and provide more “actionable” guidance for smaller firms.
- **Enhanced Visualization:** Reduce text density in favour of graphical explanations and interactive elements.
- **Standardization:** Implement glossaries and consistent terminology across all modules to improve the user experience.
- **Multilingual Support:** Consider local language adaptations to maximize reach and reduce learning barriers in international contexts.

This evaluation confirms that the GREENE 4.0 training infrastructure is a scalable and transferable solution for industrial capacity-building in the Interreg Central Europe region.

B. Introduction

The GREENE 4.0 project aims to accelerate the transition of manufacturing SMEs and mid-caps towards a more sustainable, digital, and resilient future. A cornerstone of this transformation is the enhancement of human capital through targeted capacity-building. **Activity 2.5** (as part of the Work Package 2 or WP2) focuses on the design, delivery, and evaluation of high-level training programs specifically tailored to the needs of the "Twin Transition" (Green and Digital). Beforehand, project partners developed five training modules (see *D.2.5.1 Training Modules*) which were subsequently adapted into Massive Open Online Courses (or MOOCs) using the open-source Moodle (Modular Object-Oriented Dynamic Learning Environment) platform (see *D.2.5.2 MOOC Training Programs*).

This technical report titled **Training Evaluation Assessment (Deliverable D.2.5.3)** serves as the final evaluative component of the training cycle. Its primary purpose is to analyze the effectiveness of the curricula, the delivery methods (both digital and physical), and the overall impact of the knowledge transferred to the participating companies.

This document presents a progress overview of the activities carried out under Activity A2.5 "Developing and Implementing Open Knowledge Training Programs" as part of Work Package 2 (WP2) of the Transnational GREENE 4.0 Open Knowledge HUB for Digital Transformation. The focus is on Deliverable D.2.5.2, titled *"MOOC Training Programs."* The report outlines the process of designing, structuring, and implementing training modules, which were subsequently adapted into Massive Open Online Courses (MOOCs) using the open-source Moodle (Modular Object-Oriented Dynamic Learning Environment) platform.

It is important to note that the core content of the five training modules was previously delivered in Deliverable D.2.5.1, *"Training Modules."* That document provides the structured content of each of the five modules, designed to guide companies progressively through each section and support their learning objectives. Each module represents a key part of the overall training framework, enabling step-by-step development in digital transformation competencies.

Training Evaluation Assessment

Evaluation Framework

After a deliberative process undertaken by PP4 and with the help of all partners present at the partner meeting in Krakow (March 2025), the GREENE 4.0 consortium settled for the adaptation of two suitable methodological frameworks: first being the **Kirkpatrick Model**, intended as the “conceptual map” (or what to measure) and the second the **Grohmann & Kauffeld (BEVA)** framework, functioning more as a “scientific tool” to measure the selected dimensions efficiently.

1. The Kirckpatrick Model

Developed by Donald Kirkpatrick in the 1950s, this is the global gold standard for evaluating training. It breaks evaluation into four progressive levels. The further you go up the levels, the more valuable the data is to the organization, but the harder it is to measure.

