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GREENE 4.0

A.1 D.3.2.3. Assessment Report

A.3.2. Greene 4.0 Innovation Contest

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1. Executive summary

1.1. Project Overview

The GREENE 4.0 project aims at facilitating and supporting small and medium-sized enterprises (SMEs) in the manufacturing sector in the adoption and use of green production methods and digital technologies. Creating an Innovation Contest for solution providers is crucial in generating, testing, and piloting smart and green manufacturing value chain models across seven sectoral clusters. The goal of the Greene 4.0. Innovation Program is to pilot and test 7 solutions within 7 sectors on national level and EU level. The Greene Innovation Contest supports small and medium-sized enterprises (SMEs), startups and individuals offering innovative solutions in industrial digital transformation and the green economy. The Program aims to facilitate cooperation with manufacturing companies seeking modern technological solutions in these fields. The aim of the Greene 4.0. Innovation Program is to identify solution providers and their products that will most effectively contribute to initiating or expanding collaboration between them and Solution seekers in the field of digitalization and green transformation. Solution seekers were identified by project partners in the previous activities undertaken within A.3.1.

Activity A3.2 focuses on the collaboration between project partners (PP8, LP, PP2, PP3, and PP7) to develop the **Innovation Contest Regulation**, based on the **Sectoral Terms of Reference (TORs)** prepared under Activity A3.1. As part of this task, the Lead Partner (LP), in cooperation with PP7 and PP8, prepared the complete **Innovation Call for Proposals package**, which was subsequently published on the project website, partners' websites, social media channels, and on the websites of Associated Strategic Partners (ASPs).

The LP also coordinated the establishment and operation of the **Innovation Expert Panel**, whose main responsibility was to assess the submitted proposals.

The result of this process is **Deliverable D3.2.2 - Assessment Report**, which provides a comprehensive overview of the assessment procedure carried out by the Expert Panel.

The **Assessment Report** is directly linked to and complements **Deliverables D3.2.1 - Innovation Contest Regulation** and **D3.2.3 - GREEN 4.0 Call for Proposals Guidelines**.

1.2 Scope of the document

Deliverable D.3.2.2. Assessment Report comprises a detailed description of the assessment process that was run by the Expert Panel, justification of the scoring and input regarding the selected proposals, issues, and challenges that appeared, complaints and the way how equal and fair treatment/ethics were accomplished.

The document includes the rationale behind the scoring, the justification for the selected proposals, and a description of the issues and challenges encountered during the process. It also outlines how principles of equal and fair treatment, as well as ethical standards, were ensured throughout the evaluation.

1.3 Audience

The audience of this document includes the partners of the GREENE 4.0 project, including all parties involved in the implementation of Work Package 3 (WP3) and Task A3.2. This is an

internal document prepared to summarize the results of the company selection process and to prepare for further actions. The document may also be used by the lead partner (LP) and supporting institutions to monitor progress and implement any necessary adjustments.

1.4 Change control

KPT/PP8 created this document, and it is subject to the standard project change control where PPs are requested to provide feedback on the stated definition or tools in writing to the deliverable responsible (in this case KPT/PP8) in a timely manner (within 8 working days after each edition).

2. Introduction

2.1 Project overall flow

The Central European manufacturing industry is facing significant disruptions. Global supply chains are increasingly unstable, and the green transition demands the development of more sustainable and smarter value chains. The GREENE 4.0 project aims to assist manufacturing companies in piloting innovative value chains. It also encourages the co-creation of new products and services through open innovation methods. To achieve this, the project connects businesses with educational institutions, research organizations, and policymakers.

GREENE 4.0 is divided into four work packages, each with a distinct goal:

WP1 focuses on identifying the needs and challenges of SMEs in adopting green technologies and mapping available enablers across different CE regions. The findings will inform the development of the UAM (Universal Adoption Model), which will guide companies in implementing new technologies and link them to tools identified in WP2.

WP2 works on creating solutions to address the identified challenges and connect them with existing innovations. The aim is to build a robust innovation ecosystem to help SMEs adopt sustainable practices. WP2 will also lay the foundation for the Transnational Open Knowledge Box, a repository of tools supporting innovation and capacity building.

WP3 consolidates data from WP1 and WP2 to develop three innovation programs that will test the Transnational Open Knowledge Box. The programs will ensure the results are transferable and will link seven sector-specific manufacturing clusters with solution providers to co-create sustainable supply chain models.

WP4 emphasizes policy learning and enhances the transferability of the project outcomes through a quadruple helix approach, engaging SMEs, solution providers (businesses and research organizations), and policymakers.

2.2. Deliverable D.3.2.3. and its place in WP3

The Greene 4.0 Innovation Contest, launched as an international initiative to accelerate the green and digital transformation of industry. The application period for submitting proposals was open from April 18 to May 31, 2025, following an extension of the original deadline till June 14, 2025. The Contest was published on the Greene 4.0 project website here: https://www.interreg-

central.eu/news/greene-4-0-innovation-contest-international-call-for-green-and-digital-innovators/

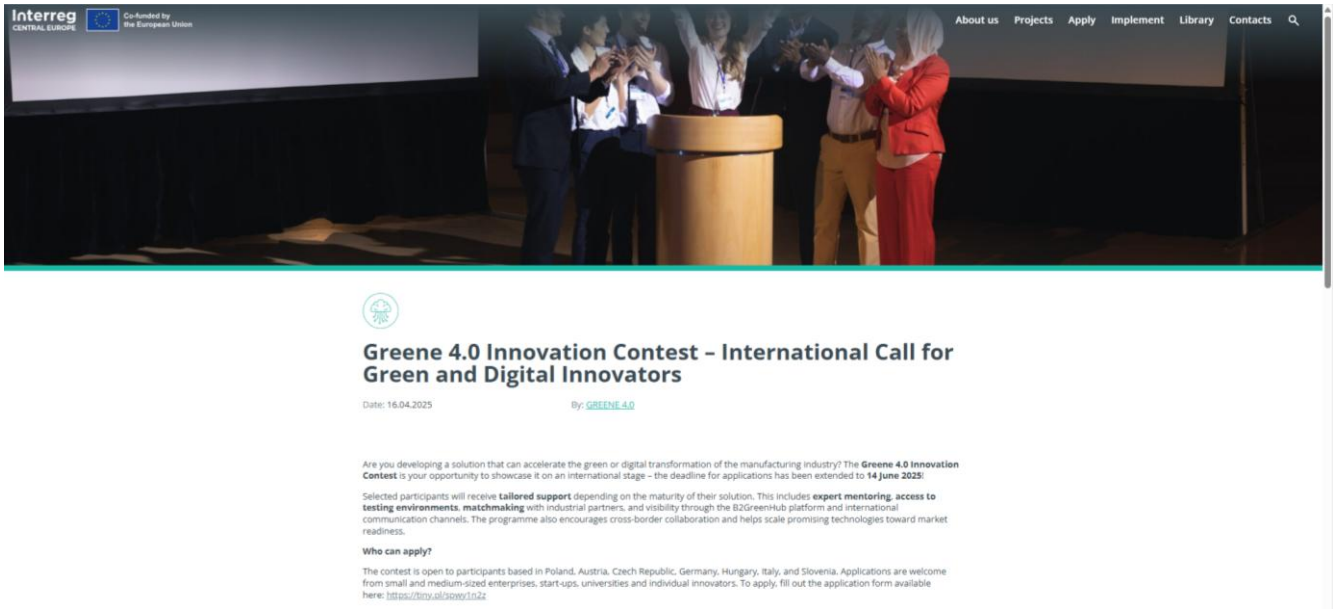


Photo 1: Greene Innovation Contest - print screen from the project website

It supports small and medium-sized enterprises (SMEs), startups, universities and individuals offering innovative solutions in the fields of industrial digital transformation and the green economy. The aim of the program is not only to identify and promote cutting-edge technologies but also to facilitate cooperation between solution providers and manufacturing companies actively seeking modern, sustainable, and digital technological solutions.

