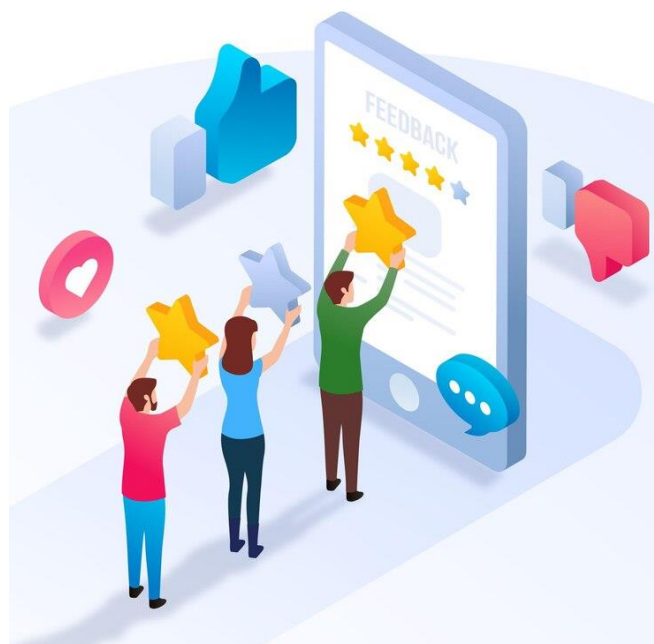


UNIHEAL+ - Contextualizing UNiversal HEALth resilience through health professionals' re-skilling for digital health services provision

Project Number: 2021-1-ES01-KA220-VET-000033271

PR4: UNIHEAL+ Skills Assessment, Validation and Recognition, Content & Tools

Task 4.3 External and Peer Review of UNIHEAL+ Skills Assessment, Validation and Recognition Tools



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INTRODUCTION

The UNIHEAL+ project

UNIHEAL+ is an ERASMUS+ KA2 project with an implementation period of 24 months, between **01/02/2022 - 31/01/2024**. The project is being conducted by a consortium of SEVEN (7) partners from five (5) European countries: Spain, Lithuania, Romania, Cyprus, and Greece.

The project's main objectives are:

1. Addressing the needs of the health professionals for further skilling, re- and upskilling, with a specific VET curriculum updated on further needs-centered skills building and adapted to labour market needs.
2. Recognizing the significance of digital health services deriving also from the recent health situation/emergency and the dominance of the ICT context in personal and professional life
3. Equipping health professionals to better deliver their jobs, by digital health services training, thus improving their use of computational technologies, smart devices, communication media, etc, and, aids healthcare professionals and their patients manage illnesses, health risks, as well as promote health and wellbeing.
4. Maximizing potential in their employment through the recognition of skills and qualifications due to the EQF, ECVET & ECTS units
5. Constructing well-stepped units of training, educational materials, work-based scenarios, guides for the VET educators as well Health services providers, such as health professionals and nursing and midwifery professionals have been in the centre of our project for vocational empowerment and further coordinated and integrated training for re-skilling on digital health services provision.

The UNIHEAL+ project is organized in 4 Project Results

Project Result 1 includes the UNIHEAL+ Courses Content that is composed of 6 Modules accompanied with interactive, multimedia resources and tools. The proposed modules are expected to cover **60 hours of learning** and include the following topics:

Module 1 (XENIOS POLIS): Framework skills and aptitudes for digital communication

Module 2 (GRIPEN EUROPE): Computer literacy, data analysis, data protection programs

Module 3 (CSI): eHealth & mHealth context and content

Module 4 (PROLEPSIS): Medical devices compatibility

Module 5 (FAY): Mobile applications, cloud storage, internet usability-functionality

Module 6 (XWHY): Universal digital health coverage

Project Result 2 (The Adaptation and Training Guide for UNIHEAL+ Educators) includes the development of a training guide for UNIHEAL+ Educators whereas Project Result 3 (eLearning Resources & Digital Tools) involves the integration of digital online tools which will be used both as the project's learning environment.