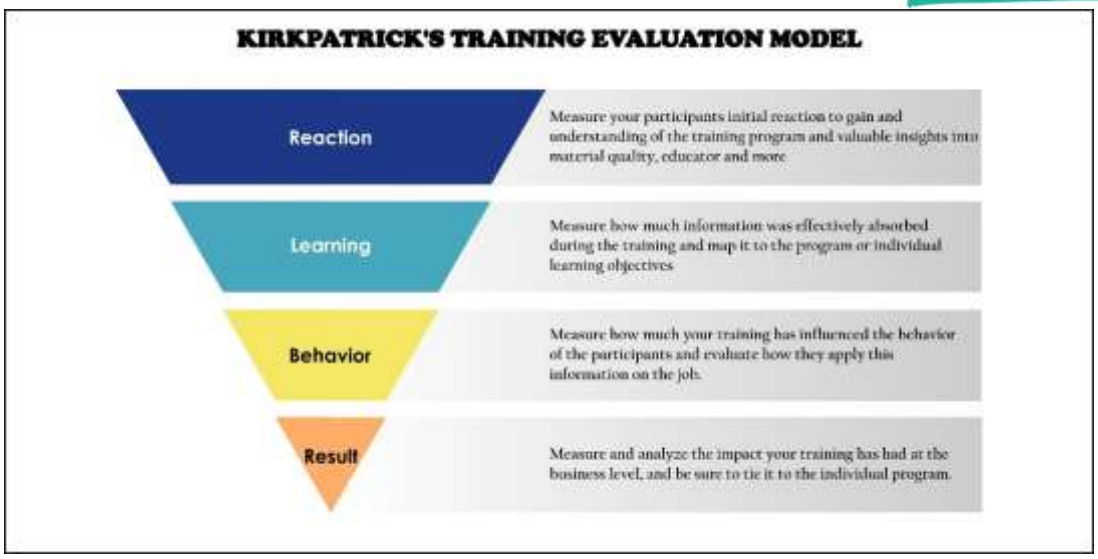

Figure 1: Kirckpatrick's Training Evaluation Model

- **Reaction (Level 1):** Measures how participants felt about the training. Did they like it? Was it relevant? (See our survey in the appendix: *Q3 "I enjoyed the module" / Q5 "Material quality"*).
- **Learning (Level 2):** Measures the increase in knowledge, skills, or experience. (See our survey in the appendix: *Q4 "I know more now than I did before"*).
- **Behaviour (Level 3):** Measures how much of that knowledge is actually applied on the job. (See our survey in the appendix: *Q3 "I feel confident that I can perform the tasks"*).
- **Results (Level 4):** Measures the final impact on the business (e.g., increased production, lower costs, or reaching private capital).

2. **Grohmann & Kauffeld/ BEVA**

While Kirkpatrick is a great concept, it doesn't provide the actual questions. In 2013, **Anna Grohmann and Simone Kauffeld** developed the **Questionnaire for Professional Training Evaluation (Q4TE)**, often referred to in German contexts as **BEVA.**

Their goal was to create a tool that was **psychometrically sound** (scientifically proven to be accurate) but **time-efficient**—perfect for busy SMEs.

Key Dimensions of the Grohmann & Kauffeld Approach:

- **Utility vs. Satisfaction:** They distinguish between "I liked the training" (Satisfaction) and "This training helps my job" (Utility). For SMEs, **Utility** is much more important for long-term impact.
- **Interest Acquisition:** Beyond just "learning facts," they measure if the training sparked a new interest in the topic (e.g., making a manager *want* to learn more about Green Industry).
- **Transfer Intent:** They focus heavily on the "intent" to use the knowledge. Research shows that if a participant leaves a workshop with high "self-efficacy" (confidence), they are significantly more likely to actually change their behavior at work.

Survey Design

To ensure both academic validity and practical relevance for the Central European manufacturing sector, the survey was designed based on a dual-framework approach:

- **The Kirkpatrick Model:** This provides the structural foundation for the evaluation, focusing on Level 1 (Reaction) and Level 2 (Learning).
- **The Grohmann & Kauffeld (BEVA) Framework:** The survey adapts validated dimensions from the *Questionnaire for Professional Training Evaluation*, specifically targeting Instructional Quality, Perceived Utility, and Self-Efficacy.

The survey was designed for a 7-minute completion time to minimize survey fatigue among SME staff. It is structured into four distinct thematic blocks:

- **Training Identification (Q1, Q2):** Participants identify which of the five GREENE 4.0 modules they completed and the time investment required.
- **Performance Metrics (Q3-Q5):** This core section uses a 10-point Likert scale to evaluate content interest, logical structure, comprehensibility, and the quality of the MOOC/workshop materials.
- **Qualitative Learning Outcomes (Q6, Q7):** Open-ended questions allow participants to describe their specific technical "takeaways" and provide suggestions for future module refinements.
- **Organizational and Demographic Context (Q8-Q14)**: This section maps the results against the *Quadruple Helix* model by identifying the participant's role (e.g., CEO, Engineer, R&D Manager), industry sector, and company experience.

The survey utilized a **10-point Likert scale** for all evaluative questions. This choice was made to maximize the granularity of the data and to provide a higher degree of sensitivity in capturing the participants' perceptions. Unlike 5-point scales, the 10-point format minimizes 'central tendency bias' and offers a more robust distribution for statistical analysis, ensuring that the Training Impact Assessment (D.2.5.3) provides precise, actionable insights for the GREENE 4.0 partnership and the External Advisory Board.