The contest targeted entities operating in one or more of seven key industrial sectors:

- electronics
- food and beverage
- pharmaceutical and chemical
- metal
- plastics and rubber
- machinery and equipment
- building materials and furniture

The submitted solutions should address the needs of manufacturing companies in at least one of the following areas:

- green & sustainable materials
- waste reduction & recycling technologies
- energy-efficient technologies
- renewable energy technologies
- data analytics & artificial intelligence
- automation & robotics
- digitalisation & connectivity

2.3. Application submitted

A total of 15 applications were received. All received application forms are located in Annex 1 to this deliverable. The aim of the contest was to select two winning proposals from each of the seven project regions: Slovenia, Italy, Austria, Germany, Hungary, the Czech Republic, and Poland.

No.	Name of organisation	Region
1	FH Kufstein Tirol Bildungs GmbH	Austria
2	Carinthia University of Applied Sciences	Austria
3	NOXEM s.r.o	Czech Republic
4	Digilab	Czech Republic
5	Brandenburg University of Technology	Germany
6	Arnio GmbH	Germany
7	Florian Bouron	Poland
8	Predict Energy sp. z o.o.	Poland
9	Envirly	Poland
10	CreativIQ, Niko Kirič s.p.	Slovenia
11	University of Maribor - Faculty of Electrical Engineering and Computer Science	Slovenia
12	Ugrinpack-Erdősi Kft.	Hungary
13	Szimbio Lab	Hungary
14	Exsensia srl	Italy
15	Mastranet AI	Italy

Table 1: List of applications received within Innovation Contest

2.3.1. Type of applicants

Among the applicants, startups accounted for 40%, followed by universities at 27%, and the remaining share was composed of SMEs and individual applicants.

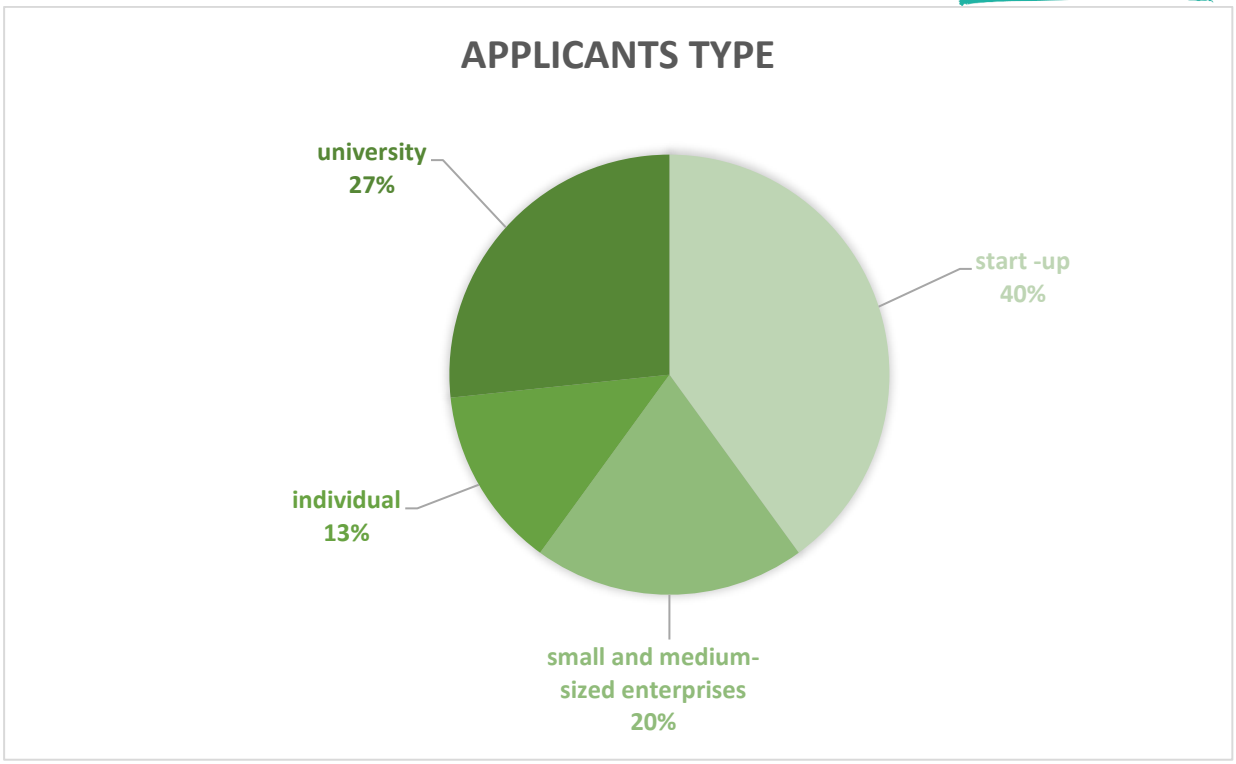


Chart 1: Applicants type

2.3.2. Category of solutions

Among the applicants, seven declared the use of their solution in the area of green technologies, another seven in digital technologies, and only one applicant indicated that their solution addresses both green and digital domains simultaneously.

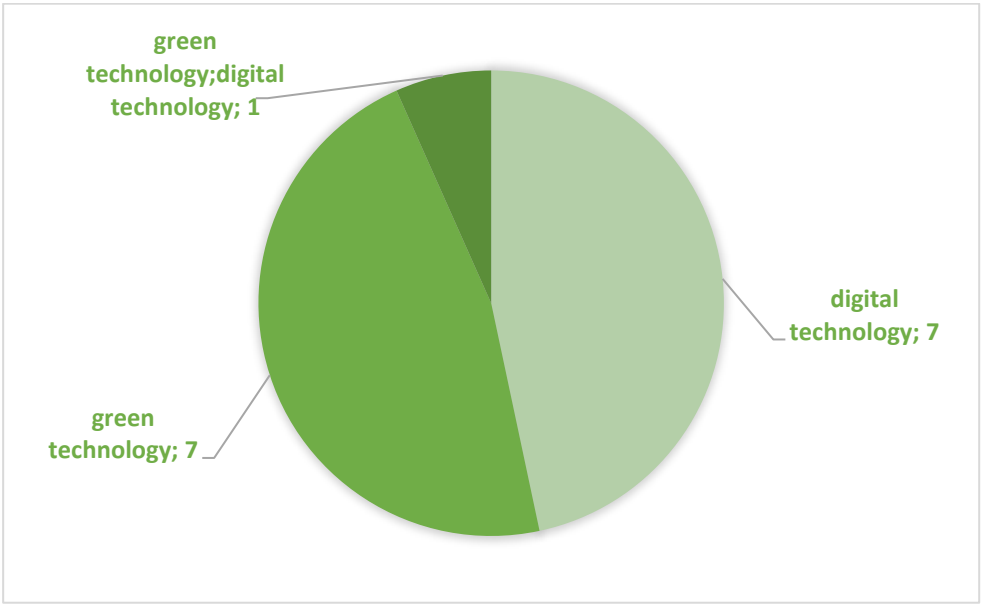


Chart: 2 Category of solutions

2.3.3. Fields of applications

The table presents which technological domains were most frequently selected by applicants as the core area of their innovative solutions. Most frequently selected areas (6 applications each):

- Data analytics and artificial intelligence
- Green and sustainable materials
- Waste reduction and recycling technologies

These three areas garnered the most interest. This suggests a strong trend among innovators to combine digital solutions (AI, data analytics) with green technologies (eco-friendly materials, recycling). It aligns well with current challenges related to green and digital transformation in industry.

Moderate interest (4 applications each):

- Automation and robotics
- Digitalization and connectivity

These technologies reflect the growing need for process automation and digital infrastructure development. Their presence confirms the increasing relevance of Industry 4.0 solutions among SMEs and startups.

Least selected areas (1 application each):

- Renewable energy technologies
- Energy-efficient technologies

The relatively low interest in these areas may be due to high capital requirements, implementation complexity, or a lack of expertise among applicants. It may also indicate that the renewable energy field requires additional support actions under initiatives like Greene 4.0.

