Quality Assurance Plan

D6.1

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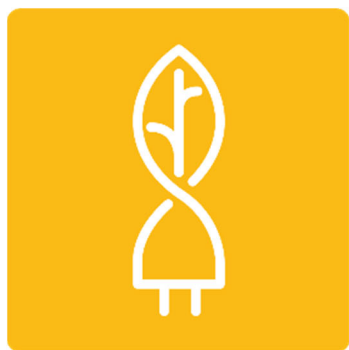
Document history

Version	Date	By whom	Main area of changes
0.1 for comments partners	7 November 2022	PBT (/Katapult)	First draft
0.2 for cross assessment	21 December 2022	PBT	Comments LP (HU) implemented
0.3 comments implemented	24 January 2023	PBT	Comments cross-assessment implemented
0.4	31 January	PBT	Tables WP update according self-assessment
1.0	31 January 2023	Project Management Team	Approved by PMT

Summary sheet

Project Name	COVE SEED
Title of the document	Quality Assurance and monitoring plan
Deliverable	D6.1
Work Package	6
Programme	ERASMUS+
Coordinator	HU University of Applied Science Utrecht
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Summary	D6.1 is the Quality Assurance and monitoring plan. In this document plan all activities, responsibilities and timelines of the quality assurance and monitoring of the COVE SEED are described.

COVE SEED

COVE SEED (Centre of Vocational Excellence – Sustainable Energy Education) is focused on providing excellent and innovative vocational education to become a fossil free energy continent. While challenges on the energy transition develop rapidly and technologies are constantly evolving, well-equipped students, professionals and suitable labor capacity are needed. SEED sees vocational education as an important driver for innovation and growth, agile in adapting to the labor market. The objectives of the project are therefore focused on innovative energy education that meets the needs of the labor market: a) Preparing learners, students and professionals with skills and competences for the future; b) Empowering regional innovation based on regional needs; c) Upscaling and promote work-based education, and will lead to d) the establishment of an international learning community and e) establishment of Centres of Vocational Excellence (COVES) in five regions. SEED consists of educational VET providers (EQF level 2-7), working professionals and policymakers from The Netherlands, Finland, Spain, Germany and Greece. The result is an international community on vocational excellence dedicated to sustainable energy. During the project the partners will co-create and increase not only regional cooperation, but also transnational cooperation. Good practices and innovative approaches for learning with impact will be exchanged and developed.

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1. Introduction to Quality Assurance

1.1   Quality Assurance in COVE SEED

To secure quality of the activities of the Centre of Vocational Excellence Sustainable Energy Education (COVE SEED), quality assurance (QA) is important. QA can be defined as part of the quality management that focuses on providing confidence of fulfilling the quality requirements of the project. All activities to ensure quality of COVE SEED will be described in the QA plan.

1.2   Dimensions of Quality Assurance

According to the European Quality Assurance in Vocational Education and Training (EQAVET) 'Quality Assurance in Centers of Vocational Excellence (CoVE)' report (EQAVET, 2021), QA concerns at least three dimensions: excellence in VET teaching and training at all levels (1), national collaboration with stakeholders to establish skills ecosystems and industrial ecosystems (2) and international (EU-wide) collaboration through CoVE networks (3). These three dimensions will be addressed in the QA plan.

1.3   Objective of the Quality Assurance plan

The objective of the QA plan is to ensure that the proposal as described in the Grant Agreement is implemented properly. Specifically, its purpose is to define the key steps and responsibilities for achieving the required quality levels in the COVE SEED. The QA plan comprises all planned and systemic activities within the quality system, ensuring the activities and deliverables of the project will meet the needs and expectations. In addition, the QA plan assures the existence and effectiveness of quality related processes and procedures. It safeguards the right mechanisms to ensure the expected levels of quality. Finally, it states the project's expectations and establishes the means by which the achievements of the intellectual outputs are to be assessed.

1.4   Set-up of Quality Assurance in SEED

Quality of the project activities in COVE SEED is a multi-dimensional concept which embraces all its functions and activities: teaching and programs, research, staffing, students, regional cooperation and COVE development, stakeholders, companies etc. The overall quality assurance of COVE SEED can be split up in internal quality assurance, external quality assurance and impact. It will take the form of internal self-evaluation and external review, conducted openly by independent specialists, based on the outcomes and progress of the project.

2. Quality Assurance organization in COVE SEED

2.1 Tasks and milestones in Work Package 6

Tasks in Work Package 6

In WP6, the following tasks are identified:

- T6.1   Process and quality monitoring strategy – task leader: PBT/Katapult
- T6.2   Monitoring of the activities in the quality assurance plan – task leader: PBT/Katapult
- T6.3   Consortium cross assessments – task leader: UOWM
- T6.4   External evaluation – task leader: PBT/Katapult
- T6.5   Cooperation agreements between European partners (MoU's) – task leader: UOWM
- T6.6   Implementation of the MoU formats – task leader: PBT/Katapult

Timeline of Quality Assurance tasks

An overview of the timeline of tasks in WP6 can be found in Table 1.

Table 1: Timeline of tasks (from project proposal).

lead partner	Workpackage	results	description	month / Month numbers	output
PBT (UOMW)	wp 6		(quality assurance) Quality assurance and evaluation		output
PBT	task 6.1		Process and quality monitoring strategy		
	result	6.1.1	Prepare draft process and quality monitoring Strategy		process and monitoring strategy
	result	6.1.2	Operationalisation of quality indicators		quality indicators
	result	6.1.3	Get feed back from parners		comments
	result	6.1.4	Delivery of the quality assurance strategy in a plan		quality assurance plan
PBT	task 6.2		Monitoring of the activities in the quality assurance plan.		
	result	6.2.1	Prepare monitoring tools for evaluating project progress on the indicators		tool on project progress
	result	6.2.3	Prepare monitoring tools for evaluating the results on the indicators		tool on quality indicators
	result	6.2.4	Prepare monitoring tools for AVG		tool on AVG
UOMW	task 6.3		Consortium cross assessments		
	result	6.3.1	Set up cross assessment, define the results		directive
	result	6.3.2	Organize cross assessment within partners		formats and guides
	result	6.3.3	Cross-VET assessment (desk monitoring and field monitoring)		assessments
PBT	task 6.4		External evaluation		
	result	6.4.1	Collect the project documents and outcomes		bundle documents and results
	result	6.4.2	organize peer review by experts		peer reviews
	result	6.4.3	Communicate the recommendations		recommendation overview
UOMW	task 6.5		cooperation agreements between European partners		
	result	6.5.1	formats for regional cooperation and partnerships		formats CP
	result	6.5.2	formats for MOU´s (to make exchange possible), teaching & learning		formats TL
	result	6.5.3	formats for governance models		formats GO
	result	6.5.4	monitoring of the signing of cooperation agreements		cooperation agreements
PBT	task 6.6		implementation of the formats		
	result	6.6.1	design and execute implementation workshop on the formats from 6.5 and support		workshop

Milestones in Work Package 6

There are two milestones in WP6:

- MS 6.1: Delivery of the quality assurance strategy in a plan, with commitment of the partners, presenting a process and quality monitoring strategy. In the plan the quality indicators are operationalized. Due: month 6 (30 November 2022).
- MS 6.2: Implementation workshop, to explain the use of the formats for regional cooperation and partnerships, the formats for MOU 's (to make exchange possible) in teaching and learning and the formats for governance models. Due: month 26 (31 July 2024).

