Project Title

Skills Alliance for Sustainable Agriculture

Project Acronym

SAGRI

Deliverable 2.3: Guide on EQF/ECVET/EQAVET

application

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Contents

Abbreviations

CEDEFOP: European Centre for the Development of Vocational Training

EACEA: Education, Audiovisual and Culture Executive Agency

EQF: European Qualifications Framework

EC: European Commission

ECVET: European Credit system for Vocational Education and Training

EQAVET: European Quality Assurance in Vocational Education and Training

EU: European Union

KSC: Knowledge, Skills, Competencies

LO: Learning outcomes

LLL: Lifelong Learning

MoU: Memorandum of Understanding

MS: Member States

NQF: National Qualification Frameworks

QA: Quality Assurance

QAC: Quality Assurance Committee

SAGRI: Skills Alliance for Sustainable Agriculture

VET: Vocational Education and Training

Foreword- The framework of SAGRI

According to a survey (TNS Political & Social, 2014) regarding (European Union (EU) citizens' attitudes towards the education, it was found that just over half of EU citizens (56%) believe that the qualifications they have gained from education or training would be recognized in other EU Member States (MS) and around one in four EU citizens (23%) think that their qualifications would not be recognized in other EU MS. In addition, 6% of EU citizens answered that their efforts to work or study in another EU MS, failed. Furthermore, only a small minority of EU citizens (9%) say that they know the level of the European Qualifications Framework (EQF) to which their qualifications correspond. An additional 12% say that they have heard of the EQF but still don't know to which level their qualifications correspond.

SAGRI is a project financed by the Erasmus+ Programme of the European Commission, under the title "Skills Alliance for Sustainable Agriculture", which can assist to the increase of farmers' mobility across EU countries, their ability to become more employable and also to have their own competences recognized through a system.

According to Eurostat, in 2013, there were 10.8 million agricultural holdings within the EU-28, while the utilized agricultural area was almost 175 million hectares (approximately 40.0 % of the total land area). The total farm labor force was the equivalent of 9.5 million annual working units in 2013, of which the 92 % were regular workers (Eurostat, 2017). Another survey conducted for European Commission (EC), aimed to analyze European farmers' intentions to invest in the period 2014-2020 reveals that the majority of the farmers in Europe have received only secondary education (57%), while 16% of the farmers had post-secondary (non-tertiary) education, 12% had tertiary education and 15% had only primary education (Lefebvre et al., 2014). The agricultural training of farmers in each country of EU (excluding Italy), is given in Figure 1.

In Italy, the most usual educational level among farm managers, is the primary educational level (39% of the farm managers), followed by the 32% of the middle school (Gurrieri et al., 2014). However, the age of the farmers seems to have an important role to this issue. In the case of Portugal, the 71.2 % of the young farmers have high vocational education (hold

a Bachelor, Master or PhD) (Zondag et al., 2015a), while in Greece only the 9.9% of the young farmers have high vocational education (Zondag et al., 2015b).
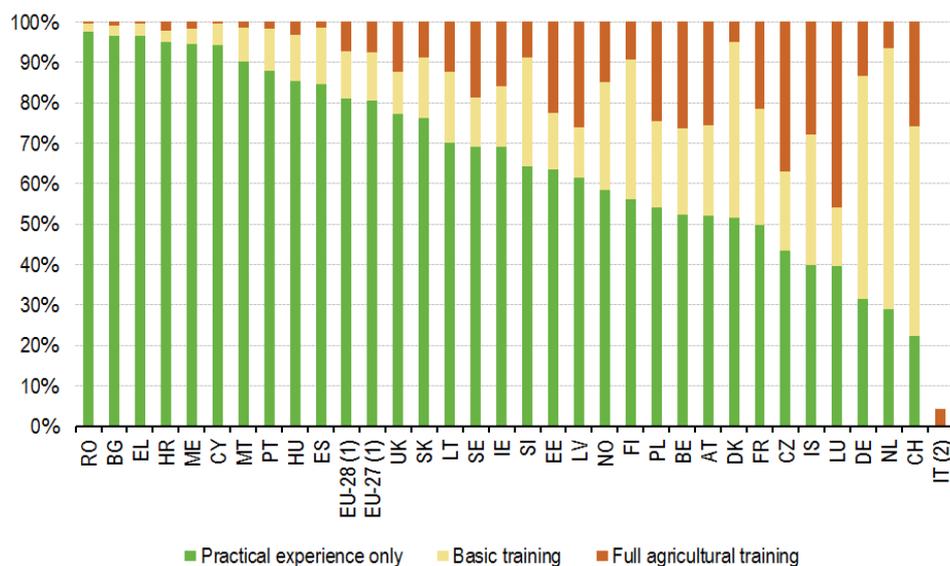
(1) Excluding Italy.
(2) In Italy different definitions have been used for the levels practical experience and basic training, data of Italy on these categories are therefore not comparable with data of other countries and are therefore not displayed.

Figure 1: Share of farm managers having as highest training level basic training, practical experience or of full agricultural training, EU-28, in 2010 (Eurostat, 2013)

On the other hand, EC through the Common Agricultural Policy (CAP) is concerned about environmental considerations, as agriculture depends on the availability of natural resources and promotes the continuation of sustainable farming. Thus, it is crucial that education in agriculture shall successfully prepare agricultural workers, researchers and other interested parties to make productive contributions in order to improve sustainable agricultural production.

SAGRI's partners are concerned about the adequacy of the agricultural workers, researchers and extension staff in terms of learning outcomes (LOs), regarding sustainable agriculture. Thus, the purpose of the project is to provide to these parties the appropriate

knowledge, skills and competencies in the field of agro-environmental technology for sustainable agriculture.

0. Preface

This publication is the first report on guidance regarding the EQF/ European Credit system for Vocational Education and Training (ECVET)/ European Quality Assurance in Vocational Education and Training (EQAVET) application in SAGRI project.

During the "kick off meeting" of the project, which was held in Athens, during 12 -13 January 2017, the authors of this Guide had come to the conclusion that the project partners had limited knowledge of the principles and methodologies regarding EQF, ECVET and EQAVET. For that reason, this Guide provides information not only for the basic principles of EQF, ECVET and EQAVET but also a more detailed and holistic approach and up-to-point examples so as to ensure that partners understand the proper implementation of the above mentioned principles.

More specifically, the Guide of EQF/ECVET/EQAVET application has been developed in order to provide SAGRI's partners with the necessary background knowledge, to ensure the effectiveness of the SAGRI project and most importantly to meet the desired objectives. This Guide offers a collection of information and key resources required to be transferred, implemented and adopted in SAGRI project by the partners. For that reason, it provides the principles and tools defined by the European Parliament and Council of the EU (2009) through the ECVET Recommendation.

Chapter 1 and Chapter 2, present the aims and objectives of EQF and ECVET respectively, and the methodology that SAGRI partners should use to apply EQF and ECVET principles successfully. Chapter 3 focuses on the importance of EQAVET on that field though the information that provides on the implementation of Quality Assurance (QA) in European Vocational Education and Training (VET) systems. Chapter 4 is dedicated to the definitions of terms in the particular domain of SAGRI project and Chapter 5 provides the references used for the creation of this Guide.

