



PROJECT Reference: 2019-1-IT02-KA204-063200

# Training and Policy Adaptation Guide

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## Introduction: Context, Target and main Aim of the Guide

The teaching professions face rapidly changing demands, which require a new, broader and more sophisticated set of competences than before. The ubiquity of digital devices and applications, in particular, requires educators to develop their digital competence and pedagogical skills. The European Framework for the Digital Competence of Educators (DigCompEdu) is a scientifically sound framework describing what it means for educators to be digitally competent and adequately informed about the use and application of digital technologies. It provides a general reference frame to support the further development of EU educators' specific digital competences and utilities. In this context the DigitA will equip adult education trainers with the skills and the competencies to mainstream the DigCompEdu in their training activities.

Curriculum and Open Resource Toolbox developed through the Intellectual output 1 encompasses the overall training materials, activities and tools designs and contents, which have been developed in a thematic modular format.

The DigitA Online Curriculum and Open Resource Toolbox is composed of pedagogies, lesson plans, activities, tools and train the trainers' modules for the Adult Educators to align their skills and training provision with the DigiComp Framework. It is important to note that the Curriculum and Open Resource Toolbox is developed with specific units, descriptions of learning outcomes and information about the level of qualifications which makes the DigitA outputs transferable and adaptable in training institutions and public services around EU, securing its multiplication and sustainability.

The Training and Policy Adaptation Guide is developed in the form of an eBook and will provide specific guidelines to the project's stakeholders, multipliers and relevant policy makers:

- to integrate the project outputs and the Online Learning Environment in their normal training activities, in different social-cultural settings
- to implement accreditation processes in their project related trainings, based on the ECVET and ECTS
- to utilize it as an adult educational component at a public administration level
- to inform future policies and initiatives in similar fields all partners will provide feedback on the development of the Guide as experienced training providers and courses developers.

This Guide is accessible and free to download through the DigitA official website, offered in an eBook format.

Policy actors and other stakeholders reviewed extensively the Training Adaption and Policy Package and contributed to the drafting and dissemination of the Infusion of the National and EU Education and Training Policies.

The Training and Policy Adaptation Guide includes content and visuals in order to provide specific guidelines to the project's stakeholders, multipliers and relevant policy makers.

## I. DigitA Online Learning Environment Adaptation

### I.A General Principles

The first chapter of this guide is dedicated to provide inputs, suggestions and guidelines to promote and facilitate the process of adaptation to different contexts of the main outputs developed under the umbrella of the *DigitA* project.

This Training and Policy Adaptation Guide provides guidelines on how to set the project's learning objectives and proposes accreditation methods, while mapping the existing EU initiatives on transparency and recognition of skills and qualifications.

In the following paragraphs the users will be provided with guidelines and directions for adaptations in different social, cultural and organizational settings, by proposing alternatives to specific activities, tools and content of the Online Learning Environment.

Basic instructions will be also provided on how third parties can provide this adaption to the project's team in order to transfer them in a more customized learning environment.

Based on the above mapping, matching and design, the partners developed a series of guidelines to embed in the training provision practices of Assessment, Validation and Recognition of skills acquisition. These tools will be useful for the trainers and educators when they will integrate the project's learning components in their usual training activities.

### I.B Set your Training Learning Objectives

The development of the Learning Objectives in order to prepare the learning material for 6 Modules, during the implementation of the DigitA project, included the following steps:

1. Definition and concepts
2. Guide for describing Learning Objectives

3. Needs and gaps analysis in relation with DigiCompEdu
4. Definition of overall Learning Objectives

### Definition and concepts

A learning objective is a description of what the adult educator must be able to do upon completion of an educational activity. A well-written learning objective outlines the knowledge, skills and/or attitude the educator will gain from the educational activity and does so in a measurable way.

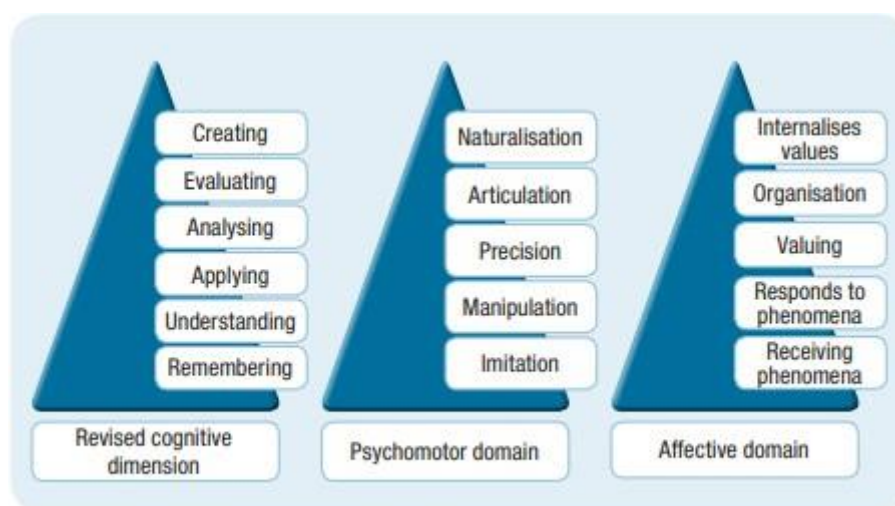
The domains of learning can be categorized as affective (attitude), psychomotor (skills), and cognitive (knowledge) (ASK).

- **Attitude** — changes how an adult educator *chooses* to act.
- **Skills** —this domain focuses on changing or improving the tasks the adult educator can perform.
- **Knowledge** — this domain focuses on increasing what adult educators know.

### Guide for describing Learning Objectives

#### Learning outcomes and learning progression

Bloom's taxonomy is one of the most important theoretical influences on thinking about learning outcomes and progression.



Sources: Bloom et al. (1956); Dave (1970); Anderson et al. (2001).

Figure 1 - Bloom's taxonomy: cognitive, psychomotor and affective domains

Simplicity is important when writing learning outcomes. Too much detail and overly complex statements prevent learners, teachers and assessors from relating to the statements.

The basic structure of learning outcomes statements...			
... should address the learner.	... should use an action verb to signal the level of learning expected.	... should indicate the object and scope (the depth and breadth) of the expected learning.	... should clarify the occupational and/or social context in which the qualification is relevant.
Examples			
The student...	...is expected to present ...	...in writing the results of the risk analysis	...allowing others to follow the process replicate the results.
The learner...	...is expected to distinguish between...	...the environmental effects...	...of cooling gases used in refrigeration systems.

Source: Cedefop.

Figure 2 - The basic structure of learning outcomes statements

### Writing Clear Learning Objectives

A clear learning objective states what the learner will be able to do upon completion of a continuing medical education activity, in terms of behavioural change. A clear objective identifies the terminal behaviour or desired outcome of the educational offering.

### Writing SMART Learning Objectives

An effective learning objective should include the following 5 elements: who, will do, how much or how well, of what, by when.

The mnemonic SMART—Specific, Measurable, Attainable, Relevant, and Time-bound—can be used to describe the elements of a well-written learning objective. One example of a SMART objective for an airway conference is: “Upon completion of the difficult airway workshop, participants should be able to formulate an accurate algorithm for the management of an obese adult patient with inadequate face mask ventilation, according to the American Society of Anaesthesiologists difficult airway algorithm.”

<ul style="list-style-type: none"><li>• Each learning objective must answer the following questions: Who, will do, how much or how well, of what, by when?</li><li>• Identify content areas that the participants are expected to learn.</li><li>• Choose an action verb that is measurable and observable to specify the desired learner performance, followed by a description of the content.</li><li>• Use more complex or higher-order action verbs when appropriate.</li><li>• Avoid using action verbs such as “understand, know, learn, appreciate, believe, be familiar with, comprehend,” etc.</li><li>• Each learning objective must be separate: Two separate actions (such as diagnosis and management) or topics (such as bronchospasm and hypotension) must not be combined.</li></ul>	<ul style="list-style-type: none"><li>• Specify the condition in which the action will occur. An example of a good way to begin the statement is: “Upon completion of this learning activity, participants should be able to . . .”</li><li>• SMART learning objectives are:<ul style="list-style-type: none"><li>Specific: What action will be performed and by whom?</li><li>Measurable: How will success be measured? Objectives should quantify the amount of change expected.</li><li>Achievable: Can this objective be achieved within a given time frame and with available resources?</li><li>Relevant: Are the objectives aligned with the instructional method and assessment?</li><li>Time-Bound: When will this objective be achieved? Objectives should provide a time frame indicating when the objective will be met.</li></ul></li></ul>
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Figure 3 - Practical tips for writing effective learning objectives.

### Identify the Level of Knowledge Necessary to Achieve Your Objective

Before you begin writing objectives, stop and think about what type of change you want your training to make. In other words, what do you want your participants to do differently when they return to work? The domains of learning can be categorized as affective (attitude), psychomotor (skills), and cognitive (knowledge). An easy way to remember this is with the acronym ASK:

- **Attitude** — Changes how a learner *chooses* to act. Compliance training is a good example of when you will have to teach to this domain. It’s usually **the hardest to craft objectives for this**, since it’s dealing with feelings, emotions, and attitudes.
- **Skills** — This domain focuses on changing or improving the tasks a learner can perform.
- **Knowledge** — This domain focuses on increasing what participants know. Learning safety rules, troubleshooting, and quoting prices from memory are all examples of this level of learning.

### Select an Action Verb

Now that you’ve identified what domain you intend to focus on for your objective, it’s time to start crafting your objective. To do that, it’ll help to have an action verb to describe the

behaviour at the appropriate level of learning. Here's a list of action verbs, separated by domain. Avoid having more than one action verb for each level of learning, and make sure it's a verb that can be measured. "Understand" is too vague, but "complete," "identify," or "recognize" are specific.

- **ATTITUDE**

Advocate, Accept, Agree, Allow, Analyse, Approve, Assess, Believe, Choose, Collaborate, Comply, Conform, Convince, Cooperate, Decide To, Defend, Endorse, Evaluate, Pick, Recommend, Select, Support, Tolerate, Volunteer

- **SKILLS**

Actuate, Adjust, Administer, Align, Alter, Assemble, Build, Calibrate, Change, Copy, Demonstrate, Design, Develop, Draft, Execute, Form, Handle, Manipulate, Measure, Mend, Perform, Prepare, Process, Record, Regulate, Remove, Repair, Replace, Set, Service

- **KNOWLEDGE**

Compare, Define, Describe, Designate, Discover, Distinguish, Explain, Identify, Itemize, Label, List, Name, Recite, Recognize, Recount, Relate, Retell, Specify, Spell Out, State, Tell, Term, Write

**Table 1 - Sample Verbs in Categories**

Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
define	classify	apply	analyze	arrange	assess
identify	compile	calculate	calculate	assemble	compare
label	conclude	demonstrate	categorize	compose	critique
list	discuss	develop	classify	construct	decide
match	describe	interpret	criticize	design	determine
name	explain	locate	compare	develop	establish
recall	express	operate	contrast	diagnose	evaluate
recognize	give examples	perform	determine	manage	judge
record	identify	practice	differentiate	organize	justify
relate	interpret	predict	distinguish	plan	measure
repeat	recognize	present	examine	propose	rate
select	summarize	report	outline	relate	recommend
state	translate	use	test	summarize	select

**Table 2 - Verbs to Avoid**

appreciate	believe	improve	learn
approach	grasp the significance of	increase	thinks critically
become	grow	know	understand

### Check Your Objective

Make sure your objectives include four pieces: audience, behaviour, condition, and degree of mastery. For every one, identify and label the component. Here are the **A, B, C, D's** every objective should contain:

- **Audience:** It's important that your objective identifies the people that will be doing the learning. Typically, this will involve the word, "learner" or "participant"
- **Behaviour:** You'll need to identify what the participants are going to do differently. This component will contain your action verb.
- **Condition:** This part of the objective will describe the situation of the participants.
- **Degree of Mastery:** This part of the objective is closely tied to the change in behaviour, as it stipulates the degree of the change.

Try labelling each of the four components in your objectives to make sure you didn't forget anything. In the following examples, *the audience will be italicized*, the behaviour will be underlined, the condition will be in regular type, and **the degree of mastery will be bolded**.

#### Example 1

Given an expense report, the *learner* will complete the company form **with no errors**.

#### Example 2

After completing the three-day design training, the *learner* will be able to list the 8 steps in the design process **in order**.

### Repeat, Repeat, Repeat

Go through this process for each objective. Don't stop until you feel that you have enough objectives to effectively measure your performance. Remember, objectives work as checkpoints that lead to a completion of a goal. It's important you have enough of them to keep yourself from getting lost. Start with what you want to achieve and work backwards.

### Methods of Assessment

Assessments are designed to measure the skills and knowledge the learner has mastered during instruction. While quizzes or tests are often used to assess mastery, there are countless other assessment methods that could be equally (or more) effective for the given learner population, context, and learning objectives. It is important to keep in mind that the personas

and needs of your learners, as well as the context and objectives, should influence which assessment method you design and develop. Varying the methods of assessment throughout a lesson or unit of instruction will help to support appropriate skill and knowledge assessment, and appeal to different learning and testing preferences of the learners. Beyond a quiz or test, other methods of assessment for adult basic education may include:

Methods of Assessment	Assessment Description	Example Strategies
Performance Assessment	Learners are given a variety of tasks and situations where they can demonstrate understandings and apply knowledge, skills, and the Foundations of Science to a variety of contexts.	<ul style="list-style-type: none"> <li>• Design and conduct an experiment</li> <li>• Demonstrate a skill or set of skills</li> <li>• Design a classification or measurement system</li> </ul>
Authentic Assessment	Assessments tie directly to the applications of the knowledge, skills, and attitudes in the real world.	<ul style="list-style-type: none"> <li>• Project-based instruction</li> <li>• Simulate a workplace training experience</li> </ul>
Holistic Assessment	Incorporates a wide range of assessment pieces to provide a total picture of the learner.	<ul style="list-style-type: none"> <li>• Portfolio</li> <li>• Focus on Mind, Heart, Spirit, and Body</li> <li>• Problem or project-based learning</li> <li>• Invention</li> </ul>
Source: <a href="#">Saskatchewan Advanced Education and Employment</a> ↗		

### 3. Needs and gaps analysis in relation with DigiCompEdu

The needs and gaps analysis was developed by every partner for all 6 Modules in relation with DigiCompEdu. The next step included the compilation of all needs and gaps analysis reports in order to provide a general guide to be used for the final step. The following example refers to the compilation of needs and gaps analysis about the 1st Module: Professional Engagement.