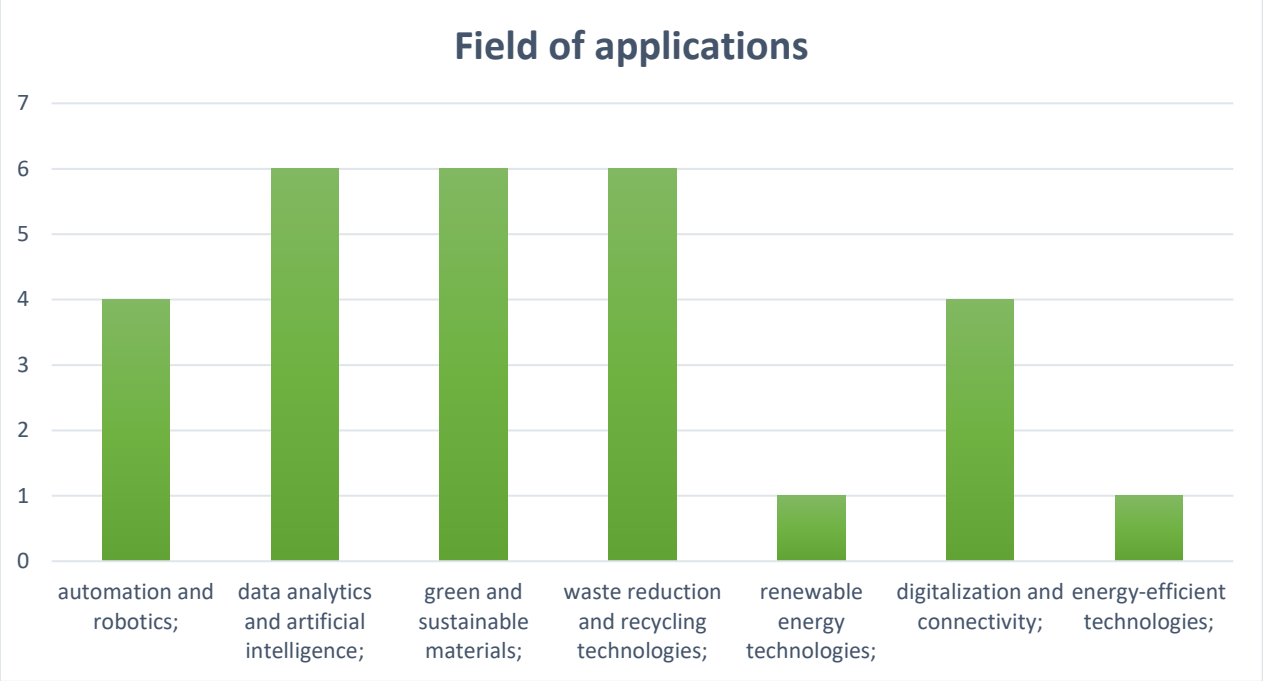


Chart 3: Field of applications

2.3.4. Technology readiness level

An analysis of the Technology Readiness Level (TRL) declared by applicants shows a balanced distribution between mature, near-market technologies and early-stage innovative solutions.

60% of the applications (TRL 5 and 6) represent advanced technological solutions with high readiness for industrial implementation and commercialization. These proposals are likely to bring measurable results in the short term and demonstrate a strong potential for immediate market adoption.

40% of the applications (TRL 3 and 4) reflect early-stage innovations, which may benefit significantly from mentoring, expert guidance, and tailored support provided within the Greene 4.0 Innovation Program. Despite their lower maturity, these projects often bring disruptive ideas with long-term strategic value.

A detailed breakdown of TRL levels is presented below:

- TRL 6 – Technology demonstrated in a relevant environment:
  6 applications (40%)
  These technologies have already been tested in real or industrial settings, indicating high maturity and readiness for deployment.
  Conclusion: Suitable for direct industrial adaptation and scaling.
- TRL 5 – Technology validated in a relevant environment:
  3 applications (20%)
  These solutions have been successfully validated under relevant operational conditions, though not yet widely demonstrated.
  Conclusion: Ready for pilot implementation and further testing with users.
- TRL 4 – Technology validated in laboratory conditions:
  3 applications (20%)

These projects have been proven in a laboratory environment but need further development to advance toward operational readiness.
Conclusion: Require additional testing and refinement before practical deployment.

- TRL 3 – Experimental proof of concept:
  3 applications (20%)
  These submissions represent the initial development stage, with basic proof of concept established.
  Conclusion: High-potential concepts needing significant R&D efforts before implementation.

This diversity in technological maturity aligns well with the objectives of Greene 4.0, offering support to both scalable, market-ready solutions and early-stage innovations requiring incubation.

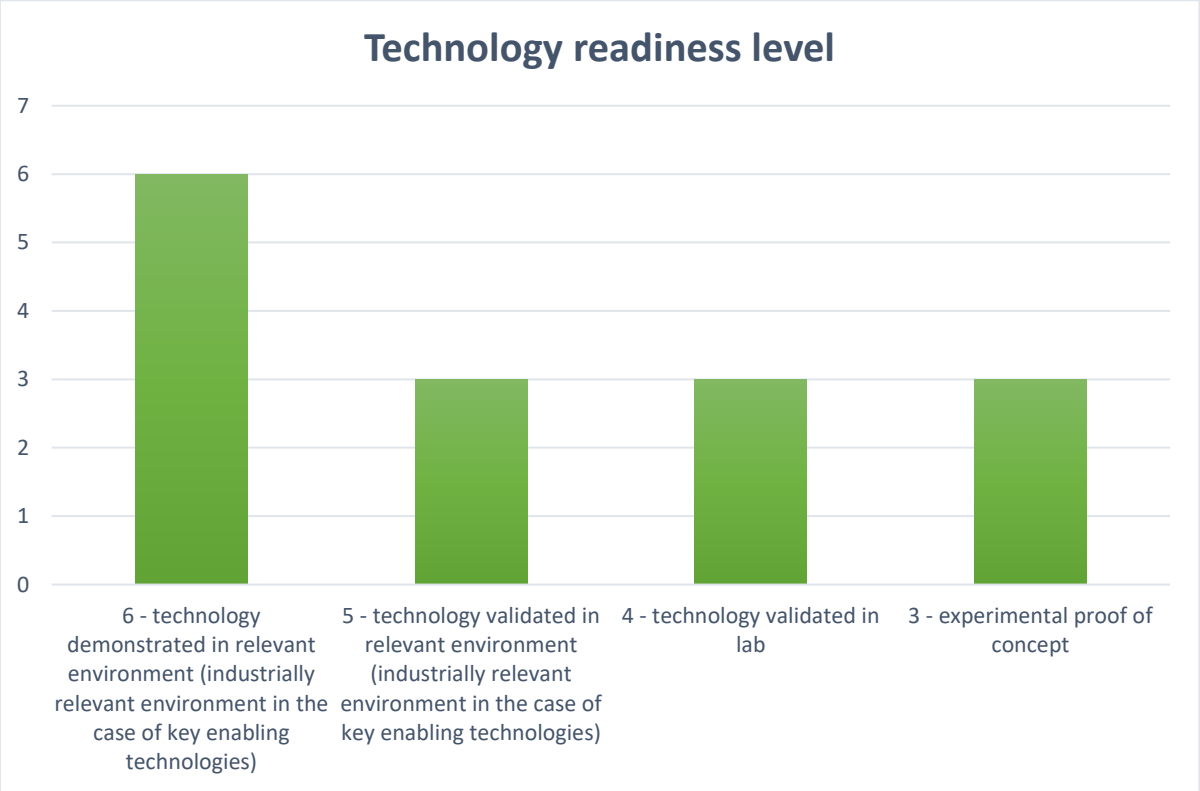


Chart 4: Technology readiness level

3. Innovation Expert Panel (IEP) - composition and role

The Innovation Expert Panel was established by the Lead Partner to evaluate applications submitted under the Greene 4.0 Open Call for Proposals. Its primary role was to ensure a fair, objective, and comprehensive assessment of all eligible applications that had successfully passed the initial compliance screening.
Panel members assessed the proposals using a standardized evaluation form and predefined criteria, including:

- level of innovation,

- feasibility of implementation,
- scalability,
- potential business impact,
- and alignment with green and digital transformation objectives.