This report focuses on Project's result 4 third task.

TARGET GROUPS

- **Frontline health sector staff/professionals** (e.g., Nurses, doctors, pharmacists, physicians, dentists, midwives, etc.) as confronted with the need for further skilling and re-skilling regarding the contemporary health demands and the digital character of their health services.
- **VET educators** who undertake the role and tasks of effectively addressing the training of health professionals, making use of multiple pathways, such as also differentiation pedagogy, practical guidance, and re-feedback context. UNIHEAL+ also meets the needs of the VET educators since it contributes to an extent to the professional development of VET trainers to cultivate for them effective innovative training methods by including teaching in virtual environment, vocational and digital pedagogy, and in diverse and multicultural environments.

UNIHEAL+ Project Result 4 (PR4) - UNIHEAL+ Skills Assessment, Validation and Recognition Content & Tools

The aim of this output is to develop a package of tools for trainers, educators and employers in order to assess, validate and recognize the skills acquired through the provision of UNIHEAL+ Framework Courses to the target groups.

A common purpose of these tools is to ensure that competences, skills and qualifications can be more easily recognised and are better understood, within and across national borders, in all subsystems of education and training as well as in the labour market, no matter whether these were acquired through formal education and training or through other learning experiences

A package of tools for trainers, educators and employers were developed in order to assess, validate and recognize the skills acquired through the provision of UNIHEAL+ Courses to the target groups.

TASK 1 of PR4: UNIHEAL+ Skills Assessment, Validation and Recognition Tools Mapping and Design: CSI based on the Toolbox design, learning objectives and proposed accreditation methods mapped the existing EU initiatives on transparency and recognition of skills and qualifications and design suggested tools that could apply to the UNIHEAL+ Toolbox and be of use for trainers, educators and health professionals.

TASK 2 of PR4: Development of UNIHEAL+ Skills Assessment, Validation and Recognition Tools: Based on the above mapping, matching and design, CSI and the partners designed the below described tools to be embed in the training provision practices of Assessment, Validation and Recognition of skills acquisition.

TASK 3 of PR4: External and Peer Review of UNIHEAL+ Skills Assessment, Validation and Recognition Tools

TASK 4 of PR4: Digitalization of the UNIHEAL+ Skills Assessment, Validation and Recognition Tools

PR4 TASK 3: Per the proposal, the tools were reviewed and tested by the participants attending the UNIHEAL+ LTTA that took place in Seville, Spain, on 18th of May, 2023. A detailed analysis of the reviewing process is provided in the following section.

The purpose of this session was for trainers to review these tools that will be provided to the learner at the end of the training in order to receive feedback regarding any corrections, alterations and/or validations they might need.

The tool package is composed of questionnaires (skill assessment tool 1) and self-assessment checklists (skill assessment tool 2) through which VET practitioners will be able to collect and analyse quantitative and qualitative data with regards to each training module session implementation.

The tools were developed based on the following European Tools for the transparency and recognition of skills and competences, to ensure that competences, skills, and qualifications can be more easily recognised and are better understood, within and across national borders, in all subsystems of education and training as well as in the labour market, no matter whether these were acquired through formal education and training or through other learning experiences.

The following recognition tools were used to develop the tools:

- a) European Qualification Framework (EQF),
- b) European Credit System for Vocational Education and Training (ECVET),
- c) European Quality Assurance in Vocational Education and Training (EQAVET).

Specifically, these tools were developed based on the learning outcomes of each module, aligned with **EQF level 5**.

EQF level	Knowledge	Skills	Responsibility and autonomy
5	Comprehensive, specialized, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	<ul style="list-style-type: none"> • Exercise management and supervision in contexts of work or study activities where there is unpredictable change; • Review and develop performance of self and other

Assessment Tool 1: Questionnaire

The first effective assessment tool developed is a Questionnaire to be completed by learners at the end of each training module and includes the possibility for learners to get a clear explanation of the correct answer, as this will appear after answering each question. Each question has multiple answers and only one is the right answer.