2.2 Execution of Work Package 6: Quality Assurance and Evaluation

PBT/Katapult, with strong international experience on public-private partnership initiatives, is the Work Package (WP) leader on WP6: Quality Assurance and Evaluation. The University of Western Macedonia (UOWM) is the task leader of two tasks within WP6; the consortium cross assessments (T6.3) and the development of Memoranda of Understanding (MoU's) (T6.5).

PBT/Katapult is task leader the other tasks; the process and quality monitoring strategy (T6.1), the monitoring of the activities in the quality assurance plan (T6.3), the external evaluation (by means of peer reviews) (T6.4) and the implementation of MoU formats (T6.6). PBT/Katapult and UOWM are working together closely to prepare the deliverables, complete the tasks and reach the milestones of WP6.

2.3 Roles and responsibilities in Quality Assurance

To achieve high quality of the objectives and results of COVE SEED, the roles and responsibilities are defined. An overview of the roles in the overall project management can be found in Figure 1. There are different responsibilities coming with different roles in the project concerning QA. The general project manager will supervise the overall quality of the project. The general project manager is also responsible for identifying, managing and controlling risks. The steering committee will advise and support the general project manager on quality issues and ensure that the outcomes of the project meet the required standards.

Figure 1: Overview of project management
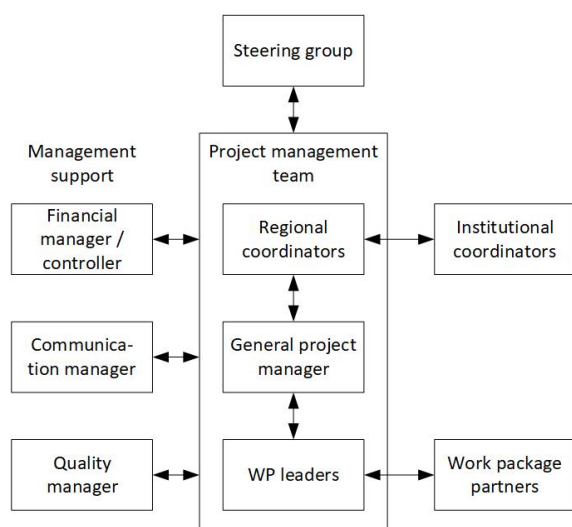
The WP leaders are responsible for monitoring the quality of the activities in their WP. In WP6, the process and quality monitoring will be developed and the WP leaders will be provided with tools and formats to monitor the quality of the deliverables and activities in their work packages. The benchmarking of results over time with the performance indicators will take place in WP6. Regional performance indicators are developed and will be monitored by the regional coordinators (see chapter 3.3.3, table 4). On the other hand, transnational indicators are developed and will be monitored by the work package leaders of WP5 (accelerating SEED): Universitat Politècnica de València (UPV) and WP7 (dissemination): Cluster of Bioeconomy and Environment of Western Macedonia (CLUBE) (see chapter 3.3.3, table 5). Table 2 provides an overview of different roles and responsibilities within QA in SEED.

Table 2: Roles and responsibilities in Quality Assurance.

Role	Responsibilities
General project manager (lead partner): Hogeschool Utrecht	Supervise the overall quality of the project.
Steering committee	Advise and support the project manager on quality issues.
Work package leaders: WP1 Hogeschool Utrecht (HU) WP2 Turku University of Applied Sciences (TUAS) WP3 Hogeschool Utrecht (HU) WP4 Bochum University of Applied Sciences (BUAS) WP5 Universitat Politècnica de València (UPV) WP6 PBT/Katapult (PBT) WP7 Cluster of Bioeconomy and Environment of Western Macedonia (CLUBE)	Monitor tasks by using monitoring tools, leading to the results in their work packages. Ensure internal quality control within the WP tasks. Self-assessment of the quality indicators per WP (table 6).
WP6 leader: PBT/Katapult	Develop quality assurance plan with quality indicators and monitoring tools, coordinate quality monitoring, collect external evaluation documents and outcomes, organize peer reviews.
Task leader 6.3 Cross assessments and 6.5 Cooperation agreements: University of West Macedonia (UOWM)	Set-up and organize cross assessment, create formats for regional cooperation and partnerships and formats for Memoranda of Understanding (MoU's).
Regional coordinators: The Netherlands PBT Germany BUAS Finland TUAS Spain UPV Greece CLUBE	Monitor regional indicators (see chapter 3.3, table 4), assist in setting up the peer reviews in the region.
Work package leader WP5: UPV Work package leader WP7: CLUBE	Monitor the transnational indicators (see chapter 3.3, table 5).
Partner coordinators	Ensure the execution of the cross assessment of the deliverables assigned to the partner and timely delivery of the cross assessment report. Planning and deliverables in table 7.

3. Internal Quality Assurance

3.1 Three levels of internal Quality Assurance

The internal QA system consists of three levels:

- Outputs: deliverables /immediate results (direct results of the performed actions, in our direct control)
- Outcomes: intermediate to long term effects (combination of results and external circumstances conducting to some changes in the initial situation, we can influence but can't control; could be expected as well as unexpected)
- Impact: long term effects of the SEED project

SEED has realistic outputs and outcomes to be achieved through the 4 year duration of the project (June 2022 - May 2026). Establishing the outputs, outcomes and impact is meant to improve/adjust for better results at three levels, in accordance with the EQAVET quality assurance report:

- Project management level: improve efficiency and efficacy
- Target group level: improve relevance and coherence
- Regional: sustainability and impact

It combines quantitative and qualitative measurements for better understanding what is happening in the project and what can be improved.

