



FOSS4SMEs

IO1/A2 FOSS BU COMPETENCE PROFILE

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FOSS4SMES – PROJECT ABSTRACT

The FOSS4SMES project intends to equip European SMEs with the skills and competences to properly use Free and Open Source Software, so to improve their digital performances and competitiveness. To reach this objective, the project intends to develop a free online educational resource for managers and staff of existing SMEs or start-ups, to allow them uptake the open source software digital transformation. The course will be freely available to individual students (managers and staff of SMEs) and will be used by public and private bodies providing support, consultancy and training to businesses. Eventually, as a result, they will be able to organise training courses using the results of the project. The project also aims to facilitate recognition and transferability of competences, thus mobility, by implementing the ECVET system to the professional profile of the FOSS Business User (FOSS-BU).

The tangible results, defined in terms of *Intellectual Outputs*, will be:

1. IO1 – ECVET PROFILE OF THE FOSS BUSINESS USER

The definition of the ECVET curriculum of FOSS Business users. As a proper European standard on FOSS education for business is missing, the project intends to provide a reference curriculum to allow international recognition of skills and competences at European level, favouring transparency and mobility, in view of a better employability of SMEs' staff.

2. IO2 – FOSS4SMES TRAINING COURSE

One VET course for SMEs' staff on how to use FOSS in their business activities, hosted on a distant learning platform and freely available as open educational resource.

3. IO3 – FOSS4SMES POLICY RECOMMENDATIONS

A policy recommendation Report addressed to decision-makers and VET providers to promote digital migration to FOSS among European SMEs.

The FOSS4SMES project consortium is formed by the following partners:

P1 – Atlantis Engineering SA (Greece) [Coordinator]

P2 – European Digital Learning Network (Italy)

P3 – Open Forum Europe (UK)

P4 – Dublin Institute of Technology (Ireland)

P5 – Free Software Foundation Europe (Germany)

P6 – University of Skövde (Sweden)

1 THE COMPETENCE PROFILE

1.1 Introduction

The FOSS-BU competence profile outlined here aims to identify and select the knowledge, skills and competences specifically related to the usage of FOSS in the business sector, in full compliance with the ECVET system outlined by the European Commission. It will be a reference framework for any European SMEs interested in a partial or full migration to FOSS, as it will allow to have a clear picture of the competences needed to uptake the various steps of migration, serving also as an orientation grid for companies and all type of organizations in the public and private sector who need to make decisions about recruitment, career paths and staff training.

The FOSS-BU profile originates both from the results of the first research phase (IO1/A1) and from the different knowledge and expertise of the partners involved in the FOSS4SMEs project. This document describes the learning outcomes and the associated ECVET credit points of the training course and at the same time serves as a guideline for the development of the modular training contents that are going to be prepared within Output 2. The ECVET profile aims to equip FOSS4SMEs students with a tool to increase learning achievements, employability and the recognition of competences. The target group of the training course, that will be developed in Output 2, is professional staff working for SMEs, not engaged in any formal education pathway (e.g. school, university), but who need to be provided with high quality lifelong learning to assure their continuous updating of skills according to the trends of the markets and technologies. The target group can somehow be considered as disadvantaged for the specific topic of the project. Larger enterprises usually have qualified ICT professionals and teams of experts in media marketing and ICT in general. This is not the case for most SMEs, where human and economic resources are limited and each staff person is required to cover more than one role: about 90% of all SMEs in Europe are micro enterprises with less than 10 employees. In today's global economy SMEs need now more than ever a way to access and exploit digital tools, support business processes and improve competitiveness.

1.2 Methodology

This competence profile originates from an extensive and variegated activity of research, conducted by the project consortium in two different phases:

- A preliminary research, carried out by the partners in their national frameworks before the project submission. Findings from this first research has provided tangible data and sectorial information about FOSS education and training across Europe, thus identifying the rationale for the project proposal.
- The development of six Country Reports, namely the deliverables envisaged by IO1/A1. In this phase, completed during the first five months of implementation of

the project, each partner has brought forward a deeper analysis of the current situation in its country (Greece, Italy, Germany, UK, Ireland, Sweden). The Country Reports include:

- a Desk Research, collecting training materials in the field of FOSS developed in Europe and an overview of the curricula relevant to the FOSS BU profile present in the national education system at different levels;
- a Field Research, where each partner has reached at least 20 representatives from national SMEs and micro enterprises to investigate about their current knowledge on FOSS and its business application, with the purpose of detecting their training needs and gauge their interest in the topic.

Finally, results from the six Country Reports have been summarised in a single IO1/A1 Synthesis Report, drawing conclusions on the whole research phase.

Mapping of Learning Outcomes for each Unit has been later finalised accordingly, facilitated by face-to-face and online working sessions attended by every partner.

1.3 The competences of the FOSS Business User

The FOSS - BU competence profile here presented fulfils the educational requirements described by **level 5 of the EQF** (*European Qualification Framework*). By the end of the training, participants should have a *'comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems'* (see Annex 1 "Levels of the European Qualification Framework" for the full scale). As highlighted by CEDEFOP in a dedicated Working Paper¹, EQF level 5 qualifications aim at facilitating access to employment and career advancement. Their importance and impact on national education systems have been outlined in three points:

1. they are developed as response to increased needs for advanced technical and/or management skills in a rapidly changing labour market and ageing workforce;
2. EQF level 5 qualifications cover the needs and expectations of a wide range of learners, going from students with a VET background to adults already in employment looking for a career advancement, catering for a lifelong learning process;
3. employers' value them highly, given the relevance of their educational paths and the possible inclusion of work-based learning opportunities.

¹ 'Qualifications at level 5: progressing in a career or to higher education', Working Paper no. 23, CEDEFOP, 2014 [<https://goo.gl/VfAMuY>]

In this framework, the competence profile of the FOSS Business User has been tailored with the purpose to provide learners with a hands-on and practical knowledge, that will be used either in their current job or to enhance their chances to access the labour market.

The participants of the training course will be trained to:

- understand how to make the most of open source and select the solutions most relevant to the specific type of business;
- lead staff from across all areas of the business towards a more proactive use of ICT;
- set out a strategy to invest time and resources on the improvement of the digital performance of the company;
- develop business and operating models that are innovative and strategic.

In short, they are expected to become **e-leaders**. And this requires also awareness of alternatives and open solutions available.

For this purpose, 5 categories of main competencies have been identified, following an intense activity of research (described in 1.2) and contributions from the consortium's expertise. These same categories, eventually, fed into the development of 5 Units of Learning Outcomes, generating the conceptual backbone of the competence profile.