Assessment Tool 2 – Self Assessment Checklist:

A Self-assessment checklist is another effective way to assess the achievement of a learning outcome. The learners are able to indicate through the checklist whether the learning outcome for each question (column on the left) has been achieved/gained or not and to which extent.

IMPLEMENTATION OF PR4 TASK 4.3

Task 4.3: External and Peer Review of UNIHEAL+ Skills Assessment, Validation and Recognition Tools

Right after the development of the learning modules by all partners, an internal peer review process took place during the months of February 2023 to April 2023 during which partners provided their feedback concerning corrections and improvements to the PR1 material as well as to the tools of PR4 that were developed.

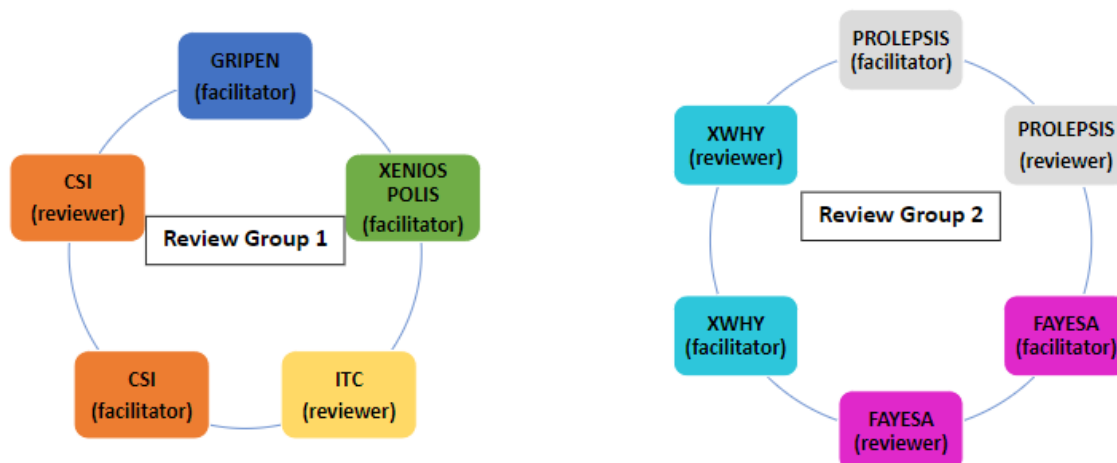
Concerning Task 4.3, all partners invited at least 3 external VET experts, policy makers and trainers to review the tools and provide feedback for further improvements and finalisation. The external and internal peer review took place during the LTTA in Seville on the 18th of May in a 3-hour session.

The setting and the participants

The Review session was held during UNIHEAL+'s LTTA in Seville on the fourth day, specifically the 18th of May.

It involved two **review groups** running at the same time. **Group 1** was composed of the LTTA participants from Gripen Europe, Xenios Polis, ITC and the two participants from CSI. **Group 2** was composed of 2 participants from Prolepsis, 2 from FAY and 2 from Xwhy.

Therefore, Group 1 was composed of 5 participants while Group 2 was composed of 6 participants. During review of Module 1 tools for example, the partner responsible for developing Module 1 acted as a facilitator while the rest of the review group participants acted as reviewers. This was followed by review sessions of Module 2 and 3 within Group 1. Group 2 conducted the review sessions of the tools of Module 4,5 and 6.



Each facilitator gathered the reviewers' comments and made notes collecting the input and feedback of reviewers. These Review Sessions worked more like a Focus Group during which the reviewers and the facilitators exchanged ideas and shared their opinions regarding the validation and assessment of the recognition tools.