3.2 The quality cycle in COVE SEED

EQAVET describes four different phases of quality assurance:

- Planning
- Implementation
- Evaluation
- Review

The planning phase is about participation of relevant stakeholders for identifying needs and setting goals and objectives, as well as establishment of mechanisms and procedures to identify the training needs of the labor market and society. This holds a strong link to work package 2 (WP2): Skills Analysis Fossil Free Energy. The needs of relevant stakeholders will be identified by analysis of necessary skills and development of training tools for green skills, digital skills and inclusive team skills.

The planning phase is followed by the implementation phase, where continuous development of teachers' competences, partnerships between teachers and trainers, promotion of innovation in teaching and learning methods take place, on national and international level. This is in line with the CoVE dimension of establishing excellence in teaching and learning. This will be addressed in work package 3 (WP3): Regional Innovation and Skills Ecosystems, work package 4 (WP4): Regional Good Practices on Teaching & Learning (TL), Cooperation & Partnership (CP) and Governance and work package 5 (WP5): Accelerating SEED. In WP3, regional innovation is empowered based on regional needs, by reinforcing the connections within the regions. Also, five regional CoVE's will be established and extended (one in each region). In WP4, good practices will be made explicit and enriched with experience value to promote attractiveness of work-based education, which relates to a coherent set of activities and measurement criteria on regional impact and skills. WP5 addresses the establishment

of an international learning community, with shared standards, approaches, tools, experiences and lessons learned to effectuate knowledge exchange and mobility of staff and students.

In the evaluation phase, the processes and results of education and training, including learner satisfaction as well as staff performance and satisfaction are being evaluated. This entails including various stakeholders at national and international level in evaluation processes and having effective feedback loops and tracking systems in place. The review phase is described as the phase where the definition and use of procedures, mechanisms and instruments for undertaking reviews and improve the quality of provision at all levels takes place. Work package 6 (WP6): Quality Assurance and Evaluation addresses both of these phases. In WP6, a process and quality monitoring strategy will be made and the activities in the quality assurance plan will be monitored.

Throughout the four phases, work package 1 (WP1): Project Management and Coordination and work package 7 (WP7): Dissemination and exploitation are of great importance for general project management and sharing the importance of the project with the rest of the world. Successfully carrying out all of the work packages is essential for completing the quality cycle and therefore for ensuring quality of the project.

Figure 2 The EQAVET quality cycle (planning, implementation, evaluation, review).

3.3   Outputs and Outcomes in COVE SEED

3.3.1   Quality Assurance and monitoring of Work Packages

Per work package, qualitative and quantitative indicators for the outputs and outcomes are defined together with the WP leaders (see table 3). Key performance indicators (KPI's) have been added where relevant. Based on this table, the self-assessment format has been developed (see attachment 1: Template self-assessment tool). Monitoring tools have been selected for the outputs and outcomes and formats will be developed for those as well in close consultation with the WP leaders. The self-assessment forms will be combined in one document to be assessed by the general project manager.

3.3.2   Work Package quality indicators

Table 3 provides an overview of the quality indicators that were defined together with the WP leaders. Monitoring the quality indicators will help ensuring the quality of the deliverables in the WPs. An overview of the deliverables, quality indicators, monitoring tools, who is responsible for it and deadlines can be found in Table 3.

Table 3: WP quality indicators.

Deliverables WP1	Quantitative indicator	Qualitative indicator	Monitoring tool	Outcome	Responsible	Deadline deliverable	Monitoring report
1.1 Transnational meetings	• # Attendees • # Meetings	• Satisfaction rate/relevance	• Attendance list • Evaluation form	TBD	TUAS	2,6,10,14,18, 22,26,29,34,38,4 2,45	Self-assessment by WP1 lead partner HU
1.2 Regional meetings	• # Attendees • # Meetings	• Satisfaction rate/relevance	• Attendance list • Evaluation form	TBD	TUAS	3,6,10,14, 18, 22,26,29,34,3 8,42,45	Self-assessment by WP1 lead partner HU
Deliverables WP2	Quantitative indicator	Qualitative indicator	Monitoring tool	Outcome	Responsible	Deadline deliverable	Monitoring report
2.1 Skills development approach	• # Reports (1)	• Usability of the approach	• Evaluation form Cross assessment	Useful tool for regional skills development	TUAS	1-10-2022	Self-assessment WP2 January 2023 Cross- assessment by BUAS and HU January 2023
2.2 Comparative analysis of vocational excellence scans on skills and training material	• # Regional market scans (5) • # Stakeholders participating the market scans (150-200) • # VET provider scans (min. 7) • # Reports (1)	• Relevance of the market scans as input for WP3 and WP4 • Relevance of the VET education scans as input for WP3 and WP4	• Interviews • Evaluation form • cross assessments	Valuable starting point for planning specific actions for regional skills development & transnational cooperation	EBI	1-5-2023	Self-assessment WP2 Juni 2023 Cross-assessment by WP3 and WP4 to assess relevance
2.3 Two workshops on skills development	• # Workshop participants (50) • # Training materials (2)	• Satisfaction rate	• Evaluation form	Increased competence for participants	TUAS	Workshop 1: 1-11-2022 Workshop 2: 1-7-2023	Evaluation forms in self-assessment January 2023 and December 2023
Deliverables WP3	Quantitative indicator	Qualitative indicator	Monitoring tool	Outcome	Responsible	Deadline deliverable	Monitoring report
3.1 Templates and governance models to apply in regional situations	• # Templates and models developed • # Templates and models made available and explained to the partners	• Usability of provided templates and models (templates and models are developed in close consultation with partners representing the 5 COVE regions and are applicable within each of the 5 COVE regions)	• Meeting agenda's, notes and attendees • Evaluation form	• An overview of the maturity level of regional COVES • A refined maturity model – discuss & reflect • Development strategy for regional COVES • Strengthened regional collaboration • A toolkit for the COVES with templates, models and best practices • SEED international meeting – discuss/reflection toolkit • Collect knowledge and experience per region (report on Best Practices?)	HU	1-7-2023	Self-assessment report December 2023
3.2 Workshop on co-design methodology	• Workshop on co-design methodology is developed • Workshop on co-design	• Satisfaction rate/relevance (after the workshops the participants feel equipped to guide	• Training materials • Evaluation form		HU	1-11-2023	Self-assessment report December 2023