UNIT 1 INTRODUCING FOSS	This first Unit focuses on the definition and core notions underpinning the concept of FOSS, including the main differences with proprietary software and the issues related to licensing, rights and responsibilities.
UNIT 2 WHY FOSS IN BUSINESS?	The second Unit introduces a business perspective on the topic, with the intention to give insights on the FOSS business models (i.e. how a FOSS provider works) and to weigh up benefits and risks of adopting FOSS in business.
UNIT 3 WHAT KIND OF FOSS IS AVAILABLE?	The third Unit provides valuable information on the kinds of FOSS products and solutions available and useful for business purposes, in terms of <ul style="list-style-type: none"> - OS (Operating Systems) - Cloud services - Security solutions - Project management tools - Office productivity tools.
UNIT 4 ADOPTING FOSS IN YOUR BUSINESS	The fourth Unit places focus on how to make informed decisions when adopting FOSS in business, with specific reference to the interaction with proprietary software, customisation tools and how to get technical support.
UNIT 5 (STRATEGIES FOR) MIGRATING TO FOSS	The fifth Unit is meant to explain and give details on the process which should be followed in order to fulfil a full or partial FOSS migration in business, including practical implications and challenges related to piloting and test phases.

1.4 The FOSS4SMEs training course

The course will be developed based on ECVET system (see chapter 2 *Principles of ECVET*), hence each learning unit will be designed by describing its specific learning outcomes and will be associated to **knowledge, skills and competences** that will help the learner understand and describe learning achievements.

The proposed training will be an innovative educational resource for SMEs, which is going to be delivered within a **non-formal context** (i.e. structured learning situations which however do not award formal certifications). The course will be available for usage and access also for any interested VET provider, with the possibility to adapt the material, if needed. The course will be freely available to individual students (managers and staff of SMEs) and will be used by public and private bodies providing support, consultancy and training to businesses, which will be able to organise training courses using the results of the project.

In order to make the course immediately applicable and customizable, the consortium envisages the development of a self-diagnostic tool as entry-point of the course. This will serve as a guide within the learning path: the learner, by answering few simple questions related to the sector of activity, the areas of interest, the initial level of knowledge of FOSS and the specific software already in use, will be directed to the relevant training module.

The content will be available as an **Open Educational Resource**, namely any type of educational materials that are in the public domain or introduced with an open license. In terms of social learning, it will have a free software license, which will allow end users like organizations, companies or individuals to use, share, and even modify the produced course.

1.5 The Assessment Procedure

Per each unit and sub-unit of learning outcomes, a set of quizzes and self-assessment activities will be designed to test the knowledge acquired by participants. The delivery environment of the course will be a e-learning platform. Therefore, quizzes have been identified as the most suitable method to carry out the required evaluation, as they will allow learners to proceed autonomously with the programme, in consistency with the principles of online open education services. The questions will be developed to enhance learners' engagement and to help them assess whether and what they are actually learning.

The FOSS4SMEs training course will include 6 types of quiz questions:

1. Yes or No

The yes or no format is the easiest and most intuitive way to design questions. Simply put, this involves asking a question to which the learner either answers yes or no.

2. Open-ended

Open-ended questions will be provided to stimulate learners' active engagement, getting them to think creatively about a problem that doesn't have a single fixed and defined solution.

3. Multiple choice

Multiple choice questions are among the most effective ways to test learners on the content of the e-course. They present several possible answers to a question, only one of which is right and the others being "distractors" meant to draw attention away from the real answer. In some cases, although, multiple choice questions may have more than one correct answer, asking the learners to spot them among a generally longer list of answers. These are also called "Check all that apply" questions.

4. Matching

In a matching question, different phrases or concepts are provided along with several words, and the learner has to fill in which word goes with which phrase or concept. Matching gives learners some hints to go on, and is therefore a good approach if you want to give students more time to absorb material.

5. Definitions

Questions about definitions can be designed using the same *matching* format outlined above, or in alternative using a *drag and drop* method. Both of them will ask the learners to associate key words or phrases with their most relevant and exact definition, in accordance with the theoretical contents previously provided.

6. Fill in the blank

Within this format, learners are provided with a normally short text where some key words or phrases have been removed, and their task is to put them again in the right place, thus "fixing" the text. A set of possible answers can or cannot be placed below to give some hints to the learners.

The Assessment criteria for each Unit will be developed during the implementation of the **Intellectual Output 2**, and will be described with further details in the relative Training Plan.

2 THE TRAINING CURRICULUM

2.1 Main concepts

The **European Credit system for Vocational Education and Training (ECVET)** aims to give people greater control over their individual learning experiences and make it more attractive to move between different countries and different learning environments. The system aims to facilitate the *validation, recognition* and *accumulation* of work-related skills and knowledge acquired during a stay in another country or in different situations. It should ensure that these experiences contribute to vocational qualifications. ECVET aims for better compatibility between the different vocational education and training (VET) systems in place across Europe and their qualifications. It aims to create a technical framework to describe qualifications in terms of units of learning outcomes, and it includes assessment, transfer, accumulation and recognition procedures. In ECVET, an individual's learning outcomes are assessed and validated in order to transfer credits from one qualification system to another or from one learning "pathway to another. According to this approach, learners can accumulate the required learning outcomes for a given qualification over time, in different countries or learning situations. The system also allows the possibility to develop common references for VET qualifications and is fully compatible with the *European Credit Transfer and Accumulation System (ECTS)*.

2.2 Key ECVET terminology

Qualification	Formal outcome of an assessment and validation process which is obtained when a competent institution determines that an individual has achieved learning outcomes to a given standard.
Units of Learning Outcomes	A Unit of learning outcomes is a component of a qualification, consisting of a coherent set of knowledge, skills and competence, which can be assessed, validated and recognised.
Learning Outcomes (L.O.)	L.O. are statements of knowledge, skills and competence that can be achieved in a variety of learning contexts. L.O. are statements of what a learner knows, understands and is able to do on completion of a learning process defined in terms of knowledge, skills and competence.
ECVET points	Numerical representation of the overall weight of learning outcomes in a qualification and of the relative weight of units in relation to the qualification.
Credit for L.O.	Credit is given for assessed and documented learning outcomes of a learner. Credit can be transferred to other contexts (learning programmes or qualifications) and accumulated to achieve a

	qualification on the basis of the qualifications standards and regulations existing in the participating countries. ²
Memorandum of Understanding (MoU)	Mutual trust and partnership among participating organizations are expressed in memoranda of understanding and learning agreements MoU is 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.
Learning Agreement	Individualised document which sets out the conditions for a specific mobility period. It specifies, for a particular learner, what learning outcomes s/he should achieve and how they will be assessed, validated and recognised.
Competent institution	Institution which is responsible for designing and awarding qualifications or recognising units or other functions linked to ECVET, such as the allocation of ECVET points to qualifications and units, assessment, validation and recognition of learning outcomes under the rules and practices of participating countries.
Assessment of learning outcomes	Methods and processes used to establish the extent to which a learner has attained particular knowledge, skills and competence.
Recognition of learning outcomes	The process of attesting officially achieved learning outcomes through the awarding of units or qualifications.
Validation of learning outcomes	The process of confirming that certain assessed learning outcomes achieved by a learner correspond to specific outcomes which may be required for a unit or a qualification.
Credit accumulation	Process through which learners can acquire qualifications progressively by successive assessments of learning outcomes.
The Personal Transcript	Document containing information on credit (positively assessed learning outcomes) the learner has achieved. It is a record of his/her learning achievements.