Furthermore, this Guide includes some examples in order to enhance the understanding of EQF/ECVET/EQAVET features and technical principles. At the end of the guide, are also given hints, recommendations and templates to SAGRI's partners, which will be helpful for understanding how to incorporate the EQF/ECVET and EQAVET topics in their working packages/deliverables. Therefore, this Guide contributes to the development of SAGRI's training and certification strategy and thus it is very important for the project's deliverables, especially for the VET providers P2, P6 and P9, who are responsible for the implementation of EQF/ECVET and EQAVET principles. In particular, this guide shall be used, not only during the design and development of the curricula, but also during the delivery of the training course, i.e. during the accomplishment of WP3 and WP5.

1. European Qualifications Framework - EQF

1.1. Definition of EQF – Key topics

During the last years, the European Commission along with the MS, have emphasized on the importance of the transparency and the recognition of skills and qualifications that are required for the individuals' educational and professional life. These issues play an important role for their adequate mobility as employees within Europe (EC, 2014). EQF/ECVET for lifelong learning (LLL) was established with the Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for LLL. The establishment of EQF was the result of various international developments such as the Bologna Declaration (June, 1999).

At this point, it shall be noticed that LLL has to include the whole spectrum of formal, non-formal and informal learning. The developed framework actually established a comparability model that related EQF with the national qualification systems and among others aims to validate informal and unintentional training and education.

The EQF acts as a translation tool/device to make national qualifications more readable across Europe for the promotion of workers' and learners' mobility between countries and facilitating their LLL. It also aims to relate different countries' national qualifications systems to a common European reference framework. Hence, EQF supports both the mobility of the

learners and the workers and a LLL. In addition, it is an essential tool for the development of comprehensive National Qualification Frameworks (NQF) (CEDEFOP/ European Centre for the Development of Vocational Training, 2017). The European Parliament and the Council adopted the Recommendation on the EQF on the 23rd of April, 2008.
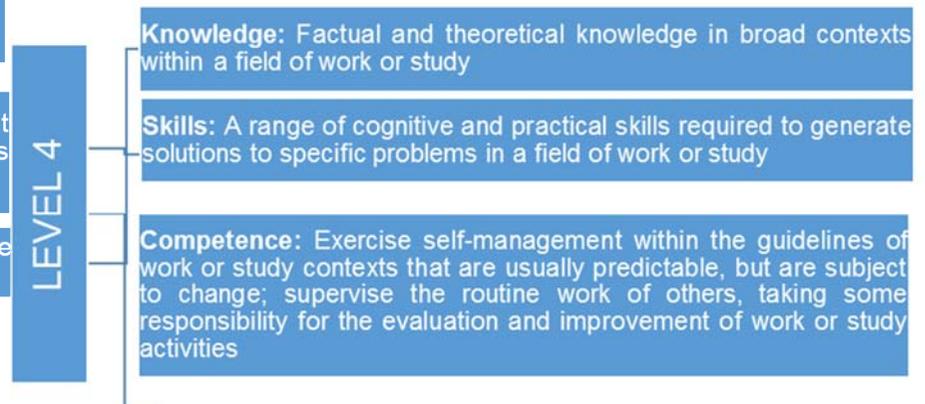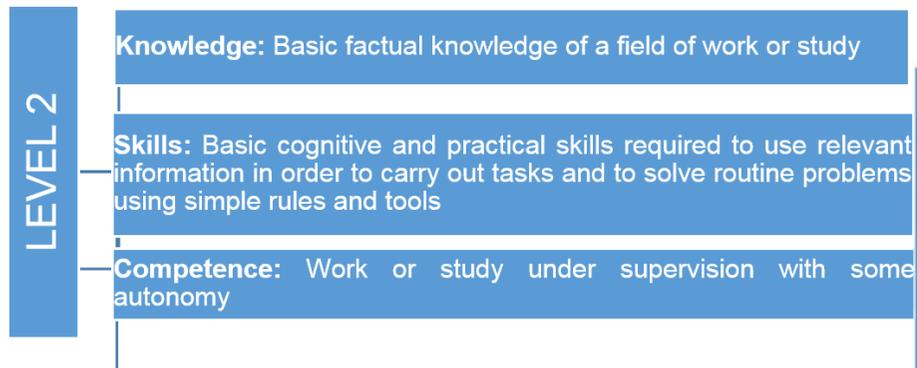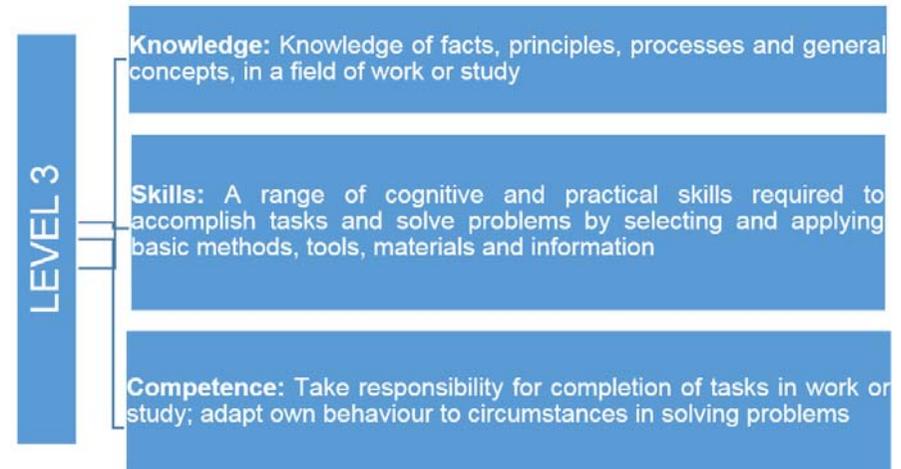
1.2. Levels in EQF and their descriptors

EQF is an essential tool, used to understand the differences of the qualification systems in European countries, through communication and comparison of these systems and thus, it offers a link between different national qualifications frameworks (EC, 2017). EQF provides a better understanding of qualifications across countries and learning systems. It is worth, noting that it covers qualifications at all levels (CEDEFOP, 2017). These eight levels can be used by all interested parties such as graduates and employers, in order to evaluate and compare qualifications awarded in countries that have different education systems and differences in their training systems (EC, 2017). The EQF shares the same approach with ECVET for LOs and in addition, it provides a reference for ECVET. Countries develop national qualifications frameworks (NQF) to implement the EQF.

Each of the 8 levels is defined by a set of descriptors indicating the knowledge, the skills and the competences which are related to qualifications at that level in any system of qualifications. Below, are given the descriptors defining levels in the EQF exactly as stated in the site of European Commission (2017). In the EC website, it is also stated that:

> ➢ "In the context of EQF, **knowledge** is described as theoretical and/or factual."
> ➢ "In the context of EQF, **skills** are described as cognitive (involving the use of logical, intuitive and creative thinking), and practical (involving manual dexterity and the use of methods, materials, tools and instruments)."
> ➢ "In the context of EQF, **competence** is described in terms of responsibility and autonomy."