Each expert conducted an independent evaluation, and the final score for each submission was calculated as the average of the individual scores. The assessments provided by the Panel directly influenced the selection of the most promising and impactful solutions and were therefore critical in determining the finalists for further support under the Greene 4.0 programme.

The composition of the Innovation Expert Panel was impartial and diverse. It included:

- One representative each from Pomurje Technology Park, Krakow Technology Park, and Intellimech (project partners),
- One representative from Associated Strategic Partners (ASPs),
- One representative from the External Advisory Board,
- One representative from the private equity sector.

Organistaion	Member of IEP
PTP (Slovenia)	Maja Sušec
KPT (Poland)	Urszula Woźniak
IMECH (Italy)	Elena Mossali
ASP (Hungary)	Anikó Soltesz
EAB (Czech Republic)	Vojtěch Jíra
PE - investor (Slovenia)	Ino Rogina

Table 2: Members of Innovation Expert Panel

4. Methodology of the assessment process

4.1. Assessment timeline and procedural steps

The assessment followed a clear timeline and structure. The submission window for applications was open from April 18 to June 14, 2025. After that date the assessment process started. Within

this process the Innovation Expert Panel meeting was organized by KPT on 30 of June 2025.

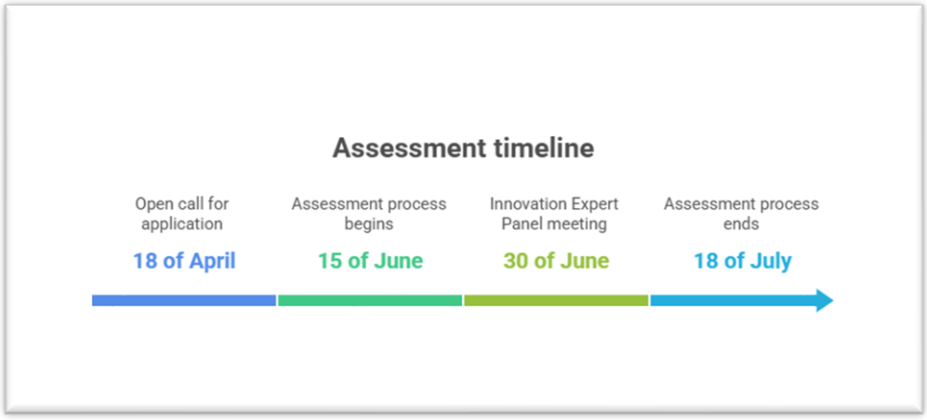
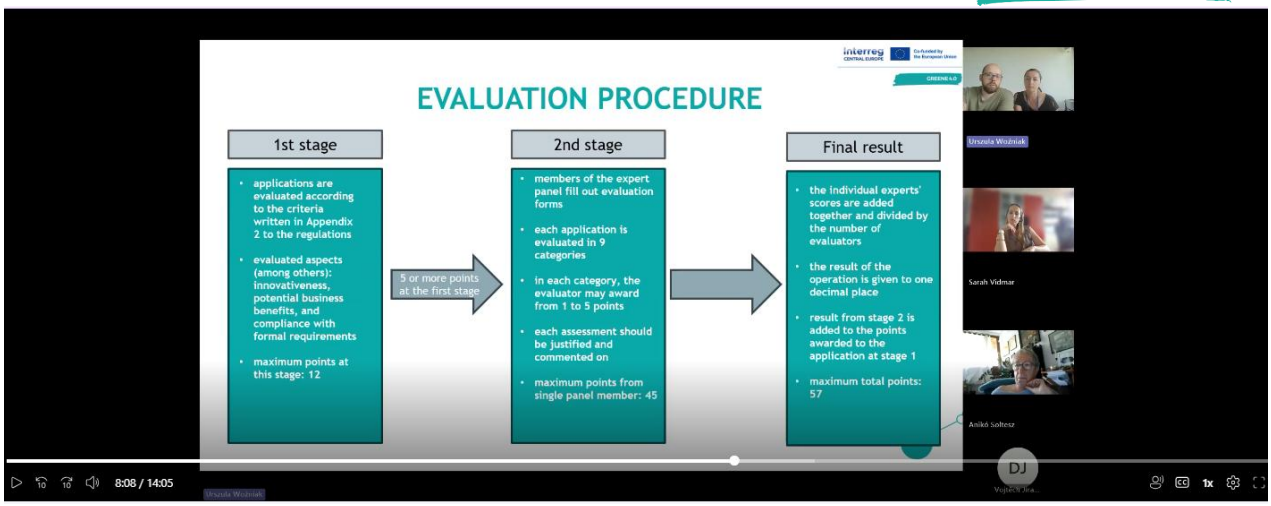


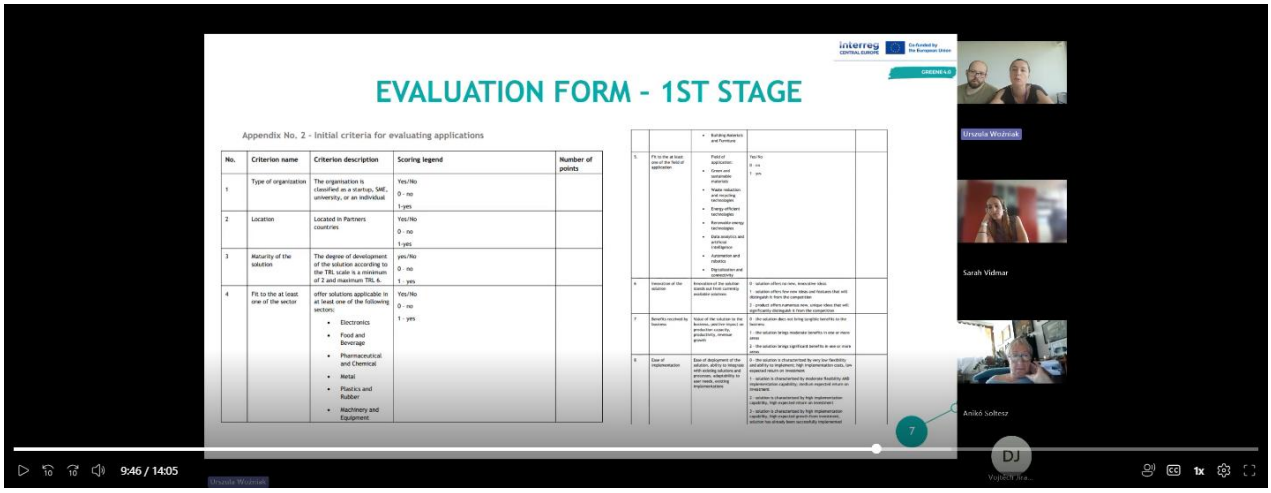
Chart 5: Assessment timeline (Source: Author generated)

4.2. Innovation Expert Panel meeting

On 30 June, Krakow Technology Park organized a meeting of the Innovation Expert Panel. The main objective of the meeting was to present and explain the assessment process to the participating experts. During the session, the evaluation procedure was discussed in detail, along with all the necessary documents, including the assessment criteria, templates, and a timeline of upcoming steps and deadlines. The meeting ensured that all experts were fully informed and aligned regarding the evaluation methodology and expectations.

Below are selected photographs documenting the meeting.