The complete assessment instrument, including the specific phrasing of all 14 questions and the 10-point scale layout, is provided in **Appendix.**

Survey Administration and Data Collection

The training evaluation survey was administered following the completion of the GREENE 4.0 training modules, including both **live (on-site or hybrid) training workshops** and **self-paced e-learning modules delivered in MOOC format**. Participants were invited to complete the questionnaire immediately after engaging with the training content, ensuring that responses reflected recent, experience-based perceptions of the modules.

Data collection was implemented through **two complementary channels**. First, a substantial share of responses was collected in the context of **partner-led live and hybrid training workshops**, organised across the Central Europe region between **May and June 2025**. In total, **nine partner-led training**

events were delivered during this period, each involving multiple SMEs and related organisations. These workshops provided a structured environment for guided learning and facilitated immediate post-training feedback.

Additional data collected by partners during the live events revealed a positive appraisal of the interface and the varied levels of complexity across the modules. However, several workshops (specifically WS-01, -02, -03, and -04) noted that the text bodies were occasionally too dense or voluminous, while the respective final quizzes were perceived as too simplistic. Furthermore, two workshops (WS-03 and WS-04) identified the English language as a significant barrier to a successful e-learning experience. Other relevant feedback highlighted a lack of standardization across all modules and suggested improvements such as adding a glossary of key terms or highlighting the most critical concepts and messages.

Workshop ID	Date	Project Partner	Number of participants	Represented Industry Clusters
WS-01	17 May 2025	PP3 (TGZ)	7	Building materials and furniture; Electronics
WS-02	19 May 2025	PP8 (KPT)	8	Electronics; Building materials and furniture
WS-03	22 May 2025	PP9 (MGFÜ)	7	Machinery and Equipment; Plastics and rubber
WS-04	4 June 2025	PP7 (IMECH)	7	Machinery and equipment; Metal and metal products; Electronics; Food and beverages; Other
WS-05	5 June 2025	PP6 (ICUK)	7	Machinery and equipment; Building materials and furniture; Other
WS-06	18 June 2025	PP2 (TGZ)	7	Metal and metal products; Machinery and equipment; Electronics
WS-07	20 June 2025	PP1 (PTP)	9	Machinery and equipment; Metal and metal products; Electronics; Other

Second, additional responses were collected from participants who completed one or more training modules **independently via the GREENE 4.0 MOOC platform**, without participating in a live workshop. These respondents accessed the training content in a self-paced manner and were invited to complete the same evaluation survey upon finishing the respective e-learning modules. This approach ensured that feedback also captured experiences of users engaging exclusively with the digital learning format.

The survey was distributed online via the GREENE 4.0 training infrastructure and partner communication channels. Participation was voluntary and open to all individuals who completed at least

one of the five training modules, regardless of the delivery format (live, hybrid, or fully digital). No incentives were offered, in order to minimise response bias.

Overall data collection took place between **May and December 2025**, covering the full implementation phase of Activity A2.5. In total, **124 valid responses** were collected across all five training modules. Due to the modular structure of the training programme and the differing delivery formats, the number of responses varies slightly between individual modules.

All analyses presented in this deliverable are based on **valid responses only**. Missing values were excluded on a per-item basis, meaning that each evaluation item was analysed using the maximum available number of valid observations. This approach ensures methodological robustness while preserving the analytical richness of the dataset.

The final dataset includes respondents from a broad range of:

- Company sizes (e.g., SMEs and mid-caps)
- Industrial sectors and clusters
- Organisational roles (e.g., management, technical staff, R&D, and operational roles).

This allows an aggregated assessment of training impact across **heterogeneous organisational and sectoral contexts**.