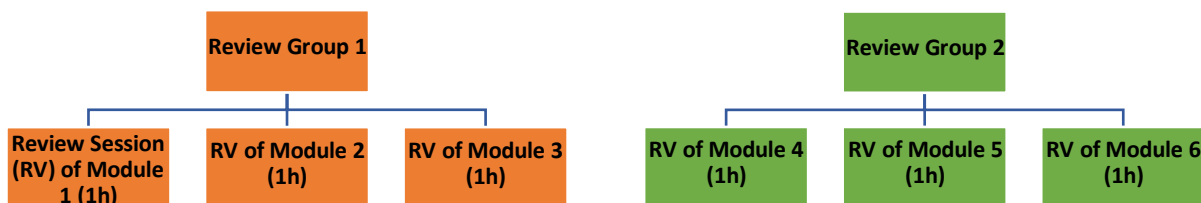
The profiles of reviewers included VET experts working in the vocational field, policy makers, and project managers/trainers working on VET projects.

The reviewers had a clear understanding of and were familiar with the content of the modules developed as prior to the Task 4.3 review session, they reviewed all modules in the platform during days 1 to 4 of the LTTA.

The review process

Review Session 1 (eg CSI facilitator will lead Review Session of Module 3)

1. Each Reviewer had approximately 30 minutes to go over Module 3 tools (already uploaded on the platform).
2. By the end of this, the feedback questions (see **Annex**) were presented to the reviewers by the lead facilitator (in the case of Module 3 is CSI).
3. A discussion followed, and the tools were assessed by the reviewers and feedback was collected (25 minutes).
4. The Review Session took a maximum of 1 hour each.
5. Each review group reviewed the tools of 3 modules; therefore 3 review sessions were completed by each group.



Improvements suggested and feedback collected by each partner

In this section, it's presented the feedback collected from the review of each module's assessment tools.

- **Module 1 Review of Assessment tools**

Reviewers names and profiles:

1. **Xenia Hadjikypr** – Project manager (CSI)
2. **Sintorela Chimiti** – Project manager (GRIPEN)
3. **Michalis Drakomathioulakis** – VET trainer and expert (CSI)
4. **Ariana Canoves** – Project manager (ITC)

Notes by the facilitator – XENIOS POLIS

Assessment tool 1: Questionnaire

Regarding the general feedback from the reviewers, it appears that the questions are structured in such a way that they fit and relate to the content of the learning module. Moreover, respondents can easily understand the wording of the questions and the proposed answers. Some minor changes were proposed, mainly involving minor corrections and rewording some words that are more appropriate for example in Question 3 and 6. Continuing, as mentioned by the reviewers, responders can easily formulate answers to the questions and therefore decide which is the correct one. As for the difficulty of the questionnaire, it is described as easy to complete and perhaps too easy, so the level of difficulty should be increased. In general, the questionnaire seems to be suitable for assessing the content of the learning modules.

Assessment tool 2: Self-assessment checklist

In terms of self- assessment, the learning outcomes give a clear interpretation of what the learner is expected to acquire through the module and the questionnaire. Responders can understand the learning outcomes clearly and consistently and the checklist tool is appropriate for the general evaluation of the content of the module. Some specific comments made by the reviewers include minor changes in the introduction of some questions, for example in Question 1 it would be useful to add the phrase "I am more familiar with..". Finally, as a general comment, the level of difficulty seems easy enough so it is advised to be increased.

- Module 2 Review of Assessment tools

Reviewers Names and profiles:

1. **Xenia Hadjikyri** – Project manager (CSI)
2. **Michalis Drakomathioulakis** – VET trainer and expert (CSI)
3. **Ariana Canoves** – Project manager (ITC)
4. **Eirini Papageorgiou** – Social worker (XENIOS POLIS)

Notes by the facilitator - GRIPEN EUROPE

Assessment tool 1: Questionnaire

Regarding the questionnaire, the feedback from the reviewers shows that the questions asked to the learners are correct and are combined with the material of each learning module. The questions seemed understandable and in addition the level of difficulty is quite easy.

During the evaluation, some of the reviewers made specific comments and improvements about the content of the questions. Regarding Question 2 the phrase “is located” is missing and also the answer given seems to be similar and incorrect, since the correct answer depends on the version of Windows software that someone uses. Continuing, questions 4 and 6 need to be reworded to make them more difficult and more complex.