At this point an example will be given, to understand this topic in practical terms. For instance, if a person from Ireland with a diploma in Agriculture who can indicate an EQF level, applies for a job in the United Kingdom (UK), the Company Manager can find out what

the person's diploma corresponds to in UK, through the reference network. The Partners of SAGRI, shall understand these levels and ensure that the curricula which is going to be created will be understandable by all farmers, extension staff and stakeholders in order to ensure the successful implementation of EQF and ECVET and as a result the certification framework that will be developed, can be applied without excluding any of the farmers. Moreover, as already mentioned before, all Partners must bear in mind that **the SAGRI curriculum will be designed in terms of tangible learning outcomes for an EQF of level 5**.

LEVEL 1

Knowledge: Basic general knowledge

Skills: Basic skills required to carry out simple tasks

Competence: work or study under direct supervision in a structured context

LEVEL 2

Knowledge: Basic factual knowledge of a field of work or study

Skills: Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools

Competence: Work or study under supervision with some autonomy

LEVEL 3

Knowledge: Knowledge of facts, principles, processes and general concepts, in a field of work or study

Skills: A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information

Competence: Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems

LEVEL 4

Knowledge: Factual and theoretical knowledge in broad contexts within a field of work or study

Skills: A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study

Competence: Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities

LEVEL 5

Knowledge: Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge

Skills: A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems

Competence: Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others

LEVEL 7

Knowledge: Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research. Critical awareness of knowledge issues in a field and at the interface between different fields

Skills: Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields

Competence: Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams

LEVEL 6

Knowledge: Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles

Skills: Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study

Competence: Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups

LEVEL 8

Knowledge: Knowledge at the most advanced frontier of a field of work or study and at the interface between fields

Skills: The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice

Competence: Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research
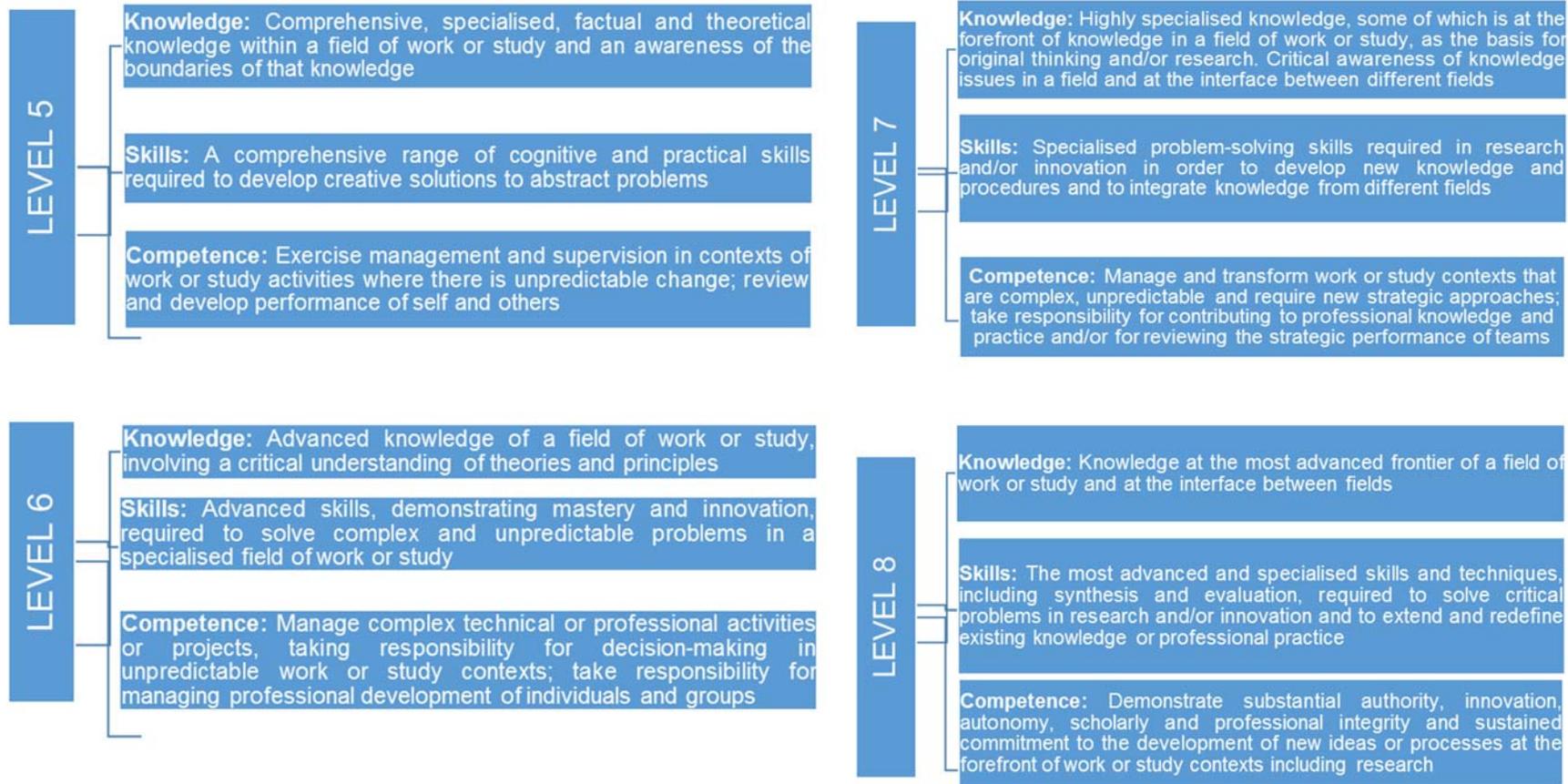
Figure 2: Description of the EQF levels (EC, 2017)

2. European Credit system for Vocational Education and Training (ECVET)

2.1. ECVET's purpose

In SAGRI project, the ECVET will contribute to the achievement of recognition of formal, non-formal and informal qualifications of the delegates' farmers obtained in pilot sites (Italy, Greece and Portugal), in terms of transparency and QA procedures. The qualification system will be decided by SAGRI partners according to the EQF framework.

The purpose of ECVET is the enablement of recognition of learners' achievements -LOs and their mobility within Member States, across Europe. ECVET aims to support that purpose, without extending learners' education and training pathways. To achieve that purpose, it creates an appropriate structure, encourages the use of a common language and inspires exchanges of information and mutual trust among vocational and education training providers and European competent institutions. Therefore, it can be stated that ECVET is a pioneering European instrument, which has been developed in order to encourage mutual trust and mobility in VET (ECVET, 2014).