	methodology is conducted	the process of cocreating a learning environment)					
3.3 Regional development plans on the regional needs and the skills needed to innovate	tbd	tbd	Cross assessments	• Shared learning strategy vision • Insights on excellent work-based learning Conference paper/Best practices?	DG + BUAS CLUBE TUAS UPV	1-5-2024	
3.4 Workshop on regional learning vs. transnational learning	• Workshop on regional learning vs. transnational learning is developed • Workshop on regional learning vs. transnational learning is conducted	• Satisfaction rate/relevance (after the workshops the participants gained knowledge on regional and transnational learning and can apply this knowledge in favour of their own COVE)	• Training materials • Evaluation form	• Training materials for (1) cocreation of learning environments and (2) regional versus transnational learning • Two workshops to train the trainers on (1) cocreation of learning environments and (2) regional versus transnational learning	HU	1-3-2024	
Deliverables WP4	Quantitative indicator	Qualitative indicator	Monitoring tool	Outcome	Responsible	Deadline deliverable	Monitoring report
4.1 Manual on description of good practices	• Publishing of the manual on the description of the good practice (D1) - Report	• All participating partners could add to the establishment of the description format • Usability of the format • Satisfaction rate/relevance	• Cross assessment • Evaluation form	• Create the basis for further work, which is used in the whole project to establish a standardized description of the practices and their impact measurement • Knowledge of the project partners to the good practice, so that they have an overview for the rest of the project and can detect further connections	BUAS	1-11-2022	Cross-assessment by HU and UPV January 2023
4.2-1 Minor Smart Sustainable Cities	• Finishing international programme of 30 ECTS (EQF6) • # Participants	• Satisfaction rate/relevance	• Training material • Evaluation form for participating students of the programme • Word Form of evaluation report (on implementation)	• Summary of the evaluations and the learnings of the individual good practices	HU	1-5-2024	
4.2-2 Agrocirculatiry capacity building programme - summer school	• Realization of Summer School on Agrocircularity • Signed participation list	• Satisfaction rate/relevance	• Training material • Evaluation form for participating students of the Summer School • Word Form of evaluation	• Summary of the evaluations and the learnings of the individual good practices	UOWM	1-5-2024	

			report (on implementatio n)				
4.2-3 Higher level VET programmes and flexible pathways, course/curriculu m	• International implementation of a flexible pathway from VET EQF level 4 to 5 • International implementation of a training to level 7 • # Participants • Guidelines on establishing implementation	• Satisfaction rate/relevance	• Evaluation form for participants of the educational programmes • Word Form of evaluation report (on implementatio n)	• Summary of the evaluations and the learnings of the individual good practices	ROCMN, BUAS	1-5-2024	
4.2-4 Continuing development of professionals and teacher's course/curriculu m	• Vocational training digitalization plan which can be used internationally • # Teachers received training • Solarleap PV training for international VET teachers • # Teachers received training	• Satisfaction rate/relevance	• Evaluation form for participants of the educational programmes • Word Form of evaluation report (on implementatio n)	• Summary of the evaluations and the learnings of the individual good practices	Spain, Finland	1-5-2024	
4.3-1 Business education partnerships for sharing/exchang e	• # Meetings of the cooperating parties • # International application of the innovation project "Inclusive Energy" • Guidelines on establishing implementation	• Satisfaction rate/relevance of cooperation between UOWM and HENDO • Satisfaction rate/relevance of the implementation of the project	• Evaluation form on the project implementatio n • Interviews (evaluation talk) of the cooperating partners • Word Form of evaluation report (on implementatio n)	Summary of the evaluations and the learnings of the individual good practices	Greece, Spain	1-5-2024	
4.3-2 Innovation hubs, technology diffusion centers and applied research projects	• International implementation of the Business Region Turku • International implementation of the Bobby Energy Hub • Guidelines on establishing implementation	• Satisfaction rate/relevance for Original region implementors New region implementors	• Evaluation form on project implementatio n (filled out by new and original region implementors) • Cross assessment by original implementors • Word Form of evaluation report (on implementatio n)	Summary of the evaluations and the learnings of the individual good practices	Finland, BUAS	1-5-2024	
4.3-3 Skills competitions, raising attractiveness and excellence in VET	• Realization of challenge-based education in Hoefkwatier • Realization of school	• Satisfaction rate/relevance for participating teams • Productive results	• Word Form of evaluation report (on realization) • Questionnaire	Summary of the evaluations and the learnings of the individual good practices	HU, UPV	1-5-2024	

	competition of Shell Eco Marathon Europe						
4.4-1 Making full use of EU financial instruments and funds	• International implementation of CLUBE Programme (instruments and funds to support just transition) • International implementation of the Sustainable Energy Impact project • Guidelines on establishing implementation	• Satisfaction rate/relevance for Original region implementors New region implementors Possible participants (e.g. students)	• Evaluation form on project implementatio n (filled out by new and original region implementors and possible participants) • Cross assessment by original implementors • Word Form of evaluation report (on implementatio n)	Summary of the evaluations and the learnings of the individual good practices	CLUBE, BUAS	1-5-2024	
4.4-2 Sustainable financial models that combine public and private funding	• International implementation of the model COE • International implementation of the machine technology centre TURKU • Guidelines on establishing implementation	• Satisfaction rate/relevance for Original region implementors New region implementors	• Evaluation questionnaire on the project implementatio n (filled out by new and original region implementors) • Cross assessment by original implementors • Word Form of evaluation report (on implementatio n)	Summary of the evaluations and the learnings of the individual good practices	HU, TUAS	1-5-2024	
4.5 Workshops on adapting good practices to another region	• Realization of implementing good practices from one region to another • # Participants (at least one from each region) • # Material • # Results of previous deliverables summarized and evaluated	• Deepened knowledge of participants of the topic of practice implementation in the international context	• Signed participation list • Summary of most relevant information/ Guidelines for practical use	• Implementation of the pilot/ demonstrator and the established guideline on the respective implementations create the roadmap to a realization of a full-sized project or even the implementation to another region • Stating out of similarities and deductions for future projects • Create practical long-term knowledge that can be further used (in this and other projects)	BUAS	1-7-2024	
Deliverables WP5	Quantitative indicator	Qualitative indicator	Monitoring tool	Outcome	Responsible	Deadline deliverabl e	Monitoring report
5.1 Conference on regional and transnational learning - fossil free energy	• # Presentations • # Participants	• # of entities participating (measuring diversity)	• Registration database • Evaluation form	TBD	UPV	1-03-2024	