Regarding the questionnaire in general, as mentioned by the reviewers it is easy to be completed by the responders. As for error messages, they seem to provide enough information to guide the responders to the correct answers but can be further enhanced. Finally, additional tools will be useful for the learners regarding the evaluation process of each module.

Assessment tool 2: Self-assessment checklist

As mentioned by the reviewers, the learning outcomes from the self- assessment - although they give a clear interpretation of what the learner is expected to gain through the module content and the questionnaire - could be more detailed and comprehensive. Responders can also easily understand the learning objectives from the given questions with ease. Finally, the use of the self-assessment checklist seems to be appropriate for evaluating the content of the modules.

- Module 3 Review of Assessment tools

Reviewers names and profiles:

1. **Sintorela Chimiti** – Project manager (GRIPEN)
2. **Michalis Drakomathioulakis** – VET trainer and expert (CSI)
3. **Ariana Canoves** – Project manager (ITC)
4. **Eirini Papageorgiou** – Social worker (XENIOS POLIS)

Notes by the facilitator - CSI

Assessment tool 1: Questionnaire

Regarding the evaluation of the questionnaire as a tool, the reviewers mentioned that its use is necessary and valuable in assessing the level of knowledge gained by the learner. The reviewers stated that although the questions ask about the right things in relation to the content found in the learning modules, some of the multiple answers given might confuse the learner and not properly guide them towards the right answer. The suggestion was to limit the number of multiple answers to a maximum of four. Regarding the use of the error messages, it was stated that these are very helpful and should be included in the platform.

Although the use of questionnaires is necessary it was also mentioned that additional tools might be useful in evaluating the level of learning outcomes in order to assess the training process by the educators. Perhaps applicable case studies, the preparation of abstracts/projects can be prepared by the learner followed by the educator/trainer guidelines for evaluation purposes and learning impact.

The reviewers also noted some minor modifications needed to be adjusted, for example inconsistency in the numbering of multiple answers used, inconsistent use of numbers and letters etc.

Assessment tool 2: Self-assessment checklist

The reviewers found the use of the self assessment checklist as a valuable tool in collecting qualitative data and assessing level of knowledge gained by the learners. Some comments included the replacement of some terms such as healthcare provision with more appropriate terms such as healthcare services. Other suggestions included the rephrase of some sentences so that they are more appropriate to the content of the learning modules. For example 'I have acquired knowledge through theoretical content'. All reviewers agreed that the self assessment checklist should include a rating scale for the learner to self evaluate the level of knowledge gained through different percentages. The rating scale was agreed to replace a Yes or No option that was originally used.

- **Module 4 Review of Assessment tools**

Reviewer names and profiles:

1. **Gloria Venegas del Valle** (Fundacion Ayesa)
2. **Tautvydas Bokmota** (Xwhy / Agency of Understanding)
3. **Rasa Goštautaitė** (Xwhy / Agency of Understanding)
4. **Vasiliki Radaios** (Prolepsis)
5. **Alvaro Cantarero Rubio** (Fundacion Ayesa)

Notes by the facilitator – PROLEPSIS

Assessment tool 1: Questionnaire

- Question 1: Some reviewers suggested that it may not be the most relevant or practical question, but it could be kept as the first question with some modifications.
- Question 2 to 6: Reviewers found these questions appropriate and clear.
- Respondents' understanding: Reviewers were generally confident that respondents could understand and answer the questions.
- Completing the questionnaire: Reviewers indicated that respondents could easily complete the questionnaire as intended.
- Error messages: Reviewers suggested rephrasing the error messages for Question 3 and 4 to provide more guidance rather than displaying the correct answers.
- Appropriateness of the questionnaire tool: Reviewers agreed that the questionnaire tool was appropriate for evaluating the content of the learning modules.
- Addition of other tools: Reviewers did not see the need for adding any other tools for the evaluation process.