Source: DG Education and Culture, ECVET Users' Guide. Part 1: "Get to know ECVET better - Questions and Answers". February 2011, revised version. P.10-11.³

² <http://www.ecvet-secretariat.eu/en/what-is-ecvet>

³ [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwiYOfHOhs7bAhXlvxQKHcKxBSQQFggoMAA&url=http%3A%2F%2Fwww.cedefop.europa.eu%2Ffiles%2FECVET_QUESTION_ANSWERS_Feb_2011_en\(download_ID_17648\).pdf&usg=AOvVaw2As11nDDMIQcqlBs6mNKyr](https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwiYOfHOhs7bAhXlvxQKHcKxBSQQFggoMAA&url=http%3A%2F%2Fwww.cedefop.europa.eu%2Ffiles%2FECVET_QUESTION_ANSWERS_Feb_2011_en(download_ID_17648).pdf&usg=AOvVaw2As11nDDMIQcqlBs6mNKyr)

3. FOSS BUSINESS USER – COMPETENCE PROFILE

FOSS BU Competence Profile	
EQF LEVEL	5
Total Duration	125 hours
Total ECVET credit points	5 ECVET points
Description of the profile	<p>Upon successful completion of this course, the FOSS Business User will be able to:</p> <ul style="list-style-type: none"> - understand and recognise the full potential of FOSS for their business; - autonomously decide whether they want to use proprietary software or make a partial/full migration to FOSS for his/her business; - understand how to make the most out of open source and select the solutions most relevant to their specific type of business; - lead staff from across all areas of their business towards a more proactive use of ICT solutions and resources; - set out a strategy to invest time and resources on the improvement of the digital performance of their business; - develop business and operating models based on the exploitation of FOSS that are innovative and strategic; - become e-leaders, having the required awareness of alternatives and open source solutions available.

3.1 Unit 1- Introducing FOSS

UNIT 1 – INTRODUCING FOSS ⁴	
Duration of Unit 1	25 h
ECVET Points of Unit 1	1 ⁵
General LO of Unit 1	<p>Within Unit 1, the participant will be trained to:</p> <ul style="list-style-type: none"> - fully understand the concept of "Free and Open Source Software" (FOSS); - understand and explain the facts and myths related to FOSS theory and applications; - understand and describe the difference between FOSS and proprietary software; - understand and describe the different types of '<i>freedom</i>' implied; - understand and explain the issues related to licensing, rights and responsibilities; - identify the different FOSS Communities and their ways of collaboration.

1.1 Defining FOSS and the difference with proprietary software	The <i>FOSS Business User</i> fully knows the definition of FOSS and its practical implications, being able to highlight and explain the main differences with proprietary software.	
Knowledge	Skills	Competences

⁴ The proposed sub-unit 1.0 (Overview of the Training Course) has been here removed, because not directly related to learning outcomes. It will of course be useful to have this overview in the course, but this is not supposed to be part of the curriculum. However, it can be included in the IO2 Training Plan, where contents and structure of the actual course will be described more in details.

⁵ The assessment method has been treated in section 1.5. Evaluation criteria and possible grades will have to be indicated in the training plan.

<p>a. The <i>FOSS Business User</i> is fully aware of the concept behind the definition of FOSS, understands its guiding principles and knows the key players involved in this field at national and transnational level.</p> <p>b. The <i>FOSS Business User</i> knows the differences between FOSS and proprietary software.</p>	<p>a. The <i>FOSS Business User</i> is able to explain in full details the basic definition of FOSS and describe its misuse, applying a field-specific terminology and giving practical examples.</p> <p>b. The <i>FOSS Business User</i> is able to illustrate the differences between FOSS and proprietary software, providing valid examples.</p>	<p>a. The <i>FOSS Business User</i> can create a model to explain the nature, backbone and main components of the FOSS concept, organising it with a logical and thoughtful approach.</p> <p>b. The <i>FOSS Business User</i> can lead his/her team following the FOSS priorities and sharing its related values.</p>
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1.2 FOSS myths and types of freedom	The <i>FOSS Business User</i> describes with details the types of freedom related to FOSS, discerning between facts and myths.	
Knowledge	Skills	Competences
<p>a. The <i>FOSS Business User</i> selects and possibly debunks the myths related to FOSS, telling them apart from facts.</p> <p>b. The <i>FOSS Business User</i> have a thorough knowledge of the different types of 'freedom' implied in the FOSS concept.</p>	<p>a. The <i>FOSS Business User</i> is able to identify and evaluate different types of freedom within different FOSS tools.</p> <p>b. The <i>FOSS Business User</i> is able to analyse and argue on the advantages and disadvantages of FOSS tools when related to the common bias and misleading perceptions.</p>	<p>a. The <i>FOSS Business User</i> autonomously assesses the type of freedom related to a FOSS tool and decide which one is necessary for his/her business.</p>

1.3 Licensing, rights and responsibilities	The <i>FOSS Business User</i> knows where to find relevant information about licensing, rights and responsibilities of a FOSS product, being then able to understand the implications and give them practical application.	
Knowledge	Skills	Competences
a. The <i>FOSS Business User</i> knows and outlines the issues related to licensing, rights and responsibilities.	a. The <i>FOSS Business User</i> is able to choose which license s/he needs for his/her business.	a. The <i>FOSS Business User</i> instructs his/her team on how to proceed and make decisions about issues related to licensing, rights and responsibilities within their business.

1.4 FOSS communities and collaborations	The <i>FOSS Business User</i>	
Knowledge	Skills	Competences
a. The <i>FOSS Business User</i> knows how to search and find different existing FOSS communities. b. The <i>Foss Business User</i> describes how FOSS communities communicate and collaborates at local, national and transnational level.	a. The <i>FOSS Business User</i> is able to recognize and provide examples of existing FOSS communities in his/her region, nationally or internationally. b. The <i>FOSS Business User</i> can illustrate how their members interacts and collaborates between themselves.	a. The <i>FOSS Business User</i> manages contact and strategies for interaction with different FOSS communities. b. The <i>FOSS Business User</i> takes the responsibility to establish collaborations with the most relevant communities for her/his business, guiding the team along the same process.

