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## SEED - a European KA3 Erasmus+ Project

Smart Entrepreneurial Education and training in Digital farming:

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# WP4 – Elaboration of Assessment Standards for Quality Assurance

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**Abstract:** This document presents the final version of the assessment standards that has been produced in collaboration between ISIS Ciuffelli and EGI nA and tested with the implementation of short courses carried out at national level due to the COVID-19 Pandemic.

The assessment standards represent the third milestone of the project and have been piloted in the VET centres which has offered the work-based learning of students.

The SEED Project Consortium consists of:

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3	EGInA Srl	IT
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## Table of contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>3</b>
1.1	AIM OF THE ASSESSMENT STANDARDS FOR NATIONAL AND TRANSNATIONAL WBL ACTIVITIES ...	3
1.2	THE EQAVET FRAMEWORK .....	4
<b>2</b>	<b>THE QUALITY ASSURANCE CYCLE FOR SEED .....</b>	<b>6</b>
<b>3</b>	<b>PLANNING .....</b>	<b>10</b>
3.1	PLANNING TOOLS .....	14
3.2	THE ECVET TOOLKIT .....	16
3.3	WORKING CONDITIONS .....	16
<b>4</b>	<b>IMPLEMENTATION .....</b>	<b>17</b>
4.1	THE ROLE OF THE TUTOR.....	17
4.2	THE SEED METHODOLOGY FOR THE COMPETENCE UNITS.....	18
<b>5</b>	<b>EVALUATION .....</b>	<b>22</b>
5.1	EVALUATION TOOLS.....	22
<b>6</b>	<b>REVIEW.....</b>	<b>23</b>
6.1	REVIEW TOOLS .....	23
<b>7</b>	<b>COUNTRY-SPECIFIC REQUIREMENTS .....</b>	<b>ERRORE. IL SEGNALIBRO NON È DEFINITO.</b>

# 1 Introduction

The labor market is an evolving environment, where workforces are asked to be flexible, have skills matching the needs of employers, and be mobile workers. The 2014-2020 programming period has stressed the importance of supporting employability – especially among young people – also by exploiting the new opportunities arising in the labor market. The challenges faced at societal level, such as social exclusion, unemployment and climate change, have given birth to new responses tackling these phenomena. The labor market has responded with new professional paths combining policy priorities with the need to find suitable solutions to new problems. It is not a case that a strong emphasis was put, for instance, on self-employment as a resource to tackle unemployment, or on the so-called “green jobs”. Nevertheless, the digital world has become an integral part of our daily world and, subsequently, of our working places.

Starting from these assumptions, the Smart Entrepreneurial Education and training in Digital farming - SEED project aims to develop skills and competences in the agricultural sector by introducing the concept of digital transformation. The project has supported the development of a Joint VET Qualification (EQF 5) on digital farming. Skills and competences developed will be mapped against the EntreCOMP and DigCOMP frameworks and a strong work-based learning component will be the main feature of the project. This latter will promote the transnational training of students, in order to make them mobile and flexible to adapt to the evolving labor market.

The SEED project aims at:

- increasing the employability of young people, by supporting the development of a highly skilled, qualified and mobile workforce, also thanks to transnational placement;
- supporting the development of a joint VET qualification at the EU level, also strengthening its relevance for the labour market needs;
- promoting work-based learning, supported by a transnational mobility component.

The main products of the project will be the three milestones of SEED:

- 1) the definition of a qualification profile based on modular units of LOs to be used for the creation of a new qualification or to review an already existing qualification;
- 2) the curriculum in digital farming;
- 3) the elaboration of assessment standards.

Target groups of the projects are VET centers (and learners) and SMEs involved in agriculture, also as potential future beneficiaries. The project will support the contact among them by facilitating the development of skills and competences to meet labor market needs and also become more flexible to anticipate future skills' gaps.

The overall impact envisaged is not only to design a joint qualification in VET, and foster transparency, comparability and recognition of qualification, but, at the same time, to set up a new sustainable cooperation among partners, in order to create long-term synergies to enhance VET attractiveness.

## 1.1 Aim of the assessment standards for national and transnational WBL activities

Istituto di Istruzione Superiore Ciuffelli-Einaudi has collaborated with EGIInA and AIN for the elaboration and piloting of the assessment standards (3rd milestone of the project) to be applied to the work-based learning activities.

Although the partners extended the project eligibility period to the max. allowed timeframe of 36 months in order to carry out the 30 expected transnational mobilities, due to the persistence of the COVID-19 emergency, this was not possible.

Therefore, in order to ensure the implementation of the EQVET quality approach described in WP4 for the validation of the assessment standards, the VET partners have designed and carried out a short blended course in each partner country based on the same units that were identified for international work-based learning.