Deliverables	Quantitative indicator	Qualitative indicator	Monitoring tool	Outcome	Responsible	Deadline deliverable	Monitoring report
	• # Entities participating (diversity) • # Keynote guests	• # regions/countries of origin of participants, • Satisfaction rate/relevance	• Expert review				
5.2 Workshop on set up regional learning strategy and action plan	• # Participants • # Sessions • # Presentations/ modules presented	• # Regions represented (diversity) • Satisfaction rate/relevance participants • Quality of material presented	• Participants list • Evaluation form • Expert review	TBD	UPV	1-10-2024	
5.3 Workshop on transnational learning strategy and action plan	• # Participants • # Sessions • # Presentations/ modules presented	• # Regions represented • Satisfaction rate/relevance participants • Quality of material presented	-Participants list -Feedback questionnaire from participants -Expert review	TBD	UPV	1-7-2025	
5.4 Learning community (long term development)	• # Entities contacted • # People contacted • # Participants • # Events organized in community • # People informed about SEED	• # Entities answering (interested) • # Different Countries • Level of interest on SEED information (community)	• Database of emails/interactions (internet calls) • Evaluation form entities/people • Interviews/formal or informal events attended spreading sharing the news	TBD	UPV/RAS	1-1-2026	
Deliverables WP6	Quantitative indicator	Qualitative indicator	Monitoring tool	Outcome	Responsible	Deadline deliverable	Monitoring report
6.1 Monitoring tools on quality assurance	• Completion of the monitoring tools	• Usability of monitoring tools	• Cross assessment	Consistent way of monitoring to ensure high quality of the outputs.	PBT	1-10-2022	Cross assessment by HU and CLUBE
6.2 Cross assessments and external evaluation	• Number of cross assessment reports • Number of external evaluation reports financial (2) • Number of external evaluation reports outputs, outcomes, impact (2)	• Satisfaction rate/relevance for users of cross assessments and external evaluation	• Evaluation form	Independent evaluation of internal and external experts, external recognition of results. Partners are involved in each other's deliverables to improve working together as a team.	PBT + UOWM	1-04-2023 1-04- 2024 1-04- 2025 1-04 2026	Summary of the cross-assessment forms including evaluation
6.3 Cooperation agreements	• Model MOU developed • MOU signed in each region (5)	• Satisfaction rate/relevance of the partners on the template MOU	Evaluation form	Establish CoVE's in each region with commitment of the partners	UOWM	1-8-2024	Self-assessment

Deliverables WP7	Quantitative indicator	Qualitative indicator	Monitoring tool	Outcome	Responsible	Deadline deliverable	Monitoring report
7.1 Dissemination and exploitation plan	• The completion of the Dissemination and exploitation plan (style book, report, database with relevant contacts)	• Satisfaction rate/relevance of the dissemination and exploitation plan	• Evaluation form •Cross assessment	•Identification of the target audience, the key messages to be conveyed, the tools and channels to be employed •Support maximization of impact	HU	1-11-2022	Cross assessment by PBT and CLUBE
7.2 Website on SEED	• 2.500 total visitors Year 1: 200 Year 2: 500 Year 3: 800 Year 4: 1000	• Website online and fully functional • Satisfaction rate/relevance of the website	• Google Analytics • Evaluation form	•Description of the project and its targets and Dissemination of relevant information •Distribution of public deliverables •Announcement of related events, activities and news	CLUBE	-1-3-2023	
7.3 Online facility to support the learning community	• 1.500 total visitors Year 2: 300 Year 3: 500 Year 4: 800	• Online facility online and fully functional • Satisfaction rate/relevance of the online facility	• Online platform monitoring statistics • Evaluation form	•Development of a skill ecosystem on sustainable energy education and innovation	CLUBE	1-10-203	
7.4 Newsletter and the final magazine	• 800 total newsletter subscribers Year 1: 100 Year 2: 200 Year 3: 250 Year 4: 250 • Final magazine: completion of the final magazine • Opening rate: Year 1: 25% Year 2: 25% Year 3: 30% Year 4: 40%	• Final magazine: diversity in the information that will be included in the final magazine • For newsletter and final magazine: satisfaction rate/relevance for partners	• Mailchimp/ Google analytics • Evaluation form	•Dissemination of l project's milestones and most important events	CLUBE	01 11 2022 01 5 2023 01 11 2023 01 5 2024 01 11 2024 01 5 2025 01 11 2025 01 5 2026 01 2 2026	
7.5 Information leaflet	• # 1000 leaflets/each partner for 4 years Year 1: 150 Year 2: 250 Year 3: 250 Year 4: 350 14.000 total for all the partners in 4 years span	• Diversity in the information that will be included in the Information leaflets of each Year of SEED • Satisfaction rate/relevance of information leaflet	• Evaluation form	• Raise awareness about the project goals, expected impacts and inform about its benefits.	HU	1-11-2022	
7.6 Digital Marketing Including Social Media	• 6000 impressions on Twitter Year 1: 1000 Year 2: 1500 Year 3: 1500 Year 4: 2000 • 6000 "post reach" on Facebook Year 1: 1000 Year 2: 1500 Year 3: 1500 Year 4: 2000	• Satisfaction rate/ relevance of the content	Twitter, LinkedIn, Instagram and Facebook analytics	•Captivate new audience and get them involved in the project's progress •Create a community and inform them on project outcomes, passed and upcoming activities •Disseminate the most important news	CLUBE	1-6-2026	

	• 6000 "post reach" on Instagram Year 1: 1000 Year 2: 1500 Year 3: 1500 Year 4: 2000 • 40000 impressions on LinkedIn Year 1: 5000 Year 2: 10000 Year 3: 10000 Year 4: 15000			•Attract visitors to the project's website			
7.7 Conference on fossil free energy	• 100 attendees and 50 participants	• Qualitative questions that will be included in a questionnaire at the end of the conference	• Online and printed participation list • Evaluation form • Evaluation report	•Distribution of the project's results •Feature the highlights of VET on fossil free energy •Initiate a continuing community that will deploy SEED's good practices	HU	1-2-2026	

3.3.3 Quality Assurance and monitoring on regional and transnational level

On a regional level, the progress of CoVE development will be assessed using the models that will be developed in WP3. In these models, indicators will be developed including KPI's to assess the maturity of the regional CoVE's. This will be the basis for peer reviews between the regions, learning from each other and further developing the tool to measure the maturity of the regional cooperation. The CoVE development will be endorsed by signing Memoranda of Understanding (MoU) in each region.

A model will be developed for the MoU based on the regional needs and ecosystem (T6.5). In the MoU, the regional partners describe the way of working together in the CoVE including e.g. objectives, activities, governance, financing. The maturity of the CoVE in the region at the midterm (2 years) will be used to define the starting point of cooperation. Together with the region, the ambition for the maturity after 4 years will be established. This will be evaluated in the peer reviews at the end of the project. Workshops for implementation of the MoU's in the regions will be developed and executed (T6.6). The regional indicators (table 4) will be monitored and reported every year in a summary report.