Variable	Category	Valid %
Gender	Male	60.5
	Female	38.7
	Other	0.8
Age Group	Under 25	11.3
	25-34	42.7
	35-44	29.0
	45-54	12.9
	55-64	4.0
Organisational Role / Job Position	CEO / Managing Director	20.2
	R&D / Innovation Manager	12.1
	Other managerial or specialisr roles	32.3
	Technical / Engineering roles	35.4
Industry Sector	Machinery and Equipment	12.1
	Metal Products (except machinery and equipment)	11.3
	Building materials and furniture	8.1
	Computers, electronics and optical products	4.8

	Basic metals	3.2
	Food products and beverages	3.2
	Electrical equipment	3.2
	Rubber and plastic products	3.2
	Chemical and chemical products	2.4
	Automotive	2.4
	Textiles	0.8
	Other	45.2

With regard to to demographic characteristics, the sample includes respondents from multiple **age groups** and of different **genders**, enabling exploratory analysis of potential demographic influences on training evaluation outcomes. Due to uneven subgroup sizes, demographic variables are used primarily for descriptive and indicative comparative purposes.

The following section presents the results of the Training Impact Assessment, drawing on the combined dataset from live workshop participants and self-paced MOOC learners to evaluate perceived relevance, learning outcomes, and practical usefulness of the GREENE 4.0 training programme.

C. Descriptive Results of Training Evaluation

This section presents the descriptive results of the Training Impact Assessment, focusing on participants' immediate reactions to the training and their self-reported learning outcomes. In line with the adopted evaluation framework, the analysis primarily addresses **Kirkpatrick Level 1 (Reaction)** and **Level 2 (Learning)**. All results are based on **valid responses only**, excluding missing values on a per-item basis.

Overall Evaluation of the Training Models

Across all five GREENE 4.0 training modules, participants reported **consistently positive evaluations**. Mean scores across key evaluation indicators were situated in the upper range of the 10-point Likert scale, indicating a high level of satisfaction with both content quality and perceived learning outcomes.

To provide a more granular overview, the table below summarises the **mean evaluation scores per module** for the four core impact indicators used throughout this deliverable.

The training content was structured into five thematic modules:

- **Module 1: Beginners Program**
- **Module 2: Smart Manufacturing and Open Innovation Toolkit Mastering**
- **Module 3: Digital Manufacturing and Open Business Generation and Operation**
- **Module 4: Green Industry Innovation and Sustainable Production Technologies**

- **Module 5: Funding Gaps – Reaching Private Capital by Performing Equity Investment Readiness-Supporting Tool**

Module	Number of Responses (N)	Q5 – Relevance to Company Goals	Q6 – New Information Provided	Q8 – Usefulness for Company Operations	Q9 – Feeling Better Informed
Module 1	50	7.60	7.06	6.98	7.34
Module 2	18	6.61	7.11	6.28	7.39
Module 3	18	8.44	8.00	8.00	8.06
Module 4	18	7.22	6.50	6.50	6.78
Module 5	20	7.65	7.00	6.85	6.85

Across all four evaluation dimensions, the five training modules received **consistently positive mean scores**, indicating overall satisfaction with the training programme. However, the comparative analysis reveals meaningful variation between modules.

Module 3 consistently achieved the highest mean scores across all four indicators, with values above **8.0** for relevance, usefulness, and learning outcomes. This indicates a strong alignment between the module's content and the operational as well as strategic needs of participating SMEs. In the open-ended responses, participants nevertheless suggested several areas for further enhancement, including the provision of more in-depth explanations, additional real-world examples, supplementary reading materials, and a clearer linkage between theoretical concepts and practical application.

Modules 1 and 5 demonstrate solid and balanced performance, with relevance scores above **7.6** and learning-related indicators (Q6 and Q9) around **7.0**. While perceived usefulness (Q8) is slightly lower, it remains clearly above the midpoint of the scale, indicating positive practical applicability.

For **Module 1**, qualitative feedback indicates that the content could benefit from more practical and actionable guidance tailored to SMEs with limited resources, as well as a greater number of real-world business cases or case studies. Several respondents also suggested a clearer emphasis on the obligations and advantages relevant to industrial companies. In addition, a number of comments referred to formatting and presentation aspects, including a preference for less text and more graphical explanations, improved positioning and formatting of footnotes, and clearer highlighting of key sections. Some participants suggested that the module's quiz could be more challenging and detailed, while several respondents reported that no improvements were necessary.

With regard to **Module 5**, respondents similarly recommended the inclusion of more concrete, SME-focused examples and more detailed guidance on practical application. In addition, participants suggested that the module would benefit from a clearer positioning within the broader context of the digital and green transition.