The partnership has agreed the following schedule:

- March/April 2021: the partnership meets online to design a short course based on the same units of learning outcomes that were selected for the organization of the transnational mobilities. The course will be designed following a blended approach, which will include online training and work based learning activities (to be implemented both as physical or virtual traineeships at national or international level). Moreover, we will design a framework for the validation and recognition of prior knowledge acquired in formal, non-formal and informal settings, based on which we will select candidates who will prove to have the minimum level of competences required to attend the course.
- April 2021: we promote the course as a non-formal education opportunity addressed to all those who may be interested to develop competences in the field of smart farming, including: farmers, unemployed or seasonal workers from the agricultural sector, NEETs, etc...
- April-May-June-July 2021: we carry out the online training involving at least 10 VET learners in each country as originally planned
- June-July 2021: we carry out the work-based learning activities, each country partnering with a company or a research body specialized in smart farming. Any type of traineeship will be taken into consideration, also depending on the evolving of the COVID-19 pandemic.
- August-September 2021: final evaluation of the training and validation of assessment standards

It is also useful to define in this document what Work-Based Learning (WBL) is in the framework of the SEED project:

- an effective teaching approach used to engage students in real-life occupational Digital Agriculture experiences. It incorporates structured, work-based learning activities into the curriculum, allowing a student to apply knowledge and skills learned in class and connect these learning experiences in the workplace. Work-based learning (e.g. internship, apprenticeship) provides students with the opportunity to engage and interact with employers, while learning to demonstrate essential employability and technical skills necessary for today's Digital Agriculture workforce. It is important to assess the students prior to their WBL-period on certain skills (technical and knowledge), attitudes and behavior. In this way we are able to select the right students for a successful WBL-period.

## **1.2 The EQAVET framework**

The EU Quality Assurance in vocational education and training<sup>1</sup> is a tool based on the 2009 Recommendation of the European Parliament and Council. The Recommendation invites Member States to use a series of indicative descriptors and indicators to support and develop their VET systems. The tool provides guidance on how to develop a quality assurance system and contains examples of different approaches used by Member States. Currently VET providers are using many different approaches to quality assurance. Some of these are in line with existing national or international quality assurance systems. Others have been designed to meet the VET provider's own circumstances. EQAVET is an approach to quality assurance or a reference framework for VET which has been agreed by Member States.

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<sup>1</sup> <https://www.eqavet.eu/>

EQAVET offers VET providers a straightforward way to monitor and improve the quality of their provision. It is based on the four-stage cycle of planning, implementation, evaluation and review which is at the heart of many other quality assurance approaches.

Introducing quality assurance frameworks in work-based learning (WBL)<sup>2</sup> has become a priority in recent years. Countries at the early stages of developing their quality assurance practices can learn from the experiences of others who have already implemented comparable quality approaches for WBL.

The EQAVET network has identified a series of common themes, called building blocks, which have been used to establish and strengthen quality assurance processes in WBL, in line with EQAVET (the European Quality Assurance Reference Framework or EQAVET Framework for short). The building blocks present an early analysis of approaches to quality assurance for WBL.

The building blocks are designed to be useful and appropriate for the three main models of WBL:

- Apprenticeship schemes which combine training in companies and VET schools or other education/training institutions;
- On-the-job training in companies which typically cover internships, work placements or traineeships which are a compulsory or optional element of VET programs leading to formal qualifications;
- Integration into a school-based program through on-site laboratories, workshops, kitchens, restaurants, junior or practice firms, simulations or real business/industry projects and assignments.

These six building blocks support and complement each other and build on the EQAVET indicative descriptors and indicators

- 1) Design work-based learning
- 2) Improve the quality
- 3) Respond to learners' needs
- 4) Communicate
- 5) Train the staff
- 6) Assess the learners

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<sup>2</sup> <https://www.eqavet.eu/Eqavet2017/media/publications/EQAVET-Quality-assuring-work-based-learning.pdf>

## 2 The Quality Assurance cycle for SEED

In consistency with the EQAVET framework, the quality assurance cycle of the SEED project will apply the following procedures and descriptors.

### 1) Planning

- Explicit goals/objectives and targets are agreed upon by all the stakeholders and set and monitored on a regular basis;
- Early involvement of staff from host and sending organisations in planning, including with regard to quality development;
- VET providers have agreed upon a common explicit and transparent quality assurance system;
- the work context and the behavioural code are presented to the learners in advance;