2.2. Advantages of using the ECVET instrument

The ECVET has a vital role to the support and the increase of the mobility of individuals with origin from the Member States, across Europe. Additionally, ECVET supports learners to combine the appropriate career and learning path, in order to obtain a recognized vocational qualification. To achieve that, ECVET gathers and communicates the LOs attained in different frameworks, in terms of nation, culture, education and training (CEDEFOP, 2016).

Since ECVET helps the recognition of learners' mobility, it also assists employers to understand better the qualifications of the potential employees that have been achieved abroad. Through the ECVET tool, the international education and training experience has also improved reliability, because the learners' achievements have been identified and documented. Furthermore, ECVET supports the flexibility of programs to achieve a qualification and therefore, it promotes LLL and it also facilitates the cooperation between

companies and VET providers, increasing that way the attractiveness of VET (ECVET, 2014).

It is worth noting that following the ECVET principles, SAGRI's partners should understand the delegate farmers′ LOs. At the end, it is expected that delegate farmers will have a qualification regarding sustainable agriculture, obtained by a transparent system, which in turn will increase their transnational mobility across and within Member States.

2.3. Where is ECVET based on?

ECVET is principally based on the following five parameters:

- ❖ **LOs**: As mentioned before LO are the results of the process of designing qualifications and refer to knowledge, skills and competences that can be accomplished through learning contexts. Their importance, relies on the fact, that they determine the expected achievements of the learner, after his/her period of mobility. In addition, it enables the comparison of qualifications developed in different qualification systems while can also show the similarities between qualifications and LOs, even if these have been developed in different qualification systems. Furthermore, the identification of unforeseen LOs awarded by a VET can be identified (Cedefop, 2011).
- ❖ **Units of LOs:** These are constituents of qualifications and can be assessed, validated and recognized (ECVET, 2014).
- ❖ **ECVET points:** They offer further information about units and qualifications by using numbers. A qualification can be better understood, through ECVET points, information regarding the level of qualification, units and description of LOs (Cedefop, 2011).
- ❖ **Credit of learning outcomes:** It is provided in case of assessed and documented LOs. Credit can be transferred to other frameworks and accumulated to succeed a qualification in agreement with the qualifications standards and regulations that occur in the participating countries. Credit, refers to the designing of the assessed LOs of an individual and therefore is related to a person/individual, while ECVET

points give evidence regarding the qualification and the units and therefore are related with the qualification regardless if it is attained or not.

❖ **Mutual trust and partnership among participating organizations:** Memorandum of Understanding (MoU) and Learning Agreements are the forms of expressions used for this topic (ECVET, 2014).
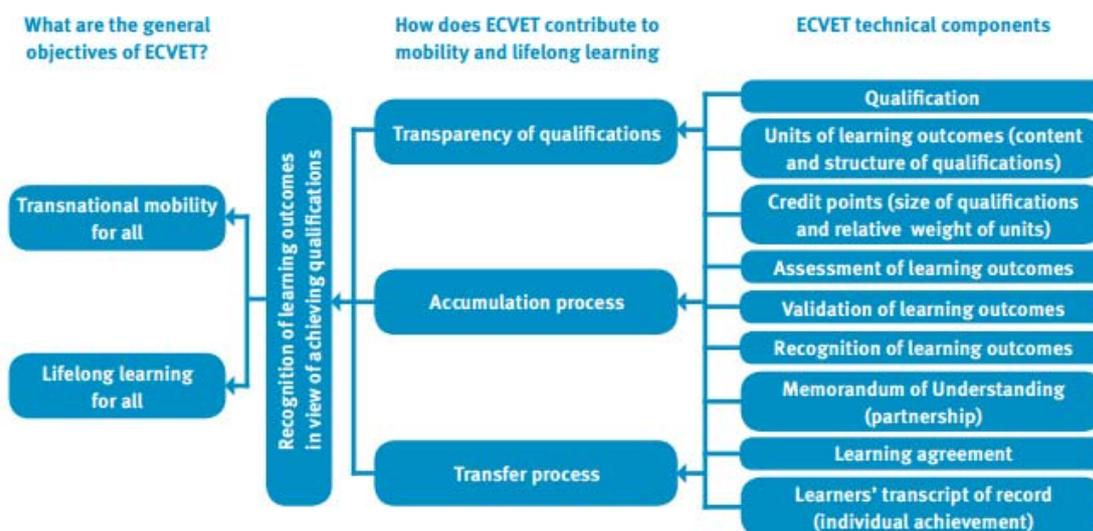

Figure 3: **ECVET objectives and its technical components (EC, 2011)**

It is important that all members of SAGRI Project implement ECVET, so that the objectives will be met.

2.4. ECVET in practical terms

To better understand what ECVET does, an example will be given. For instance, in the case of an Agronomist who attended successfully an officially structured training program of 300 hours length and of an Agronomist who has a proved and documented work experience in the same field, it is not clear who is better qualified. This question can be clarified through ECVET, after the assessment of the informal learning of the second Agronomist, which will conclude to the development of "credits" that will express the extent of his qualifications. In particular, these credits that were products of the assessed LOs, will be expressed in

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15 | P a g e

numbers which are linked with the achievements of the learner. Credits are fundamental for the transfer between different learning contexts and for the accumulation of the LOs. Individuals can then use these units with LOs for constant improvements.

An individual who tries to understand if the credits he/she has, are adequate to gain the desirable qualification, needs to know that the ECVET points (see Glossary) of that qualification are set up by the overall weight of his LOs. As commonly agreed that 60 ECVET points correspond to the LO anticipated to be reached in a year of formal full time VET, the knowledge allows the allocation of these points to a qualification. Thus, to be able to get a qualification, the credits must be matched with ECVET points.

It is worth noting, that this procedure is not simple due the variety of the learning forms (formal, non-formal and informal learning), the variety of the NQFs which are not always compatible between them and the different system of documented information an NQF uses. This is where the Competent Institutions play an important role, as they are engaged to find out the appropriate way to transfer the credits between partner organizations. To do that, they use the Memorandum of Understanding, which performs as the common trust-document that offers a description of the required conditions which assist the credit transfer.
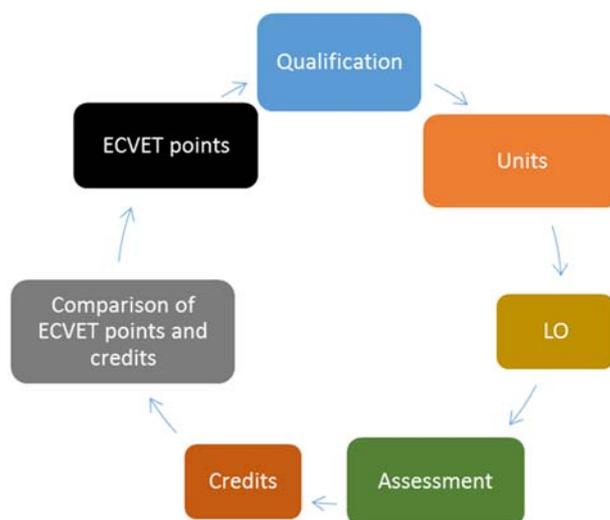
Figure 4: Schematic presentation of the analysis of a qualification and its assessment, in order to attain credits that can be compared to ECVET points**.**

2.5. Technical specifications of ECVET

The application of ECVET for a particular qualification is based on the principles and technical specifications, described below:

1. Units of LOs
2. Transfer and Accumulation of LOs, ECVET partnerships
3. Learning agreement and personal transcript
4. ECVET Points (EACEA/ Education, Audiovisual and Culture Executive Agency, 2008)

2.5.1. Units of LOs

According to the Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of an ECVET, the specifications for a unit should include:

— The title of the LO unit: To create this title, Partners have to consider several parameters such as the inexistent profiles that the market needs, the importance of this title and the image of the Knowledge, Skills, Competencies (KSCs) that it provides.