Table 4: Indicators on regional level and their monitoring tools.

Indicators on regional level	Monitoring instruments	Lead partners	Deadlines monitoring
Regional COVES, measurement on progress in 4 years	Maturity models from WP3 Peer reviews MOU in WP6	HU PBT & regional coordinators (PBT, BUAS, TUAS, UPV, CLUBE) UOWM	 Peer reviews: 1-6-2024 1-6-2026 1-9-2024
Number of new finance and governance models are developed, deployed, and validated.	Evaluation of Good practices GO23 and GO25 in WP4 and WP5	BUAS, UPV	1-6-2023 1-6-2024 1-6-2025 1-6-2026
The number of activities developed within regional skills ecosystems and shared with partners	WP7 dissemination log	CLUBE	1-6-2023 1-6-2024 1-6-2025 1-6-2026

The number of participants in regional activities	WP7 dissemination log	CLUBE	1-6-2023 1-6-2024 1-6-2025 1-6-2026

On the transnational level, the development of the learning community will be assessed leading to the impact of the project for the SEED consortium and the skills ecosystems. The transnational indicators will be monitored and reported every year in a summary report. An overview of the transnational indicators can be found in Table 5.

Table 5: Indicators on transnational level and their monitoring tools.

Indicators on transnational level	Monitoring instruments	Responsible partners	Deadlines
Number of institutions, finally connected to the learning community	WP5 monitoring and WP7 dissemination log	UPV, CLUBE	1-6-2023 1-6-2024 1-6-2025 1-6-2026
Number of participants on the events organized in SEED	WP7 dissemination log	CLUBE	1-6-2023 1-6-2024 1-6-2025 1-6-2026
Number of outcomes, used by others than the SEED consortium to reinforce regional cooperation	WP5 monitoring and WP7 dissemination log	UPV, CLUBE	1-6-2023 1-6-2024 1-6-2025 1-6-2026

4. Monitoring tools for internal Quality Assurance

The following monitoring tools are foreseen in the project:

- 4.1 Data and analysis
- 4.2 Evaluation form/questionnaires
- 4.3 Self-assessment
- 4.4 Cross-assessment (by partners)
- 4.5 Peer review - measurement of progress CoVE's (maturity model)

4.1 Data and analysis

The quantitative indicators will be monitored by obtaining data and analysis. For meetings and activities, the dissemination log of WP7 will be used. The format of the form is included in attachment 2: Format data and analysis form. WP leaders are responsible for gathering the information and submitting in the form.

4.2 Questionnaires/evaluation forms

Qualitative indicators will be monitored by using evaluation forms in Microsoft forms. In attachment 3: Format of evaluation form, a format is included for measuring satisfaction by participants in a meeting. This form can be adjusted together with WP leaders and good practices to make sure they match with the objectives and target groups. The result of the questionnaires will be filed in the folder of the deliverable.

4.3   Self-assessment of Work Packages

To evaluate the quality of outputs and the outcomes of the work packages, the monitoring results of the indicators will be reported every six months in the self-assessment forms (see attachment 1 for the template). Based on the indicators per work package (table 3) a format has been developed to be filled in by the work package leaders. These reports will form the overview of the quality monitoring results per work package and report on necessary adjustments after evaluation. The self-assessment forms will be combined in one report twice per year according to the deadlines in Table 6.

Table 6: Self-assessment of WP quality indicators.

WP	Monitoring instrument	Lead partners	Deadlines self-assessment	Approval by the project management team
WP1,2,3,4,5,6,7	Self-assessment (template see attachment 3)	WP leaders: WP1 HU WP2 TUAS WP3 HU WP4 BUAS WP5 UPV WP6 PBT WP7 CLUBE	24-1-2023 15-6-2023 15-12-2023 15-6-2024 15-12-2024 15-6-2025 15-12-2025 15-6-2026	31-1-2023 1-7-2023 1-1-2024 1-7-2024 1-1-2025 1-7-2025 1-1-2026 1-7-2026

4.4   Set-up of Consortium Cross assessments (UOWM)

A tool that will be used to ensure internal quality of deliverables are Consortium Cross assessments. The delivered reports of COVE SEED will be reviewed by other partners than the partner that is in charge of the deliverable. For the deliverables of COVE SEED that have been selected, an overview of the cross assessments and timings can be found in Table 7. In attachment 4 the Cross Assessment Template and instructions can be found.

Table 7: Cross assessment timeline.

Deliverable	Description	Lead Partner	Cross assessment by partner(s)	Deliverable ready for cross-assessment	Cross assessment form sent to UOWM	Cross Assessment report to WP Leader	Final Deliverable by WP Leader	Deadline
MS1.2	Interim Report	HU	To be confirmed	20/03/2024	27/03/2024	03/04/2024	10/04/2024	01/05/2024
MS1.3	Final Report	HU	To be confirmed	20/03/2026	27/03/2026	03/04/2026	10/04/2026	01/05/2026
D1.3	Progress Report for EACEA after one year	HU	To be confirmed	19/05/2023	26/05/2023	02/06/2023	09/06/2023	01/07/2023
D1.4	Progress Report for EACEA afer three years	HU	To be confirmed	20/05/2025	27/05/2025	03/06/2024	10/06/2025	01/07/2025
D2.1	Skills development approach	TUAS	BUAS HU	21/12/2023	17/01/2023	18/01/2023	24/01/2023	31/01/2023
D2.2	Comparative analysis of vocational excellence scans on skills and training material	EBI	To be confirmed (WP3 and WP4)	20/03/2023	27/03/2023	03/04/2023	10/04/2023	01/05/2023

D3.3	Regional Development Plan	HU	To be confirmed	20/03/2024	27/03/2024	03/04/2024	10/04/2024	01/05/2024
D3.3	Regional Development Plan	HBO	To be confirmed	20/03/2024	27/03/2024	03/04/2024	10/04/2024	01/05/2024
D3.3	Regional Development Plan	CLUBE	To be confirmed	20/03/2024	27/03/2024	03/04/2024	10/04/2024	01/05/2024
D3.3	Regional Development Plan	TUAS	To be confirmed	20/03/2024	27/03/2024	03/04/2024	10/04/2024	01/05/2024
D3.3	Regional Development Plan	UPV	To be confirmed	20/03/2024	27/03/2024	03/04/2024	10/04/2024	01/05/2024
D4.1	Manual on description of good practices	BUAS	HU UPV	21/12/2022	17/01/2023	18/01/2023	24/01/2023	31/01/2023
D6.1	Monitoring tools on QA	PBT	HU CLUBE	21/12/2023	17/01/2023	18/01/2023	24/01/2023	31/01/2023
D6.3	Cooperation Agreements	UOWM	To be confirmed	20/06/2024	27/06/2024	04/07/2024	11/07/2024	01/08/2024
D7.1	Dissemination and exploitation plan	HU	PBT CLUBE	21/12/2022	17/01/2023	18/01/2023	24/01/2023	31/01/2023

*The dates are indicative and are subject to changes in case of WPs extension.