Assessment tool 2: Self-assessment checklist

- Learning outcomes: Reviewers found the learning outcomes clear and interpretable in terms of what learners were expected to gain.
- Understanding of learning outcomes: Reviewers believed that respondents could understand the learning outcomes clearly and consistently.
- Appropriateness of the self-assessment checklist tool: Reviewers agreed that the self-assessment checklist tool was appropriate for evaluating the content of the learning modules.
- Addition of other tools: Reviewers did not see the need for adding any other tools for the evaluation process.

General suggestions:

- Rephrasing error messages: Reviewers recommended rephrasing the error messages in both Annex 1 and Annex 2 to provide better guidance rather than displaying the correct answers.
- Adding a scale: A suggestion was made to add a scale to the self-assessment questions.

Overall, the reviewers provided feedback on specific questions, understanding of the questions and learning outcomes, ease of completing the questionnaire, appropriateness of the tools, and some recommendations for improvement.

- Module 5 Review of Assessment tools

Reviewers names and profiles:

1. **Tautvydas Bokmota** (Xwhy / Agency of Understanding)
2. **Rasa Goštautaitė** (Xwhy / Agency of Understanding)
3. **Eirini Oikonomou** (Prolepsis)
4. **Vasiliki Radaios** (Prolepsis)
5. **Alvaro Cantarero Rubio** (Fundacion Ayesa)

Notes by the facilitator – FUNDACION AYESA

Assessment tool 1: Questionnaire

In terms of the reviewers' general opinion, it seems that the questions are structured in such a way that they fit and relate to the content of the learning module. Furthermore, respondents easily understand the wording of the questions and the proposed answers. Some minor changes were proposed, mainly minor corrections and the reformulation of some words that are more appropriate, e.g. in questions 2, 3 and 4:

Q2 → Change the error message.

Q3→ Grammar corrections/Rephrase putting text not numbers (change the explanation to improve clarity)

Q4-> Specify the app (Google Remote Desktop)

Attention with the we/I/you...

In general, the questionnaire seems adequate for assessing the content of the learning modules because as agreed the questions have to be representative for each unit and not delving into specific concepts but to general concepts that embrace the unit.

Assessment tool 2: Self-assessment checklist

As mentioned by the reviewers, the learning outcomes of the self-assessment - while providing a clear interpretation of what the learner is expected to achieve through the content of the module and the questionnaire - could be more detailed and comprehensive. Therefore, the platform will now provide answers on a scale of 1 to 10 so that learners can indicate what they feel they have learnt from the subject. It was also mentioned that the questions should be broad enough to cover the main contents of each module.

Furthermore, the checklist serves to make it easier for respondents to understand the learning objectives from the questions asked. So, in conclusion, the use of the self-assessment checklist seems to be a suitable method for assessing the content of the modules.

- Module 6 Review of Assessment tools

Reviewers names and profiles:

1. **Rasa Goštautaitė** (Xwhy / Agency of Understanding)
2. **Eirini Oikonomou** (Prolepsis)
3. **Vasiliki Radaios** (Prolepsis)
4. **Gloria Venegas del Valle** (Fundacion Ayesa)
5. **Alvaro Cantarero Rubio** (Fundacion Ayesa)

Notes by the facilitator – XWHY

Assessment tool 1: Questionnaire

In regards to the feedback received from the participants of the LTTA, it was stated that the way Annex 1 questions are structured is clear, comprehensible and the questions themselves have a clear link to the modules they represent. However, as the experience of the LTTA has shown, some of the questions require paraphrasing or some other minor changes in order to make the connection with the represented contents stronger, while at the same time also increasing their relevance for the learner. In this case, the questions No. 2 and No. 3 had to be paraphrased in order to use more relevant information in the questions. With that being said, the representative of the organisation that had the responsibility to facilitate this part of the session has proposed to paraphrase these questions in the way presented below:

- *What is the main difference between EHRs and EMRs? (Unit 2)*
- *What steps have to be taken prior to organizing a video meeting with a patient? (Unit 3)*

These changes helped to use the questionnaire tool more appropriately for the purposes of evaluation of the content of the represented learning module, as well as to paraphrase the question in such a way that it would ask the right thing in relation to the material of Module 6.