3.2 Unit 2 – Why FOSS in business?

UNIT 2 – WHY FOSS IN BUSINESS?	
Duration of Unit 2	25 h
ECVET Points of Unit 2	1
General LO of Unit 2	<p>Within Unit 2, the participant will be trained to:</p> <ul style="list-style-type: none"> - get to know and understand the features of different FOSS business models - understand how a FOSS providers work, being able to describe their goals and strategies - understand and describe the commercial purposes of FOSS providers - analyse and weigh up benefits and risks of adopting FOSS in business - understand how the feedback loop between FOSS providers and business actually works

2.1 FOSS business models		The <i>FOSS Business User</i> knows which main FOSS business models exist, how they work and how they relate to different strands of business.	
Knowledge	Skills	Competences	
<p>a. The <i>FOSS Business User</i> recognises the main difference between common proprietary and FOSS business models.</p> <p>b. The <i>FOSS Business User</i> knows and explains why proprietary software usually incurs an upfront payment for</p>	<p>a. The <i>FOSS Business User</i> is able to list and explain real-world common FOSS business models, such as:</p> <ul style="list-style-type: none"> - <i>Software as a Service (SaaS)</i>; - <i>Donationware</i>; - <i>Dual-licensing</i>; - <i>Customisation</i>; 	<p>a. The <i>FOSS Business User</i> is able to use the acquired knowledge and skills to produce a few example business models for FOSS software, applying the acquired information to hypothetical FOSS companies.</p> <p>b. The <i>FOSS Business User</i> instructs the</p>	

<p>acquiring a license to use the software.</p> <p>c. The <i>FOSS Business User</i> knows and explains why FOSS usually does not incur an upfront payment for acquiring a license to use the software, while it is usually financed through ancillary payments.</p>	<p>- <i>Accompanying hardware;</i></p> <p>- <i>Support</i>⁶</p>	<p>team about the different FOSS business models, highlighting key aspects that might be relevant to his/her organisation.</p>
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<p>2.2 FOSS providers and commercial purposes</p> <p>The <i>FOSS Business User</i> knows which main FOSS providers and commercial purposes exist, how they work and how they relate to his/her organisation.</p>		
<p>Knowledge</p>	<p>Skills</p>	<p>Competences</p>
<p>a. The <i>FOSS Business User</i> knows prominent examples of companies developing and providing FOSS, such as:</p> <ul style="list-style-type: none"> - <i>RedHat</i> - <i>Mozilla</i> - <i>SUSE</i> 	<p>a. The <i>FOSS Business User</i> is able to explain in the context of which commercial purposes companies become FOSS providers, such as in the case of:</p> <ul style="list-style-type: none"> - <i>Canonical</i> - <i>RedHat</i> 	<p>a. The <i>FOSS Business User</i> is able to match FOSS providers with different commercial purposes, describing which of them are well suited for FOSS, which are not and why.</p> <p>b. The <i>FOSS Business User</i> is able to match the commercial needs of their</p>

⁶ We can't go too much in details about contents here, as these concepts are supposed to be developed in the actual course. What we need here is a categorization of FOSS business models. I have tried to adapt them from the information provided, but please provide feedback on this.

<p>- Oracle</p> <p>b. The <i>FOSS Business User</i> describes with details different kinds of common commercial purposes where FOSS is applied, such as:</p> <ul style="list-style-type: none"> - Operating Systems - Databases - Software development tools 	<p>- Mozilla</p> <p>- Oracle⁷</p>	<p>organisation with the examples of the Learning Outcome to understand overlap and mismatches.</p>
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<p>2.3 Benefits/risks for adopting FOSS in business</p>	<p>The <i>FOSS Business User</i> is able to identify and describe the several kinds of benefits and risks he/she might get from adopting FOSS in business (e.g. strategic, economic, social), eventually sorting them out in terms of relevance and give practical application accordingly.</p>	
<p>Knowledge</p>	<p>Skills</p>	<p>Competences</p>
<p>a. The <i>FOSS Business User</i> emphasizes the advantages of having access to the source code of the software adopted, possibly tweaking it at convenience.</p> <p>b. The <i>FOSS Business User</i> acknowledges the benefits/risks related to the FOSS</p>	<p>a. The <i>FOSS Business User</i> is able to analyse the pros and cons linked to FOSS resources which might be adopted in business.</p> <p>b. The <i>FOSS Business User</i> can sort out the benefits and risks of available</p>	<p>a. The <i>FOSS Business User</i> demonstrates risks and benefits in assessing the several models of FOSS products available online, detecting the best solution(s) for his/ her business accordingly.</p> <p>b. The <i>FOSS Business User</i> instructs the</p>

⁷ Same as above in Unit 2.1

<p>adoption in business, reporting relevant performance indicators delivered by the open source process.</p> <p>c. The <i>FOSS Business User</i> knows the difficulties linked with tracking the open-source code, leading to several issues about the installation and maintenance of FOSS;</p> <p>d. The <i>FOSS Business User</i> acknowledges the risk linked to the primary importance of code integrity, given the collaborative nature of FOSS resources.</p>	<p>FOSS products, giving details about them.</p> <p>c. The <i>FOSS Business User</i> reports on the most suitable FOSS according to his/ her business' needs, identifying the features s/he is looking for</p>	<p>team about the FOSS type of solution his/ her business needs the most, without incurring issues concerning copyright infringements and licensing costs.</p> <p>c. The <i>FOSS Business User</i> drafts a plan including the FOSS basic solution which his/ her business might build on, weighing up possible benefits and risks;</p>
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<p>2.4 The feedback loop between FOSS and business</p>	<p>The <i>FOSS Business User</i> knows the concept of feedback loop between FOSS and business; therefore, s/he is able to recognise and identify the best ways to proceed as regard to this process.</p>	
<p>Knowledge</p>	<p>Skills</p>	<p>Competences</p>
<p>a. The <i>FOSS Business User</i> is aware that there are several levels of efficiency and accuracy related to the forms of</p>	<p>a. The <i>FOSS Business User</i> is able to rank by relevance the different kinds of information to be shared with the</p>	<p>a. The <i>FOSS Business User</i> autonomously chooses the kind of feedback s/he will provide to the</p>

<p>FOSS feedback.</p> <ul style="list-style-type: none"> b. The <i>FOSS Business User</i> defines the main features of a productive feedback loop between FOSS and business. c. The <i>FOSS Business User</i> emphasizes the importance of being in contact with the developers of the FOSS used by his/ her business. d. The <i>FOSS Business User</i> knows the different types of information which may be relevant, and how to report it in the right way to get the desired result. 	<p>FOSS developer.</p> <ul style="list-style-type: none"> b. The <i>FOSS Business User</i> applies the relevant methods and procedures regarding the exchange of information between the FOSS developer and the business user. c. The <i>FOSS Business User</i> identifies a plan to “tighten the feedback loop”, according to the specific requirement of the FOSS s/he uses for his/ her business. d. The <i>FOSS Business User</i> is able to point out and report the relevant data, code strings and digital information to be shared with the FOSS developer to get the desired result. 	<p>FOSS developer, according to the most urgent business needs.</p> <ul style="list-style-type: none"> b. The <i>FOSS Business User</i> takes the responsibility of establishing a regular contact with the FOSS developer of the tool adopted, providing relevant feedback. c. The <i>FOSS Business User</i> fully understands the changes produced or suggested by the developer and instructs the team about them, making them accessible and understandable for all the users. d. The <i>FOSS Business User</i> organises and instructs the business team about what they need to do to “tighten the feedback loop”, reducing the time for response and streamlining the process.
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3.3 Unit 3 – What kind of FOSS is available?