EQAVET descriptor	Methodology/process	Tools/documents
Explicit goals/objectives and targets are agreed upon by all the stakeholders and set and monitored on a regular basis.	Learning Outcomes have been detailed for each unit of the SEED curriculum, specifying also their adequacy for transnational mobility. These LOs will be used to structure the mobility training program of learners and will be monitored and revised based on the overall evaluation of the pilots.	<ul style="list-style-type: none"> <li>- Curriculum with the list of units and related LOs for mobility</li> <li>- ECVET MoU and LA for the specification of the individual WBL</li> <li>- Piloting reports produced by each partner based on the evaluation results</li> </ul>
Early involvement of staff from host and sending organizations in planning, including with regard to quality development.	Project partners and external experts took part in the review and validation of the Learning Outcomes during local focus groups and international peer review event	<ul style="list-style-type: none"> <li>- Focus groups guidelines</li> <li>- International peer-review guidelines</li> <li>- Focus group reports</li> <li>- International peer-review report</li> </ul>
VET providers have agreed upon a common explicit and transparent quality assurance system.	Partners and external experts review of Del. 4.1.	<ul style="list-style-type: none"> <li>- Structured review</li> <li>- Integration with country-specific requirements</li> </ul>
The work context and the behavioral code are presented to the learners in advance.	Trainees will get to know their WBL starting from the preparation and signature of the LA. In addition, preliminary meetings with companies (during the EU Skills Week) and host organizations before departure will be organized.	<ul style="list-style-type: none"> <li>- Learning Agreement</li> <li>- Online preparatory meetings</li> </ul>

## 2) Implementation

- Staff to be involved have been adequately trained and is used to develop cooperation with relevant external stakeholders;
- During the placement, trainees' experiences are discussed and monitored in a systematic way.

<b>EQAVET descriptor</b>	<b>Methodology/process</b>	<b>Tools/documents</b>
Staff to be involved have been adequately trained and is used to develop cooperation with relevant external stakeholders.	All stakeholders involved (hosting and sending organizations, students, company tutors) will receive all the information, useful tools and documentation before the mobility. A suitable matching between the students and companies will be carried out by project partners.	<ul style="list-style-type: none"> <li>- Del 4.1 as a guideline</li> <li>- Matching matrix</li> <li>- Database of companies and students' profiles</li> </ul>
During the placement, trainees' experiences are discussed and monitored in a systematic way	Students' WBL will be monitored by the sending and hosting organizations and the tutor who will be appointed before the arrival. Several tools (detailed in the 'Evaluation' section) will be used during the WBL	<ul style="list-style-type: none"> <li>- Del 4.1 as a guideline</li> <li>- Evaluation tools</li> </ul>

## 3) Evaluation

- Evaluation and review cover processes and results/outcomes of education including the assessment of learner's satisfaction as well as staff performance and satisfaction;
- Regular evaluation is carried out by three key actors (students, VET providers and enterprises). This will be based on a review of the reports and discussions on the results in order to improve performance and the work-based learning processes.

<b>EQAVET descriptor</b>	<b>Methodology/process</b>	<b>Tools/documents</b>
Evaluation and review cover processes and results/outcomes of education including the assessment of learner's satisfaction as well as staff performance and satisfaction.	Starting from the Learning Outcomes that were agreed upon the signature of the LA and taking into account the assessment methodology described in the SEED curriculum, results/outcomes of the WBL will be assessed. Matching of the WBL against the LOs foreseen in the LA	<ul style="list-style-type: none"> <li>- Learner's satisfaction questionnaire</li> <li>- Hosting company's satisfaction questionnaire</li> <li>- VET providers national piloting reports</li> </ul>

Regular evaluation is carried out by three key actors (students, VET providers and enterprises). This will be based on a review of the reports and discussions on the results in order to improve performance and the work-based learning processes.	VET providers and sending organizations will analyze the results of the evaluation carried out during the WBL period. Upon their return, students will be asked to complete a final report providing valuable information on their experiences. Project partners will integrate those data in the piloting report.	- Students WBL final report
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#### 4) Review

- Procedures on feedback and review are part of a strategic learning process in the organization;
- Learners' feedback is gathered on their individual learning experience and on the learning and teaching environment;
- Results/outcomes of the evaluation process are discussed with relevant stakeholders and appropriate action plans are put in place.

<b>EQAVET descriptor</b>	<b>Methodology/process</b>	<b>Tools/documents</b>
Procedures on feedback and review are part of a strategic learning process in the organization.	The data gathered both during and after the piloting will be used to improve the curriculum and the assessment standards if necessary.	- Internal review
Learners' feedback is gathered on their individual learning experience and on the learning and teaching environment.	Upon their return, students will be asked to complete a final report providing valuable information on their experiences. Together with satisfaction questionnaires, report will serve for measuring the educational impact of the WBL and potentially the usefulness of on the labor market.	- Consolidated piloting report
Results/outcomes of the evaluation process are discussed with relevant stakeholders and appropriate action plans are put in place	The updated/upgraded version of the curriculum and the assessment standards will be presented by project partners during the last international peer-review event with external experts that will be held in Belgium in 2021.	- International peer-review guidelines - International peer review report



For each of the above step, clear instructions and tools will be provided so that each project partner implementing the transnational mobility and potentially other organizations outside the partnership will have a guidance on how to effectively ensure the educational impact of the internships.