— The title of the qualification which is associated to the unit: Since qualifications compose the LO Unit, they must be related with it. If units are also parts of a training program, then additional information must be given in a unit description.

— The EQF level of the qualification: According to the project description of SAGRI and in particular of WP3, it is stated that "the SAGRI curriculum will have a specific character and be designed in terms of tangible learning outcomes for EQF level 5"

— The LOs of the specific unit: The Report on skills needs of agricultural workers, will play an important role in choosing and designing the LOs to the Titles that will be given. The LOs have to show what the professional agricultural worker has to know after the completion of the Unit.

— The procedures and the criteria used to assess the LOs of the Unit: They are needed for the adequate description of a specific unit and will be defined through several topics such

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17 | P a g e

as the type of the exams, the duration of the exams and the threshold values that assure that the candidate obtained the desirable LOs (Cedefop, 2011).

— The ECVET points which are related to the unit (as described in Subchapter 2.5.4).

— The validity of the unit in terms of time must be mentioned (where relevant): There is a possibility that the certification given for a qualification at the end of the educational program, must be valid only for a specific period of time. In that case, further information regarding the time intervals between the updates of the certification in the future, must be given in the presentation of the Unit (Unit Specification). It must be well understood that the quality of the assessment procedure depends on the use of the LO units. The size of the units is related to the purpose of the unit along with the practice adopted in qualification systems (Cedefop, 2011).

2.5.2. Transfer and Accumulation of learning outcomes, ECVET partnerships

In ECVET, in case that achieved LO units in one setting have been successfully assessed, they can be transferred to another context. Then, they can be validated and recognized by the competent institution. The next step, is the accumulation of LO units towards a given qualification, considering the relevant rules (i.e. the national rules). The competent institutions have the responsibility to design the procedures and guidelines for the assessment, validation, accumulation and recognition of the LO units. The establishment of partnerships and networks involving competent institutions, aims to assist the credit transfer procedure. In more detail, it aims to:

• provide a core- framework of cooperation and networking between the partners, through a MoU.

• assist the partners to create specific arrangements for credit transfer for learners.

A MoU is a set of agreements between competent institutions which control the method by which LOs can be reached, assessed, validated and recognized. In other words, it contributes to the creation of an accepted framework by all competent institutions for credit transfer. To achieve that, an ECVET partnership has to state the acceptance of the status of the competent institutions which is controlled by the national regulations and laws of each

country (i.e. the status can be related to the recognition and the credentials of an institution). An ECVET partnership has also to state the acceptance of the procedures that partners apply to, such as procedures regarding the designing of units, assessment, recognition and QA, in a formal way. The MoU shall also confirm that partners will use the EQF to establish the reference levels and agree on the comparability of qualifications, regarding the credit transfer. Furthermore, the MoU should confirm the identification of other parties that might be involved in this procedure (EACEA, 2008). Thus, the template of the MoU, shall include: the objectives of the MoU (i.e. the partners accept mutually the criteria that will be used for QA), the contact details of the partners who sign the MoU and the qualifications covered for the specific MoU. Furthermore, it shall be stated the period of the MoU's validity and when the evaluation and the review process, regarding the work of partnership, will take place. Then, all organizations of the partnership have to sign and in case that there is additional information or complementary, is placed in the end of the MoU (i.e. as additional information and annexes, respectively). A Template for the MoU is given in the toolbox of the official internet site of ECVET-Projects, along with already submitted MoUs of older Projects. To download this Template and to see other MoUs, please click here http://www.ecvet-projects.eu/ToolBox/ToolBoxList.aspx?id=16&type=1.

In case that ECVET must be applied to LOs that have been attained by non-formal and informal learning or even independently to the framework of a MoU, then the interested competent institution has the responsibility to develop the appropriate procedures regarding the identification, validation and recognition of the LOs, through the related ECVET points and the provision of analogous units.

2.5.3. Learning agreement and personal transcript

A learning agreement is a document that defines the conditions for a certain mobility period and facilitates the recognition of credits attained during this period. It also defines the LOs and units that a learner should attain along with the associated ECVET points. Hence, the recognition of credits is ensured in case of compliance with the learning agreement. To be valid, the learning agreement is signed by the learner, the home institution and the hosting institution and includes information regarding the identity of the learner, the duration of the

mobility period, the LOs to be reached and the related ECVET points (Cedefop, 2011). The difference of a MoU with a learning agreement is that the second one is more specific, refers to a particular case of mobility, and provides a description of the LOs and their assessment. A personal transcript is an important tool to be used for this procedure and is defined as "a document which details learners' assessed LOs, units and ECVET points awarded" (EACEA, 2008).

2.5.4. ECVET Points

The number of these points/numerical representations of a qualification allocated to a unit, represent the weight of the units. Their recognition comes after a learner completes a specific unit. The weight of the units can be established, considering any or all of the following approaches: A) The significance of the LOs that compose the unit the aims of ECVET, such as for labor market participation. B) The size and the complexity of the LOs and C) The work required by a learner to obtain the LOs needed for the unit (REPC, 2009). The total number of ECVET points assigned to a specific qualification, is calculated considering as a reference the use of a formal learning context and that 60 ECVET points are allocated for a year of formal full-time VET (Cedefop, 2011).

2.6. Practical Suggestions

In this section, there will be presented indicative templates so as to guide SAGRI's partners on how the LOs and their assessment can be put into words, along with the provision of assistance for the development of the curricula. The templates and tables below are based mostly in another European Project, the Project CO.LO.R (for more information, please click here: http://www.ecvet-projects.eu/Projects/ProjectDetail.aspx?id=27.

In the first template, it can be shown the ECVET (LO) Units in the cell depicted as "List of ECVET Units). In the 2nd template, KSCs are the constituents of the analysis of the LOs and in the 3rd one, an approach regarding the approach of the LOs units assessment is given. There is no doubt, that a different approach for these issues can be used. It shall be noticed though that one of the goals of this procedure is to assure that the approach which will be

used should be consistent, logical, and helpful for the design of the assessment methodology and structure and that ECVET will be used to ensure that EQF key-features are used appropriately. Moreover, the components of these templates will be used as indicators for the development of the training modules.