### 01. Professional Engagement

Educators' digital competence is expressed in their ability to use digital technologies not only to enhance teaching, but also for their professional interactions with colleagues, learners and other interested parties, for their individual professional development and for the collective good and continuous innovation in the organization and the teaching profession.

Table 3 - Professional Engagement: Needs and Gaps

01. PROFESSIONAL ENGAGEMENT	NEEDS	GAPS
<ul style="list-style-type: none"> <li>Organisational communication</li> <li>Professional Collaboration</li> <li>Reflective Practice</li> <li>Digital CPD</li> </ul>	<ul style="list-style-type: none"> <li>Mapping teachers' digital skills so that the skills can be developed</li> <li>Creation of a common, multifunctional channel which would help adult educators from various fields to know at first hand the potential and the benefits that occur from the familiarization and the use of DigCompEdu</li> <li>Professional progress for educators, enhance digital skills, to progress, familiarize with international trends in digital competences frameworks</li> <li>Communication for process development (more quickly, efficiently and comfortably)</li> <li>Communication of tools with their implementation instructions, implementation policies, good practices and success stories between professionals as well.</li> </ul>	<ul style="list-style-type: none"> <li>Digital continuous development is growing as new ways of communicating arise</li> <li>Bigger the difference in age, bigger the gap in the collaboration level</li> </ul>

### 4. Definition of overall Learning Objectives

The final step of the development of the Training Learning Objectives was the creation of a Table for each of the 6 Modules which included the previous step in addition with the Learning Objectives of each Module. The following example reflects the Learning Objectives for Module 1.

Table 4 - Professional Engagement: Learning Objectives

01. PROFESSIONAL ENGAGEMENT	NEEDS	GAPS DIFFERENCE BETWEEN CURRENT KNOWLEDGE, SKILLS, AND/OR PRACTICES AND THE DESIRED BEST PRACTICE	LEARNING OBJECTIVES
<ul style="list-style-type: none"> <li>Organisational communication</li> <li>Professional Collaboration</li> <li>Reflective Practice</li> <li>Digital Continuous Professional Development (CPD)</li> </ul>	<ul style="list-style-type: none"> <li>Mapping teachers' digital skills so that the 'skills can be developed</li> <li>Creation of a common, multifunctional channel which would help adult educators from various fields to know at first hand the potential and the benefits that occur from the familiarization and the use of DigCompEdu</li> <li>Professional progress for educators, enhance digital skills, to progress, familiarize with international trends in digital competences frameworks</li> <li>Communication for process development (more quickly, efficiently and comfortably)</li> <li>Communication of tools with their implementation instructions, implementation policies, good practices and success stories between professionals as well.</li> </ul>	<ul style="list-style-type: none"> <li>Digital continuous development is growing as news ways of communicating arise</li> <li>Bigger the difference in age, bigger the gap in the collaboration level</li> </ul>	<ul style="list-style-type: none"> <li>The participant will be able to list several digital technologies for organizational communication with learners and third parties in order of complexity</li> <li>The participant will be able to describe the usage of digital technologies in order to make additional learning resources and information available to learners.</li> <li>The participant will be able to identify the suitable digital technologies in order to enhance organisational communication with learners and third parties effectively</li> <li>The participant will be able to distinguish the suitable digital technologies between learners and third parties</li> <li>The participant will be able to describe new communication strategies for learners and third parties</li> <li>The participant will be able to recognize the need to seek the help of others in improving his digital and pedagogical practice.</li> <li>The participant will be able to demonstrate every digital technology for organisational communication to learners and third parties</li> <li>The participant will be able to demonstrate</li> </ul>

			<p><i>the communication of organisational procedures to learners, e.g. rules, appointments, events by using digital technologies</i></p> <ul style="list-style-type: none"> <li>● <i>The participant will be able to design new communication strategies for learners and third parties</i></li> <li>● <i>The participant will be able to develop educational resources collaboratively by using digital technologies</i></li> <li>● <i>The participant will be able to develop organisational practices, policies and visions on the use of digital technologies</i></li> <li>● <i>The participant will be able to evaluate new pedagogical methods and strategies</i></li> <li>● <i>The participant will be able to perform internet search for digital resources which support professional development</i></li> <li>● <i>The participant will be able to choose the appropriate digital technologies to communicate with third parties relevant to the educational project, e.g. experts to be invited, places to be visited.</i></li> <li>● <i>The participant will be able to convince learners and third parties to use digital technologies in order to enhance organizational communication on an individual basis, e.g. on progress and issues of concern.</i></li> <li>● <i>The participant will be able to recommend different communication strategies for learners and third parties</i></li> </ul>
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			<ul style="list-style-type: none"> <li>● The participant will be able to collaborate with other educators, on a dedicated project or task using digital technologies</li> <li>● The participant will be able to endorse the exchange of knowledge, resources and experiences with colleagues and peers.</li> <li>● The participant will be able to evaluate his own digital and pedagogic practice</li> <li>● The participant will be able to collaborate and provide critical feedback on digital policies and practices</li> <li>● The participant will be able to evaluate the exchange in digital professional communities as a source of professional development.</li> </ul>
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### I.C Compilation of training methodology

E-learning materials should help teachers in the process of choosing materials and constructing learning materials. All actors involved in developing the E-learning materials therefore must address the needs of the learners.

It is important to define principles for various actors in the designing process (designers, teachers and learners) in order to build an approach which involves guidance resources to help educate e-learning designers and users. Pedagogic aspects of quality are based on core principles that are sufficiently generic on the approach to teaching and learning. The principles should be able to help designers to engage in the process of constructing e-learning material and associated activities in a way that will enact sound principles of pedagogy. They should also be able to help teachers in the process of choosing resources, designing teaching and learning activities that use them, and supporting such activity while it takes place. All the actors involved (designers and teachers) must address the needs of the learners.

#### *Principle 1: match to the curriculum*

The pedagogy should be matched with and aligned to the appropriate curriculum through:

- clear objectives (at an appropriate level and form of specification)
- the relevance of content covered
- the appropriateness of student activities
- the nature of the assessment (where this is present)

### *Principle 2: inclusion*

The pedagogy should support inclusive practice seen in terms of:

- different types and range of achievement (including special needs)
- physical disabilities that can be particularly supported by e-learning (e.g. those with visual impairment)
- different social and ethnic groups
- gender

### *Principle 3: learner engagement*

The pedagogy should engage and motivate learners. This engagement should be evident in an ethos of being:

- educational, i.e. have a 'worthwhile' educational aim, and not just be used to occupy or entertain learners, although it might employ 'game-like' approaches to learning
- motivating, such that it is both enjoyable for learners and makes them want to continue using ICT or want to carry on with learning the topic
- such that it does not produce adverse emotional reactions that are likely to cause reduced motivation to learn in general, or to use ICT in particular
- motivating, such that it improves the class atmosphere for learning and makes it a good experience for teachers and learners alike
- usefulness for the learner, so that he can apply it in his daily activities and creates sense and impact for him

### *Principle 4: innovative approaches*

It should be evident why learning technologies are being used, rather than a non-technological approach which achieves the same end as effectively. Digital forms should be used where they bring an innovative approach which cannot be achieved in any other way. E-learning should, in other words, be fit for purpose. The design and implementation of the digital material or environment may also be innovative, in the sense that it takes an approach that is new and

has not been taken either by previous non-technological or by digital material for this particular topic or area of the curriculum.

### *Principle 5: effective learning*

This principle can be demonstrated in a variety of ways:

- by the use of a range of approaches that will allow the learners to **choose** one that suits them, or can be personalised to them, or will extend the learners' repertoire of approaches to learning (such as 'learning how to learn')
- by providing empirical evidence of effective outcomes of the pedagogic approach (including the digital material)
- by satisfying a number of the characteristics of good learning (learner agency; learner autonomy; encourages meta cognitive (including high order) thinking; enables or encourages collaboration)
- by providing authentic learning (authentic to situations outside school and to the learners' perspectives and situations), and that also exhibits multiple perspectives on a topic (this could be seen as another aspect of authenticity)

### *Principle 6: formative assessment*

The pedagogy should provide formative assessment, i.e. assessment that is primarily aim to improving learning. This may be achieved in a number of ways:

- by providing rapid feedback that helps learners to see how they can improve and what they must do to improve
- by providing opportunities for peer assessment, with appropriate understanding of the criteria or standards of performance required
- by providing opportunities for self-assessment, with appropriate understanding of the criteria or standards of performance required

### *Principle 7: summative assessment*

Summative assessment here is understood as that which is used to grade students for guidance as to, or selection for, future educational or work opportunities. Although not all e-learning will have summative assessment (but it should have formative assessment), where it does, it must be:

- valid and reliable (i.e. assess what is aimed at in the objectives, and do this in a way that can be demonstrated by things like expert views, or ways of testing construct validity; give consistent results for particular learners or other users);
- comprehensible by teachers and learners (as appropriate)
- able to deal with a range of achievement levels
- free from adverse emotional impact on the learner

#### *Principle 8: coherence, consistency and transparency*

The pedagogy must be internally coherent and consistent in the way the objectives, content, student activity and assessment (where present) match to each other. It must be open and accessible in its design. This implies that the components of e-learning should each match and that the match should be transparent in its intention; for example, the activities should be consistent with the objectives and the assessment should assess these objectives (and not unstated or unknown ones). It should be clear to the user what they are expected to do.

#### *Principle 9: ease of use*

As well as being transparent in its intention, e-learning should be transparent in its ease of use through:

- being open and accessible
- being intuitive and not requiring guidance on use (for either the teacher or the learner)
- the provision of appropriate guidance for the learner or the teacher and, in the case of the learner, should not require extensive training or instructions that are not themselves part of the educational aims of the e-learning
- appropriate assumptions about the ICT skills of users (both learners and teachers), or the provision of straightforward guidance on this.

#### *Principle 10: cost-effectiveness*

Technology solutions need to be justifiable, affordable and the costs sustainable. Using learning technology is not a cheap option for enhancing educational opportunity, broadening choice and raising standards; nor is it a 'silver bullet'. The investment needs to be justified in terms of cost benefits and savings through efficiencies of scale, or in terms of affordance of pedagogic opportunities and enrichment, or in meeting educational needs and goals which are not achievable in other ways. However, as with many of these principles, there are some for mid able definitional problems, about what to include in the costs (or indeed the benefits).

Once content has been developed using the above-mentioned principles the next step is to choose the platform and method of delivery. Evaluation and assessment are the last steps of the development.

## I.D Compilation of the training content outlines

The partners of the project created an outline of a training structure which can be used for the development of a training outline. While working with this outline, it is essential to consider the general principles, identified by the partners, which shall be adapted before each training:

Before developing a training, it should always be adapted according to different aspects:

- Who are the participants? What is their background (different education, physical capabilities, social and ethnic groups, gender, etc.)?
- The relevance and appropriateness of the content for the learners
- The motivation behind participating in the training. Are they participating due to initial interest? Is it a mandatory training? Are they planning to learn from the training as end-users or are they future trainers themselves?
- Innovativeness. Are there more innovative or dynamic exercises which could be used in the training?
- Effective learning methods for the type of learners. What is the best learning method for the participants of this specific training?
- Effective assessment methods. What is the content of the training? Is a knowledge-based quiz the best assessment method or would a final discussion be a better tool for assessment?
- Consistency, transparency and ease of use of the training tools and materials
- Available resources: Location and facilities of the training, resources for training materials.

The training shall then be developed according to sections and units:

### 1. Introduction

The training introduction shall include a welcome message, legal information (anonymity, etc. if applicable), as well as information on the training itself. The training participants shall be informed of the purpose of this training and the competences and skills to be acquired in the

training. It is recommended to mention why the training module is especially useful and practical for the participants of the specific training, fostering their motivation to participate and interact.

Techniques/tools: Ice-breaker exercises can also be used in this section to get to know the participants and build a safe and comfortable environment for the participants to learn and share in. The introduction should not need any side material (presentations, etc.) to allow for a more engaging welcome and an establishment of personal connection.

## 2. Units

Before deciding on the content and activities of each unit, the trainer should always consider the expected learning outcomes of the respective unit. This fosters a more organised training and guarantees that the developed content stays on track with the original topic of the training and does not include unnecessary topics.

The subjects covered in the training are separated into units. Each unit can have multiple topics which should be connected to each other. Before starting each unit, the trainer shall provide information on why it is important to learn about this topic. What is the importance and usefulness of this topic? Why are we learning about this?

Afterwards, the main content of training can start with the first topic of the first unit. Topics which are connected or related to each other should all be covered by the same unit, while topics which focus on other subjects are recommended to be clearly separated in another unit. This further supports an organised training structure and avoid confusion.

## 3. Topics

There are different kinds of topics under each unit: Topics for understanding / study and Topics for application. Topics for understanding and study are topics which cover theoretic knowledge, background information, knowledge-based topics. Topics for application cover the practical aspects of a topic, for example, important advice when applying the knowledge and information on how to apply the knowledge.

### Examples:

- *Topic for understanding / study:* What is Skype? What is it for? What features does it have?  
*Topic for application:* How to use Skype for my own situation? How to adapt the features to my needs?

- *Topics for understanding / study:* Importance of engaging learners in a training. Why is it important to motivate them to participate?

*Topics for application:* How to motivate participants? Example of exercises which can be used to foster enthusiasm and interest in the training.