### 3 Planning

The planning phase will start before the mobility once the students and the hosting companies will be selected. Three main areas of action have been identified in the agricultural field in order to select the most suitable companies and design meaningful internships:

- companies already implementing digital agriculture strategies where students will be able to put into practice and use digital tools applied on the field
- companies not yet implementing digital agriculture strategies but willing to where interns could help and support the organization in planning and design those strategies
- research institutes and labs

Each country will involve 10 students who have attained or are about to attain the EQF4 level or are attending EQF5 level. Each VET provider/sending organization will send out a public call for recruiting students either attending last years of secondary school, unemployed students who have just completed their secondary school or students enrolled in a bachelor course.

It might be required to conduct interview or assess students' soft and hard skills prior to the WBL in order to select the most suitable students and carry out a perfect matching between students and hosting organizations' profiles.

The activities that will be implemented during the WBL period will be several and will be linked to the curriculum. In particular, partners have identified some competence units in the curriculum that are considered to be suitable to be piloted during the internships. The 'Domain Application Competence Units' and the related learning outcomes that are likely to be piloted due to the high level of practicality they entail are:

Competence Unit	Learning outcomes
<p><b>D.1 Sustainable key concepts</b></p>	<ul style="list-style-type: none"> <li>- Assume the sustainability principles as a reference paradigm to analyze and develop the agribusiness</li> <li>- Identify the impacts of the digital strategies in terms of sustainable development goals and their target</li> <li>- Identify the possible sustainability trade-offs between single innovative actions and optimize, with a systemic and integrated view, the innovation process</li> <li>- Develop a circular approach, within and between firms, following a value-chain approach</li> </ul>
	<ul style="list-style-type: none"> <li>- Analyze the firm's positioning toward its real and potential market and the digital innovation trends of the sector</li> <li>- Analyze sources of information and business ideas, comparing their advantages and disadvantages</li> <li>- Analyze the coherence between economic environment, strategy and structure (organization, processes, resources)</li> </ul>

<p><b>D.2 Strategy, Data and Decision Support Systems</b></p>	<ul style="list-style-type: none"> <li>- Apply creativity techniques in generating ideas of firm's digitalization</li> <li>- Evaluate the work activities in the productive process, identifying their contribution to the overall process and the digital transformation impacts</li> <li>- Recognize business opportunities given by the digital transformation</li> <li>- Identify a suitable Decision Support System</li> <li>- Support the decisions makers of the firm to implement and apply a Decision Support System in order to evaluate digital transformation scenarios, identifying and gather the appropriate data</li> <li>- Determine the economic-financial viability of different business digitalization ideas</li> </ul>
<p><b>D.3 Data sensors: platforms (drones and satellites) and agronomic sensors</b></p>	<ul style="list-style-type: none"> <li>- Understand the operational principles of the unmanned observation systems</li> <li>- Understand costs, risks and opportunities in the precision agriculture applications</li> <li>- Identify existing models and applications and characterize them in terms of goals, requirements and costs</li> <li>- Compare the usefulness of the different unmanned observation systems out of their characteristics</li> <li>- Carry out feasibility studies, identifying the main characteristics of the unmanned observation systems coherent with the agricultural contexts, using a SWOT analysis approach</li> <li>- Identify a suitable unmanned observation system and their application suite</li> <li>- Evaluate the costs and appraise the foreseen impacts <ul style="list-style-type: none"> <li>- Develop a road map and support the firm in its application, using project management techniques</li> </ul> </li> </ul>
<p><b>D.4 Using data: GIS and data modelling</b></p>	<ul style="list-style-type: none"> <li>- Understand and use the principles of cartography and visualization and apply them to the production and interpretation of maps and to the visualization of georeferenced information</li> <li>- Gather, process and interpret georeferenced information</li> <li>- Carry out thematic cartographies with Geographic Information Systems functional to the precision agriculture</li> </ul>