The following indicatively completed templates, have been created in accordance to the specifications regarding the units, as these specifications have been given in the relevant Recommendation (see sub-chapter 2.5). These templates include guidance on what shall be reported and described, and can be used as a tool for the following working packages of the SAGRI Project.

As mentioned before, these templates will be used as indicators for the creation of the curricula. However, there are several parameters that need to be considered before, such as the training material which will be constituted by 7 modules, and the pedagogical tools and methods which must be suitable for each Unit.

Accordingly, the relevant templates for the Educational Methods must be prepared. For example, the Template which will refer to the ECVET Unit, shall include the following information:

- ECVET Unit: (title)
- Module title and type
- Training Methods (Theoretical or practical learning and description of them)
- Weight (for each type of Learning)
- Training hours (for each type of Learning)
- Total training hours
- Where is it going to be based (i.e. e-learning)

- Reference Qualification
- Module Theme
- Total ECVET points (it must be considered how many ECVET points will be awarded to the total hours of training. For the allocation of ECVET points to a qualification, a convention according to which 60 points are allocated to the LOs anticipated to be achieved in a year of formal full time VET, is used.)

Table 1: **Qualifications Template**

SAGRI Project – Qualifications Template	
Reference Number of the Document:	**Version:** (To be completed accordingly) **Date:** (To be completed accordingly)
Title of SAGRI qualification:	(i.e. "Sustainable Farmer")
Qualification Reference Number (QRN):	Write down the QRN
EQF Level	Be aware! It must be EQF Level 5
Characterization of the LO units	At this point knowledge, skills and competences (which means the LOs) must be described to provide the qualifications. For the production of LO units, classification of the anticipated LOs with comparable content in groups, is also required.
List of LO Units	List the LO Units' titles for this qualification, as they rose from the cell above.

Table 2.1: ECVET LO Units' Template

<table>
<tr>
<td colspan="3">SAGRI Project – ECVET LO Units' Template</td>
</tr>
<tr>
<td>Reference Number of the Document:</td>
<td colspan="2">Version: (To be completed accordingly)   Date: (To be completed accordingly)</td>
</tr>
<tr>
<td>Title of SAGRI qualification:</td>
<td colspan="2">(i.e. "Energy crop farmer")</td>
</tr>
<tr>
<td>Qualification Reference Number:</td>
<td>Write down the QRN</td>
<td>Title of LO Unit: i.e. "Harvesting Energy Crops"</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Skills</td>
<td>Competencies</td>
</tr>
<tr>
<td>Write down all the theoretical and factual knowledge which corresponds to the LOs of the specific Unit</td>
<td>Write down all the skills that the individual must be capable to apply in the specific environment of work</td>
<td>Write down the capabilities of the individuals to apply the other two LOs in the specific working environment. Special emphasis may be given to competences regarding to Module 3 of the training curricula, as inappropriate pest management can effect severely the environment.</td>
</tr>
</table>

Table 3.2: ECVET LO Units' Template

SAGRI Project – ECVET LO Units' Template			
Reference Number of the Document:	**Version:** (to be completed accordingly)		**Date:** (to be completed accordingly)
Title of SAGRI qualification:	i.e. Sustainable farmer		
Qualification Reference Number:	Write down the QRN	**Title of LO Unit:**	i.e. Integrated pest management in plant protection
Knowledge	**Skills**		**Competencies**
Optimal conditions in the field (climate etc), beneficial crop varieties, strategic planting and crop rotation, soil and water management, plant nutrition, harvesting, storage, maintenance of the biodiversity, distinguish pests from beneficial insects, acceptance levels of damaging pests, cultural, physical, biological and chemical methods to reduce pests, etc.	Understand conditions in the field, Select varieties –if needed resistant to pests, Manage crops, Inspect land, Identify the dangers, Decide if intervention is required, Determine how to resolve the problem, Plan the action that will resolve the problem, Intervene in a responsible way		Prevention: Choice of the appropriate strategy required to avoid the development of pests. Monitoring: Pests and natural control methods must be monitored appropriately in order to ensure whether intervention is required or not. Intervention: Intervene only when control measures are required.

Table 4.1: ECVET LO Unit Assessment Template

SAGRI Project - ECVET LO Unit Assessment Template			
Ref. Numb. of the Document:		**Version:**	**Date:**
Qualification Ref. Numb. (QRN):		**Qualification's Title:**	
LO Ref. Numb.		**Title of LO Unit:**	
Assessment of the procedures and of the tools			
Topics of assessment (LOs)	**Assessment procedure**	**Tool**	**Testing** (refer to the relevant document)
Knowledge			
Description of the knowledge that is going to be assessed	Note down the method of the assessment (i.e. multiple choice test)	How is the method going to be implemented? (possible answer: Questionnaire)	i.e. Questionnaire
Skills & Competencies			
Descriptions of these LOs	Note down the method of the assessment (i.e. practical test)	How is the method going to be implemented? (i.e. observation charts)	i.e. observation charts
Type of exam	**Duration**	**Threshold mark**	**Examination weight**
i.e. Written test	i.e. 1 h	i.e. 50/100 is a "pass"	(Mark weight) i.e.: 30 or 40
i.e. Practical Test-observation	i.e. 1,5 h	i.e. 5/8 is a "pass"	(Mark weight) i.e.: 70 or 60

Table 5.2: ECVET LO Unit Assessment Template

SAGRI Project - ECVET LO Unit Assessment Template			
Ref. Numb. of the Document:		**Version:**	**Date:**
Qualification Ref. Numb. (QRN):		**Qualification's Title:**	i.e. Sustainable farmer
LO Ref. Numb.		**Title of LO Unit:**	i.e. Integrated pest management in plant protection
Assessment of the procedures and of the tools			
Topics of assessment (LOs)	**Assessment procedure**	**Tool**	**Testing** (refer to the relevant document)
Knowledge			
Chemical control of pests	multiple choice test	Questionnaire	i.e. Questionnaire
Skills & Competencies			
i.e. Plan of the chemical control method, Responsible intervention	Theoretical test Practical test	Questionnaire observation	i.e. Questionnaire and observation charts
Type of exam	**Duration**	**Threshold mark**	**Examination weight**
Written test	1 h	50/100 is a "pass"	(Mark weight): 40
Practical Test	1,5 h	5/8 is a "pass"	(Mark weight): 60

Another useful example for SAGRI partners is the "CREATE" Project. According to that Project, 180 ECVET points (3 years X 60 points) had been assigned to a qualification, which means that the LOs in this qualification will be achieved in 3 years of training. The total number of credit points, were said to correspond to all forms of achieving a qualification (formal, non-formal training, etc.). In case that the qualification is achieved, the LO Units and the number of credit points are written in the personal transcript. Each partner of the "CREATE" project calculated the number of credit points for each unit in the qualification (in SAGRI project ECVET points will be allocated during the R2.3, by P9-E.RI.FO.-ENTE DI RICERCA E FORMAZIONE). The result is based on the percentage share which was defined. It was suggested that each number of points had to be round up and without decimals. Thus, if for example, the qualification has a total of 180 ECVET points and the unit shares the 12% of the total then it receives 22 ECVET points (NAVET, 2012).