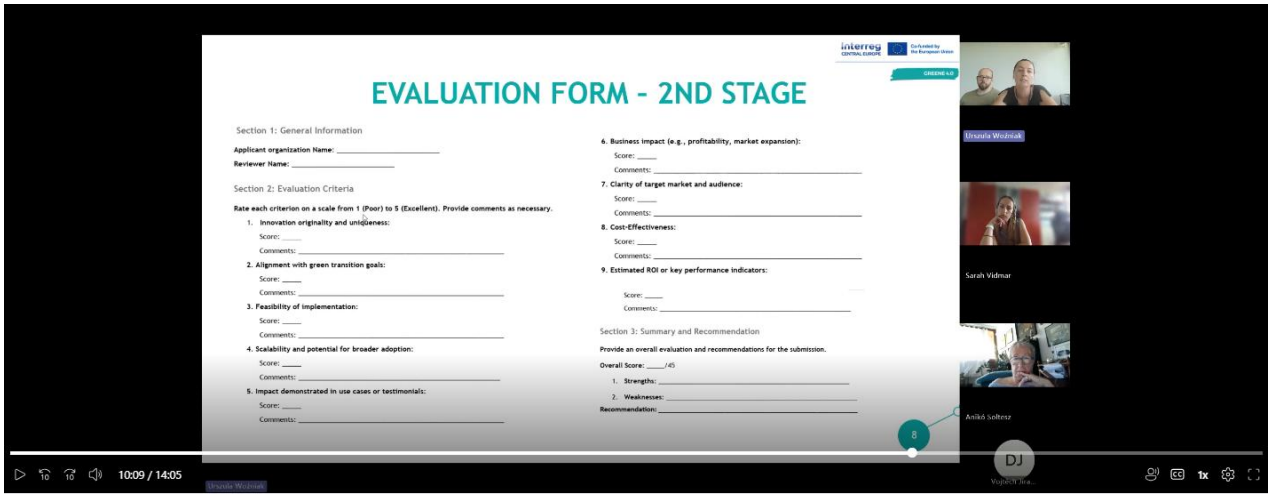


Photo 2: Coordination meeting with Innovation Experts held on 30 of June 2025

As next steps, all submitted applications and relevant evaluation documents were distributed by Krakow Technology Park to the panel of experts. Panel members were required to review and assess all proposals and submit their completed and signed evaluation forms by July 18, 2025.

4.3. Applied evaluation criteria and scoring scheme

The evaluation process was divided into two stages.

In Stage 1, a preliminary assessment was carried out by consortium representatives, where applications were screened for eligibility and compliance with formal and thematic requirements. A maximum of 12 points could be awarded at this stage, based on following criteria:

- type of organization(maximum score: 1)
- geographical location(maximum score: 1)
- maturity of the proposed solution (assessed using the Technology Readiness Level scale) (maximum score: 1)
- sectoral and thematic alignment (maximum score: 1)
- level of innovation (maximum score: 2)
- expected business benefits(maximum score: 3)
- ease of implementation (maximum score: 3)

Applications that scored at least 5 points in Stage 1 proceeded to Stage 2.

In Stage 2, submissions were evaluated by the Expert Panel. In this phase, each proposal was assessed across nine criteria:

- innovation originality and uniqueness
- alignment with green transition goals
- feasibility of implementation
- scalability and potential for broader adoption
- demonstrated impact through use cases or testimonials
- business impact
- clarity of target market and audience
- cost-effectiveness
- estimated return on investment or key performance indicators

Each criterion was scored on a scale from 1 to 5, and the maximum score from a single evaluator was 45 points. In addition to scoring each application, experts were required to provide qualitative comments and justifications to support their evaluations. The final score for each application was calculated as the sum of the Stage 1 score and the average of Stage 2 scores, with a total possible score of 57 points.

4.4. Tools and platforms used during the proces

Applications were submitted via a specially prepared and dedicated online form, ensuring standardized data collection and compliance with eligibility requirements. Information about the contest was actively disseminated through the social media channels of project partners and the Greene 4.0 project itself, helping to maximize outreach and engagement among potential applicants.

On June 30, 2025, an online Coordination Meeting – Greene Innovation Contest Evaluation was held for all involved evaluators and organizers. The meeting included a short training session aimed at clarifying the evaluation methodology, criteria, and documentation procedures.

The final results of the assessment process, along with a summary of the contest's execution and outcomes, will be published on the B2GreenHub platform, ensuring transparency and accessibility for all stakeholders.

5. Assessment execution

5.1. Description of evaluation phases

Each member of the Expert Panel was responsible for evaluating every submitted application independently, following the same standardized evaluation form and scoring methodology. All assessments were conducted in parallel within the designated evaluation period. The final score for each application was calculated as the average of all individual scores assigned by the panelists, ensuring consistency, fairness, and equal treatment of all proposals.

The evaluation process of the Greene 4.0 Innovation Contest was carried out in two distinct stages.

Stage 1 involved an initial eligibility assessment conducted by representatives of the project consortium. During this phase, applications were reviewed to ensure they met the formal and substantive eligibility requirements outlined in the contest regulations, including criteria such as organizational type, geographical location, technology readiness level, and relevance to the targeted sectors and thematic areas.

Stage 2 consisted of the final evaluation performed by the Innovation Expert Panel. At this stage, eligible applications that passed the initial screening were subjected to a detailed and structured assessment. Each proposal was evaluated individually by panel members according to a predefined set of criteria, with scores and justifications recorded in standardized evaluation forms. The outcomes from all evaluators were then aggregated to determine the final score for each submission.

Stage 1 criteria focused on formal and eligibility checks, including:

- Type and location of the organization,
- Technology readiness level (TRL 2–6),
- Relevance to targeted industrial sectors and fields of application,
- Level of innovation,
- Business benefits,
- Ease of implementation.

Stage 2 criteria involved detailed qualitative assessments in the following areas:

- Originality and uniqueness of the innovation,

- Alignment with green transition objectives,
- Implementation feasibility,
- Scalability and replication potential,
- Demonstrated impact (e.g., use cases, testimonials),
- Business impact (e.g., market growth, profitability),
- Clarity of the target market and audience,
- Cost-effectiveness,
- Return on investment and key performance indicators.

Each criterion in Stage 2 was scored on a scale from 1 to 5 points, where 1 indicated "Poor" and 5 indicated "Excellent".

Each evaluator provided both a numeric score and qualitative written comments for every criterion.

Additionally, in the "Section 3: Summary and Recommendation" of the final assessment form, evaluators were required to identify a list of the key strengths and weaknesses of the proposal, where evaluators could write direct, personalized feedback to applicants, offering constructive insight on their submission and performance across the reviewed criteria, offer a recommendation.

90 completed evaluation forms received from the Innovation Experts by 18 July 2025 are attached as Annex No. X.

5.2. List of evaluated proposals with anonymized scores

This chapter presents a consolidated overview of the assessment procedure, listing the final evaluation scores for each submitted proposal. As all applicants successfully fulfilled the formal criteria, they were qualified to proceed to the second stage of the evaluation process

		Evaluator 1			Evaluator 2			Evaluator 3			Evaluator 4			Evaluator 5			Evaluator 6			FINAL
Applicant	Country	Points - introductory part	Points - main part	Total points	Points - introductory part	Points - main part	Total points	Points - introductory part	Points - main part	Total points	Points - introductory part	Points - main part	Total points	Points - introductory part	Points - main part	Total points	Points - introductory part	Points - main part	Total points	POINTS
FH Kufstein Tirol Bildungs GmbH	Austria	10	31	41	9	30	39	9	29	38	8	25	33	8	19	27	8	24	32	35,0
Carinthia University of Applied Sciences	Austria	10	30	40	9	31	40	8	25	33	9	28	37	11	41	52	11	33	44	41,0
NOXEM s.r.o	Czech Republic	11	41	52	12	41	53	11	31	42	11	33	44	10	40	50	12	36	48	48,2
Digilab	Czech Republic	10	36	46	8	25	33	8	25	33	9	25	34	8	20	28	9	32	41	35,8
Brandenburg University of Technology	Germany	11	36	47	10	33	43	10	29	39	10	29	39	10	27	37	10	32	42	41,2
Arnio GmbH	Germany	9	36	45	9	31	40	8	29	37	8	30	38	9	37	46	12	39	51	42,8
Florian Bouron	Poland	11	40	51	10	39	49	9	34	43	10	33	43	10	41	51	11	35	46	47,2
Envirly	Poland	10	36	46	9	33	42	8	30	38	8	32	40	10	37	47	12	37	49	43,7
Predict Energy sp. z o.o.	Poland	11	39	50	9	33	42	10	30	40	11	32	43	11	41	52	11	32	43	45,0
CreativIQ, Niko Kirič s.p.	Slovenia	10	36	46	10	30	40	10	31	41	10	32	42	11	39	50	10	30	40	43,2
University of Maribor - Faculty of Electrical Engineering and	Slovenia	11	37	48	9	29	38	10	31	41	10	29	39	11	34	45	11	36	47	43,0
Ugrinpack-Erdősi Kft.	Hungary	11	36	47	9	35	44	8	29	37	10	30	40	11	30	41	12	35	47	42,7
Szimbio Lab	Hungary	10	34	44	9	35	44	9	30	39	10	34	44	11	40	51	12	42	54	46,0
Exsensia srl	Italy	10	40	50	10	36	46	11	30	41	11	34	45	11	42	53	12	38	50	47,5
Mastranet AI	Italy	11	37	48	10	34	44	9	33	42	9	34	43	12	40	52	12	39	51	46,7