Module 2 shows a differentiated pattern. While participants reported positive learning outcomes (Q6 = 7.11; Q9 = 7.39), perceived relevance (Q5 = 6.61) and usefulness (Q8 = 6.28) are comparatively lower. This suggests that, although informative, the module was perceived as less directly connected to company-specific operational needs Qualitative feedback further indicates that participants would welcome a higher degree of interactivity, the inclusion of additional business case examples, and slightly longer or more detailed explanations of key topics to support deeper understanding.

Module 4 records the lowest mean scores across several indicators, particularly for perceived usefulness (Q8 = 6.50) and learning outcomes (Q9 = 6.78). Despite these lower values, all mean scores remain above the midpoint of the scale, indicating overall positive evaluations but a comparatively weaker perceived impact. Nevertheless, qualitative responses suggest a comparatively

weaker perceived impact. Participants expressed a preference for more concrete industrial case studies, less text-heavy content complemented by additional visual elements, and more detailed explanations of practical implementation steps.

Overall, variation across modules is **more pronounced for relevance and usefulness than for learning outcomes**, suggesting that differences primarily relate to thematic focus and contextual applicability rather than instructional quality. The results confirm that all modules successfully contributed to increasing awareness and understanding of digital and green transition topics, while also highlighting opportunities to further strengthen the practical orientation of selected modules.

Percieved Relevance and Usefulness

Perceived relevance of the training content to company goals and needs (Q5) was evaluated positively across all modules. **Module 3** achieved the highest relevance score, indicating a particularly strong alignment with organisational priorities related to the green and digital transition. Modules 1 and 5 also performed well, while Module 2 received comparatively lower relevance scores, though still above the scale midpoint.

A similar pattern is observed for perceived usefulness for company operations (Q8). Again, **Module 3 stands out** with the highest mean score, suggesting strong applicability to operational contexts. Modules 2 and 4 show slightly lower usefulness ratings, which may indicate a more conceptual orientation or a weaker direct link to day-to-day operational processes.

Overall, the results suggest that while all modules were perceived as useful, **practical applicability varies depending on module focus and thematic scope.**

Learning Outcomes and Percieved Knowledge Gains

Learning outcomes were assessed through participants' perceptions of newly acquired knowledge (Q6) and their self-reported increase in understanding of digital and/or green transition topics (Q9).

Across all modules, respondents reported that the training provided **new and relevant information**, with mean scores consistently above 6.5. Once again, **Module 3 achieved the highest scores** on both learning indicators, pointing to a particularly strong perceived learning effect.

Modules 1, 2, and 5 show comparable learning outcomes, while Module 4 records slightly lower scores, especially for perceived increase in understanding (Q9). Nevertheless, all modules demonstrate a positive contribution to participants' knowledge and awareness of transition-related topics.

D. Analysis, Interpretation and Limitations

Analysis of the Training Evaluation by Demographic and Organisational Context

This section examines whether participants' evaluations of the GREENE 4.0 training modules differ across selected demographic and organisational characteristics. The analysis focuses on age, gender, and organisational role. One-way ANOVA tests were applied to explore potential differences in mean scores across groups. Given the exploratory nature of the evaluation and the uneven distribution of respondents across subgroups, results are interpreted cautiously and emphasised as indicative rather than confirmatory.

1. Impact by Age Group

ANOVA analyses were conducted to examine whether participant evaluations differed across age groups.

A statistically significant effect of age was identified only for **Q2 – "The title of the Module accurately described its content"** ($F = 3.013$, $p = 0.021$). This indicates that perceptions of how accurately module titles reflected their content varied across age categories. This result suggests that different age groups may have distinct expectations regarding the framing and labelling of training content.

For all core training evaluation indicators—**perceived relevance (Q5), provision of new information (Q6), perceived usefulness (Q8), and perceived learning outcomes (Q9)**—no statistically significant age-related differences were observed. Trend-level effects were identified for perceived relevance (Q5; $p = 0.066$) and perceived learning outcomes (Q9; $p = 0.093$), indicating indicative but non-conclusive variation across age groups.

Overall, these findings suggest that the perceived effectiveness and practical value of the GREENE 4.0 training programme are largely **independent of participant age**, supporting the applicability of the training across heterogeneous age groups within manufacturing SMEs.