	<ul style="list-style-type: none"> <li>- Use GIS applications to control and automate the navigation systems of the agricultural machinery</li> <li>- Use large georeferenced databases of dynamic information from sensor networks to analyze and spatially visualize the data together with its time dependence</li> <li>- Characterize the data (potentially) available, their reliability and their consistence in a medium-long term perspective</li> <li>- Characterize the digital resources availability and the users' skills state</li> <li>- Define the data integration goals, identify the suitable model/techniques, the data acquisition process and the quality control protocol</li> <li>- Evaluate the costs and appraise the foreseen impacts</li> <li>- Develop a road map and support the firm in its application, using project management techniques</li> </ul>
<p><b>D.5 Agronomic resource management</b></p>	<ul style="list-style-type: none"> <li>- Analyze the productive processes, characterizing the inherent operations to the process, equipment, facilities and resources available to plan them.</li> <li>- Identify the efficiency goals, the productive factors involved and the digital contribution to their achievement</li> <li>- Define the possible digital actions</li> <li>- Evaluate the costs and appraise the foreseen impacts</li> <li>- Develop a road map and support the firm in its application, using project management techniques</li> </ul>
<p><b>D.6 Integrated logistic</b></p>	<ul style="list-style-type: none"> <li>- Analyze the sector's structure, finding the value chain segments potentially interested in physical and digital integration</li> <li>- Recognize the logistical process, identifying its phases and documentation associated for planning in the food industry/company</li> <li>- Identify potential models of integration at the value chain level and characterize them in terms of value added expected, requirements and costs</li> <li>- Analyze the needs and opportunities of the significant actors of the (segment of) the value chain</li> <li>- Characterize the digital contribution of the value chain integration</li> </ul>

	<ul style="list-style-type: none"> <li>- Support and advice the involved actors in the common strategic development, with a specific focus on the digital aspects</li> <li>- Identify the suitable model/techniques, the data acquisition process and the quality control protocol</li> <li>- Evaluate the costs and appraise the foreseen impacts</li> <li>- Develop a road map and support the firms in their application, using project management techniques</li> </ul>
<p><b>D.7 Traceability</b></p>	<ul style="list-style-type: none"> <li>- Identify the relevant norms and standards</li> <li>- Identify existing models and technological applications of traceability, and characterize them in terms of goals, requirements and costs</li> <li>- Analyze the packaging, packing and labelling operations, identifying the most important the characteristics of the materials and the process techniques</li> <li>- Analyze the firm's needs and opportunities, following the supply chain logic</li> <li>- Evaluate the costs and appraise the foreseen impacts</li> <li>- Define the suitable actions to implement/develop a high value-added traceability within and between firms</li> <li>- Develop a road map and support the firm in its application, using project management techniques</li> </ul>
<p><b>D.8 Digital marketing strategy</b></p>	<ul style="list-style-type: none"> <li>- Analyze the relevant (digital) marketplace, finding the competitive key factors</li> <li>- Analyze the strategy and the position of the firm towards the (digital) marketplace</li> <li>- Analyze the "digital awareness" of the firm and its digital skills</li> <li>- Develop a SWOT analysis in relation to the digital strategies</li> <li>- Formulate an achievable digital strategy</li> <li>- Elaborate and carry on a digital marketing plan</li> <li>- Design and develop effective commercial landing pages</li> <li>- Implement digital adverts, mobile and video marketing campaigns</li> <li>- Promote webs, campaigns and landing pages</li> </ul>

	<ul style="list-style-type: none"> <li>- Analyze the results of online marketing campaigns</li> <li>- Support the decision making of the firm</li> <li>- Develop a road map and support the firm in its application, using project management techniques</li> </ul>
<b>D.9 E-commerce and customer experience</b>	<ul style="list-style-type: none"> <li>- Following the digital marketing strategy, examine the existing e-commerce platforms</li> <li>- Develop make or buy alternatives: develop a firm specific e-commerce application vs use a general-purpose platform already available</li> <li>- Evaluate the costs and appraise the foreseen impacts of the different alternatives</li> <li>- Support the firm in the technical and commercial relations to the e-commerce platform, or in the development of a proprietary solution</li> <li>- Define a customer care &amp; retention approach, integrating the business and the digital communication processes, reinforcing the customer experience</li> <li>- Develop a road map and support the firm in its application, using project management techniques</li> </ul>

### 3.1 Planning tools

In order to assure that explicit goals/objectives and targets are agreed upon by all the stakeholders and set and monitored on a regular basis two main reference documents will be adopted. The Memorandum of Understanding and the Learning Agreement will be the fundamental tools that the sending organizations and the hosting companies with the coordination of the project partners will use to agree upon a common explicit and transparent quality assurance system.

- **Memorandum of Understanding<sup>3</sup>:**

A framework agreement between partner organizations, from two or more countries, confirming cooperation arrangements and procedures. The MoU sets out the roles of the involved parties and details the conditions via which learning outcomes can be achieved, assessed and potentially transferred.

The key aspects that must be shared, discussed, agreed on and made explicit in the MoU - prior to launching any mobility program - include:

- details of organizations signing the MoU: confirming areas of competence and responsibility in their country.