UNIT 3 – WHAT KIND OF FOSS IS AVAILABLE?	
Duration of Unit 3	25 h
ECVET Points of Unit 3	1
General LO of Unit 3	<p>Within Unit 3, the participant will be trained to:</p> <ul style="list-style-type: none"> - get to know the FOSS solutions available in terms of Operating System - understand how a FOSS Operating System works and where to find updated information about - get to know the main FOSS cloud services available and their features - assess the most suitable FOSS security solution for his/her business - understand how to possibly switch from proprietary project management tools to FOSS ones - get to know the implications of adopting FOSS office productivity suites in business

3.1 Operating Systems	The <i>FOSS Business User</i> will be able to identify the main sources of FOSS Operating Systems and select an appropriate one based on their individual preference. S/he will be expected to recognise the main features of the Operating System and demonstrate knowledge of common software available within the operating system and competent use of it.	
Knowledge	Skills	Competences
<p>a. The <i>FOSS Business User</i> identifies that main Operating Systems (OS) available and how to get access to download them.</p>	<p>a. The <i>FOSS Business User</i> is able to explain the function of a modern operating system and distinguish between the different types available,</p>	<p>a. The <i>FOSS Business User</i> instructs the team about the core components of the operating system.</p> <p>b. The <i>FOSS Business User</i> applies</p>

<p>b. The <i>FOSS Business User</i> defines the main features of an OS, including the common software available in an open source OS.</p> <p>c. The <i>FOSS Business User</i> understands the difference between the minimum and recommended system requirements for installing the selected OS.</p> <p>d. The <i>FOSS Business User</i> knows and describes the main features of the User Interface on the Operating System desktop.</p>	<p>classifying the software commonly available in them.</p> <p>b. The <i>FOSS Business User</i> interprets and classifies if a system is suitable for installing a selected OS.</p> <p>c. The <i>FOSS Business User</i> can explain how to customise the OS to meet individual user requirements.</p> <p>d. The <i>FOSS Business User</i> is able to explain a file hierarchy system and distinguish between different file permissions.</p> <p>e. The <i>FOSS Business User</i> is able to explain how to connect peripherals to the system and how they are detected by the OS.</p>	<p>walkthrough media to demonstrate the competency required about selected OS.</p> <p>c. The <i>FOSS Business User</i> can use online simulators or live distributions to gain hands on experience, instructing the team about.</p>
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<p>3.2 Cloud Services</p> <p>The <i>FOSS Business User</i> has the knowledge and skills required to select and connect to a cloud service which meets general requirements, seeking out further information for more sophisticated solutions if required.</p>		
<p>Knowledge</p>	<p>Skills</p>	<p>Competences</p>
<p>a. The <i>FOSS Business User</i> understands what cloud services and cloud platforms are in a broad sense.</p>	<p>a. The <i>FOSS Business User</i> is able to distinguish between cloud platforms and cloud services.</p>	<p>a. The <i>FOSS Business User</i> applies the knowledge gained to create use case specifications in order to design a</p>

<ul style="list-style-type: none"> b. The <i>FOSS Business User</i> identifies the benefits of cloud services. c. The <i>FOSS Business User</i> recognises the types of cloud platforms available and the services it can host. d. The <i>FOSS Business User</i> describes how to connect to a cloud service. e. The <i>FOSS Business User</i> identifies sources of information for more advanced cloud service solutions. 	<ul style="list-style-type: none"> b. The <i>FOSS Business User</i> can classify the benefits of cloud services and give priority to services for particular use cases. c. The <i>FOSS Business User</i> is able to explain which type of cloud platform can host services required for a business units' requirements. d. The <i>FOSS Business User</i> is able to explain the steps required to connect to a cloud service. e. The <i>FOSS Business User</i> can interpret information on how to access support for designing more complex cloud systems. 	<p>cloud service solution.</p> <ul style="list-style-type: none"> b. The <i>FOSS Business User</i> leads the team in the selection of appropriate technology to suit business needs.
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3.3 Security solutions	The <i>FOSS Business User</i> is able to identify the core security requirements and best practice when using FOSS.	
Knowledge	Skills	Competences
<ul style="list-style-type: none"> a. The <i>FOSS Business User</i> recognises the main security requirements necessary for a FOSS system. b. The <i>FOSS Business User</i> identifies the 	<ul style="list-style-type: none"> a. The <i>FOSS Business User</i> is able to distinguish between the common security features available and which are required. 	<ul style="list-style-type: none"> a. The <i>FOSS Business User</i> applies the knowledge gained to answer practical questions based on best practice and security features.

<p>main security features available in a FOSS system.</p> <p>c. The <i>FOSS Business User</i> knows the best practices for common security solutions and advanced security features.</p>	<p>b. The <i>FOSS Business User</i> is able to classify the types of updates and patches required for a secure system.</p> <p>c. The <i>FOSS Business User</i> can classify the main characteristics of a security policy.</p> <p>d. The <i>FOSS Business User</i> is able to explain the function of intrusion detection and intrusion prevention systems.</p> <p>e. The <i>FOSS Business User</i> distinguishes between default installations and system hardened installations.</p>	<p>b. The <i>FOSS Business USER</i> leads a team in producing a security policy based on use case scenarios.</p>
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<p>3.4 Project Management tools</p>	<p>The <i>FOSS Business User</i> has knowledge on project management tools for use in office productivity and collaborative teams, being able to gather and handle the information required to successfully switch over to FOSS solutions.</p>	
<p>Knowledge</p>	<p>Skills</p>	<p>Competences</p>
<p>a. The <i>FOSS Business User</i> knows the requirements for project management tools.</p> <p>b. The <i>FOSS Business User</i> describes the differences between individual, on-premise and cloud-based solutions</p>	<p>a. The <i>FOSS Business User</i> can distinguish between the different types of platforms available for users of project management tools</p> <p>b. The <i>FOSS Business User</i> is able to design a project management</p>	<p>a. The <i>FOSS Business User</i> applies the gained knowledge to answer questions in order to explain his/her understanding of the commonly available project management tools, instructing the team accordingly.</p>

<p>c. The <i>FOSS Business User</i> knows how to select the appropriate project management software available to meet business needs.</p> <p>d. The <i>FOSS Business User</i> identifies which collaborative tools can replace existing non-FOSS software.</p> <p>e. The <i>FOSS Business User</i> identifies sources of information for more advanced installations of project management tools.</p>	<p>solution based on use case business needs using FOSS.</p> <p>c. The <i>FOSS Business User</i> is able to explain the main functions and limitations of project management FOSS tools</p>	<p>b. The learner autonomously creates a profile for a business user based on a use case design.</p>
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3.5 Office Productivity suites			The <i>FOSS Business User</i> knows alternative FOSS office productivity tools and understand their main features.		
Knowledge		Skills		Competences	
<p>a. The <i>FOSS Business User</i> knows the main requirements for office productivity software.</p> <p>b. The <i>FOSS Business User</i> selects the core office productivity suites available to FOSS users.</p> <p>c. The <i>FOSS Business User</i> knows how support for office productivity</p>	<p>a. The <i>FOSS Business User</i> is able to explain the core requirements of office productivity software.</p> <p>b. The <i>FOSS Business User</i> can distinguish between common alternatives to non-FOSS tools.</p> <p>c. The <i>FOSS Business User</i> is able to classify supported and unsupported</p>	<p>a. The <i>FOSS Business User</i> applies the gained knowledge to answer practical questions in order to explain his/her understanding of the commonly available project management tools, instructing the team accordingly.</p> <p>b. The <i>FOSS Business User</i></p>			