**Techniques/tools:** The trainer can use various tools for the topics for understanding. Graphs, videos and images foster visual learning, while presentation often supports understanding due to the possibility of reading some of the content. The trainer can also utilise exercises like quizzes, case studies, Frequently Asked Questions segments or reflection exercises. The trainer should consider the type of participants of the training and the respective content of the unit when choosing the tools and exercises. If the unit focuses on change and awareness, a reflection exercise might prove more useful than a quiz.

Topics for application should include good practice examples, case studies, decision making scenarios or role playing. This supports the understanding of how to apply the learned knowledge in practice and enables participants to comprehend what the knowledge looks like during implementation.

#### 4. Activities

Each unit shall include an Activity for review and an Assessment activity. The Activity for review is a summary or design which includes the key points of the learned topics and provides the learners with a way to study and revise what they have learned in an easy and fast way. This activity can include text summary, diagrams, tables or images.

The Assessment activity should be an activity to assess if the participant has learned and understood the content of the unit. This activity can be implemented with a quiz (true/false, multiple choice, etc.), as well as a self-assessment, depending on the topics covered in the unit.

#### 5. Conclusion of training module

Once all subunits have been covered and assessed, the training should be concluded with two final activities.

**Interconnection activity:** To further highlight the practical application and connection of the knowledge, the trainer shall implement an interconnection activity. This activity is based on a case study or mind map and enables the participants to discuss the practical application they foresee and share their perspective with each other.

Final activity for application: The final activity is an open activity, asking if the participants have any more questions, especially regarding the application of the learned content. All open questions and concerns can be shared in this section.

## 6. Side material

The trainer can always provide additional side material, especially if the discussed content has some aspects which are hard to discuss in the training due to time limits or other restraints. This side material also enables interested parties to further explore a topic.

After considering all these aspects, the training can be developed and structured into an organised training module, fit for the specific participants and guaranteeing the best possible impact.

### I.E E-Learning content production

The production of content that was used in the e-learning platform (for the 6 Modules), developed during the implementation of the DigitA project, included the development of following:

1. Training Methodology
2. Adult education principles
3. Online learning principles
4. Instructional adequacy standards
5. Training approach of the DigitA course
6. Training methods and techniques
7. Course Modules' outline
8. Design of Quiz assessment
9. Development of training material Table
10. Quality checklist

### 1. Training Methodology

The Training methodology within the framework of DigitA project is based upon specific principles, standards, training methods and techniques with a view to enhance the learning procedure by developing material in a creative and attractive way. At the same time, activities that are in line with e-learning are employed in such a way so as to lead to the acquisition of the desired knowledge, skills and competences as came up through the needs analysis process.

## 2. Adult education principles

Adult educators should have in mind the way that adults learn, when it comes to the design of a training course in a sense that they differ from younger learners in terms of past experiences and self-awareness, elements that are directly connected in how they perceive things. Litster (2016) identified that *“the principles of learning are a set of basic concepts, leading ideas or requirements, and define the overall activity of instructors or adult learners.* In fact, they refer to the category of normative knowledge which prescribes how training should be, and thus regulate the activity of the participants in the educational process.

As described in SESBA (2017), the following **principles of adult learning** are widely applied:

- Adults organize and manage themselves.
- Adults have the life experience and they use it in the training process.
- The trainees have reached physical maturity and live in adult society.
- Adults are executors and solve problems. Adults participate in learning processes connected usually to their job, which is problem-centred and goal oriented.
- Adults are self-conscious and therefore, seek to active participate in their learning process.
- Adults learn in different ways and display different reaction times.
- Adult teaching is tailored to their individual specifics, different learning styles and their own pace for acquisition of knowledge and skills.
- Adult attitudes towards learning are based on their past experiences.
- Adults perform a lot of social roles and responsibilities.
- Adults have different socio-economic and cultural backgrounds.
- Adults view their life experiences as part of their identity.
- Adults are motivated to learn to achieve change; realize the importance of new knowledge, skills and habits when they see that what they are learning is related to meeting their needs.
- Adults repeat learning patterns they have used in the past. Training provides support for effective learning processes through active teaching techniques such as brainstorming, role play etc., allowing knowledge and skills to be put into practice.
- Adults have their individual qualities and independence to *take matters in their hands*. It gives them the opportunity to change their own image of the world around them and to define their place in it.

## 3. Online learning principles

Online learning is commonly referred to the intentional use of networked information and communications technology in teaching and learning and it consists one of the many terms that are also used instead of e-learning (such as virtual learning, distributed learning, network and web-based learning) in order to describe this mode of teaching and learning.

Fundamentally, they all refer to educational processes that utilize information and communications technology to mediate asynchronous as well as synchronous learning and teaching activities.

In this project online learning can be seen as applications of ICT used as a learning technology which may encompass part or all of the elements from a spectrum:

- information/data for and about learning –including digital assets
- Learning Objects
- authentic online research resources
- models and simulations
- tools for e-learning applications
- ICT learning support, learning resources or ICT packages
- user guidance materials
- courses packages (pathways) which may be delivered off-line or, in blended or in full mode, online, at a distance and may be supported, support and/or be exploited by an online community of learners.

#### 4. Instructional adequacy standards

The instructional adequacy component refers to the extent to which the content under development provides the necessary kind of support for learning and meeting the instructional objectives as set in the theoretical framework and the curriculum. The following framework provides a common core of quality elements that ensure the adequacy of the produced materials.

More specific, the following framework provides a high-level overview of all relevant quality components, where they are placed and how they relate to each other. The main purpose of it is to clarify the relationships and boundaries of the range of work on quality (and the related terms used), encompassing the different quality interests and priorities of different stakeholders: industry, academia, professional development, learners and so on. It exposes intentional overlaps and synergies and possible tensions at the interfaces. It enables the same realities to be viewed from different perspectives; an essential activity if misunderstandings

and tension are to be minimised. It is also designed to be generic– that is to say, meaningful at all levels in the system.

Infrastructure Provision	Built environment	The implications of deployment and access for design/modifying schools/colleges of the future
	Network requirement	Content works in connected environments including thick/thin authentication connectivity
	Equipment requirements	The content works on the equipment available; memory, peripherals (access devices), etc.
Technical Standards	Accessibility specifications	Technical accessibility issues, e.g. W.A.I. guidelines, including access device issues
	Interoperability	Interoperability between systems and content, including metadata, use of browsers, content packaging + hosting repositories; LO ingesting
Content Digital Staff	Functionality	Product/service offers functionality required and remains technically robust, resistant and saleable in a range of computer environment
	Design principles	Follows good design principles, e.g. using accepted HQ approaches, navigation effective, consistent interface, user accessibility, etc.
	Quality of assets	The inherent video/audio/graphic/textual quality and mix of the digital assets (pictures, text, animation, audio, video, etc.)
Pedagogic Affordances and Practices	Fit to curriculum requirements	Relevant for the curriculum it claims to support. "Curriculum" here is a broad term; it might be for an informal learning agenda as much as a national curriculum
	Content design	The design/choice of the product supports generic good practice in affording accessible, authentic, intuitive and fit for purpose content, suitable for the needs of different learners
Institutional Development	Planning	Course design, planning and preparation by the practitioner/developer (aims, outcomes, progression on, blended, dynamics of course/group)
	Learning	The disposition of learners; their attitude, skills, interaction and motivation to learn
	Assessment	Embedded assessment of teaching and learning -assessment for, as for learning; data about learning
	Teaching	The disposition of teachers teaching skills and knowledge of how to use (online) resources/content/enrollment their ability to critically reflect on and evaluate effectiveness
	Management planning	High-level purpose Leadership decisions related to choice and implementation of provision, including staff development and evaluation plans.
	Institutional delivery	The capability of the institution to deliver (network procurement/provision). Also technical support and legal/acceptable use requirement
	Deployment access	New resources are deployed and made available to the learner - anytime and anywhere- institutional infrastructure and/or e-learning platform

Figure 1 - Common Framework for e-learning quality

As for the core Instructional adequacy standards that should be taken in account when designing online courses, according to **the Association for Educational Communications and Technology (2017)**, these are the following:

- **Purpose** - it is clearly articulated through goals and objectives and it is twofold, in a sense that addresses to both on instructors and learners.

- **Assumptions** – they are based on students’ prior knowledge and established understandings and skills. In the case of online learning also encompass students’ ability to use delivery technology
- **Sequence** – it concerns a mandatory element that assures the promotion of efficient knowledge acquisition which should be in consistency with the prior-knowledge assumptions.
- **Activities** – they operate as the “vessel” for the acquisition of knowledge and skills. Either active or passive, activities should be chosen carefully in relation to the student’s level of knowledge, ability and experiences and to the online constraints as well.
- **Resources** - deep learning and extend course-centred experiences and activities could be achieved through multimodal resources engaging self-directed, extended learning
- **Application** - Effective course design incorporates opportunities to practice newly acquired understandings and skills, both independently and collaboratively.
- **Assessment** - the sequence should include points of assessment for purposes of feedback and review, with instances of re-teaching as necessary for students to acquire full understanding
- **Reflection** – it is intended to deepen the learning experience and may serve as reiteration of purpose at key points during the course.
- **Independent Learning** – each and every effective course design incorporates opportunities for independent learning, including also opportunities for feedback, review, and reflection, which are resonated with the purpose
- **Evaluation** – It should be multidimensional (acquisition knowledge and skills, student self-evaluation, teacher self- evaluation) offering a fully articulated basis for judging the success of the course and the students as well as providing information that can help shape future iterations of the course.

## 5. Training approach of the DigitA course

The e-Learning content production process is similar to a building, where every floor is founded on the lower one and acts as a basis for the next.

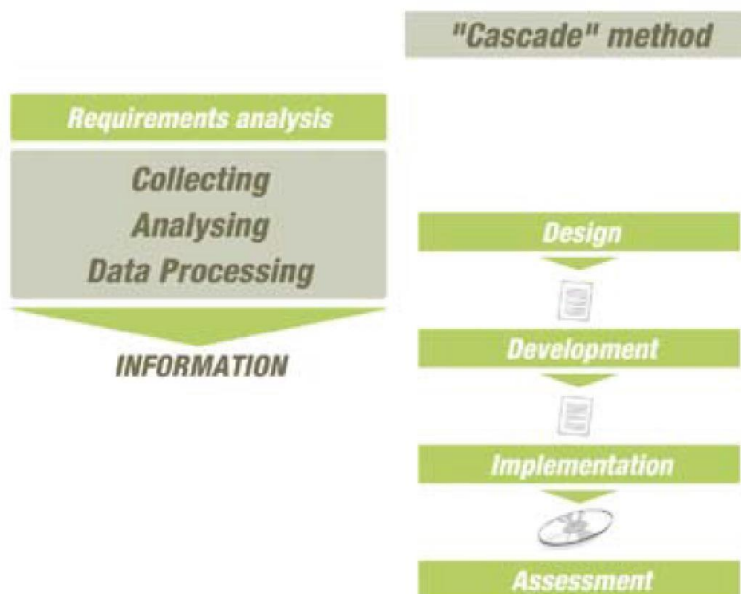


Figure 2 - ADDIE method (analysis, design, development, implementation and evaluation)

Needs analysis is the first step in the process. The information collected, examined and processed during this analytical phase covers all aspects that have to be examined in depth in order to produce the course or training, namely, targets, learning context, requirements and training objectives and performance.

The requirements document represents the analytical output and the input to the design phase. During the design phase, many elements have to be taken into account:

- Course delivery modes, from fully online courses to blended forms
- Didactic methods, from self-learning to web-based collaborative learning
- Course structure in terms of content design and creation related to course objectives
- Content concept map (syllabus) that summarises, explains and connects all the choices made, providing an outline of contents and learning paths.

The syllabus enables progression to the next phase of the e-Learning course production process and representing the core of the production process. This is course development, which consists of developing e-content that includes learning objects (LOs) and interactive activities and collaborative tasks.

Once content has been developed, the next step is to choose the platform and the method of delivery that best suit the needs of the participants and to set up a tutoring plan to support e-learners operating in a virtual environment.

Evaluation and assessment is the last step, but since it concerns the overall training process it needs to be taken into consideration at all the different steps previously described.

## 6. Training methods and techniques

Within The framework of DigitA the training method proposed is Asynchronous Learning. More specific, Asynchronous learning is the method where learners attend a course from a different place and in different time than the rest of the participants and the instructor. This kind of method provides the learners with the opportunity to implement the training process according to their specific schedule cultivating at the same time, their abilities for self-guided learning. In other words, the benefits from adopting such a method are in relation to flexibility and learning in one's own pace. When taking in account the specific target group of adult educators that DigitA is addressed at, and the requirements in time that their profession entails, then it becomes obvious the selection of this method. On the other hand, the main disadvantages are connected to the mode of learning and learner's motivation, such as isolation and the risk of apathy but this is probably not the case when it comes to adult educators.

With regard to techniques employed in DigitA these are selected according to the added value they bring into the learning environment in terms of motivation and engagement. According to FAO (2011) Instructional methods and techniques are separated in three different categories which are: *i) the expositive ones* that put emphasis in the "absorption" of information, *ii) the application methods*, where learners through specific procedures and steps build their knowledge, *iii) the collaborative ones* that concern the knowledge gained through exchange of knowledge and experiences between participants. In DigitA will be used creatively a mix of techniques that fall under these categories. These main techniques are presented below:

- Storytelling – it is a narration that concerns information given in a realistic context and entails actions or/and decisions that a number of characters should take. Illustrations, videos and images are usually used
- Case studies - concerns challenging situations where learners should take a decision among a number of options. Constant feedback and collaboration are the key elements in this technique
- Games – usually they reflect typical real- life situations where the learner by following specific rules and procedures should come up with at the end, with a decision

- Collaborative learning – it requires the collaboration between two or more participants that leads to the promotion of cognitive development and self-esteem.
- Demonstration- practice method – it is employed when it comes to teaching specific procedures
- Peer to peer – in this case learners support and monitor each other.