Table 3: Evaluated proposals with anonymized scores

5.3. List of selected proposals

This table presents the selected applications from all participating regions. All submitted proposals met the formal eligibility requirements and aligned with the objectives of the Greene

4.0 Innovation Contest.The target for each region was to select two applications per country — this objective was successfully achieved. In the case of Poland, three eligible applications were submitted. However, based on the results of the evaluation process, only two of them were selected to proceed to the next stage (see table below). Although the Envirly solution received a very high score and demonstrated a high Technology Readiness Level (TRL), it was concluded that the Greene 4.0 Innovation Program may not offer significant added value for this particular project. Therefore, the 14 applicants listed in the table will be invited to participate in the Innovation Program and proceed to the next phase of the Greene 4.0 initiative.

Company	Region	Final evaluation
FH Kufstein Tirol Bildungs GmbH	Austria	35,0
Carinthia University of Applied Sciences	Austria	41,0
NOXEM s.r.o	Czech Republic	48,2
Digilab	Czech Republic	35,8
Brandenburg University of Technology	Germany	41,2
Arnio GmbH	Germany	42,8
Florian Bouron	Poland	47,2
Predict Energy sp. z o.o.	Poland	45,0
CreativIQ, Niko Kirič s.p.	Slovenia	43,2
University of Maribor - Faculty of Electrical Engineering and Computer Science	Slovenia	43,0
Ugrinpack-Erdősi Kft.	Hungary	42,7
Szimbio Lab	Hungary	46,0
Exsensia srl	Italy	47,5
Mastranet AI	Italy	46,7

Table 4: Final evaluation

5.4. Issues and challenges identified

During the evaluation process of applications submitted to the Greene 4.0 Innovation Contest, several general issues and challenges emerged. Although all proposals fulfilled the formal eligibility requirements, the overall quality and completeness of the applications varied significantly. Some submissions lacked sufficient detail in critical areas such as business model scalability, environmental impact, or technological feasibility, which made comprehensive assessment more difficult. A recurring issue was the inconsistent understanding of Technology Readiness Levels (TRL) and the scope of “green and digital innovation.” This variation in

interpretation complicated the fair comparison of proposals, especially in cases where applicants represented sectors less familiar with standardized R&D assessment frameworks. In numerous cases, the documentation supporting key claims was limited or absent. Applicants often provided general descriptions without accompanying evidence, such as pilot test outcomes, user feedback, or financial estimates, which hindered the evaluators' ability to assess feasibility, expected outcomes, and the likelihood of market adoption. The assessment also revealed a notable concentration of proposals addressing similar challenges using comparable approaches, particularly in the area of carbon tracking and energy management solutions. This raised concerns regarding the uniqueness, added value, and differentiation of individual proposals.

Additionally, comparing submissions across partner regions presented challenges due to differences in innovation maturity, industrial focus, and regulatory contexts. Evaluators had to carefully balance local relevance with transnational scalability, which occasionally required nuanced judgment.

Another frequent challenge was the ambiguity in impact metrics. Many proposals did not clearly define measurable sustainability or digitalization outcomes. Overly general or optimistic declarations made it difficult to determine the actual effectiveness and contribution of proposed solutions.

Finally, some challenges stemmed from language-related issues. While English was the common language of submission, varying levels of proficiency occasionally affected the clarity and precision of the content, which could impact evaluators' understanding and interpretation.

6. Conclusions and recommendations

The evaluation process demonstrated a strong level of interest and engagement across all participating regions, confirming the relevance of the Greene 4.0 Innovation Contest and its focus on green and digital transformation. Within the Greene Innovation Contest we received 15 applications from 7 regions. While the majority of applications met the formal criteria, the variation in quality highlighted the need for clearer guidance and support for applicants in future calls. It is recommended to provide more structured templates, clearer definitions (e.g., TRL levels), and examples of strong applications to improve consistency.

Greatest development potential is observed in technologies related to AI, sustainable materials, and recycling. Energy-related domains are underrepresented, suggesting a need for more education or financial support in this field. A balance between green and digital technologies is evident, which fits well with the goals of dual transformation (green + digital).

Company	Region	TRL level	Innovation Program
FH Kufstein Tirol Bildungs GmbH	Austria	6	Minimal Viable Product Program (TRL 4-6)

Carinthia University of Applied Sciences	Austria	5	Minimal Viable Product Program (TRL 4-6)
NOXEM s.r.o	Czech Republic	6	Minimal Viable Product Program (TRL 4-6)
Digilab	Czech Republic	3	Proof of Concept Program (TRL 2-3)
Brandenburg University of Technology	Germany	4	Minimal Viable Product Program (TRL 4-6)
Arnio GmbH	Germany	5	Minimal Viable Product Program (TRL 4-6)
Florian Bouron	Poland	3	Proof of Concept Program (TRL 2-3)
Predict Energy sp. z o.o.	Poland	4	Minimal Viable Product Program (TRL 4-6)
CreativIQ, Niko Kirič s.p.	Slovenia	5	Minimal Viable Product Program (TRL 4-6)
University of Maribor - Faculty of Electrical Engineering and Computer Science	Slovenia	3	Proof of Concept Program (TRL 2-3)
Ugrinpack-Erdősi Kft.	Hungary	6	Minimal Viable Product Program (TRL 4-6)
Szimbio Lab	Hungary	4	Minimal Viable Product Program (TRL 4-6)
Exsensia srl	Italy	6	Minimal Viable Product Program (TRL 4-6)
Mastranet AI	Italy	6	Minimal Viable Product Program (TRL 4-6)

Table 5: Proposals and innovative programs

Here is the overview of TRL levels and Innovation Program assignments for each applicant.

- **TRL 6**: 6 applicants – these companies are close to market entry with fully demonstrated technologies.
- **TRL 5**: 3 applicants – solutions validated in relevant environments, ready for pilot implementations.
- **TRL 4**: 3 applicants – lab-validated technologies that require further testing in operational settings.
- **TRL 3**: 3 applicants – early-stage innovations in proof-of-concept phase needing intensive development.