As for other questions, they did not require any changes, as the respondents could understand the questions clearly, as well as formulate answers to the questions and therefore decide which one is the correct answer. Moreover, respondents could complete the questionnaire easily and as they are intended, partly due to the fact that error messages provide enough information to guide the respondent towards the right answer.

Assessment tool 2: Self-assessment checklist

In regard to the Annex 2 learning outcomes, which are aimed at self-assessment, there were little to no changes in the checklist, as the learning outcomes seemed to be clearly phrased and structured. The only change that has been made on the checklist was shortening the last three learning outcomes, as they were too long and had exceeded the required length limits. The modified learning outcomes are presented as follows:

- *(Question 2) eHealth: I acquired a basic understanding of why EHRs and EMRs are relevant and learnt their main principles, main differences and similarities between them, as well as I learned about the top 3 EHRs and their specificities.*
- *(Question 3 & 4) Telehealth: I learnt how to perform digital transmission of medical images, remote medical diagnosis and evaluations. I was introduced to the main principles of remote consultations via camera organization.*
- *(Question 5 & 6) Artificial Intelligence (AI) & Machine Learning (ML): I was provided with a basic understanding of technology aimed at helping to identify products and services. learnt about products and services, which utilize AI and ML.*

Nevertheless, the checklist was clearly and logically structured, the learning outcomes give a clear interpretation of what is expected from the learner to gain through the modules and checklist. Respondents can understand the learning outcomes clearly and consistently, while the use of the self-assessment checklist tool is appropriate for evaluating the content of these learning modules.

CONCLUSIONS

Overall, the review session of the tools developed under Project Result 4 was very successful and constructive in terms of collecting valuable and useful feedback. The partners through these sessions were properly guided to make all necessary adjustments and modifications to their tools in order to improve them.

The corrections of the tools will be completed by the responsible partner of each module followed by the translations to the partners' language and their integration in the platform. With the conclusion of the review process, the next steps under PR4 is indeed the digitalisation of the tools that includes their integration in the platform (PR4 Task4).

Annexes

In this annex section, you can find the questions provided to the partners so as to implement the review session.

Questions for facilitator – Annex 1: Questionnaire

For the purposes of reviewing the above tool please provide feedback regarding the following:

Questions – Annex 1	Notes by facilitator
Are the questions asking about the right things in relation to the material of each learning module?	
Can the respondents understand the questions clearly?	
Can respondents formulate answers to the questions and therefore decide which is the correct one?	
Can respondents complete the questionnaire easily and as they are intended to?	
Does the error message provide enough information to guide the respondent towards the right answer?	
If the answer to the above question is No/Not Sure, please provide more information as to how this can be improved.	
Is the use of the questionnaire tool appropriate for evaluating the content of these learning modules?	
If the answer to the above question is No/Not Sure, please provide more information as to how this can be improved	
Will the addition of any other tool be useful for learners regarding the evaluation process of each learning module?	

Questions for facilitator – Annex 2: Self-Assessment Checklist

For the purposes of reviewing the above tool please provide feedback regarding the following:

Questions – Annex 2	Notes by facilitator
Do the learning outcomes give a clear interpretation of what is expected from the learner to gain through the modules and questionnaire?	
Can the respondents understand the learning outcomes clearly and consistently?	
Is the use of the self-assessment checklist tool appropriate for evaluating the content of these learning modules?	
If the answer to the above question is No/Not Sure, please provide more information as to how this can be improved.	
Will the addition of any other tool be useful for learners regarding the evaluation process of self-assessment?	

*These are just indicative questions/ suggestions that could be set to the reviewers. If you believe that adding some questions would be useful in collecting valuable feedback for the tools, please use them in the review process and share them with the rest of the partners. The important part of this process is to assess the usefulness and validity of the tools *