It is noteworthy that at the end of each module there will be provided also additional tools where the reader will have the opportunity to be introduced and explore more options regarding digital methods and tools. In this way, he/she can enrich the training material and to provide a highly satisfactory training experience to his/her audience that will be at the same time, more focused on one's individual needs. In this sense, he/she will be provided with a helpful tool for the numerous pathways that he/she could take during the training process.

## 7. Course Modules' outline

The development of the content of the 6 Modules includes a pilot phase where Modules' content outline was created in order to facilitate the productions of the final content. The outlines consisted of Title of Module, Description, Learning Outcomes (knowledge, skills, competences) and description of the content divided in Units and Topics.

<b>MODULE 5 EMPOWER LEARNERS</b>	
<b>Description</b>	This module puts emphasis on the need for adopting pedagogic learning strategies that foster the active involvement of the learner during the learning process and promote his/her engagement. Basic elements for empowering learners, recognizing the existence of special needs and employing strategies adapted to those needs, identifying factors that affect their motivation and active engagement, promoting the role of learners' digital context, recognizing the significance of equal accessibility and inclusion for all learners, and finally, introduction to active learning and learner centered strategies will be presented in this module.
<b>Learning Outcomes</b>	<p><i>After completion of this module the learner will/should:</i></p> <p><u>Knowledge:</u></p> <ul style="list-style-type: none"> <li>• Distinguish digital pedagogical strategies according to learners' digital context</li> <li>• Identify digital technologies and strategies suitable for learners' in need of special support</li> <li>• Define which digital technologies can address the special needs of individual learners</li> <li>• Handle digital technologies to visualise and explain new concepts in a motivating and engaging way</li> <li>• Be acquainted with digital learning environments and activities that are motivating and engaging</li> <li>• Be aware of the principles used in design for increasing accessibility in resources and digital environments</li> </ul>

- Have a comprehensive understanding of the importance of personalized learning and differentiation of instruction
- Be aware of the basic characteristics of active learning strategies, applications and tools
- Be aware of the tools and methods used for measuring accessibility

#### Skills

- Develop or demonstrate alternative or compensatory tools or approaches for learners with special needs
- Design principles for increasing accessibility for the resources and digital environments used in teaching.
- Prepare for different learning pathways, levels and speeds when designing, selecting and implementing digital learning activities.
- To administer learners to actively engage with the subject matter at hand
- To handle digital technologies to visualize and explain new concepts in a motivating and engaging way
- To define which digital technologies can address the special needs of individual learners
- To recommend appropriate digital technologies and resources for equitable access

#### Competences

- Recommend appropriate digital technologies and resources for equitable access
- Defend that all students have access to the digital technologies used
- Evaluate the suitability of the measures implemented to improve accessibility and adapt strategies accordingly
- Conform employ digital learning environments or activities which are motivating and engaging
- Recognizing that all students have access to the digital technologies used
- Handling new concepts in a creative way
- Awareness of challenges in their task range
- Demonstrating personalized learning
- Adapting strategies accordingly
- Implementing active learning with confident

### **Content**

#### **Units**

##### **1. Accessibility and Inclusion**

- Definition of Terms
- Factors affect accessibility to digital technologies and inclusion
- Learners of Special support: needs, digital pedagogical strategies, alternative tools and approaches
- Digital pedagogical strategies used for identification of learner's digital context
- Design principles for increasing accessibility
- Identified tools for increasing accessibility and inclusion
- Measures for assuring accessibility during learning through digital technologies
- Tools used for monitoring accessibility's improvement

##### **2. Differentiation and Personalization**

- Introduction to differentiation Instruction: definition and features

- Personalization of Learning: meaning and features
- Resources and tools used for personalized learning and differentiated instruction
- Differences between the two methodologies
- Factors for successful differentiated and personalized teaching and challenges
- Ways to devise individual learning plans via digital technologies

### 3. Actively engaging learners

- Definition of active engagement and motivation
- Factors that affect learners' motivation
- Introduction to active engagement strategies
- Characteristics of engaging digital learning environments
- Activities used for learners' active engagement (e.g. Manipulation technologies, game design, quizzes etc.)
- Active learning: key strengths and challenges
- Digital technologies and applications for the support of active learning strategies
- Monitoring the suitability of digital technologies used for active learning

## 9. Design of Quiz assessment

The assessment that was implemented included the creation of autonomous quizzes that were used to assess knowledge, skills and competences at the end of every Unit in each Module. The learners when taking the quiz will answer questions related to the responding Unit and include the following types:




- Free text
- Multiple choice with a single answer
- Multiple choice with multiple answers
- Shorting choice (answers with the right order)
- Matrix shorting (match answers in different columns)
- Fill in the blanks
- Selection from a list

After the completion of the test the learners are informed about the score that they achieved (right answers) and are shown the right answers in which they gave wrong answer.

## 10. Development of training material Table

In order to design the content of the 6 Modules another tool was introduced to assist the categorization of the content in the following sections (appropriate icons were created):

Icon	Title of Section	Details
------	------------------	---------

	Information/Theory	Write down information and theory about Topic/Unit
	Think about it	It could be some short questions for further thinking
	Additional information from external resources	Short introduction of the resource. It could be either a link or a document, etc.
	Video	Short introduction of the video. The video should be embedded in the platform.
	Reflection exercise	It could be a reflection exercise or a short quiz
	Apply what you have learnt	Choose between: Good practices, case study, decision making scenario, etc.
	Solve a problem with peers	<i>Exercises that could involve more than one trainers</i>
	Review	Write a summary or design a table or diagram
	Self-assessment exercises	<i>at least 1 assessment activity per unit min 6 questions</i>

The following template was created to aim the productions of the content taking account the previously mentioned Sections.

### Template for the development of training modules

Module x [title]			
Subunit	Script	Techniques / tools / exercises	Side material
Introduction	<i>After the end of this module you will be able to...</i>  [write the 5 most important things in simple language]	Text	None
Unit 1 [title]	<i>Motivation</i>  Answer the question: <b>Why is it important?</b>  [Explain in a simple and catchy manner the importance/ usefulness of the subunit for their job]	Text & standard graph	None

	<p><i>Topics for understanding/ study</i></p> <p>Topic 1 [write the script or describe / insert the graph]</p> <p>Topic 2 .....</p> <p>Etc.</p>	<p><i>Choose for each Topic:</i></p> <p><i>text, link, graph, presentation, narration (audio), video, reflection exercise (question, quiz, case study),</i></p> <p><i>FAQ, resources section</i></p> <p>E.g.: Topic 1 – text + graph</p> <p>Topic 2 – video</p> <p>Topic 3 – reflection exercise (quiz)</p> <p>Topic 4 – resources section</p>	<p>This refers to what further reading will be included (links) and eventually what kind of sources have to be collected by the partners</p>
	<p><i>Topics for application</i></p> <p>Topic 1 [write the script or describe / insert the graph]</p> <p>Topic 2 .....</p>	<p><i>Choose: Good practices, case study, decision making scenario, REAL CASES</i></p> <p>E.g.: Topic 1 – good practice</p> <p>Topic 2 – decision making scenario</p> <p>Tools: text and perhaps graph</p>	<p>This refers to any supporting material will be included (links) and eventually what kind of sources have to be collected by the partners</p>
	<p><i>Activity for review</i></p> <p>[Write a summary or design a table or diagram (the diagram should be in a separate file)]</p>	<p><i>Choose: summary, table or diagram</i></p> <p>Note: 1 review activity per subunit</p>	<p>None</p>
	<p><i>Assessment activity</i></p> <p>[Write the questions and choices of the test – max 6 questions]</p>	<p><i>Choose: true/false, multiple choice, matching exercises, self-assessment</i></p> <p>Note: 1 assessment activity only per subunit</p>	<p>None</p>
	Unit 2 [title]	idem	idem
	Unit x [title]	idem	idem
End of module	<p><i>Interconnection activity</i></p> <p>[write the script of the case study or draw the mind map]</p>	<p><i>Choose: case study or mind map</i></p>	<p>None</p>
	<p><i>Final activity for application</i></p> <p>[write 1 or 2 questions for real-life application]</p>	<p><i>Open questions</i></p>	<p>None</p>

## 11. Quality checklist

An important factor when creating content for an e-learning platform is checking thoroughly the quality of the content in order to provide a high quality learning environment. The following Quality check list Tool was implemented to facilitate the content developers to check their work against a certain list of quality factors.

Quality checklist item	Ok (X)	Needs improvement (X)	Final Status (X)
Is it simple and clear? (if in doubt, ask sbd else)			

Did I cover all learning objectives/ contents?			
Is the text brief / well segmented?			
Do I use humour?			
Do I build on life experiences of adult trainers?			
Is there an agreeable variety of media (text, graph, audio etc.)?			
Do I encourage reflection and critical thinking?			
Check grammar – spelling – word order			

### Tips

Please mind the following (examples):

1. Length
2. General approach
3. Spelling, syntax, phrasing issues
4. Unification of layout

## I.F Technical information on the functioning of the Online Learning Environment



DigitA's learning methodology is closely related to the project's e-learning platform (<https://digitaleducation.tdm2000.org/platform/>) which was designed and developed by Center for Social Innovation (Cyprus) with the cooperation and contribution - in matters of content - of the entire project partnership. Given the demanding nature of the learning content, the platform was kept simple, user-friendly and with basic but sufficient functionality

in order to make reading a pleasant and interesting experience for the learner. Learners do not need to sign in. With 1 click, the user can be immediately directed to the home page of the platform. The e-platform includes **6 Modules**. Namely:

1. Professional Engagement
2. Digital Resources
3. Teaching and learning
4. Assessment
5. Empowering leaders
6. Facilitating Learners' Digital Competencies.

By clicking “see more” underneath the image of each module, users are directed to the main content of the respective module.

Each Module is divided into **Units**. Each unit is divided into **Topics**. The number of Units and Topic may differ from module to module. At the end of each Unit a **Quiz** is displayed. Users do not have to compulsorily go through all Topics to reach the Quiz. The idea behind this function is that the platform may attract more advanced users who may wish to skip Modules, Units or Topics they are already familiar with. Though, the Quiz at the end of each Unit contains questions which address all Topics of each Unit. Users are strongly encouraged to go through all topics in sequence even if they feel that they already know the issues which the topics address.

The interface of Modules, Units and Topics is based on “next-previous” **buttons** so that usability is enhanced and simplified.

Finally, all the **References** (bibliography etc.) are concentrated at the end of each Module. Users can access the References at any step.

## [I.G Hypothetical scenarios for the training adaptation in different social-cultural settings](#)

### **1. Greece**

#### **Second Chance Schools**

##### **Introduction**

A Second Chance School constitutes an innovative public adult education school of two academic years' duration. A certificate equivalent to secondary school diploma is provided after successful attendance. The school's curriculum differs from that of the normal

education, it is more flexible and it follows an adapted teaching methodology and assessment of the trainees.

The Second Chance Schools were established in Greece by the Law 2525/97, in the context specified by the declared principles of the European Union. The programme forms part of the Operational Programme “Education and Lifelong Learning” of the Ministry of Education, Research and Religious Affairs and it is co-funded by the European Union (European Social Fund) and national funding.

### *Who can attend?*

The Second Chance Schools target people above 18 years old, who have not completed the compulsory secondary education.

The institution of Second Chance Schools is a European programme within the framework of the fight against social exclusion. These Schools aim to offer adults opportunities to enter again the education and training system, form a positive attitude towards learning, acquire basic knowledge and skills, enhance their personality and finally, facilitate the access to labour market.

### *The services of the programme*

The total duration of the programme is 18 months, i.e. two academic years. The weekly programme consists of 25 teaching hours and the courses take place during the evening, from Monday to Friday. The courses of the Second Chance Schools which operate in penal institutions, take place during the morning.

The courses being taught are:

- Greek Language
- Mathematics
- English Language
- Information Technology
- Social Education
- Environmental Education
- Physical Sciences
- Cultural - Aesthetic Education

The innovation of the Second Chance Schools consists in forming consultancy services, including a Career Adviser and an Educational Psychologist in every school.

Particular emphasis is placed upon the acquisition and development of basic skills, competences and general knowledge, the use of new technologies, learning a foreign language, counselling and vocational guidance, in order to significantly improve the access to the labour market.

There are 63 Second Chance Schools (SCS) all over Greece's 13 regions.

### *Scenario for the training adaptation of DigitA in Second Chance Schools*

The aim is to adapt the training provided by DigitA e-learning platform in order to be used by adult students in Second Chance Schools in Greece. Considering that Second Chance School constitutes a public adult education school equivalent to secondary school most of the adult students are under qualified and under skilled and most of the times digitally illiterate. All the design principles of the training of DigitA platform can be applied and there will be a need a different approach on the content design taking under consideration the knowledge, skills and competences of the learners. This new approach for the training adaptation of DigitA could include:

- Defining Learning Objectives
- Choosing Appropriate Learning Activities, Methods and Techniques
- Creating Modules' outline
- Developing content (categories and sections)
- Designing assessment (validation, recognition, etc.)

## **2. Romania**

### **Supporting the improvement of Parents' ICT Skills**

#### *Introduction*

In Romania a serious issue appears during COVID crisis, related to the sudden transition to the on-line school. While gymnasium students are able to use a computer or a smartphone even better than their parents so they are able to attend the on-line classes, most of the children from primary school couldn't do this without the parents' support.

Unfortunately, especially in rural areas, parents haven't enough digital skills to support their children. Many schools, organizations and Mixt Source Management are working to face with this problem.

### *Who can attend?*

The learning units could be adapted to the needs of this particular target group: parents who have children in primary school and need to improve their almost inexistent ICT skills in order to support the children to attend online classes.

### *The services of the programme*

The adapted programme should focus on increasing competencies related to Information and data literacy - to articulate information needs, to locate and retrieve digital data, information and content in the particular case of primary school pupils for supporting them to access the online classes. They will also learn how to judge the relevance of the source and its content and to support their children to store, manage and organise digital data, information and content related to school program (lessons, homework etc.).