Table 4.1: Allocation of ECVET points to the units of learning outcomes (NAVET, 2012)

Qualification……………………		
EQF level….		
Total number of ECVET points………………		
Units of learning outcomes	**Relative weight in the frame of the qualification (in %)**	**Number of ECVET points**
No.1 …………………………..		
No.2 …………………………..		
……………………………………		
	(100%)	*(Total number of ECVET points)*

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27 | P a g e

Table 4.2: Allocation of ECVET points to the units of learning outcomes

Qualification: Sustainable farmer		
EQF Level: 5		
Total Number of ECVET points: i.e. 90 (1.5 years *)		
Units of Learning outcomes	**Relative weight in the frames of the qualification (in %)**	**Number of ECVET points**
Precision technology	12	10.8
Remote sensing to assess land capability	12	10.8
Integrated pest management in plant protection	20	18
Agricultural reuse of organic residuals	20	18
Drip irrigation and water-conserving technologies	15	13.5
Renewable energy and its application as green agricultural energy source	11	9.9
Bioenergy and energy crops	10	9

*The real number of ECVET points will be defined, considering the SAGRI curriculum, which for example for the extension stuff will be completed in two periods of two moths each.

** These numbers are just indicative. It is recommended that Partners shall follow the example of "CREATE" project and use only whole numbers.

3. EQAVET

3.1. The importance of EQAVET

EQAVET is the tool of EU countries to perform monitoring and improvement of their VET, based on agreed references by the participated countries. EQAVET increases the quality in VET and facilitates the acceptance and recognitions of the LOs obtained by learners in another country or learning system. In other words, EQAVET is a voluntary system that can be used by all bodies involved in EQAVET. The framework involves all relevant stakeholders and improves their QA systems. The framework allocates national reference points for QA, contributes to the relevant European-level network and creates a national approach in order to increase the value of the QA systems and to use the framework in the best possible way (EU, 2017).

EQAVET develops and improves the quality assurance in European VET systems in terms of the implementation of the European Quality Assurance Reference Framework in cooperation with the EU MS, the Social Partners and the European Commission. It accomplishes its mission by the following procedures:

- Assists the Member States to create operational approaches to support the implementation of the Reference Framework.
- Creates values of quality to be adjusted at European and other levels, by using several Network members and the Quality Assurance National Reference Points.
- Supports the EC and the MS, in terms of monitoring and implementation of the Reference Framework taking into account the Education and Training 2020 Strategy.
- Supports the QA aspect of work in EQF and ECVET.

Therefore, EQAVET is a community of practice where members or national experts can share knowledge and experience. It recruits a procedure of common learning and consensus building for the creation of mutual values, reference criteria, indicators and instruments that can be used not only for the continuous improvement of quality in VET, but also for the implementation of the Reference Framework. In addition, EQAVET uses the shared results and solutions to create

guidelines and criteria for QA, adopting a philosophy of quality improvement. Hence, EQAVET promotes close cooperation and synergy within and across the European Member States, on issues which are associated with QA.

3.2. The four stages of the Quality Assurance cycle

There are four basic stages that compose the EQAVET, which are:
In Stage 1 (Planning phase), all goals and objectives regarding procedures, policies and human resources shall be established appropriately, with clarity and under consideration about their measurability. At this stage, it is very important to consider the indicative descriptors (Table 5), which are helpful in deciding whether the current practice is effective and to discover what else can be achieved. For this reason, the indicators shall be considered early in the planning process. In addition, it must be put in place the 10 Building Blocks which are given in Table 6.

Table 5: Indicators that shall be considered in Stage 1 (EQAVET, 2017)

1. Relevance of quality assurance systems for VET providers Indicator	2. Investment in training of teachers and trainers Indicator
3. Participation rate in VET programs Indicator	4. Completion rate in VET programs Indicator
5. Placement rate in VET programs Indicator	6. Utilization of acquired skills at the workplace Indicator
7. Unemployment rate Indicator	8. Prevalence of vulnerable groups Indicator
9. Mechanisms to identify training needs in the labor market Indicator	10. Schemes used to promote better access to VET

Table 6: The Building Blocks that EQAVET uses (EQAVET, 2017).

Building Block	What it means
Clear rules	Set clear rules for deciding who offers VET provision
Existing internal arrangements	Recognize and build on existing internal arrangements
Clear roles & responsibilities	Set clear roles and responsibilities for different parts of the VET system
Identifying information and data	Identify what information and data should be collected and used in VET system
Communications strategy	Define and implement a communications strategy
Initiatives & success	Pilot initiatives and value success
Feedback	Use feedback to improve VET
Clarity over funding	Provide clarity over funding
Quality Assurance	Ensure quality assurance covers all aspects of VET provision
Involvement	Ensure VET is founded on a strong involvement of external and internal partners and relevant stakeholders

In Stage 2 (Implementation phase), the procedures required to achieve the planned goals and objectives such as the development of partnerships, must be established. For that purpose, a strategy for effective communications must be developed on time. In addition, financial issues and

the bureaucratic procedures that will arise from the implementation of the QA approach, must be considered.

In Stage 3 (Evaluation phase), tools for the evaluation of the results shall be designed. Evaluation is also required during the development and the monitoring of the system that is implemented. To do that, all data/information must be collected using the appropriate method, so that they will offer clarity.

In Stage 4 (Review phase), the appropriate procedures to reach the goals, must be developed. Feedbacks must be gathered and processed, to enable the key stakeholders to plan changes as required. For the purposes of Stage 2 & 3, the use of indicative descriptors can be very helpful for the evaluation of the current practice and for the prediction of future potential achievements. It is worth noting that VET can attract new delegates through the enhancement of the public confidence, which be facilitated by the publication of information on performance (EQAVET, 2017).

3.3. Quality assurance plan and helpful tools for its implementation

In SAGRI project, both QA of the project's developed training content and the QA of the overall project results shall be based on EQAVET. A Quality Assurance Committee (QAC), has been already formed to monitor the QA issues. One of the most important roles of this Committee is to approve all deliverables before these will be delivered to the Commission and/or uploaded at the project website. In addition, QAC is responsible to prepare the questionnaires (essential for the Focus Group), that will be used for the evaluation of each WP activity and also to collect all the relevant results. Furthermore, as mentioned in SAGRI's Project description, a toolkit (e.g. questionnaire, interviews and observations) will be developed by the QAC, which will cover both curriculum delivery and classroom deployments. More specifically, this toolkit that will be used as an evaluation tool, will inform the report on program delivery, the subsequent program revision

and the project evaluation report. The recommendations for the improvement of the project implementation shall be provided by QAC in a form of a report before each project meeting.

The Quality control process will assist the monitoring of each phase with regards to data, resources and milestones and therefore to enable corrective actions as required. It is very important, that the QAC – along with the management board –will ensure the absence of negative comments by Education, Audiovisual and Culture Executive Agency (EACEA).