2. Impact by Gender

Comparative analyses by gender revealed **no statistically significant differences** in mean scores for the core evaluation indicators (Q5, Q6, Q8, and Q9). Mean values for both male and female respondents were consistently situated in the upper range of the scale, indicating similarly positive evaluations of relevance, usefulness, and learning outcomes.

The absence of statistically significant gender-based differences suggests that the training content and delivery formats were perceived as **equally accessible and relevant** across genders. This finding supports the inclusiveness of the GREENE 4.0 training programme and indicates that no systematic gender-related bias is evident in the evaluation results.

3. Impact by Organisational Role and Job Position

ANOVA analyses examining differences across organisational roles and job positions did not identify statistically significant effects for the main training impact indicators. Participants occupying managerial, technical, R&D, and operational roles reported broadly comparable levels of perceived relevance, usefulness, and learning outcomes.

Analysis and Interpretation

The combined descriptive and inferential analyses indicate that the GREENE 4.0 training programme achieved strong outcomes at **Kirkpatrick Level 1 (Reaction)** and **Level 2 (Learning)**. Participants consistently reported high levels of satisfaction, perceived relevance, and learning gains across all five training modules.

The absence of statistically significant differences across most demographic and organisational variables reinforces the interpretation that the observed training effects are **robust across heterogeneous participant groups**. Differences observed between modules are primarily attributable to **thematic focus and degree of practical applicability**, rather than variations in instructional quality.

Module-level analyses highlight that modules with a stronger application-oriented focus tend to receive higher relevance and usefulness scores, while more conceptual modules demonstrate slightly lower operational alignment despite positive learning evaluations. This pattern is consistent with findings from the open-ended qualitative feedback and aligns with the BEVA framework's emphasis on perceived utility and self-efficacy.

Overall, the results suggest that the GREENE 4.0 training programme effectively supports SME capacity-building for the twin green and digital transition, particularly in terms of awareness-raising, knowledge acquisition, and perceived applicability.

Limitations of the Evaluation Assessment

While the Training Evaluation Assessment provides valuable insights into the perceived relevance, usefulness, and learning outcomes of the GREENE 4.0 training programme, several limitations should be acknowledged when interpreting the results. These limitations are inherent to the design and scope of the evaluation and are typical of applied, project-based training assessments.

The assessment is based on a total of 124 valid responses collected across five training modules and multiple delivery formats. While this sample size is adequate for descriptive analysis and exploratory group comparisons, the distribution of respondents across specific subgroups (e.g. age categories, industry sectors, organisational roles) is uneven. Some subgroups include relatively small numbers of participants, which limits the statistical power of comparative analyses and reduces the robustness of subgroup-specific findings.

As a result, differences observed across demographic or organisational categories should be interpreted as **indicative patterns or trends**, rather than as strong or generalisable effects. The analysis therefore prioritises aggregated results and cautious interpretation over inferential claims.

All evaluation data are based on **self-reported responses**, reflecting participants' subjective perceptions of training quality, relevance, and learning outcomes. While self-report instruments are widely used and appropriate for assessing reaction- and learning-level outcomes (Kirkpatrick Levels 1 and 2), they do not directly measure objective knowledge acquisition, behavioural change, or organisational performance outcomes.

In addition, the survey was administered immediately after participants completed the training modules, capturing **short-term effects** rather than long-term learning retention or behavioural transfer. As such, the assessment does not provide evidence regarding the sustained application of acquired knowledge in workplace settings (Kirkpatrick Level 3) or broader business-level impacts (Level 4).

E. Conclusions and Recommendations

The Training Evaluation Assessment demonstrates that the GREENE 4.0 training programme successfully achieved its primary objective of enhancing awareness, knowledge, and perceived readiness of SMEs and mid-caps for the digital and green transition. Across all five modules and delivery formats, participants reported consistently positive evaluations of relevance, usefulness, and learning outcomes.

The findings indicate that the modular and hybrid design of the programme effectively accommodated diverse organisational roles, sectors, and demographic groups. This supports the scalability and transferability of the training approach within the Interreg Central European context.

Based on the evaluation results, the following recommendations are proposed:

- **Strengthen practical orientation** in selected modules by expanding real-world SME case studies and implementation-focused guidance.
- **Enhance interactivity and visual elements** to support deeper engagement and understanding.
- **Improve standardization across modules**, including clear structure, consistent terminology, and supporting tools such as glossaries.
- **Consider multilingual adaptations** or additional language support to reduce barriers to participation in international training contexts.