<p>software is handled.</p> <p>d. The <i>FOSS Business User</i> describes any limitations of FOSS office productivity and how they may be overcome.</p>	<p>solutions.</p> <p>d. The <i>FOSS Business User</i> is able to design a solution which meets the general needs of common office tasks.</p> <p>e. The <i>FOSS Business User</i> can determine which solutions are standalone, which solutions are web based (collaborative), and which solutions have future support for online collaborative solutions.</p>	<p>autonomously create a profile for a business user based on a use case design.</p>
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3.4 Unit 4 – Adopting FOSS in your business

UNIT 4 – ADOPTING FOSS IN YOUR BUSINESS	
Duration of Unit 4	25 h
ECVET Points of Unit 4	1
General LO of Unit 4	<p>Within Unit 4, the participant will be trained to:</p> <ul style="list-style-type: none"> - understand what an incremental approach implies in the adoption of FOSS - demonstrate why an incremental approach might result to be the right strategy in business - make decisions on which FOSS products can be the most appropriate for his/her business - understand how FOSS products can interact with proprietary software, and the possible implications - understand and describe how FOSS can be customized according to the business needs - search for and find the right support for the selected FOSS tool

4.1 An incremental approach		The <i>FOSS Business User</i> is able to incrementally introduce FOSS in SMEs and associated software systems.	
Knowledge	Skills	Competences	
<p>a. The <i>FOSS Business User</i> knows fundamental aspects related to the acquisition of FOSS software.</p> <p>b. The <i>FOSS Business User</i> understands why an incremental approach can be</p>	<p>a. The <i>FOSS Business User</i> is able to identify if a requirement expressed in an adoption project inhibits usage of FOSS.</p> <p>b. The <i>FOSS Business User</i> is able to</p>	<p>a. The <i>FOSS Business User</i> autonomously make decision about the requirements to be used in an adoption project which do not inhibit usage of FOSS.</p>	

<p>the most suitable one when adopting FOSS products in business</p> <p>c. The <i>FOSS Business User</i> understands how commodification of software promotes usage of FOSS.</p>	<p>identify - through the principle of commodification - which relevant FOSS candidates to adopt in a business context.</p>	<p>b. The <i>FOSS Business User</i> instructs the team about why specific FOSS candidates are relevant to adopt in a business context.</p>
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<p>4.2 The right FOSS for my business</p>	<p>The <i>FOSS Business User</i> understands and thoroughly analyses the central aspects to consider when choosing FOSS in business.</p>	
<p>Knowledge</p>	<p>Skills</p>	<p>Competences</p>
<p>a. The <i>FOSS Business User</i> knows different aspects related to the set of features that have impact on the choice of FOSS in business.</p> <p>b. The <i>FOSS Business User</i> describes different aspects related to FOSS communities that have impact on the choice of FOSS in business.</p> <p>c. The <i>FOSS Business User</i> understands the difference between usage of FOSS and</p>	<p>a. The <i>FOSS Business User</i> is able to explain how different aspects related to features that have impact on the choice of FOSS in specific business contexts.</p> <p>b. The <i>FOSS Business User</i> is able to explain how different aspects related to FOSS communities can have impact on the choice of FOSS in specific business contexts.</p>	<p>a. The <i>FOSS Business User</i> autonomously chooses specific FOSS products for his/her business, based on the assessment of different aspects related to functionality in specific business contexts.</p> <p>b. The <i>FOSS Business User</i> autonomously chooses specific FOSS products for his/her business, based on the assessment of different aspects</p>

becoming involved with FOSS projects.		related to community in specific business contexts.
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4.3 Interoperability with proprietary software and customisation	The <i>FOSS Business User</i> understands how FOSS products can interact with proprietary software and how FOSS can be customised accordingly.	
Knowledge	Skills	Competences
<p>a. The <i>FOSS Business User</i> understands software licenses and their role in different scenarios featuring proprietary software.</p> <p>b. The <i>FOSS Business User</i> understands the concept of standards and implementation of standards in software.</p> <p>c. The <i>FOSS Business User</i> knows the concept of standard essential patents and their effects.</p>	<p>a. The <i>FOSS Business User</i> is able to describe challenges and opportunities related to software licenses and their role in scenarios featuring proprietary software.</p> <p>b. The learner is able to describe challenges and opportunities related to standards and implementation of standards in software.</p> <p>c. The learner can describe challenges and opportunities related to standard essential patents and their effects.</p>	<p>a. The <i>FOSS Business User</i> makes decisions on how to combine software licences in scenarios featuring proprietary software.</p> <p>b. The <i>FOSS Business User</i> instructs the team about how challenges related to standards and implementation of standards in software can be addressed.</p> <p>c. The <i>FOSS Business User</i> instructs the team on how challenges related to standards essential patents and their effects can be addressed.</p>

4.4 Finding support	The <i>FOSS Business User</i> is able to select the most plausible sources where the appropriate support for the FOSS product adopted can be searched for and possibly found.	
Knowledge	Skills	Competences
<p>a. The <i>FOSS Business User</i> understands how a project is organised and how channels for support can be identified.</p> <p>b. The <i>FOSS Business User</i> knows the difference between voluntary support and commercial support, understanding the following implications.</p>	<p>a. The <i>FOSS Business User</i> is able to read, comprehend and take benefit of information provided on different support channels.</p> <p>b. The <i>FOSS Business User</i> is able to find and obtain support for specific FOSS projects.</p>	<p>a. The <i>FOSS Business User</i> is able to leverage from the use of information provided on different support channels for specific FOSS in specific SME contexts.</p> <p>b. The <i>FOSS Business User</i> leads the team on how to engage with a FOSS project, for example through submission of bug reports.</p>

3.5 Unit 5 – (Strategies for) Migrating to FOSS

UNIT 5 – (STRATEGIES FOR) MIGRATING TO FOSS	
Duration of Unit 5	25 h
ECVET Points of Unit	1
General LO of Unit 5	<p>Within Unit 5, the participant will be trained to:</p> <ul style="list-style-type: none"> - understand the main difference and implications produced by partial and full migration to FOSS in business - design the best strategy for the adoption of FOSS in business - assess the risks involved in the process of FOSS migration in business - make <i>ex ante</i> evaluations by running tests and pilots on the desired FOSS product - understand what it means to ‘go live’ with a FOSS solution and recognize the importance of keep the system up-to-date

5.1 Partial and full migration		The <i>FOSS Business User</i> knows and understands the different types of migrations to FOSS and its preconditions	
Knowledge	Skills	Competences	
<p>a. The <i>FOSS Business User</i> is fully aware of the different types of migrations from proprietary products to FOSS solutions and its advantages and disadvantages depending on the</p>	<p>a. The <i>FOSS Business User</i> is able to explain typical migration paths to FOSS solutions, and which strategy is suitable for different cases.</p>	<p>a. The <i>FOSS Business User</i> uses the gained knowledge to have a clear picture of the actual aim and reach of a migration.</p>	