The second area of Digital Competence Framework - Communication and collaboration - will consider the parents' capacity to interact, communicate and collaborate through digital technologies while being aware of cultural and generational diversity - as supporting their children in accessing on-line classes is an intergenerational process by default. On the particular background of the community taken in consideration to set up this plan - a small town with a big ethnic minority (Roma) that lives in a high risk of social exclusion - the awareness on cultural diversity is assured by mixing Roma parents with other locals.

The other 3 areas of Digital Competence Framework are also adapted on the particular context of parents who need to support primary school children in the online formal educational process. Particularly we mention the fourth area, "Safety" - focused on supporting parents to assure children's safety in the on-line environment.

The plan foresees the organization of blended activities - in attendance classes for small groups of parents, where the trainer will support participants in gaining basic skills related to how to use a computer, how to access on-line platforms etc. We will combine theoretical presentations with interactive exercises. Then participants will do individual homework by themselves and, in the second stage, together with their children.

## **3. Denmark**

### *Introduction*

The content and the online environment the project DigitA have developed and produced could rather easily be implemented by a minor adaptation to many adult educations in

Denmark at several levels. The main focus could be on enhancing and formalising teachers digitally competences needed when teaching. At our neighbour school and close collaborators Aarhus HF and VUC the implementation and adaptation could be obvious for several reasons.

The school both have both flexible and targeted educations. Aarhus HF & VUC is a large and exciting school with a wide range of subjects, educations and organizations. They offer single subjects and educations for young people and adults at levels from primary school to the highest upper secondary level. We also offer Preparatory Adult Education (FVU), Dyslexia Education and Online Education. In general, they have a large number of courses and educations specially adapted to the needs of their students. This means that as a student you can in most cases have exactly the course that corresponds to your competencies, your life situation - e.g. with children or work - and in relation to personal goals with the education.

### *Who can attend?*

As it is a large school with many different educations and organizations, there are also many different criteria's to apply for admission. There is a participation fee for all subjects at AVU and HF individual subjects. Upper secondary supplementation is free for the first two years after completing upper secondary education. After this, there is a participant payment per. GS subjects. The 2-year HF (Upper secondary), Dyslexia education and FVU are free.

To receive SU (state financial education support), you must have at least 23 hours per week. If you have children under the age of seven, you can get SU if you have 17 hours per week. 2-year HF is SU-eligible. The monthly payment from the state is 850 euros (kr. 6.321) and student can apply for a monthly loan at 435 euros (kr. 3.234).

### *The services of the programme*

Aarhus HF & VUC offers teaching within:

- General Adult Education (AVU)
- Higher Preparation (HF)
- High School Supplement (GS)
- Dyslexia Education (OBU)
- Preparatory Adult Education (FVU)

The 2-year HF is a high school education where you become a student at 2 years. You can qualify for to apply for ALL higher education and you can start directly after 9th grade. A 2-year HF consists of a number of compulsory subjects and elective subjects, which are

combined in the following study-oriented subject packages, which are aimed at different types of higher education. If you do not need an entire education, you can settle for the HF subjects you need. HF via single subjects is a flexible organization that can be adapted to private and working life.

At AVU, you can get the academic prerequisites at the 9th and 10th grade level that you need to progress on e.g. vocational education, HF or other youth education. They also offer tuition at Basis, which is levels below 9th grade and they also have offers for you who need to get ready for AVU or employment.

In DigitA context an interesting opportunity is Online tuition. Here They offer online tuition so you can study from home online when it suits you. The teaching takes place based on the school's IT platforms, from where you get access to your academic materials and assignments in the subjects and levels you follow. The teaching is organized in the course of hand-in assignments, which your teachers correct and gives feedback on. At all subjects / levels, there is the possibility of individual help during meeting times at the school on set dates.

### *Scenario for the training adaptation of DigitA in Second Chance Schools*

The school Aarhus HF and VUC has on their website a formulated didactic it strategy. The sub-goals of the e-didactic strategy and action plans are built around the development of 4 overall digital competencies in the course participants: Operational (Find, select and apply various digital tools and platforms), Productive (Participate in and contribute creatively to dissemination digital), Participation (Commit consciously, critically, ethically and responsibly online and in social media) and Information (Search, apply, refer to and be critical of information on the Internet.)

Both the work done in the project DigitA and in more general from the framework of DigiCompEdu there are many coincidences and similarities. A significant difference is the main focus. At the school focus is on students' development for digital competences. In DigitA the focus is primarily on the teachers building competencies to be able to subsidize student's digital progression. Here it could be fruitful for Aarhus HF and VUC to implement and adapt the content and online environment developed and produced in DigitA.

## **4. Cyprus**

### **Private Universities - Adult Learning Studies**

#### *Introduction*

Given:

- Cyprus' size
- the fact that the country has only one public university (University of Cyprus) and one technical university (Cyprus University of Technology)
- the fact that Cyprus attracts big numbers of Third Country National students from the neighbouring countries and continents (Middle East, Africa, Greece)

the sector of private tertiary education is thriving, especially during the last decade. What is important to note is that private universities are not content with just providing services to students but have gained a prominent role in the local economy and society. They are often the introducers of innovation, entrepreneurship trends and scientific advancements. Especially regarding training (and adult training), some among the private universities have invested significant funds to discover and launch innovative learning methods. As a conclusion, private universities (under graduate programmes, Master's degrees, PhDs) can be an ideal partner for applying and spreading the DigitA methodology while impacting the local adult training community.

The way to achieve this is synergies to which most private universities are fully open. Center for Social Innovation has been cooperating with the private institutions for a lot of years and this creates a significant advantage.

### *Examples*

#### **A. University of Nicosia: Education of Adult Educators and Vocational Education and Training Trainers (MA, 1.5 Years or 3 semesters) – Joint Degree with the University of Peloponnese (Greece) – Distance Learning**

The Profile of the Programme, according to UNIC's [official website](#):

*“The purpose of the program is to equip students with specialized knowledge in the field of adult education and vocational education and training through:*

- (a) the attendance of relevant modules,*
- (b) the study of relevant literature and*
- (c) the possibility of doing practical training.*

*Moreover, the programme aims at cultivating research skills through:*

- (a) the attendance of specialized courses in quantitative and qualitative research and*
- (b) either the undertaking of small scale research projects in the framework of various modules and/or the authoring of a postgraduate research thesis.”*

The partnership representative could request a presentation of the DigitA materials upon a programme's class. That would be a great opportunity to show how an adult learning curriculum is created and digitalised. The audience would comprise future adult trainers so this makes the presentation of DigitA an interesting contribution to their knowledge.

## **B. Frederick University: Master's Degree in Adult Learning**

According to the Frederick University's [official site](#):

*"The Master's degree in Adult Education is designed aiming at receiving teachers, adult educators and other categories of professionals who train and provide vocational services to groups of adults from various disciplines and fields. The programme has been developed having in mind the perplexity and the demanding requirements of adult training (variety of contexts of formal, non-formal and non-typical education etc.) as well as the need for critically reviewing and processing all the basic definitions and principles of adult learning both from a macro and micro point of view, the effective integration of the latest innovative teaching techniques and practices and policies and the exploitation of technology in contemporary learning environment.[...] The programme has also a research orientation considering the action research as one of its milestones.[...]"*

The way DigitA partnership could intervene is similar to the one described in the occasion of University of Nicosia (example A).

## **5. Italy**

### **Sport-Ent**

#### **Introduction**

The online environment developed under the umbrella of the DigitA project could be adapted to several different contexts thanks to the guidelines developed through this guide.

The Project Coordinator TDM 2000 already used the developed material as a best practice to create an online course, as one of the main intellectual output of an Erasmus + Sport project titled ["Sport & Entrepreneurship"](#) (SPORT-ENT), which aims to create a set of Training & Support Materials for granting opportunities to individuals engaged in sport to enhance their "employability pathway" by developing their entrepreneurial skills and competences. This will be achieved by harnessing the complimentary and overlapping dimensions of entrepreneurship and sport thereby enhancing their opportunities for a dual career.

#### **Who can attend?**

The created targeted training programmes is addressed to sports people (with a special focus to Football players) in respect of entrepreneurship. The main target is composed by

sportsmen who has finished or are about to end their career in the field of sport and would like to start a new path in the business field.

### *The services of the programme*

The programme has been developed in order to highlight and promote the importance of the soft skills the two sectors have in common (Sport & Entrepreneurship) facilitating the process of acquisition of the mentioned skills by the target group. The creation process of the online platform mention was based on the tools, structure and guidelines developed within the DigitA project. The educational online environment created is composed by 5 Modules, each of them addressed to a specific skill:

- Teamwork
- Alternative actions
- Leadership
- Passion
- Work Ethics

This is an example of the outlined content of the first module, created using the structure of the DigitA online platform's tools:

<b>MODULE 1</b>
<b>TEAMWORK</b>
<b>Description</b>
Effective teamwork is at the heart of the success for every organization. Whether you are running or you are part of a digital agency, a football team, or a business company, chemistry makes your team great. Therefore, it is no wonder that most modern businesses center on understanding the characteristics of effective team management and what could help to create a cohesive team. This module specifies the meaning and the importance of teamwork in different contexts, underlining the common elements characterizing sport and business environments, providing an overview both of the basic elements of teamwork/team building and tools/strategies for the enhancement of collaboration in a group.
<b>Learning Outcomes</b>
<i>After completion of this module the learner will/should:</i>
<u>Knowledge:</u>

- Be aware of the definition, terms and types of teamwork and team building in different environments, common obstacles and barriers
- Describe the basic characteristics and main advantages of effective teamwork
- Be aware of the most effective tools and strategies aimed at the enhancement of collaboration in a team
- Be aware of the basic characteristics of conflict in a team
- Identify the suitable actions to be taken for a successful management of the conflict in a team, facilitating the team building
- Be aware of the essential elements of professional collaboration, different types and benefits
- Recognize the need to seek the help of others in improving the teamwork

### Skills

- Design a strategy to increase the level of collaboration in a group
- Be capable to manage a conflict in a group identifying the issues and developing appropriate solutions
- Set up a plan of activities which can facilitate a climate of trust and cooperation in a team
- Actively contribute to collaborative development and improvement of organizational communication strategies for a better cohesion in a team

### Competences/Attitudes

- Choose the appropriate behaviour to facilitate a fruitful cooperation among the members of your team
- Convince the other members of your team that respecting the roles given and strongly believe in a common objective is one of the most effective way in order to enhance a successful cooperation
- Recommend different communication strategies for professional environment
- Work with other members of your team on a dedicated project or task in a climate of trust and mutual cooperation
- Be aware that support the members of your team is an effective way to improve the quality of the activities done by the whole team
- Endorse the exchange of knowledge, resources and experiences with colleagues and peers

## **Content Outline**

### **Units**

#### **1. Team Management**

- Definition, terms and types

- Teamwork and Team building- Basic characteristics
- Challenges
- How to effectively communicate objectives and mission

## **2. Professional collaboration**

- Advantages and Disadvantages
- Essential elements for successful collaboration groups
- Tools and strategies for the enhancement of collaboration

## **3. Team Conflict Management**

- Team conflicts, definition, terms and types
- Information management and Communication
- Preventing the conflict: Climate of trust and mutual cooperation
- Tools and strategies

## **6. Spain**

### *Introduction*

More than 99% of Spanish homes have at least one mobile phone available. A high percentage like this does not automatically mean people know how to use digital tools in a responsible way. While older generations might struggle with the use of digital tools themselves, younger generations often lack the knowledge of how to use digital tools responsibly and in a work place.

Especially in light of the youth unemployment rate in Spain, being one of the highest in the European Union, and the recent COVID-19 pandemic which escalated the situation even further, it is important to enable young people to acquire responsible, effective and constructive digital competences.

### *Who can attend?*

Young people, Youth workers, teachers, educators.

### *The services of the programme*

Adapting the learning units having young people in mind as the final beneficiaries, allows for young people to be better prepared for the work place, be safer on the internet, be able to properly support their superiors with the appropriate digital tools and practices and support

young people in differentiating reliable sources and fake news. This enables them to implement proper research for their work place, develop an informed opinion and effectively contribute to their field of work. The programme could also have a more youth centred approach, with modern technologies, trends and subjects to discuss in mind.

To achieve this goal, the learning programme can be adapted for youth workers and teachers to be able to engage young people in the subject and motivate them to learn more. At the same time, it allows for educators to improve their own digital skills and apply more digital tools in their work practices (e.g. schools, youth centres, etc.), enabling them to reach more learners, especially young people in hard-to-reach areas.

## II. Skills Assessment

### II.A Definitions and scope

#### What is a Skills Assessment?

A skills assessment is an evaluation of an individual's ability to perform a specific skill or set of skills. Usually, it's an evaluation of skills specific to a job or role. Ideally, the assessment captures the level of proficiency for each skill, so you know which participants are new to a skill and which have mastered it.

The skills validation and recognition deal with recognizing the skills already obtained not through the direct training options (like the official training system from a country), but from a different official training system (like the one from a different country - which needs to be recognized either through official channels among peer organizations from the two states) or by self-development of the skill through direct activity (which needs to be validated through an exam such as the one regular trainees take to verify the achievement of the skill)

Skills assessments may be conducted in person and/or online and may take the form of a simulation, test, questionnaire, or observation. For example, the skill of "Manages project risks," could be assessed with this stated requirement: "Able to identify and document risks and assumptions associated with projects. Considers impact on the whole system when identifying risks. Collaborates with others to develop strategies for managing risks and ensures inclusion of input from all key stakeholder groups. Develops and documents contingency plans to reduce or mitigate risk factors." Based on the depth/complexity level needed to be achieved, the skill levels can be assessed with multiple proficiency markers, such as:

- “Limited,” “Basic,” “Intermediate,” “Advanced,” or “Expert”;
- 1-10, 1-100, A-F, A-Z
- “Sufficient”, “Insufficient”
- Combinations of the above;
- Other markers.

Regardless, the evaluating body will want to conduct standardized, objective reviews, so results of all the assessments can be reliably compared.