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<sup>3</sup> <https://www.ecvet-toolkit.eu/ecvet-toolkit/prepare-memorandum-understanding>

- available qualifications and units of learning outcomes: namely, those suitable for use with learners undertaking a period of geographical mobility.
- assessment, documentation, validation and recognition procedures: confirming roles and responsibilities alongside mechanisms, tools, techniques and templates. Within the MoU, partners should:
  - confirm their acceptance of quality assurance, assessment, validation and recognition criteria and procedures as adequate for learning recognition and/or credit transfer.
  - agree on the terms of the partnership, including objectives, the planned duration of future mobilities (minimum, maximum) and mechanisms for evaluation and revision of the MoU.
  - agree on units of learning outcomes that can be embedded or adapted to meet mobility program delivery and learning recognition and/or credit transfer needs (refer also to: Identify Units of Learning Outcomes).
  - identify all other actors and institutions involved in mobility, validation and recognition related activities, confirming their roles and duties in this respect.

- **Learning Agreement<sup>4</sup>:**

The purpose of the Learning Agreement is to provide a transparent and efficient preparation of the exchange to make sure the student receives recognition for the activities successfully completed abroad.

The Learning Agreement sets out the program of the studies or the traineeship to be followed abroad and must be approved by the student, the sending and the receiving institution, organization or enterprise before the start of the exchange.

The Learning Agreement should include all the learning outcomes the student is expected to acquire during the exchange.

For student mobility for studies, the Learning Agreement should set out the group of educational components that will be replaced in the student's degree upon successful completion of the study program abroad. See the guidelines below.

For student mobility for traineeships, the Learning Agreement should set out how the traineeship will be recognized depending on whether it counts towards the student's degree, is taken on a voluntary basis (not obligatory for the degree) or is being carried out by a recent graduate. See the guidelines below.

All three parties signing the Learning Agreement commit to comply with all the agreed arrangements, thereby ensuring that the student will receive the recognition for the studies or traineeship carried out abroad without any further requirements.

- **The learning outcomes checklist**

This document will be provided to hosting organizations in order to help them select the learning outcomes that can be piloted during the WBL activities. Please check **Annex I** to see the document.

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<sup>4</sup> [https://ec.europa.eu/programmes/erasmus-plus/resources/documents/applicants/learning-agreement\\_en](https://ec.europa.eu/programmes/erasmus-plus/resources/documents/applicants/learning-agreement_en)

### **3.2 The ECVET toolkit**

The European Credit System for Vocational Education and Training, often referred to as ECVET, is a technical framework for the transfer, recognition and (where appropriate) accumulation of individuals' learning outcomes with a view to achieving a qualification. Guided by a European-level Recommendation, ECVET relies on the description of qualifications in units of learning outcomes, on transfer, recognition and accumulation processes and on a series of complementary documents such as a Memorandum of Understanding and Learning Agreement.

ECVET is intended to facilitate the recognition of learning outcomes in accordance with national legislation, in the framework of mobility, for the purpose of achieving a qualification. ECVET aims to support the mobility of European citizens, facilitating lifelong learning - achieved in formal, non-formal and informal settings - and providing greater transparency in relation to individual learning experiences, making it more attractive to move between different countries and different learning environments.

At a systems level, ECVET aims towards greater compatibility between the different vocational education and training (VET) systems in place across Europe, and their qualifications.

From a geographical mobility perspective, ECVET aims at facilitating the validation, recognition and accumulation of knowledge and skills acquired during a stay in another country, with a view to ensuring that such achievements can contribute to the achievement of vocational qualifications.

### **3.3 Working conditions**

In addition, on the Learning Agreement and the Memorandum of Understanding, necessary for defining the educational side of the WBL experience, all the stakeholders involved in the mobility (students, sending and hosting organizations, companies and tutors) will have to be informed about the specific conditions that apply to the internship. The following aspects will have to be agreed and integrated if necessary:

- working hours
- location
- type of job (e.g. back office, front office, on the field, etc.)
- equipment (if applicable)
- safety issues (if applicable)
- special needs (if applicable)



## 4 Implementation

Once the planning has been finalized and the student will be ready for starting his/her WBL experience, there are some steps and procedures that will need to be taken into account.

First of all, a tutor in the hosting company/organization will have to be appointed. The tutor will serve as person of reference for the students during the internship and at the same time he/she will be the responsible for assuring a systematic monitoring of the placement. In order to do that, the appointed person (people) will have to be trained and/or skilled in accompanying the trainees on the job. A good starting point for tutors would be to get acquainted with the ECVET framework<sup>5</sup> and the learning outcomes of competence units to be piloted.