<p>individual situation.</p> <p>b. The <i>FOSS Business User</i> understands the implications of a full or partial transition to FOSS depending on the business circumstances.</p>	<p>b. The <i>FOSS Business User</i> can analyse in her/his own business environment which strategy should be applied to reduce potential problems and increase FOSS adoption.</p>	
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<p>5.2 Strategy design and risk assessment</p>	<p>The <i>FOSS Business User</i> is able to make plans for a migration by mapping the business environment and estimating risks.</p>	
<p>Knowledge</p>	<p>Skills</p>	<p>Competences</p>
<p>a. The <i>FOSS Business User</i> describes the necessary steps to create a migration plan for the individual aim while selecting the right tools and methods.</p> <p>b. The <i>FOSS Business User</i> is fully aware of usual risks in migrations to FOSS and able to identify these potential issues in their own case.</p>	<p>a. The <i>FOSS Business User</i> is able to design a migration plan and explain its content to people in their environment who are not at the same level of knowledge about FOSS.</p> <p>b. The <i>FOSS Business User</i> is able to identify blockers before, during and after the transition phase, and to classify their severity.</p>	<p>a. The <i>FOSS Business User</i> creates a migration plan to FOSS for the individual case.</p> <p>b. The <i>FOSS Business User</i> finds out which components are part of the migration and which issues might appear during this phase.</p> <p>c. The <i>FOSS Business User</i> collects feedback by other users of the IT solution to assess dependencies and risks.</p>

5.3 Test, piloting and evaluation	The <i>FOSS Business User</i> knows how to roll out a FOSS solution and find problems in an early stage.	
Knowledge	Skills	Competences
<p>a. The <i>FOSS Business User</i> is fully aware of useful concepts for rolling out new FOSS solutions in a transparent and secure way.</p> <p>b. The <i>FOSS Business User</i> can name the benefits of a multi-stage process, involving tests of the new solution, running pilots to identify unknown problems, and evaluate its usage afterwards.</p>	<p>a. The <i>FOSS Business User</i> can distinguish the different steps in the testing and piloting phase and judging the benefits of this process.</p> <p>b. The <i>FOSS Business User</i> is able to design and follow a schedule with concrete milestones and evaluating the results of the tests.</p>	<p>a. The <i>FOSS Business User</i> uses the gained knowledge to make the migration to a FOSS solution as smooth as possible by identifying problems before it goes completely live.</p> <p>b. The <i>FOSS Business User</i> solves the problem of running piloting phases while the proprietary product is still in place and actively used.</p>

5.4 Going live and follow-up	The <i>FOSS Business User</i> knows how to switch to a FOSS solution and understand the importance of keeping up-to-date with its developments	
Knowledge	Skills	Competences
<p>a. The <i>FOSS Business User</i> understands the process to make the actual change to a FOSS solution and define the steps involved in this phase.</p> <p>b. The <i>FOSS Business User</i> recognises</p>	<p>a. The <i>FOSS Business User</i> is able to interpret whether a FOSS solution is ready to be rolled out in an IT and business environment.</p> <p>b. The <i>FOSS Business User</i> can explain</p>	<p>a. The <i>FOSS Business User</i> creates a clear path for going live with a FOSS solution and solving arising problems.</p> <p>b. The <i>FOSS Business User</i> applies the</p>

<p>that a successful FOSS strategy is not finished with the migration to a FOSS solution but requires to be aware of software changes.</p> <p>c. The <i>FOSS Business User</i> can name a few examples of how users and businesses can stay involved with a FOSS community to be part of the development process.</p>	<p>why it is crucial for IT to stay on top of a projects developments to not be left behind.</p> <p>c. The <i>FOSS Business User</i> can design a strategy to stay in touch with the upstream developers and contribute back to the future of the FOSS solution.</p>	<p>gained knowledge to build fruitful relationships with FOSS developers and is able to create and maintain a roadmap for wished enhancements.</p>
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4. MEMORANDUM OF UNDERSTANDING AND LEARNING AGREEMENT

The **Memorandum of Understanding** is a framework agreement between the partner organisation which is meant to formalise and confirm the cooperation arrangements and procedures for the FOSS BU competence profile and following training course. The document sets out the roles of the involved parties and give details on the conditions through which learning outcomes can be achieved, assessed and potentially transferred.

Within the MoU, all the FOSS4SMEs project partners commit to:

- confirm their acceptance of quality assurance, assessment, validation and recognition criteria and procedures as adequate;
- agree on the terms of the partnership, including objectives and mechanisms for evaluation and revision of the MoU;
- agree on units of learning outcomes that can be embedded or adapted to meet programme delivery and credit transfer needs;
- identify all other actors and institutions potentially involved in mobility, validation and recognition related activities, confirming their roles and duties in this respect.

A template for the FOSS4SMEs's MoU has been provided here as Annex 2, which is going to be filled in and signed by the partners at the end of the training course development.

The **Learning Agreement**, on the other side, is conceived as a customised individual document which sets out the conditions for a potential mobility period between the learner and the sending/receiving organisation. Its purpose is to specify, for a particular learner, which learning outcomes should be achieved and how these will be assessed, validated and recognised between two or more different institutions.

The template for the FOSS4SMEs's Learning Agreement can be find here as Annex 3. It is supposed to be filled in by the relevant parties only in case of an actual mobility period, involving to some degree the FOSS4SMEs training course and competence profile.

ANNEX 1 – LEVELS IN THE EUROPEAN QUALIFICATION FRAMEWORK ⁸

EQF LEVEL	KNOWLEDGE	SKILLS	COMPETENCE
Level 1	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context
Level 2	Basic factual knowledge of a field of work or study	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	Work or study under supervision with some autonomy
Level 3	Knowledge of facts, principles, processes and general concepts, in a field of work or study	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems
Level 4	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	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 ^[1]	Comprehensive, specialized, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	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 6 ^[2]	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialized field of work or study	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 7 ^[3]	Highly specialized knowledge, some of which is at the forefront of knowledge in a field of work or study, as the	Specialized problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take

⁸ Recommendation of the European Parliament and of the Council on the Establishment of a European Qualifications Framework for Lifelong Learning, 2008

	<p>basis for original thinking and/or research</p> <p>Critical awareness of knowledge issues in a field and at the interface between different fields</p>	<p>integrate knowledge from different fields</p>	<p>responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams</p>
<p>Level 8⁽⁴⁾</p>	<p>Knowledge at the most advanced frontier of a field of work or study and at the interface between fields</p>	<p>The most advanced and specialized 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</p>	<p>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</p>

1. The descriptor for the higher education short cycle (within or linked to the first cycle), developed by the Joint Quality Initiative as part of the Bologna process, corresponds to the learning outcomes for EQF level 5.
2. The descriptor for the first cycle in the Framework for Qualifications of the European Higher Education Area corresponds to the learning outcomes for EQF level 6.
3. The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area corresponds to the learning outcomes for EQF level 7.
4. The descriptor for the third cycle in the Framework for Qualifications of the European Higher Education Area corresponds to the learning outcomes for EQF level 8

ANNEX 2 – MEMORANDUM OF UNDERSTANDING

1 - General objective: This Memorandum of Understanding (MoU) aims to establish the conditions for a person acquiring the professional competences specific to the FOSS Business User curriculum. The agreement refers to the knowledge, skills and competences provided by the FOSS4SMEs training course. This is a voluntary partnership agreement and sets the general framework of cooperation and networking within the partnership, regarding the recognition of Learning Outcomes within the FOSS4SMEs Project and for the qualification developed in this context.