A deliverable of major importance for the QA, is the EQAVET framework which will be prepared by the SAGRI Partner "P2". For the development of the QA assurance framework, EQAVET principles must be applied. To develop the QA framework, firstly, must be defined the objectives of the framework and then to do all the required actions to meet these objectives. To do that, several aspects can be considered such as: documentations, standardization of processes, quality assessment, strategic planning, strategic control and actions of improvement.

However the QA plan which will be prepared by P8, is also very significant since its relevancy to subject will influence the whole QA procedure and can ensure that project's needs are met. The QA plan will ensure SAGRI's quality and will contain all the evaluation methods and the procedures that will be applied during the SAGRI project. Initially, it is expected to refer to the context and goals of the project and then to the QA strategy that shall be followed. The resources that are available to achieve the goals and any special requirements regarding the implementation of the QA procedures shall also be mentioned. Other essential elements of the QA Project plan are: methodologies, quality assessments and reviews, quality control milestones, preventive measures and corrective actions to resolve any problems. Procedures may include communication between participants, actions for the production and the review of deliverables, statements and reports, and processes of risk assessments.

To better understand the issue of a QA system's development in line with EQAVET, an example is described as follows. Regarding the QA in the frame of training, first, all partners of SAGRI, need to consider the key criteria for quality according to EQAVET framework (Management culture, customized approaches, cultures of self-assessment, promotion of training for staff, usage

of data and feedback for the improvement of the VET partners and involvement of stakeholder groups). The Management culture and the involvement of stakeholders' group criteria shall be considered in all the phases of the PDCR cycle (Plan-Do-Check-Review). The customization of the approaches, shall be considered only in the phase of "Plan" and "Do". The usage of data and feedback and the culture of self-assessment shall be considered for the phases "Check" and "Review" and the promotion of training for staff in phases apart from the "Check" one.

For the planning process, the partners of SAGRI responsible for the QA must answer relevant questions such as to what extend should the internal or even the external stakeholders be involved to the planning activities which are related to quality management. Another important issue that shall be considered is to what extend is the current quality Management system coherent with EQAVET's framework recommendations. To clarify better the procedure that needs to be followed, below, next phases are described with regards to these two issues.

In the implementation phase, we need to answer how to involve external stakeholders and how to adjust our quality system to the EQAVET framework. To check, or in other words to assess and evaluate this procedure, SAGRI's partners shall define the kind of data which will be used to assess the quality of the training outcomes. Thus, they have to evaluate if the stakeholders have been involved to a satisfactory degree. Furthermore, partners have to decide the kind of the data that need to collect and to assess the quality of the training services. For example, the answer to this question might be the collection of feedbacks from the learners. In the Review phase quality gaps must be identified. For example, partners have to review how to increase (if needed) the involvement of the stakeholders in the project and to conclude if the LO's of the extension staff are sufficient.

Last but not least, the deliverable for R6.2, named as" EQAVET guide" will be used to ensure that the QA framework that will be developed, will be in accordance with EQAVET. Thus, it will provide a description on the methods and procedures which need to be followed to implement the four stages mentioned above.

Conclusions

EQF is the framework that composes the link between the different qualification frameworks of the countries. On the other hand, ECVET toolkit is used for the transfer, the recognition and the accumulation of the LOs of European citizens. For the facilitation of the ECVET toolkit to fulfil its purpose, the LOs must me matched in groups, in order to compose units which further compose the qualifications. EQAVET is a reference instrument designed to help EU countries to promote and monitor the continuous improvement of their vocational education and training systems.

It is very important that this Guide must be read, studied and understood by all partners of the SAGRI project very carefully and their comments, questions and suggestions for corrections are recommended. Since the partners understand this Guide, they will be able not only to apply EQF and ECVET principles in the SAGRI Project, but also in their work. It is essential, to understand that the EQF and ECVET implementation has already been an ongoing procedure that will lead to all the advantages that have been already mentioned for individuals and VETs.

Thus, as stated in the document referred to Project Description, VET partners, will subscribe to the ECVET Team so that the consortium will benefit from the expertise of its partners. This is why, all the partners shall make all the contacts and do all the steps required to become subscribed members.

At the end of this report, a glossary of important terms used in this Guide is provided and useful links and references are cited. To conclude to an even deeper understanding of EQF, ECVET and EQAVET, partners can do further research through finalized ECVET projects, official sites on the internet and relevant European Authorities. In case that a Partner, wants to proceed to further research, it is strongly recommended to start with the Reference "CEDEFOP, 2011".

4. Glossary

Competent institution: "means an institution which is responsible for designing and awarding qualifications or recognising units or other functions linked to ECVET, such as allocation of ECVET points to qualifications and units, assessment, validation and recognition of learning outcomes, under the rules and practices of participating countries" (REPC, 2009).

Credit for learning outcomes (credit): "means a set of learning outcomes of an individual which have been assessed and which can be accumulated towards a qualification or transferred to other learning programs or qualifications" (REPC, 2009).

ECVET: "is a technical framework for the transfer, recognition and (where appropriate) accumulation of individuals' learning outcomes with a view to achieving a qualification" (ECVET Mobility Toolkit, 2017).

ECVET points: "a numerical representation of the overall weight of learning outcomes in a qualification and of the relative weight of units in relation to the qualification" (REPC, 2009).

Formal learning: "Learning typically provided by an education or training institution, structured (in terms of learning objectives, learning time or learning support) and leading to certification. Formal learning is intentional from the learner's perspective" (EC, 2001).

Informal learning: "Learning resulting from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning may be intentional but in most cases it is non-intentional (or "incidental"/random)" (EC, 2001).

"Home" institution: "is the institution which will validate and recognize learning outcomes achieved by the learner (EACEA, 2008).

"Hosting" institution: is the one that delivers training for the learning outcomes concerned and assesses the achieved learning outcomes (EACEA, 2008).

Learning outcomes: "means statements of what a learner knows, understands and is able to do on completion of a learning process and which are defined in terms of knowledge, skills and competence" (REPC, 2009).

Memorandum of Understanding: "An agreement between competent institutions which sets the framework for credit transfer and accumulation. It formalises the ECVET partnership by stating the mutual acceptance of the status and procedures of competent institutions involved. It also establishes partnerships' procedures for cooperation" (CEDEFOP, 2011).

Lifelong learning: "All learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective" (EC, 2001).

Mobility: In terms of ECVET refers to geographical, professional and educational mobility (CEDEFOP, 2010).

Non-formal learning: "Learning that is not provided by an education or training institution and typically does not lead to certification. It is, however, structured (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner's perspective" (EC, 2001).

Qualification: "a formal outcome of an assessment and validation process which is obtained when a competent institution determines that an individual has achieved learning outcomes to given standards." (REPC, 2009).

Unit of learning outcomes (unit): "means a component of a qualification, consisting of a coherent set of knowledge, skills and competence that can be assessed and validated" (REPC, 2009).

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