### When to Use a Skills Assessment Test

Some people are strong on education; others are rich in experience. Skills assessment tests give no weight to how trainers learned what they know; they measure what they can do. They are routinely used for a range of hiring or trainer’s development initiatives:

- **Recruiting:** a skills assessment test for employment can help training centre administrators (TCA’s) narrow down the list of candidates to interview or to decide between finalist candidates for an open position.
- **Career Development:** a jobs skills assessment test can be used to evaluate the performance of current trainers, to help confirm that they are strengthening essential skills as they build experience.
- **Learning and Development:** as trainers’ progress along a learning path, a skills assessment test is a simple, objective checkpoint to ensure that the training is effective.
- **Rapid Adoption of New Skills:** The [coronavirus pandemic](#) reminds us that skills are constantly evolving. From effectively participating in video meetings to adopting new social distancing protocols or manufacturing procedures, a skills assessment can quickly test whether trainers have mastered new, essential skills before they are cleared for the new teaching assignments.
- **Reskilling** and Upskilling: many TCA’s are encouraging current employees to learn adjacent or entirely new skill sets to help address a talent gap.

### When to Use a Skills Assessment Test

Skill assessment reports help training centre administrators (TCA) to understand the skills of trainers, as well as identify areas where additional training is needed. One kind of report, an [trainer's skill matrix](#), is a grid that maps required training skills to the proficiencies of employed trainers who need them.

Armed with this “map”, it is immediately clear which people have (and which have not) mastered the targeted skills. If one or two people are lagging behind the rest, you may want to work with them individually to get the training and support they need to get up to speed. If the whole team needs to be updated in some skills, group classes and projects may be a better next step. By keeping the results in your skills management system, a trainer's skill matrix report will provide the visibility you need to ensure your teams are making the progress you need.

Because skills assessments are designed to objectively assess the skills of trainers, there are many benefits to using them. Here are just a few:

- **Reduce Bias:** Especially in the hiring process, intrinsic biases can affect our hiring decisions. The more weight given to skills assessments, the less is given to things like age, gender, previous employer, education, address, and other factors that can inadvertently sway a hiring manager.
- **Consistency:** Without an assessment, hiring managers are left with human reports of proficiency – with no objective agreement on the “scale.” One job candidate may report that her skills are mostly “3” on a 3-point scale and another mostly “2” – even if their skill levels are exactly the same. A skills assessment does a much better job assigning objective meaning to that 1-2-3 scale.
- **Personalized Development Plans:** Just because someone isn't fully skilled doesn't mean they shouldn't get the teaching assignment. A skills assessment is extremely helpful in pinpointing exactly the areas where someone needs to develop skills, making it easier to develop a relevant, personalized learning and development plan.
- **Measure Progress:** Whether monitoring the development of individuals or teams, regular skills assessments can confirm progress – or identify areas where the training and support isn't enough.
- **Employee Engagement.** As a global employee reward and recognition company [Fondreminds us](#), employees want to keep learning. “Cultivating your employees' growth is

a win-win situation — it keeps them engaged and allows them to develop new skill sets that will make them competent trainers.” Skills assessments are precisely all about employee growth; supporting and recognizing their progress keeps employees engaged.

For skills old and new, a skills assessment can help keep your employees and teams current, productive, and engaged.

### Using Bloom’s Taxonomy in Skill Assessment

Skills Assessment Systems vary from country to country, from culture to culture but also vary based on the skills to be determined. A good way to determine the assessment scope, is to use Bloom’s Taxonomy in order to determine the learning objectives, which in turn will determine the assessment objectives.

In short, Bloom’s Taxonomy proposes 6 levels of knowledge achievable for a skill, each of them allowing the user to perform various activities in relation to the respective skill. The 6 levels as well as their descriptions are enumerated here:

1. The first level - Remember. Example activities at the Remembering level: memorize a poem, recall state capitals, remember math formulas;
2. The second level - Understand. Example activities at the Understanding level: organize the animal kingdom based on a given framework, illustrate the difference between a rectangle and square, summarize the plot of a simple story;
3. The third level - Apply. Example activities at the Application level: use a formula to solve a problem, select a design to meet a purpose, reconstruct the passage of a new law through a given government/system;
4. The fourth level - Analyse. Example activities at the Analysis level: identify the ‘parts of’ democracy, explain how the steps of the scientific process work together, identify why a machine isn’t working;
5. The fifth level - Evaluate. Example activities at the Evaluation level: make a judgment regarding an ethical dilemma, interpret the significance of a given law of physics, illustrate the relative value of a technological innovation in a specific setting—a tool that helps recover topsoil farming, for example.
6. The sixth level - Create. Example activities at the Creation level: design a new solution to an ‘old’ problem that honours/acknowledges the previous failures, delete the least

useful arguments in a persuasive essay, write a poem based on a given theme and tone

Complementary, when evaluating one's achievement of a skill following Bloom's Taxonomy, the evaluators can, based on the level of the student, ask them to perform the following types of actions:

1. Remember – Can the student recall or remember the information?
2. Understanding – Can the student explain ideas of concepts?
3. Applying – Can the student use the information in a new way?
4. Analysing – Can the student distinguish between different parts?
5. Evaluating – Can the student justify a stand or decision?
6. Creating – Can the student create a new product or point of view?

Bloom's Taxonomy also creates a level of accountability for the instructor and the students. By clearly laying out the goals for you students at each level, they can see how each part of the course works together and then how to relate what they are learning to other aspects of their coursework.

### [How to Create/Buy the perfect Skill Assessment System?](#)

With so many different providers and skill assessment tools in the market, it may seem quite hard to identify the best one. In order to help you make the right decision and find the skill assessment testing tool that will perfectly fit your needs, we created this 5 step guide:

#### Step #1: Define your goals and needs

The first step in choosing your ideal skill assessment testing tool is to define your goals and needs.

Here are a few questions to help you get started:

- Do you want to evaluate the skills of your candidates or your existing trainers' pool?
- Are your goals to hire the best assignment candidates or to identify skill gaps in your current trainers' pool?
- How many people do you plan to evaluate on a monthly and yearly basis?

#### Step #2: Define the skills you want to evaluate

The second step in choosing your ideal skill assessment tool is to define the skills you want to evaluate in your candidates or employees. The most important question here is do you want to evaluate soft or technical skills? Or both? Some skills assessment tools are specialized in either soft or technical assessments, but there are also those who offer a test for both soft and technical skills.

Make a list of the specific skills you want to evaluate in your employees and candidates. You'll start your search by finding skill assessment tool that offers all the skills assessment tests you need.

### Step #3: Define the characteristics of your ideal skill assessment tool

Next, define the characteristics of your ideal skill assessment tool.

Here are a few questions which may help you:

Should your ideal skill assessment tool be scientifically validated?

Can your ideal skill assessment tool be integrated with your [applicant tracking system \(ATS\)](#)?

Should your ideal skill assessment tool offer the possibility of customizing the skills tests?

Should your ideal skill assessment tool provide a great candidate experience?

You should also consider the budget constraints you have when it comes to buying a skill assessment tool.

### Step #4: Research the market

The following step is to research the market. You'll do that by browsing the top skill assessment test providers' websites and comparing them against each other.

You can create a list of your desired skill assessment tool characteristics defined in the first three steps. That way, you will be able to compare different skill assessment tools/assessors much easier and faster.

### Step #5: Decide between your top 3 choices

Finally, take the top three skill assessment tools from your list for a test drive. Most of these tools offer a free trial or a demo, so make sure you take advantage of that possibility. That way, you'll be able to *compare and evaluate competing skill assessment tools/assessors from first-hand experience*.

## II.B European tools and initiatives on recognition of skills and qualifications

In our modern world, people need a higher and broader set of skills to work, communicate, access information, products and services, and take part in social and civic activities.

A proper understanding and valuing of skills and qualifications is fundamental in order to achieve a better match between the supply of skills and the needs of the labour market.

A shared European framework can support the understanding and valuing of skills and qualifications. It can also help individuals to acquire and update skills throughout their life as they move between different types and levels of education, and between education and employment, within and across countries.

Qualifications express what people know, understand and are able to do. They can take different forms such as a (university) diploma or (skills crafts) certificate. Transparency about what people actually learned in order to obtain a qualification ('learning outcomes') is key to ensuring that individuals, employers and education and training providers give the appropriate economic, social and academic value to qualifications.

During the last two decades in Europe, a relevant effort has been put on the development of tools for the documentation of qualifications, skills and learning experiences which are provided to individuals to describe their acquired knowledge, skills, competences and qualifications. A set of strategies have been developed, aimed at supporting the international comparability of learning outcomes acquired in various contexts, in formal education, through validation of non-formal and informal learning, through mobility or work experience and voluntary activities.

1. [The European Qualifications Framework \(EQF\)](#) is a tool to help compare national qualification systems and frameworks from different countries. The [EQF](#) is an eight level framework based on learning outcomes (what persons know, the skills they have and what they can do), that acts as a translation device between different national qualifications frameworks and qualifications.

The implementation of the **EQF** was based on the Recommendation on the European Qualifications Framework for lifelong learning adopted by the European Parliament and the Council on 23 April 2008. Reflecting the success in implementing the 2008 recommendation, a revised and strengthened Recommendation on the EQF was adopted on 22nd May 2017 by the Education, Youth, Culture and Sport Council. The purpose of this revised recommendation is to ensure the continuity as well as a further deepening of the EQF.

The revision has kept the core objectives of creating transparency and mutual trust in the landscape of qualifications in Europe. Member States committed themselves to further develop the EQF and make it more effective in facilitating the understanding of national, international and third-country qualifications by employers, workers and learners.

### WHAT HAPPENED?

Some categories (for example competence) were hard to reach and to separate in focusing on particular aspects. The compromise was reached in 2008 with a general definition and limit of descriptors. This compromise did not solve the incoherence thus introduced. Discussions on the character of competence continued in the years following adoption of the EQF, reflecting real differences in the way learning outcomes are perceived in different countries. The 2017 revision of the EQF recommendation provided the opportunity to address this problem in a way which respects these different national approaches. The 2017 revision reflects a broad agreement on the usefulness of the autonomy and responsibility descriptors to distinguish the level and position of a qualification. Most NQF descriptors adopted since 2008 have built on this approach (although in many cases extending it).

### Functioning, institutes/bodies in charge for the application of the tools/ mechanisms/ strategies

Covering qualifications at all levels and in all sub-systems of education and training, the EQF provides a comprehensive overview over qualifications in the 39 European countries currently involved in its implementation. In close cooperation with the European Commission, *Cedefop* provides analytical and coordination support for the implementation of the EQF and carries out a number of comparative studies and analysis on issues related to the implementation of the framework at EU, national and sectoral level.

The EQF Recommendation Invites Member States to reference their national qualifications frameworks or systems to the EQF, in order to establish a clear and transparent relationship between their national qualification levels and the eight EQF levels. Member States are recommended to review and update, when relevant, the referencing of the levels of the national qualifications frameworks or systems to the levels of the EQF.

Each country wanting to relate its national qualifications levels to the EQF has to prepare a detailed referencing report that follows the 10 EQF referencing criteria agreed in Annex III to the revised EQF Recommendation. National referencing reports are presented to the EQF Advisory Group which endorses them if they satisfy the referencing criteria. Once national

frameworks are referenced to the EQF all newly issued qualifications (e.g. certificates, diplomas, certificate supplements, diploma supplements), and/or qualifications databases should in principle contain a clear reference to the appropriate EQF and NQF level.

### Who else is involved?

EQF Advisory Group (AG), established in 2008, is the central forum for discussion between the Commission, countries and stakeholders from the world of education and training, employment and civil society. The role of the AG is to ensure overall coherence and promote transparency, and trust in the process of referencing.

European [Centre for the Development of Vocational Training \(Cedefop\)](#) and [the European Training Foundation \(ETF\)](#), as European Agencies, play an important role in supporting the implementation of the EQF.

The [ENIC/NARIC network](#) is a network of national centres set up to directly support institutions and citizens with the recognition of academic qualifications.

The EQF works together with other European and international instruments supporting the recognition of qualifications.

### Best practices

Portugal has drafted guidelines (Understanding the NQF) in which a more detailed and fine-tuned description of knowledge, skills, attitudes and context is provided. In the case of knowledge, for example, a distinction is made between depth of knowledge and understanding and critical thinking. The skills domain (also identified as know-how) is characterised by depth and breadth and purpose.

A number of countries, for instance Finland, Iceland and Malta have made an effort to integrate the EU key competences (European Parliament and Council of the European Union, 2006) in their level descriptors. The inclusion of the term 'evaluation' in the Polish and Finnish frameworks underlines that individuals are expected to reflect critically on their own knowledge, skills and competence and on how these can be improved.

Austria and Liechtenstein have chosen to introduce parallel descriptors at levels 6 to 8 (the Ypsilon approach) respectively addressing qualifications from (academic) higher education and vocational education and training. Norway has chosen a similar approach at levels 4 to 6, also in this case capturing the differences between VET, general and academic qualifications. The Polish qualifications framework offers yet another solution, introducing three main sets

of level descriptors designed for different purposes and operating with different levels of detail: Polish universal descriptors underpinning the Polish comprehensive national qualifications framework; Polish descriptors for education and training subsystems and sub-frameworks, notably for general education, vocational education and training and (academic) higher education; Descriptors for economic sectors or subject areas.

**2. The European Credit System for Vocational Education and Training (ECVET)**, is a technical framework for the transfer, recognition and (where appropriate) accumulation of individuals' learning outcomes with a view to achieving a qualification.

The **EQAVET** is a reference instrument designed to help EU countries promote and monitor the continuous improvement of their vocational education and training systems on the basis of commonly agreed references.

Tools for the documentation of qualifications, skills and learning experiences are provided to individuals to describe their acquired knowledge, skills, competences and qualifications in a more transparent and structured way. They support the international comparability of learning outcomes acquired in various contexts, for example, in formal education, through validation of non-formal and informal learning, through mobility or work experience and voluntary activities. These tools support the better understanding of qualifications in formal recognition processes.