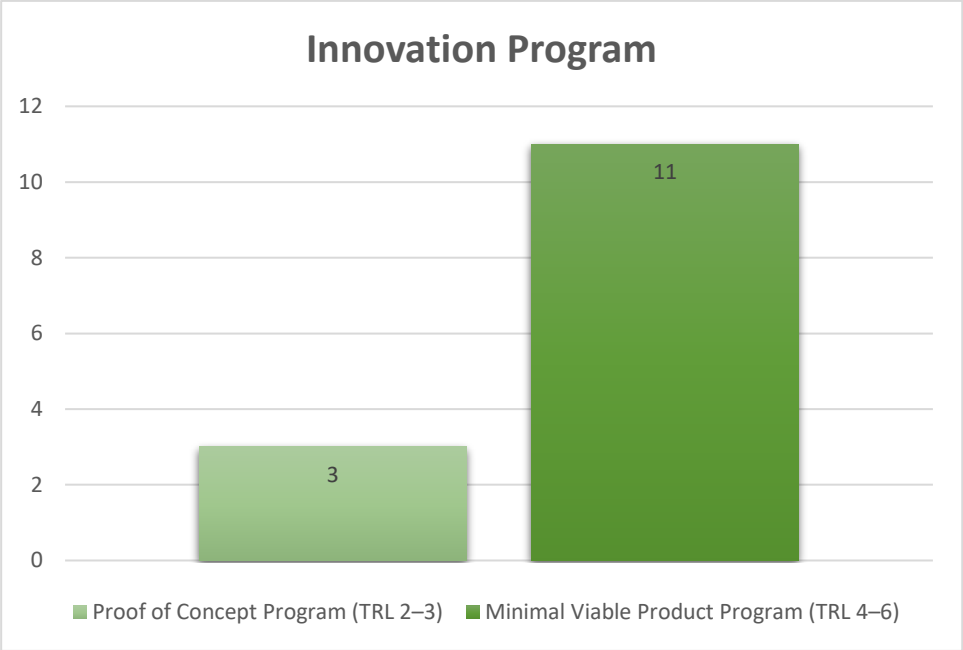


Chart 6: Technology readiness levels (TRL) and innovation program assignment

As part of the evaluation process, each submitted application was assessed based on its declared Technology Readiness Level (TRL), which determined the appropriate Innovation Support Program: Proof of Concept (TRL 2–3) or Minimal Viable Product (TRL 4–6). The distribution and interpretation of TRL levels among applicants are presented below:

TRL 6 – Technology demonstrated in a relevant environment (e.g., industrial): 6 applicants

These solutions are at an advanced stage of maturity and have already been successfully tested in real-life or industrial settings. The companies are close to market entry and ready for wider adoption. They have been assigned to the Minimal Viable Product Program.

TRL 5 – Technology validated in a relevant environment: 3 applicants

These technologies have been validated under conditions similar to those in which they will operate but have not yet been fully demonstrated. They are suitable for pilot implementations and were also directed to the Minimal Viable Product Program.

TRL 4 – Technology validated in the lab: 3 applicants

These innovations have been verified under laboratory conditions and still require significant testing and adaptation before full-scale deployment. The applicants were included in the Minimal Viable Product Program as they may progress quickly with targeted support.

TRL 3 – Experimental proof of concept: 3 applicants

These proposals are in the earliest stages of technological maturity, with proof of concept established but requiring substantial development to reach market-readiness. These applicants were assigned to the Proof of Concept Program to receive support focused on technical development, validation, and initial prototyping.

This structured classification ensures that all applicants receive support tailored to their stage of technological maturity, maximizing the effectiveness of the innovation support programs offered under the Greene 4.0 project.

7. Annexes

7.1 Annex 1: Scoring templates used

FINAL ASSESSMENT FORM – PART 1

Applicant organization name:

Reviewer name:

No.	Criterion name	Criterion description	Scoring legend	Number of points
1	Type of organization	The organisation is classified as a startup, SME, university, or an individual	Yes/No 0 – no 1-yes	
2	Location	Located in Partners countries	Yes/No 0 – no 1-yes	
3	Maturity of the solution	The degree of development of the solution according to the TRL scale is a minimum of 2 and maximum TRL 6.	yes/No 0 – no 1 – yes	
4	Fit to the at least one of the sector	offer solutions applicable in at least one of the following sectors: • Electronics • Food and Beverage • Pharmaceutical and Chemical • Metal • Plastics and Rubber • Machinery and Equipment • Building Materials and Furniture	Yes/No 0 – no 1 – yes	
5.	Fit to the at least one of the field of application	Field of application: • Green and sustainable materials	Yes/No 0 – no 1 – yes	

		• Waste reduction and recycling technologies • Energy-efficient technologies • Renewable energy technologies • Data analytics and artificial intelligence • Automation and robotics • Digitalization and connectivity		
6	Innovation of the solution	Innovation of the solution stands out from currently available solutions	0 – solution offers no new, innovative ideas 1 – solution offers few new ideas and features that will distinguish it from the competition 2 – product offers numerous new, unique ideas that will significantly distinguish it from the competition	
7	Benefits received by business	Value of the solution to the business, positive impact on production capacity, productivity, revenue growth	0 - the solution does not bring tangible benefits to the business 1 - the solution brings moderate benefits in one or more areas 2 - the solution brings significant benefits in one or more areas	
8	Ease of implementation	Ease of deployment of the solution, ability to integrate with existing solutions and processes, adaptability to user needs, existing implementations	0 - the solution is characterized by very low flexibility and ability to implement; high implementation costs, low expected return on investment 1 - solution is characterized by moderate flexibility AND implementation capability; medium expected return on investment 2 - solution is characterized by high implementation capability, high expected return on investment 3 - solution is characterized by high implementation capability, high expected growth from investment, solution has already been successfully implemented	

FINAL ASSESSMENT FORM – PART 2

Section 1: General Information

Applicant organization name: …….

Reviewer name: ……

Section 2: Evaluation Criteria

Rate each criterion on a scale from 1 (Poor) to 5 (Excellent). Provide comments as necessary.

1. Innovation originality and uniqueness:

Score: ..

Comments:……..

2. Alignment with green transition goals:

Score: ……

Comments:……

3. Feasibility of implementation:

Score: ..

Comments:……..

4. Scalability and potential for broader adoption:

Score: ..

Comments:……..

5. Impact demonstrated in use cases or testimonials:

Score: ..

Comments:……..

6. Business impact (e.g., profitability, market expansion):

Score: ..

Comments:……..

7. Clarity of target market and audience:

Score: ..

Comments:……

8. Cost-Effectiveness:

Score: ..

Comments:…….

9. Estimated ROI or key performance indicators:

Score: ..

Comments:……..

Section 3: Summary and Recommendation

Provide an overall evaluation and recommendations for the submission.

Overall Score: .../45

1. Strengths:…….

2. Weaknesses:……

3. Recommendation:……

Signature

…….

7.2 Annex 2: Innovation Contest Regulation

§ 1. Definitions

For the purpose of these regulations, the following definitions apply:

1. Technology Readiness Level (TRL) – a scale used to assess the maturity of a technology, ranging from basic research (TRL 1) to full deployment in an operational environment (TRL 9), as defined by the European Commission.
2. B2GreenHub platform – an interactive platform, available at b2greenhub.eu, which aims to facilitate contact between manufacturing companies and green and digital technology providers and accelerate the transformation of European industry towards sustainability.
3. Small and medium enterprises (SMEs) - enterprises which employ fewer than 250 persons and/or which have an annual turnover not exceeding 50 million euro, and/or an annual balance sheet total not exceeding 43 million euro.
4. Associated partners (ASPs) - key stakeholders of the project, whose involvement can improve the planning and development of project outputs and results. They can help to sustain and mainstream project results and generate multiplier and leverage effects.
5. Innovation Expert Panel – an impartial panel of experts to evaluate the proposals submitted by participants. Its members include: one representative from Pomurje Technology Park organization, one representative from Krakow Technology Park organization, one representative from ASP's, one member from the External Advisory Board, one private equity representative.
6. Solution - a technology, method of work organization, software, service or concept, the implementation of which directly benefits the manufacturing enterprise.

§ 2. General provisions

1. The Greene Innovation Contest (hereinafter referred to as the "Program") supports small and medium-sized enterprises (SMEs), startups and individuals offering innovative solutions in industrial digital transformation and the green economy.

2. The Program aims to facilitate cooperation with manufacturing companies seeking modern technological solutions in these fields.

3. The Program is organized by a consortium collaborating under the Greene 4.0 project (CE0100198), funded by the Interreg Central Europe Program (hereinafter referred to as "Organizer"). The consortium includes:

a. Pomurje Technology Park
b. Bautzen Innovation Centre
c. University of Applied Sciences FH Kufstein Tirol
d. University of Ljubljana
e. Univerzita Jana Evangelisty Purkyně v Ústí nad Labem
f. Innovation Centre of Usti Region (registered association)
g. Intellimech Consortium
h. Krakow Technology Park Ltd.
i. MGFÜ Közhasznú Nonprofit Ltd.