The steps for the SEED cross assessment process are as follows:

- The lead partner of the deliverable prepares the draft deliverable ready for cross assessment (6 weeks before the deadline), while:
- Inputs/reviews are expected by all partners that are included in the specific deliverable preparation.
- Cross assessment form is provided by 2 responsible partners to UoWM (5 weeks before the deadline) in the following e-mails: akrestou@uowm.gr, kostas@kkc.gr.
- UoMW provides the cross assessment report to the lead leader (4 weeks before the deadline).
- Lead partner prepares the final deliverable (3 weeks before the deadline) and after approval of the project management team, the deliverable will be submitted to the EU portal.

Cross assessment responsible partners and deadlines per deliverable, are indicated in table 7. The feedback will be prepared in a cross assessment form template provided by UoWM and by each responsible partner per cross assessed deliverable (attachment 4: Cross Assessment Template).

The assessment report by UoWM based on cross assessment feedback by partners will be delivered as indicated in the proposal (see attachment 5: Cross Assessment Report Template).

Every year the cross-assessment reports are combined and evaluated. In Deliverable 6.2 the evaluation of the cross-assessments will be combined with the external reviews. The timing of these combined reports can be found in table 8.

4.5   Peer Reviews in COVE SEED

PBT/Katapult has developed an approach for peer reviews. Together with the WP leader of WP3, this will be evaluated and adjusted to include the maturity model. Regional CoVE's will be paired to execute the peer review and to assess the maturity. This is specially to gain information on success of

reaching the original aim of the project, i.e., outcome, outputs, and impacts. The peer reviews will be organised in year 2 (light version to understand the model) and 4 (full version including stakeholder interviews). Timing to be aligned with project meetings.

4.6   Summary of internal Quality Assurance reports

The monitoring data will be combined in reports as described before: self-assessments of all WP, cross-assessment of designated deliverables, peer reviews and reporting on regional and transnational indicators. Deadlines of these reports are presented in Table 8.

Table 8: Overview of internal QA reports and timing.

Deliverable	QA monitoring	Lead partners input	Final Draft	Reviewed by	Final Deadline
	WP self-assessment 1	WP leaders	24-1-2023	Project management team	31-1-2023
	WP self-assessment 2	WP leaders	15-6-2023	Project management team	1-7-2023
	WP self-assessment 3	WP Leaders	15-12-2023	Project management team	1-1-2024
	WP self-assessment 4	WP Leaders	15-6-2024	Project management team	1-7-2024
	WP self-assessment 5	WP Leaders	15-12-2024	Project management team	1-1-2025
	WP self-assessment 6	WP Leaders	15-6-2025	Project management team	1-7-2025
	WP self-assessment 7	WP Leaders	15-12-2025	Project management team	1-1-2026
	WP self-assessment 8	WP Leaders	15-6-2025	Project management team	1-7-2026
D6.2	Cross assessment report 1	PBT/UOWM	1-3-2023	HU	1-4-2023
D6.2	Cross assessment report 2	PBT/UOWM	1-3-2024	HU	1-4-2024
D6.2	Cross assessment report 3	PBT/UOWM	1-3-2025	HU	1-4-2025
D6.2	Cross assessment report 4	PBT/UOWM	1-3-2026	HU	1-4-2026
	Peer review CoVE's 1	PBT + regional coordinators (BUAS, TUAS, UPV, CLUBE)	1-5-2024	Project management team	1-6-2024
	Peer review CoVE's 2	PBT + regional coordinators (BUAS, TUAS, UPV, CLUBE)	1-5-2026	Project management team	1-6-2026
	Reporting on regional and transnational Indicators 1	PBT Input: CLUBE, UPV, BUAS, regions	1-5-2023	HU	1-6-2023
	Reporting on regional and transnational Indicators 2	PBT Input: CLUBE, UPV, BUAS, regions	1-5-2024	HU	1-6-2024
	Reporting on regional and transnational Indicators 3	PBT Input: CLUBE, UPV, BUAS, regions	1-5-2025	HU	1-6-2025
	Reporting on regional and transnational Indicators 4	PBT Input: CLUBE, UPV, BUAS, regions	1-5-2026	HU	1-6-2026

5. External Quality Assurance

Two international independent external expert peer reviews will be used to get an independent judgement of project implementation including financial and quality assessment. The advantage of

including external evaluation is objectivity from outside the partnership and added expertise. The evaluation of the external evaluator focuses on assessing relevance, coherence, impact, effectiveness, efficiency, and sustainability of the project. Members of the steering committee will be given full access to project results, will be regularly invited to project meetings/activities and will formulate recommendations based on the expert reviews. The steering committee will meet on annual basis. The independent external financial quality assessment will be carried out at mid-term and at the end of the project. An expert committee will be established for evaluation of the outputs, outcome and impact of SEED. The results of the external quality assurance will be part of the deliverable D6.2 together with the cross-assessment reports and the deadline can be found in the below Table 9.

Table 9: Deadlines of external quality assurance reports.

Deliverable	QA monitoring	Lead partners	Final Draft	Reviewed by	Final Deadline
D6.2	External expert review 1	PBT	tbd	Lead partner HU	1-4-2024
D6.2	External expert review 2	PBT	tbd	Lead partner HU	1-4-2026
D6.2	External financial review 1	PBT	tbd	Lead partner HU	1-4-2024
D6.2	External financial review 2	PBT	tbd	Lead partner HU	1-4-2026

6. Impact of the project

To establish the impact of the project, an impact evaluation strategy will be developed together with the work package leaders of WP5 and WP7. The Katapult method for measuring impact will be used as a starting point. This is a combination of quantitative data and qualitative information based on questionnaires and interviews of the regional partners and skills ecosystem. Example of the impact measurement of the Dutch PPP network can be found here. A separate plan will be prepared for this together with the project management team.

7. Conclusion and Recommendations

This Quality Assurance and monitoring plan is a living document. All project partners have a role in ensuring the high quality of the project results (outputs, outcomes and impact). The monitoring tools and the procedures will be evaluated throughout the project and adjusted where needed to make sure the quality assurance process is efficient and effective.