Being familiar with the philosophy of workplace training for vocational training students can help to:

- Guarantee job-related requirements
- Have available and qualified staff to host and assist the trainee during the work placement

### 4.1 The role of the tutor

Focusing on the role of hosting companies/organizations, we tried below to highlight what will be the tasks he/she will have to undertake in the different phases of a transnational mobility:

- Role of the tutor before the mobility
  - 1) Makes himself familiar with expected Learning Outcomes, the Learning Agreement and documents of the trainee. Signs the Learning Agreement;
  - 2) Develops a specific work plan and / or working project for the trainee and discusses this plan with his colleagues. Considers needs of the trainee as well as needs of the operational work in his company;
  - 3) Prepares and facilitates a “work space” for the traineeship.
- Role of the tutor during the mobility
  - 4) Stays in contact with the coordinating organization in the host country to give feedback on the traineeship;
  - 5) Supports the trainee on the work place: explains the tasks, sets up the timeframe for fulfilling the given tasks and controls their implementation.
- Role of the tutor after the mobility
  - 6) His assessment and evaluation of Learning Outcomes is the basis for the reviewing process for improvement of future mobilities. His critical feedback and ideas for improvement are a valuable source for the review process;

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<sup>5</sup> [https://ec.europa.eu/education/resources-and-tools/the-european-credit-system-for-vocational-education-and-training-ecvet\\_en](https://ec.europa.eu/education/resources-and-tools/the-european-credit-system-for-vocational-education-and-training-ecvet_en)

- 7) Is responsible for the quality of assessed and documented Learning Outcomes, as a basis for validation and recognition in relation to the trainee's qualification<sup>6</sup>.

The tutor will offer guidance to the trainee. The trainee will be advised to keep a record of daily activities and this will be evaluated and verified by the tutor: his/her explanations should be comprehensive and detailed so that the shared knowledge and experience can be analyzed and understood in the greatest detail, and afterwards be summarized.

#### 4.2 The SEED methodology for the competence units

Partners have produced at curriculum level the methodology that should be followed in proposing activities and assessment for each competence units block. Those activities could be proposed to the trainees during the WBL or in alternative by the VET provider as a sending institution to check the progresses and improvement of students in relation to the Learning Agreement and learning outcomes selected. The activities reported here are those related to the Units of Competence that the SEED project has identified as the most suitable to be piloted during the WBL, i.e. the Domain Applications units.

D.1	<ul style="list-style-type: none"> <li>- Write a short report about sustainability (e.g. what's your own definition of sustainability? How can the hosting company contribute to sustainable development? etc).</li> <li>- Collect local/international good practices on digital strategies that lead to sustainability</li> <li>- Identify 5 Ways to Increase Sustainability in Your Hosting company</li> <li>- Digital in Sustainable agribusiness - identify strategies in the field of digital agriculture strategies and digital innovation that can be applied to the hosting company</li> <li>- Draw a concept map for enhancing sustainability across the agribusiness value chain</li> <li>- Understanding Circular Economy Agribusiness: make a research on circular economy: definition, application of the circular economy to the agri-food sector, precision agriculture and CE</li> <li>- Design an action plan for circular economy in the hosting company</li> </ul>
D.2	<ul style="list-style-type: none"> <li>- Conduct a market analysis of the firm and its potential competitors</li> <li>- Research on the main trends and case studies of digital strategies applied to the agribusiness</li> <li>- Analyze and compare business ideas</li> <li>- Make a SWOT analysis of a business idea</li> <li>- Develop different business digitalization ideas</li> <li>- Conduct a feasibility study of the digitalization ideas</li> </ul>

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<sup>6</sup> <http://www.seploecvet.eu/the-application-of-learning-outcomes-within-a-transnational-work-placement-2/>

	<ul style="list-style-type: none"> <li>- Analyze the impact of digital technology on the hosting company in terms of precision, efficacy and sustainability</li> <li>- Develop a digital strategy action plan to gain a competitive advantage over the competitors of your hosting company</li> <li>- Decision support systems (DSS) for Agriculture: identify the main benefits, challenges and applications</li> <li>- Identify 3 DDSs that could be used by the hosting company</li> </ul>
D.3	<ul style="list-style-type: none"> <li>- Identify the different levels of sensors useful in the hosting company (e.g. to detect crop anomalies), taking into account practical issues like time, area surface (reflects pixel value), efficiency to collect data</li> <li>- Make a SWOT analysis of the different sensor platform, taking into account their characteristics, regulation &amp; costs</li> <li>- Build a case study of an existing farmland on agrobusiness and select the most appropriate tools for precision agriculture (analysis any index of real field)</li> </ul>
D.4	<ul style="list-style-type: none"> <li>- Explore the tools, concepts, and terminology of spatial analysis and modelling</li> <li>- Data modelling: conduct a research project on the main steps and purposes of agricultural data modelling</li> <li>- Identification of data modelling applications suitable to the hosting company</li> <li>- Practice activities: <ol style="list-style-type: none"> <li>1. Use of a GIS platform - whereby they execute all essential GIS-skill. This will be supported by a practical (online) manual explaining all techniques. As evaluation a correct analysis must be made and marked.</li> <li>2. Use of a GIS platform to work with real data to analyze an existing farmland/hosting company. Students will be asked to create a diagnostical map on the quality of the field.</li> <li>3. Presentation of the map (peer evaluation)</li> </ol> </li> </ul>
D.5	<ul style="list-style-type: none"> <li>- analyse the hosting company productive process</li> <li>- identify the productive factors in the hosting company that can be improved by the digitization</li> <li>- calculate the return on investment for digitization of the hosting organizations</li> <li>- analyse the machines used and their impact on the hosting organization annual costs</li> <li>- analyse the labour force organization and identify possible improvements in terms of productivity</li> <li>- explore open source solutions for resources management that could be adopted by the hosting organization</li> </ul>