4. The Program runs from 01.07.2025 to 31.10.2025 and all stages are conducted entirely online.

§ 3. Eligibility criteria

1. Entities eligible to participate in the Program (hereinafter referred to as "Participants") must:
   a) be classified as a startup, SME, university, or an individual.
   b) offer solutions applicable in at least one of the following sectors:
      - Electronics
      - Food and beverage
      - Pharmaceutical and chemical
      - Metal
      - Plastics and rubber
      - Machinery and equipment
      - Building materials and furniture
   c) offer solutions in the fields of digital transformation or the green economy, suitable for implementation in manufacturing. Solutions can be offered that address the following areas:
      - Green & sustainable materials
      - Waste reduction & recycling technologies
      - Energy efficient technologies
      - Renewable energy technologies
      - Data analytics & artificial intelligence
      - Automation & robotics
      - Digitalisation & connectivity

      A list of preferred solutions is attached as Appendix no. 4.
   d) be registered in one of the following countries: Austria, Czech Republic, Germany, Hungary, Italy, Poland or Slovenia; in the case of individuals, citizenship is decisive.
   e) not have close personal relationships (e.g., family members or those with equivalent ties) or financial ties to consortium members that could create a conflict of interest.
   f) hold full intellectual property rights to the proposed technological solutions.
   g) submit a complete application form by 31.05.2025.
2. The technology readiness level (TRL) of the proposed solution must be at least 2 till 6.

§ 4. Application process

1. To apply, Participants must complete the MS Forms form, available at the link https://tiny.pl/spwy1n2z by 31.05.2025. A properly completed form must include the Participant's consent to personal data processing by the organizer and confirmation of full intellectual property rights to the solution.

2. The Organizer may request additional documentation to confirm the information provided. Participants must submit these documents within 3 working days; failure to comply may result in exclusion from the Program.

3. Participants are responsible for all costs related to their participation. Each Participant is required to designate at least one representative to participate in the Program.

4. Participants must ensure that all information submitted in their application is accurate and up-to-date. Providing incorrect or misleading information in the application may result in immediate disqualification from the contest.

5. Selected solutions will be published on B2GreenHub platform.

6. The number of participants is limited. The two entities from each region with the highest number of points will be admitted to the Program.

§ 5. Evaluation procedure

1. Applications will be evaluated by representatives of members of the consortium and Innovation Expert Panel in two stages:

a) Stage 1 – Initial Assessment (evaluated by representatives of the consortium)
b) Stage 2 – Final Assessment (evaluated by Innovation Expert Panel)

3. At the stage 1 (initial assessment), applications will be evaluated according to the criteria described in Appendix No. 2 to the Regulations. An application can receive a maximum of 12 points at this stage.

4. Participants whose applications score 5 or more points in Stage 1 will move on to Stage 2.

6. At the stage 2 (final assessment) applications will be evaluated according to the criteria described in Appendix No. 3 to the Regulations. The final evaluation is performed by Innovation Expert Panel. Each Panel member completes an evaluation form (Appendix No. 3) with a scoring system. The maximum number of points a participant can receive from a single panel member is 45 points.

7. The final score in stage 2 is calculated by averaging individual panel scores. The result of the operation is given to one decimal place.

8. Result from stage 2 is added to the points awarded to the application at stage 1. The maximum possible score is 57 points.

9. The two entities from each region with the highest number of points will be admitted to the Program

10. All decisions by the Innovation Expert Panel are final and non-appealable.

§ 6. Granting support

1. In the Greene 4.0 Innovation Program, applicants whose product, service, or process solutions can potentially be applied to the identified needs, challenges, or supply chain of the Technology Recipient may participate.

2. The aim of the Greene 4.0. Innovation Program is to identify solution providers and their products that will most effectively contribute to initiating or expanding collaboration between them and Solution seekers in the field of digitalization and green transformation.
The goal of the Greene 4.0. Innovation Program is to pilot and test 7 solutions within 7 sectors:

- 1st on national level
- 2nd on EU level

The description outlines the structure for the Greene 4.0 Innovation Program with three key stages:

1. Proof of Concept Programme: focusing on validating and testing early-stage ideas to assess their feasibility
2. Minimal Viable Product (MVP) Programme: aimed at developing a working prototype to demonstrate core functionalities and gather user feedback
3. Investment and Market Readiness Programme: designed to prepare innovations for market entry and attract potential investors by enhancing business models and scalability

3. Forms of support for companies and/or individuals selected in the competition may include, but are not limited to:

- access to matchmaking services;
- consulting services;
- access to the ecosystem of companies;
- participation in workshops designed for start-ups;
- mentoring;
- testing;
- networking.

§ 7. Data protection

1. The co-administrators of personal data are the partners of the Greene 4.0 project:
   a) Pomurje Technology Park
   b) Bautzen Innovation Centre
   c) University of Applied Sciences FH Kufstein Tirol
   d) University of Ljubljana
   e) Univerzita Jana Evangelisty Purkyně v Ústí nad Labem
   f) Innovation Centre of Usti Region (registered association)
   g) Intellimech Consortium
   h) Krakow Technology Park Ltd.
   i) MGFÜ Közhasznú Nonprofit Ltd.

2. The co-administrators have designated the contact point at the Krakow Technology Park headquarters: ul. Podole 60, 30-394 Krakow, Poland, e-mail address: biuro@kpt.krakow.pl.

3. The co-administrators have designated the Data Protection Officer (DPO) at Kraków Technology Park for data protection collaboration, whom you can contact via email: iod@kpt.krakow.pl.

4. The personal data of contest participants will be processed for the following purposes:
   a) to conclude and perform the contract by accepting the provisions of these regulations (legal basis: Article 6(1)(b), (f) GDPR),
   b) to establish necessary contact, inform participants about the course of the contest and its results, as well as carry out informational and promotional activities related to the contest (legal basis: Article 6(1)(f) GDPR),
   c) to fulfill tax, accounting, archival, and other legal obligations of the administrator (legal basis: Article 6(1)(c) GDPR),
   d) to send marketing information related to the activities of the co-administrators – including based on the consent given (legal basis: Article 6(1)(a) GDPR),
   e) to publish participants' images in connection with promotional and informational activities regarding the contest (legal basis: Article 6(1)(a) GDPR).

5. Providing personal data is voluntary, but necessary to participate in the contest.

6. The recipients of personal data will only be entities authorized under applicable law.

7. Personal data may be transferred to entities processing it on behalf of the administrator, such as IT service providers, entities providing legal and advisory services – these entities process the data solely under an agreement with one of the co-administrators.

8. Personal data will be processed for the duration of the contest and then:
   a) for archival, tax, and accounting purposes – for a period of 5 years after the completion of the collaboration,
   b) for the purposes of establishing or pursuing claims or defending against claims – for a period of 3 years and in case of ongoing proceedings, until the final resolution and until the expiration of claims,
   c) until consent is withdrawn – in the case of marketing messages.

9. In connection with the processing of personal data, you have the right to:
   a) access the content of your personal data,
   b) obtain a copy of your personal data,
   c) rectify your personal data,
   d) request the deletion or restriction of the processing of your personal data,
   e) object to the processing of your personal data,
   f) withdraw consent at any time,

in the cases and under the conditions specified in the GDPR. The above rights can be exercised by contacting the co-administrators or the Data Protection Officer.

10. You have the right to lodge a complaint with the President of the Personal Data Protection Office if it is justified that your personal data is being processed by the co-administrators in violation of the GDPR.

11. Your personal data will not be processed in the form of profiling.

§ 8. Final provisions

1. By submitting an application, Participants agree to all terms and conditions set forth in these Regulations. The Organizer reserves the right to amend the Regulations, cancel the contest, or end the Program early.

2. The Organizer and members of the Panel are not liable for any damages resulting from the disclosure of information about the submitted solution to third parties. For matters not covered by these Regulations, the Organizer's decisions are binding. The Organizer holds the right to interpret these Regulations.

3. In all matters not covered by the above regulations, the decision belongs to the Organizer.