### General framework

Developed by Member States in cooperation with the European Commission, ECVET has been adopted by the European Parliament and the Council in 2009. The adoption and implementation of ECVET in the participating countries is voluntary. Currently, the participating countries and the Commission support a Europe-wide testing of this instrument to which all stakeholders have been invited to participate.

### Steps which lead to the creation/development

Since its adoption in 2009 countries and the Commission are putting important emphasis on testing and further developing this instrument. This involves launching pilot projects funded through the Lifelong Learning Programme but also through national initiatives. It also comprises development of support tools such as the forthcoming ECVET users' guide and the possible adaptation of Europass documents.

ECVET is one outcome of close and constructive cooperation over several years between the European Commission, Member States and social partners. Cedefop has also been closely involved since 2002 providing various analyses on developing and using credit transfer systems. The Recommendation establishing ECVET came into force on 18 June 2009, giving Member States a roadmap for implementing the new tool. Implementing ECVET will require even closer cooperation in VET between European and national levels, as well as both within and among Member States. Engagement, creativity and willingness will be required from many different partners if ECVET is to succeed. Many obstacles need to be overcome and innovative solutions found. So far the signs are good.

Since 2010, following the adoption by the European Parliament and the Council of the ECVET recommendation (European Parliament and Council of the EU, 2009), Cedefop has been regularly monitoring the implementation of ECVET.

Based on learning outcomes, NQFs have made significant progress. The same could be said for the validation of non-formal and informal learning and the modularisation of training programmes. ECVET-related developments go hand in hand with, and result from, reforms aimed at transparency and permeability of education and training systems, better employability processes and employment or re-employment. It also focuses on the ways that countries promote ECVET and support main actors and beneficiaries and takes into account Cedefop's work on monitoring the implementation of NQFs and validation of non-formal and informal learning.

#### Functioning, institutes/bodies in charge for the application of the tools/ mechanisms/ strategies

ECVET is based on concepts and processes which are used in a systematic way to establish a common and user-friendly language for transparency, transfer and recognition of learning outcomes. Some of these concepts and processes are already embedded in many qualification systems across Europe. ECVET is based on:

- Learning outcomes, which are statements of knowledge, skills and competence that can be achieved in a variety of learning contexts.
- Units of learning outcomes that are components of qualifications. Units can be assessed, validated and recognized.
- ECVET points, which provide additional information about units and qualifications in a numerical form.

- Credit that is given for assessed and documented learning outcomes of a learner. Credit can be transferred to other contexts and accumulated to achieve a qualification on the basis of the qualifications standards and regulations existing in the participating countries.
- Mutual trust and partnership among participating organisations. These are expressed in Memoranda of Understanding and Learning Agreements.

Institutions involved:

- [European Commission DG Education and Culture \(DG EAC\)](#)
- [Executive Agency for Education, Audio-visual and Culture \(EAC-EA\)](#)
- [European Centre for Development of Vocational Training \(Cedefop\)](#)
- [ECVET Support Team \(coordinates the European ECVET network\)](#)

Promoters and partners of ECVET pilot projects are working on designing and experimenting with methods of different ways of developing and using ECVET. Importantly, they are not working in isolation, but sharing experience and good practice working towards common outcomes with the support of the European Commission and Cedefop. The European Training Foundation is also supporting those countries outside the EU interested in ECVET. In this sense, the projects' work goes well beyond their individual goals and objectives. They are central to the roadmap of ECVET implementation.

Countries have been moving gradually towards applying and implementing ECVET principles in their education and training systems, taking into account their national contexts and credit arrangements, and applying ECVET principles both in IVET and CVET.

The EU plays a role in stimulating ECVET-related developments, not only financially through funding projects (such as LLP, Erasmus+) and national ECVET experts teams, but also through expertise and advice (such as from the experts of the ECVET team).

ECVET principles and components work in many countries and it is time to move forward and explore how they benefit individuals in engaging in lifelong learning and progression.

### Best practices

The European Commission has identified over 100 ECVET projects running or completed across Europe, funded by the Lifelong learning programme.

Coordinating the synergy among EU tools in Sweden:

In Sweden, different agencies are responsible for implementing European tools (EQF, Europass, ECVET, EQAVET, ESCO and EURES) according to their area of expertise. In the

opinion of the respondents, national developments are better taken into account, both in education in general and VET in particular, and dissemination of the tools about education policy-makers and experts is facilitated. It is important, however, to ensure synergies between these activities. The Swedish National Agency for Education (Skolverket) has a coordinating role with a clear mandate to initiate cooperation and exchange of information and experiences among the agencies. The representatives of the agencies meet regularly, discuss issues, identify and plan common activities. As a result of such cooperation, several joint conferences took place where different tools were presented and relations among them were discussed.

### ECVET projects for sectors and occupations

- Led by Czech promoters, the project Innovative qualifications framework for development of ECVET, aimed at applying ECVET principles to five qualifications in furniture and textile industries: cabinet-maker, upholsterer, floorer, textile maker and tailor. The project partners from the Czech Republic, Germany, Ireland, Poland, and Romania compared the learning outcomes (knowledge, skills and competences) in these qualifications and developed matrices that help detect similarities and differences in learning outcomes needed to get a qualification in each country. The project also developed interactive materials: animations about accumulating learning outcomes in various countries, games and quizzes based on the learning outcomes in the covered qualifications. [IQ for ECVET](#).

- Led by the Chamber of Commerce and Industry of Slovenia, partners from Croatia, Latvia and Slovakia joined in the project Enhancing competences in the metal and electro industries throughout Europe (SkillME) aiming to address skills gaps in these industries. The project partners have identified skill shortages and grouped them into units of LO with ECVET points to feed into developing curricula. The curricula are being developed and will be piloted in the next stage of the project. The project is based on involvement from the industry; the Association of Electrotechnical Industry of the Slovak Republic, the Association of Mechanical Engineering and Metalworking Industries of Latvia, the Croatian Employers' Association and the Chamber of Commerce and Industry of Slovenia, plus VET institutes and providers. [Skill ME project](#).

### 3. The European Quality Assurance Reference Framework (EQAVET)

[The European Quality Assurance Reference Framework for VET](#) (the Framework) provides a European-wide system to help Member States and stakeholders to document, develop,

monitor, evaluate and improve the effectiveness of their VET provision and quality management practices.

It can be applied at both system and VET provider levels and can therefore be used to assess the efficiency of VET provision. It is adaptable to the different national systems and it can be used in accordance with national legislation and practice.

### General framework of the tool

Developed by Member States in cooperation with the European Commission, the Reference Framework has now been adopted by the European Parliament and the Council. It is a key element in the follow-up of the Copenhagen Declaration and the ongoing work in renewing Europe's education and training systems.

### Steps which lead to the creation/development

- Copenhagen Declaration – November 2002 – calls for enhanced cooperation in VET quality assurance
- Establishment of a Common Quality Assurance Framework for VET (CQAF) – 2003 – common principles, guidelines and tools
- Recommendation of the European Parliament and Council on the establishment of CQAF– May 2004
- Helsinki Communiqué – December 2006 - strengthening cooperation on quality improvement
- EQF recommendation – April 2008 - common principles for quality assurance in higher education and VET
- Development of a European Quality Assurance Reference Framework for Vocational Education and Training (EQARF) - 2008 - a reference instrument to help Member States to promote and monitor continuous improvement of their VET systems based on common European references, which builds on and further develops the CQAF
- [Recommendation of the European Parliament and of the Council on the establishment of a European Quality Assurance Reference Framework for Vocational Education and Training Text with EEA relevance](#)

Since its adoption in 2009, Member States and the Commission are putting important emphasis on testing and further developing this instrument. This involves launching pilot projects funded through the Lifelong Learning Programme and also through national initiatives.

- The adoption and implementation of the Framework in the participating countries is voluntary.
- 2018-2019: an important transition period for the EQAVET Network to reflect on the implications for its work of possible new ways of addressing VET at EU level post 2020, in which the role of quality assurance (QA) continues to be an important focus. During this period, the EQAVET Network works to ensure that its experience and expertise contributes to emerging policy developments. **This work programme** will provide a new boost for EQAVET and enable the Network to strengthen its evidence base in the context of the New Skills Agenda for Europe. The work programme combines well-established methodologies for the sharing of practices with a new and more strategic approach which will position EQAVET clearly in relation to emerging policy needs. This will ensure that the EQAVET network can contribute to ongoing policy developments and to any revision of legislative instruments which may be proposed.

The [EQAVET work programme](#) make provision for the organisation of **peer learning activities (PLAs)** which enabled EQAVET members to deepen, share and transfer their knowledge of quality assurance (QA) issues identified as relevant by the Network.

[Functioning, institutes/bodies in charge for the application of the tools/ mechanisms/ strategies](#)

European Quality Assurance in Vocational Education and Training (EQAVET) brings together the EU Member States, the Social Partners and the European Commission to develop and improve quality assurance in European VET systems within the context of the implementation of the [European Quality Assurance Reference Framework](#) by:

- Assisting the Member States in developing effective approaches to support the implementation of the Reference Framework
- Developing a culture of quality, to be embedded at European level and other levels with the help of the [Quality Assurance National Reference Points](#) and other Network members
- Supporting the Member States and the European Commission in the monitoring and implementation of the Reference Framework within the context of the [Education and Training 2020 Strategy](#)
- Supporting the quality assurance dimension of work in EQF and ECVET

EQAVET is [a community of practice](#) where members and national experts:

- Exchange information and experience in open discussions
- Initiate a process of mutual learning and consensus building for the development of common principles, reference criteria, indicators and tools for quality improvement in VET, and the implementation of the Reference Framework
- Reach shared results and solutions in the development of guidelines and criteria for quality assurance, embedding a culture of quality improvement and sense of ownership in implementing the Reference Framework across Europe

This community of practice leads to higher levels of cooperation and synergy within and across EU Member States on quality assurance related issues.

The European Quality Assurance in Vocational Education and Training Network comprises representatives of the European Union Member States, Candidate Countries and European Economic Area countries, Social Partners, scientific advisers and the European Commission. The work of the Network is supported by the Secretariat and collaborating experts.

### Best practices

Quality and Qualifications **Ireland** (QQI) is the independent state agency responsible for quality and accountability, to which schools are accountable for quality.

Institutions are able to decide which indicators and benchmarks they consider relevant and appropriate to their own context and mission. Institutions are encouraged to derive these indicators from international sources. QQI does provide some guiding questions: how has the institution implemented QA procedures and assessments, how effective are the institution's internal QA and assessment procedures, do the QA procedures comply with the European standards and directives, who takes responsibility for quality and quality assurance in the institution as a whole, how transparent and accessible is the reporting on quality and quality assurance, does the student experience correspond with the institution's own mission and strategy, does quality and quality assurance performance correspond with the institution's own mission and strategy etc.

Under the Education Act of 2012, which focuses on qualifications and quality assurance, QQI is obliged to draw up and publish guidelines for educational institutions to enable the institutions to safeguard the quality of the programmes and services they provide. Educational institutions are legally obliged to take the QQI guidelines into account when developing their own QA procedures. The general approach to quality control in education and training consequently means that providers are responsible for the QA of their own programmes, with

reference to the QQI guidelines and criteria. Considering the wide range of providers in Ireland, QQI has developed guidelines for a number of specific sectors, including further education and training (FET). In their guidelines for FET providers, QQI observes that they are modelled on the EQAVET Framework, the European initiative for QA in vocational education and training, designed to provide tools for quality management in vocational education and training. QQI actively contributes to the work of EQAVET at European level and these guidelines are intended to complement that.

The **Slovenian** Vocational Act (2006) emphasises the importance of quality assurance and increases the autonomy and enhances the development role of initial vocational education and training. In Slovenia internal review and one of the two types of external review are obligatory.

## II.C Tools and strategies for the competences' validation and recognition in the partners' countries

### 1. Serbia

#### TOOL/STRATEGY 1

##### Legal framework

Two rulebooks on non-formal adult education (bylaws to the Law on Adult Education) defining the validation of competences are:

- a) Rulebook on detailed conditions regarding programs, staff, space, equipment and teaching aids for acquiring the status of a *publicly recognized activity organizer* (PRAO) of adult education activities and
- b) Rulebook on the type, name and content of forms and the manner of keeping records and the name, content and appearance of forms of public documents and certificates in adult education

Organizations that offer adult education programs. Primary and secondary schools as well as other organizations that meet the requirements prescribed by the Ministry of Education, Science and Technological Development can be PRAOs.

##### Steps which lead to the creation/development

Procedural steps needed to be adhered to in becoming a PRAO are as follows:

- Interested organizations must be registered providers of educational activities

- They must submit a request for becoming a PRAO for programs of non-formal adult education that improve knowledge, skills and abilities, for personal and professional development and socially responsible behaviour, quality improvement of life, general education and culture (foreign language programs, programs for computer work, programs for improving the so-called "soft skills", improving media literacy, entrepreneurial development programs skills and skills of management, promotion and protection of animals skills, etc.);
- The procedure for issuing approvals for acquiring the status of PRAO is initiated by submitting a REQUEST (for each program individually) to the Ministry of Education, Science and Technological Development, Sector for Secondary and Adult Education, Nemanjina 22-26, Belgrade.

Documentation is submitted in written and electronic form (CD -3 pcs) - in 3 copies for each Request, by mail or at the office of the Directorate for Joint Affairs - Nemanjina 22.

The request contains: name, activity, seat of the organizer of the activity, address and e-mail address, as well as the Proposal of the program of adult education activities (three copies).

The proposal of the adult education program contains the plan and program of adult education and the manner of its implementation, the conditions envisaged for the implementation of the adult education program related to: the space in which this activity will be performed, the necessary equipment and teaching aids, as well as competencies and number of professionals. which will be engaged to perform adult education activities, in accordance with Art. 4. Regulations. (Instructions for drafting a program proposal can be found on the website [www.zuov.rs](http://www.zuov.rs)).