2- Information about the Partners

Partner 0
Name of the Organization:
Type of Organization
Address
City
Country
Contact Person
Job Title
Phone Number
E-mail
Home Page
Short description of Partner

Partner 1
Name of the Organization:
Type of Organization
Address
City
Country
Contact Person
Job Title
Phone Number
E-mail
Home Page
Short description of Partner

Partner 2
Name of the Organization:

Type of Organization
Address
City
Country
Contact Person
Job Title
Phone Number
E-mail
Home Page
Short description of Partner

Partner 3
Name of the Organization:
Type of Organization
Address
City
Country
Contact Person
Job Title
Phone Number
E-mail
Home Page
Short description of Partner

Partner 4
Name of the Organization:
Type of Organization
Address
City
Country
Contact Person
Job Title
Phone Number
E-mail
Home Page
Short description of Partner

Partner 5
Name of the Organization:
Type of Organization

Address
City
Country
Contact Person
Job Title
Phone Number
E-mail
Home Page
Short description of Partner

Partner 6
Name of the Organization:
Type of Organization
Address
City
Country
Contact Person
Job Title
Phone Number
E-mail
Home Page
Short description of Partner

4 - Information about the training program or qualification concerned

In order to recognize the acquisition of a certain amount of credits, outcomes have to be assessed in a reliable and valid manner by the competent institution in charge. It also needs to trust that the learners' credits actually reflect the learning outcomes expected and that these are at the appropriate level. By setting up this MoU, the signatory competent institutions acknowledge their partners' approaches to designing units, assessment, validation, and recognition as well as quality assurance. Through this process, they make informed judgments about the conditions under which they can recognise credits achieved within the partners' systems. This MoU is concluded by competent institutions, each of which is empowered, in their own setting, to award qualifications or units or to give credits for achieved learning outcomes for transfer and validation.

The signatory organisations are agreeing on the ECVET Model elaborated for the FOSS Business User training (attached to this MoU) and recognizing the knowledge, skills and competence that a person will acquire after graduating the online assessment of the specific training course which will be available on the online platform.

The signatory organisations are mutually recognizing the following aspects of the e-learning platform:

- the curricula of the training course
- the procedure of assessment of learning outcomes

- the ECVET procedure for recognizing the learning outcomes
- the credits allocated for the training modules accomplished by the trainees.

6 – Quality Assurance

1. The e-learning platform provides a safe training environment for the trainee in which he/she can study and learn;
2. The platform takes into consideration the level of competence and development of the trainee (the years of training/work experience);
3. The platform allows enough time, room, means and resources for the training and coaching of the trainee;
4. The platform provides a detailed programme/plan including an introduction programme, and the final assessment of the trainee;
5. A representative of the signatory organization, if case, monitors and evaluates the achievement of the learning outcomes.
6. The trainee shall attend the needed training sessions in relation to the Units selected for the present MoU, and fulfils other tasks that are part of the agreed training plan.

7. Signatures

By using this agreement, we accept each other's status as competent organizations, as well as each other's quality assurance, assessment, validation, recognition criteria and procedures as appropriate for the purpose of transferring credits at the end of the training experience provided by the e-learning platform [...].

IN WITNESS WHEREOF, the parties have executed this Memorandum of Understanding the day and year written above and here below.

Partner 0:

City, date:

Signature and Stamp of the organization:

Name:

Role:

Partner 1:

City, date:

Signature and Stamp of the organization:

Name:

Role:

Partner 2:

City, date:

Signature and Stamp of the organization:

Name:

Role:

Partner 3:

City, date:

Signature and Stamp of the organization:

Name:

Role:

Partner 4:

City, date:

Signature and Stamp of the organization:

Name:

Role:

Partner 5:

City, date:

Signature and Stamp of the organization:

Name:

Role:

Partner 6:

City, date:

Signature and Stamp of the organization:

Name:

Role:

ANNEX 3 – LEARNING AGREEMENT

Template for the eventual Learning Agreement to be issued in case of mobility

1 - Information about the participants	
Contact details of the organization	
Name of the organization	(Text here)
Address	(Text here)
Telephone/fax	(Text here)
E-mail	(Text here)
Website	(Text here)
Contact person	(Text here)
Telephone/fax	(Text here)
E-mail	(Text here)

Contact details of the learner	
Name	(Text here)
Address	(Text here)
Telephone/fax	(Text here)
E-mail	(Text here)
Date of birth	(Text here)
Gender (male or female)	(Text here)
Contact details of parents or legal guardian of the learner, if applicable	
Name	(Text here)
Address	(Text here)
Telephone	(Text here)
E-mail	(Text here)

If an intermediary organization is involved, please provide contact details	
Name of organization	(Text here)
Address	(Text here)
Telephone/fax	(Text here)
E-mail	(Text here)
Website	(Text here)
Contact person	(Text here)
Telephone/fax	(Text here)
E-mail.	(Text here)

2. Duration of the learning period	
Start date of the training	(dd/mm/yyyy)
End date of the training	(dd/mm/yyyy)
Length of time	(number of weeks)

3.- Qualification - including information on the learner's progress (knowledge, skills and competences already acquired).	
Title of the qualification being taken by the learner (also in English).	
EQF level	
NQF level	
Information on the learner's progress in relation to the learning pathway.	
Annexes	(text here)
	(text here)
	(text here)
	(text here)

4. Description of the learning outcomes to be achieved during mobility

Title of unit(s)/groups of learning outcomes to be acquired (text here)

Number of ECVET points to be acquired while abroad (text here)

Learning Outcomes to be achieved (text here)

Description of the learning activities (text here)

Annexes Description of the units of learning outcomes which are the focus of the mobility

Description of the learning activities

Individual's development plan

Other?

5. Assessment and documentation

Person responsible for assessing the learner's performance Name: (text here)

Organization, role: (text here)

Assessment of learning outcomes Date of assessment: (dd/mm/yyyy)

Method: (text here)

How and when will the assessment be recorded? (text here)

Please include Detailed information about the assessment procedure (assessment grid, criteria,...)

Template for documenting the acquired learning outcomes (e.g. the learner's transcript of record or Europass Mobility).

Individual's development plan when abroad

Other?

6. Validation and recognition

Person responsible for validating the learning outcomes achieved abroad Name: (text here)

Organization, role: (text here)

How will the validation process be carried out? (text here)

Recording of validated achievements	Date: (dd/mm/yyyy)
	Method: (text here)
Person responsible for recognizing the learning outcomes achieved	Name: (text here)
	Organization, role: (text here)
How will the recognition be conducted?	(text here)

7. Signatures	
Organization	Learner
Name and role	
Place and date	Place and date

If applicable: Intermediary organization	If applicable: Parent or legal guardian
Name and role	Name and role
Place and date	Place and date

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8. Additional information

(text here)

9. Annexes

(text here)