8. References

- EQAVET. (2021). Quality Assurance in Centers of Vocational Excellence. Synthesis Report from the EQAVET Peer Learning Activity.

Attachment 1: Template self-assessment tool

Quality Assurance and monitoring of Work Packages

The internal Quality Assurance (QA) system of SEED consists of three levels:

- Outputs: deliverables/immediate results (direct results of the performed actions, in our direct control)
- Outcomes: intermediate to long term effects (combination of results and external circumstances leading to some changes in the initial situation we can influence but can't control; could be expected as well as unexpected)
- Impact: long term effects of the SEED project

The Work Packages (WP) will be evaluated on the output and outcome level. As defined in the Quality Assurance and monitoring plan, self-assessment of the WP quality indicators will be filled in by the WP leaders every six months.

Work package …: …

Quality Indicators and Monitoring Tools

Deliverable	Quantitative indicator	Qualitative indicator	Monitoring tool	Outcome

Output measurements

No.	Indicator	Value planned	Value achieved	Source of information/ verification	Comments - contexts and proposed adjustments, if needed

Outcome measurements

No.	Indicator	Value planned	Value achieved	Source of information/ verification	Comments - contexts and proposed adjustments, if needed

Attachment 2: Format data and analysis form (dissemination log) (WP7)Dissemination

Partner	Dissemination activity name	What: type of dissemination activity (Please choose one option from the drop-down list)	Who: target audience reached (Please choose one option from the drop-down list)	Why: description of the objective(s) with reference to a specific project output (max. 200 characters)	Status (Please choose one option from the drop-down list)

Instructions: dissemination activities involve actions through: Conferences, Education and training events, Meetings, Clustering Activities, Collaboration with EU-funded projects, Other scientific collaboration, Other scientific cooperation, Other

Communication

Partner	Communication activity name (Short label, as described in the Communication, Dissemination, Exploitation plan)	Description	Who: target audience reached (Please choose one option from the drop-down list)	How? Communication Channel (Please choose one option from the drop-down list)	Status (Please choose one option from the drop-down list)	Date	Outcome (It would be very specific Key Performance Indicators)	Link (use hyper-links)* *if there is no link, please provide supporting documents.

Instructions: communication activities involve actions through a(n): Event (conference/meeting/workshop/etc.), Exhibition, Interview, Media article, Newsletter, Other, Press Release, Print Materials (brochure/leaflet/posters/stickers/banners/etc.),Social media, TV/Radio Campaign, Videos, Website. For the communication activities it is important to include a link to the documents on Sharepoint/Teams belonging to this activity.

Events and trainings

Participant name	Name	Type	Area	City, Country	Duration (days)	Male	Female	Non-binary	Total Attendees

Internal meetings

Partner	Meeting name	Audience	Description	Date	Total Attendees	Link (use hyper-links)* *if there is no link, please provide supporting documents.

Attachment 3: Format of evaluation form

An example of an evaluation form of a project meeting. Feel free to adjust the scale and questions to your own needs.

Evaluation form

What is your role in the project?

Project manager/teacher/other/researcher

Evaluation scale: 1 – Strongly disagree, 2 – Disagree, 3 – Agree, 4 – Strongly agree, 5 – Not attended

Practical organization of the meeting

- The quality of the practical information before the meeting was good
- The quality of the practical information during the meeting was good
- The quality of location, food and meeting rooms during the meeting was good
- Practical assistance from … staff during your stay was good

Open question: Please, add any comments or suggestions you may have regarding the practical organization of the meeting

Content

The kick off meeting had several goals. We ask you to reflect on those goals and rate them from strongly disagree to strongly agree

- I got a good understanding of the project
- I got to know the other partners and regions
- The meeting updated me on the progress of each work package
- The meeting provided insightful workshops on skills development, scans and gap analysis
- There was a good balance between visiting labs (excursions) and presentations
- There was a good balance between program activities and free time
- The program was interactive
- The duration of the project meeting was good
- Open question: Which program element stood out for you? Why?
- Open question: Did the project meeting meet your expectations? Why (not)?
- Open question: What are your needs for the next project meeting?

Attachment 4: Cross Assessment Template

SEED Cross Assessment Form

Deliverable Code & name	Xx
Cross Assessment Author	
The document to be assessed was delivered on:	XX/XX/202X
Date of assessed document:	XX/XX/202X

Remarks on:
 	
General Quality of the deliverable *
    Excellent   o
 	
    Good   o
 	
    Low   o
 	
Gaps identified
 	
Improvements in specific parts

Other Comments:

*Remarks

If you consider that the General Quality of the deliverable is excellent, tick excellent and do not fill in neither Gaps identified, as also Improvements in specific parts. There is no need to revise the document. Please add a comment/ brief explanation.

If you consider that the General Quality of the deliverable is good, tick good and fill in the sections Gaps identified and Improvements in specific parts. Please, provide concrete and clear comments – suggestions.

If you consider that the General Quality of the deliverable is low, tick low and do not fill in neither Gaps identified, as also Improvements in specific parts. The document needs to be fully revised. Please add a comment/ brief explanation.

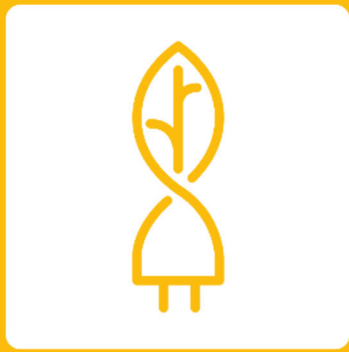## Attachment 5: Cross Assessment VET Report Template

SEED Cross Assessment Form

Deliverable Code & name	Xx
Cross Assessment Author	
The document to be assessed was delivered on:	XX/XX/202X
Date of assessed document:	XX/XX/202X

Remarks on:	
General Quality of the deliverable * Excellent o Good o Low o Gaps identified Improvements in specific parts 	
Other Comments:	

*Remarks

If you consider that the General Quality of the deliverable is excellent, tick excellent and do not fill in neither Gaps identified, as also Improvements in specific parts. There is no need to revise the document. Please add a comment/ brief explanation.

If you consider that the General Quality of the deliverable is good, tick good and fill in the sections Gaps identified and Improvements in specific parts. Please, provide concrete and clear comments – suggestions.

If you consider that the General Quality of the deliverable is low, tick low and do not fill in neither Gaps identified, as also Improvements in specific parts. The document needs to be fully revised. Please add a comment/ brief explanation.

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