F. Appendix

- Training Assessment Survey (1ka Software)
- Training Assessment Protocol
- Physical Workshops' Documentation

GREENE 4.0 Module Assessment Survey

Vprašalnik

Kratko ime ankete:	GREENE 4.0 Training Assessment Survey
Število vprašanj:	14
Število spremenljivk:	41
Status:	Anketa še ni bila aktivirana.
Avtor:	Maruška Nardoni, 22.04.2025
Spreminjal:	Maruška Nardoni, 22.04.2025

Thank you for completing the learning Module! Your feedback is essential in helping us improve the quality and effectiveness of our training. This survey is anonymous and complies with GDPR regulations. For the purpose of data processing and analysis, we do not require any identifiable information about you or your company. The analysis will be used for the refinement of the Modules. The survey will take approximately 7 minutes to complete and will be supported by a GREENE 4.0 employee.

Please take a few minutes and click on the Next page to begin filling out the survey.

Q1 - Which e-learning Module did you complete?

Please select one answer.

- Module 1: Beginners Program
- Module 2: Digital Manufacturing and Open Innovation Toolkit Mastering
- Module 3: Digital Manufacturing and Open Business Generation Operation
- Module 4: Green Industry Innovation and Sustainable Production Technologies
- Module 5: Funding Gaps

Q2 - Approximately how long did the Module take you to complete?

Please estimate the time in minutes.

_____ Minutes

Q3 - On a scale from 0 to 10, how much do you agree with the statements?

(0 = completely disagree; 10 = completely agree)

	0	1	2	3	4	5	6	7	8	9	10
The title of the Module accurately described its content.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
The length of the Module was appropriate.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Q4 - Next, you will find a few statements about your initial expectations and your overall impressions of the e-Learning.

_____

Q5 - Please rate how much do you agree with the following statements.

(0 = completely disagree; 10 = completely agree)

	0	1	2	3	4	5	6	7	8	9	10
I am satisfied with how the content was organized and presented.	○	○	○	○	○	○	○	○	○	○	○
The Module's content is highly relevant to the company's goals and needs.	○	○	○	○	○	○	○	○	○	○	○
This Module provided me with a lot of new information on the topic.	○	○	○	○	○	○	○	○	○	○	○
This Module met my expectations.	○	○	○	○	○	○	○	○	○	○	○
I find the content of the Module very useful for my	○	○	○	○	○	○	○	○	○	○	○

company's operations.											
I feel better informed about the digital and/or green transition after completing this Module.											
I am satisfied with what I learned in this Module.											
The structure of the content made it easy to follow and understand.											

Q6 - Which part of the Module did you find most instructive or useful?

_____

Q7 - Can you please name one thing that should be added or improved in the Module?

e.g., additional topics, harder test, more/less business case examples, in-depth explanations of key topics, engineering tips etc.

_____

Q8 - You are nearly finished with the survey. We just need a few final details about you and your company's demographics.

Q9 - Please, state your age.

- Under 25
- 25 - 34
- 35 . 44
- 45 - 54
- 55 - 64
- 65 or older

Q10 - Gender

- Female
- Male
- Other

Q11 - Nationality

_____

Q12 - How many years have you worked at your current company?

- Less than 1 year
- 1 - 3 years
- More than 3 years and up to 5 years
- More than 5 years and up to 10 years
- More than 10 years

Q13 - In which sector or industry does your company primarily operate?

Please select the most relevant option.

- Agriculture, forestry, and fishing
- Food products and beverages
- Textiles
- Chemicals and chemical products
- Rubber and plastic products
- Basic metals
- Fabricated metal products, except machinery and equipment
- Automotive
- Machinery and equipment
- Building materials and furniture
- Electrical equipment
- Computers, electronics and optical products
- Other

Q14 - Position in the company

- CEO/Managing Director
- Process Engineer/Industrial Engineer
- Production/Plant Manager
- Operations Manager
- Supply Chain/Logistics Coordinator
- Maintenance Technician/Engineer
- Administrative/ Office Staff
- R&D/Innovation Manager
- HR/Training and Development Officer
- Quality Assurance/Quality Control Specialist
- IT/Digitalization Specialist
- Other