D.6	<ul style="list-style-type: none"> <li>- SWOT Analysis of the logistics processes of the hosting company</li> <li>- Design a logistics strategy for the hosting company</li> <li>- Desk research on the quality control tools</li> <li>- Analysis of the quality checking procedures developed by the hosting company</li> <li>- Development of a quality control process and a road map for implementation</li> <li>- Review/Create checklists to make sure the entire supply chain of the company is consistently up to safety and efficiency standards</li> <li>- Carry out a cost analysis to identify potential cost reduction in the hosting organization</li> </ul>
D.7	<ul style="list-style-type: none"> <li>- Desk research on European Labelling and packaging standards in agribusiness</li> <li>- Analysis of the relevant traceability norms and standards in the hosting country</li> <li>- Traceability in agriculture: research on existing model and technological applications of traceability used in/suitable to the hosting company</li> <li>- Analysis on product packaging: levels and functions</li> <li>- Design an action plan aimed to improve the product packing of your hosting company (it will include 10 tips to improve product packaging)</li> <li>- Identify the origin and traceability of one or more products and describe/explain how they managed to do it. Comment on why traceability is important to the market environment of the products assessed.</li> </ul>
D.8	<ul style="list-style-type: none"> <li>- Conduct a marketing competitive analysis</li> <li>- Analysis of the digital marketing strategy of the hosting company: ideal customer; goals and tools; monitoring procedures</li> <li>- SWOT analysis of the digital assets and channels that the hosting company is already using</li> <li>- Analysis of the results of the online marketing campaigns of the hosting company</li> <li>- Create a digital marketing strategy aimed to improve the Digital Presence of the hosting company</li> <li>- Design of a digital campaigns using different marketing tools and channels</li> <li>- Analysis of the results through data analysis tools.</li> <li>- Identify and or create the best landing page elements for your hosting company</li> <li>- Realization of digital adverts, mobile and video marketing campaigns</li> <li>- Identify 15 tips for promoting the landing page and campaigns of the hosting company</li> </ul>

D.9	<ul style="list-style-type: none"><li>- Define a road map to implement an e-commerce solution effective for the hosting company</li><li>- Technical report: what are the challenges faced by the hosting organization/ agri-business when developing an e-commerce solution, including user experience and usability</li><li>- Design a customer acquisition plan</li><li>- Analyze the existing e-commerce platforms and identify suitable solutions for the hosting organization</li><li>- Develop tools (e.g. online surveys) for improving the customer experience</li></ul>
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## 5 Evaluation

Evaluation will take place both as constant monitoring of trainees progresses and/or issues and final evaluation of stakeholders' satisfaction. Common templates will be provided by the SEED project so that hosting companies, tutors, sending organizations and students will have proper tool to measure the WBL experience. Having common tools will also allow the partnership to carry out a compared analysis of the results that will be very relevant for updating the final version of the Assessment Standards.

While monitoring will take place in the form of day-to-day communication between students, tutors, hosting and sending organizations in order to tackle any emerging issues, the evaluation will be carried out towards the end of traineeship in the form of written questionnaires.

### 5.1 Evaluation tools

- Learner satisfaction:

Please see **Annex II**. Given the length of the SEED traineeship, this questionnaire should be filled in by the trainee at least once.

- Company satisfaction:

Please see **Annex III**. Given the length of the SEED traineeship, this questionnaire should be filled in by the hosting company at least once.

## 6 Review

The review phase will be implemented at two levels: an internal and an external review will take place. The internal review will be based on the interview and the final report to be produced by students after their return. The external review will be carried out during the 3<sup>rd</sup> and final International peer review event that will take place in Belgium.

The aim of the review is to measure the extent to which the intervention's objectives in the field of VET working-based learning experience were achieved, taking into account their relative importance and in turn verify the effectiveness of the curriculum designed in WP3. Thanks to this analysis, SEED partners will be able to measure the educational impact on one hand and on the other to validate and/or update the assessment standards and tools produced in this document.

### 6.1 Review tools

- Students – sending organization's interview and final individual report  
Please see **Annex IV** for the students' report template. The report should be submitted by students within 15 days after the end of the internship. The reports will feed the piloting report.
- Partnership review of assessment standards and evaluation processes on the basis of the piloting report (**Annex V** for the National piloting report template)
- International peer review
- Update of the documents



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