The Applicant, for the program for which the Request is submitted, encloses evidence of fulfilment of the conditions for acquiring the status of JPOA adult education, which relate to:

1. the space in which the activity will be performed (contract on ownership or lease of space);
2. necessary equipment and resources (list of equipment and teaching aids);
3. number of required professionals who will be hired to perform specific activities of adult education (list of lecturers, trainers, leaders, instructors, professional associates and evidence of their competencies prescribed by the Rules and the Program - their CV. Catalogue of continuing professional development programs for teachers,

educators, professional associates can be found on the website of ZUOV [www.zuov.rs](http://www.zuov.rs);  
Standards and procedures for the recognition of professional competencies for  
working with adults can be found on the website of the professional association of  
andragogues - Association of Andragogues of Serbia DAS - [www.andragog.org](http://www.andragog.org)).

4. Proposed form of agreement on mutual rights and obligations between the  
organizer and participants.

- Proof of fulfilment of conditions and proof of payment of administrative fee are  
attached to the request. (Law on Republic Administrative Fees - XX. Files and actions  
in the field of education, tariff number 172. item 6, issuing approvals to another  
organization in order to acquire the status of a publicly recognized organizer of adult  
education activities, for each program or adult education activity - 25,000.00 dinars).

- To the submitter of an incomplete Request, the Ministry will request an amendment  
in accordance with Art. 58 of the Law on Administrative Procedure and set a deadline  
for correction.
- After completing the documentation, the Ministry sends to the Institute for the  
Advancement of Education and Upbringing the Proposal of the Program of Adult  
Education Activities for opinion.
- After receiving a positive opinion from the Institute for the Advancement of  
Education, the Request is submitted to the Sector for Inspection Supervision of the  
Ministry, in order to determine the fulfilment of other conditions for issuing  
approvals.
- When determining the fulfilment of conditions, the educational inspector checks the  
documentation related to:
  - establishment and entry in the register
  - activity and specifics of work
  - space (land, building, area)
  - classrooms, specialized classrooms, cabinets, library, media library
  - workshops, halls
- premises for implementers
- other space
- hygienic and technical conditions
- space equipment for program realization,
- teaching tools
- tools, machines, devices

- library, professional literature
- computer equipment
- staff for realization of adult education activities (performers of adult education programs - lecturers, trainers, leaders, instructors, professional associates).
- If in the procedure of determining the fulfilment of the conditions, the educational inspector finds that all the conditions have not been fulfilled, he gives a deadline of 7 days to the applicant to eliminate the deficiencies.
- If the deficiencies are not eliminated within the stipulated deadline, the Sector for Inspection Supervision of the Ministry shall notify the Ministry with the minutes of the Applicant.
- After determining all conditions, the Sector for Secondary and Adult Education prepares a proposal Decision for issuing approvals for acquiring the status of a publicly recognized organizer of activities to the Minister and after the consent of the Minister submitting the Decision to the applicant (by mail or collection by an authorized person).
- The Minister shall issue a decision on the application for the issuance of a permit for the purpose of acquiring the status of a publicly recognized organizer of activities for a period of five years (4 copies).

#### Functioning, institutes/bodies in charge for the application of the tools/mechanisms/strategies

The Ministry of Education, Science and Technological Development (MESTD) adopted afore mentioned bylaws on non-formal education in 2015 that is to be acquired through the system of PRAOs. As per the procedural steps described above the responsible bodies include the MESTD and the Institute for Improvement of Education (IIE) which is conducting the assessment of programmes for achieving standard of professional competences and achieving qualifications standard.

#### Best practices

**1. Accreditation of online programs for Serbian as a foreign/ heritage language n/ heritage language of the Academic Serbian Association by the Agency for Qualifications and the Ministry of Education, Science and Technological Development of Republic of Serbia**

The Academic Serbian Association has the status of PRAO for online programs of Serbian as a foreign/ heritage (publicly recognized organizer of online education activities for adults). With the declarations of the Agency for Qualifications from February 24, 2020, the online programs of Serbian language as a foreign/ heritage of the Academic Serbian Association are accredited by the Ministry of Education, Science and Technological Development, for levels A1, A2, B1, B2, C1 and C2.

## **2. Kongsing group - Training Program for safe and healthy work at height**

From the Ministry of Education, Science and Technological Development, our company has received the decision on the extension of the status of publicly recognized organizer of adult education activities - Status JPOA - to implement the program of adult education - vocational training program for safe and healthy work at height, no. 611-00-01504 / 2018-03.

The program is used for training and training of employees jobs at the height of a basic level of protection against falling and basic level of rescue from heights in the vertical working environment (work on roofs, poles and ropes).

The program is used for training and training of engineers, technicians and installers in the field of telecommunications. The program can also apply for training and training of third parties in areas where works are carried out at height. The program aims to develop the basic system of health and safety when working at heights and training and training of employees work at the height of a basic level of protection against falling and basic level of rescue from heights in the vertical working environment.

## **3. National action plan for employment of 2020 recognized organizers of adult education based on FEEA model in activities for training for non-qualified persons and persons completing primary education where 200 unemployed persons are planned to be covered in 2020**

In 2017, the National Academy of Public Administration was established as the central institution of the professional development in the administration of the Republic of Serbia – with the status of a publicly acknowledged organiser of activities of informal adult education, which established its competences in 2018. Within the General Training Programme for civil servants in 2019, a special field of professional development was defining – fight against corruption containing several thematic units, including: Prevention of the conflict of interest and control of property of the officials, Integrity Plan and a mechanism for preventing

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corruption (self-assessment of risks of corruption in institutions), Right to Access the Information of Public Importance, Protection of Whistle-blowers. The 2019 General Training Programme for employees in local self-government units, in the field of professional development called GOOD GOVERNANCE, defines, inter alia, training programmes for the following thematic units: Development and Implementation of Local Anti-Corruption Policies; Creation and Implementation of the Ethical Code of Officials and the Code of Conduct of Servants and Appointed Officials in Local Self-Government Units; Realisation of the Right to Access the Information of Public Importance; Whistle-blowing and protection of whistle-blowers.

**4. Idego is publicly recognized organizer of educational activities (JPOA) accredited by the Qualification Agency For 'Online Bookkeeping training'.**

IDEGO. d.o.o. has acquired the status of a publicly recognized organizer of adult education activities (JPOA), for the implementation of the program of non-formal adult education Bookkeeping training, which meets the standards for the implementation of training programs for work in the profession (Solution no. 610-04-059 / 2020/5 of 18.11.2020.). Upon completion of the training, which will be organized through e-Learning, participants are issued a Certificate for partially achieved standard of professional competencies from the qualification standard for the qualification of Financial Administrator.

**5. National University of Nis offers a knowledge test for workers (mechanical, construction, electrical or some other professions)) who work for at least 3 months in the given jobs, but do not have the appropriate document.**

Knowledge testing can also be done online (viber, skype, via the online platform of the People's University, etc.). Conditions for participation in Public Procurement may be the possession of a certificate of professional competence of workers, in cases where the worker does not have the appropriate education.

TOOL/STRATEGY 2

Legal framework

Supporting lifelong learning through better connections between formal, non-formal and informal learning is a main policy objective of the National Qualification Framework (NQF). The development of a system for recognition of prior learning (RPL) is also one of the goals of the Strategy for the development of education 2030. The NQF Law defines recognition of \_\_\_\_\_

prior learning (RPL) as one of the paths for acquisition of qualifications. The Law foresees RPL procedures, based on the standard of qualifications, for qualifications at levels 1, 2, 3 and 5 of the NQFS, and exceptionally at level 4. The arrangements for recognition of foreign qualifications in Serbia are in transition due to new regulations in the 2018 NQFS Law.

Non-formal education is part of the National Qualifications Framework at following levels:

- 2<sup>nd</sup> level – completed basic education and vocational training up to one year, education for work up to two years, or non-formal education of adults for 120-360 hours of training
- 3<sup>rd</sup> level – completed secondary vocational education (three years) or non-formal education of adults lasting not less than 960 training hours
- 5<sup>th</sup> level - completed of master or specialist education in duration of two years or one year and non-formal education of adults lasting not less than six months.

The NQF Law stipulates that the system according to which the qualifications in the NQFS will be classified and coded – CLASSNQFS, is in accordance with the International Standard Classification of Education ISCED 13-F, and contains the names of the sectors, specific sectors and sub-sectors of education and training in which the qualifications are classified and their numerical designations based on which the qualification code is determined. The regulation establishing CLASSNQFS is issued by the MESTD.

According to the NQFS law, development of an NQFS register is foreseen, which will consist of three sub-registers: a sub-register of national qualifications, a sub-register of qualification standards and a sub-register of publicly recognised adult education providers. The data from the register will be open to the public and accessible, in Serbian and English, through the official website of the Qualification Agency (ETF, 2018). There is an electronic qualifications database (30), accessible via the NQFS website, which will form the basis for the NQFS register. The inclusion of qualifications is evolving; by August 2018, 140 qualifications, 86 of which contain qualification standards, had been entered in the database. General qualifications, VET qualifications and HE qualifications have been included. Once the NQFS is referenced to the EQF, all new certificates, diplomas, diploma supplements and Europass qualification documents will be linked to the respective EQF level (European Commission and Cedefop, 2018). An NQF/EQF communication strategy has not been developed. Adapting dissemination

strategies to different target groups and evaluation of implemented strategies could be useful in improving NQF and EQF communication.

### Steps which lead to the creation/development

The system of recognition of prior learning (RPL) is part of the national framework of qualifications and an innovation that should be introduced in the education system in the coming period. It is a procedure that enables the skills and knowledge acquired through non-formal education or many years of work experience to be assessed, evaluated and confirmed by obtaining a public document on the acquired qualification.

Preparations for the introduction of the RPL procedure are being carried out by the Ministry of Education, Science and Technological Development in several steps, the first of which is the piloting of the proposed solutions and procedures. With the support of the project “Development of an integrated system of national qualifications in the Republic of Serbia”, various documents and guidelines were prepared, as well as the Draft Rulebook on standards and the manner of conducting the procedure of recognition of prior learning. The process of recognizing prior learning involves the following activities:

- 1) informing the interested person about the procedure of recognition of previous learning;
- 2) counselling and guidance, support in self-assessment, collection of evidence and development of a portfolio of candidates;
- 3) preparation of a report on the candidate with an evaluation plan;
- 4) conducting examinations according to the candidate assessment plan before the Commission for Assessment of Learning Outcomes and Candidate Competences;
- 5) issuance of a public document, i.e. certificate or attestation;
- 6) quality assurance of the prior learning recognition procedure.

### NQF legal basis

There is one main legal act for the NQFS, the Law on the National Qualifications Framework of Serbia, adopted by parliament in April 2018.<sup>2</sup> Amendments to the Law on the NQFS were adopted in early 2020. The Law on Foundations of the Education System, the Law on Higher Education and the Law on Adult Education are consistent with the NQFS. Based on the Law on the NQFS, the following bylaws have so far been adopted by Ministers:

- Rulebook on the content and appearance of the initiative form for the development and adoption of qualification standards (Official Gazette of RS, No. 53 of April 9, 2020);
- Rulebook on standards of career guidance and counselling services (Official Gazette of RS, No. 43 of June 19, 2019);
- Rulebook on standards and manner of conducting the procedure of recognition of prior learning ("Official Gazette of RS", No. 148/2020);
- Rulebook on the methodology for the development of qualification standards ("Official Gazette of RS", No. 156/2020);
- Rulebook on the content and method of maintaining the Register of the National Qualifications Framework of the Republic of Serbia ("Official Gazette of RS", No. 159/2020);
- Rulebook on the system for classification and coding of qualifications in the National Qualifications Framework of the Republic of Serbia; ("Official Gazette of RS", No. 159/2020). Several other bylaws are expected, including on additional quality assurance mechanisms and external evaluation of Publicly Recognised Organisers of Adult Education Activities (PROAEAs). The education system of the Republic of Serbia is regulated by the following laws:
  - the Law on Foundations of the Education System ("Official Gazette of RS", No. 88/2017, 27/2018 – other law, 10/2019, 27/2018 – other law and 6/2020);
  - the Law on Preschool Education (RS Official Gazette, No 18/10,101/17,113/17–other law and 10/19);
  - the Law on Primary Education (RS Official Gazette, No 55/13,101/17,27/18–other law and 10/19);
  - the Law on Secondary Education (RS Official Gazette, No55/13,101/17and27/18–other law);

Framework for the procedure of recognition of prior learning and ways to acquire qualifications with phases of the RPL procedure, planned project steps and support that will be provided in order to be ready to first engage in piloting, and then in the systematic implementation of the RPL procedure was introduced.

Recognition of prior learning is a process that requires time and a specific preparation of an individual and is therefore a matter of individual choice. From the perspective of an individual, the RPL goals are to evaluate relevant values of prior learning based on experience as well as

to increase self-esteem and self-confidence of an individual who has work experience and no certificate. It is possible to acquire qualifications at Levels I–V through the RPL process, but not as a general rule and will only apply to those qualifications that will be approved beforehand. At Level IV, it is possible to access the RPL process in case of retraining (e.g. a person who has graduated from a gymnasium and has a two-year experience as a business administrator can obtain the Level IV qualification Business Administrator through the RPL process). At Level V, it is possible to access the RPL process in case of additional training (e.g. a person who has graduated from a gymnasium and has a two-year experience as a tourist guide can obtain the Level V Qualification Tourist Guide)

### Functioning, institutes/bodies in charge for the application of the tools/mechanisms/strategies

Different stakeholders are involved in the process of development of the NQFS – business entities and their associations, education and employment institutions, trade unions, state institutions, local government, directors of institutions/organisations, teachers/trainers as well as students/trainees.

In the process of identifying needs for qualifications, interested participants carry out direct activities in sector councils. Sector councils are established by the Council for Vocational Education and Training as its permanent commissions formed within work sectors (areas) according to the Unique Nomenclature of Occupations. Members of a sector council represent: the economy, i.e. the area covered by the council in question, the Chamber of Commerce, occupational chambers, associations of employers, experts in vocational education and training, organisations in charge of the employment issues, the ministries responsible for education, economy, employment, labour and social and youth policy, the association of vocational schools, branch trade unions and higher education institutions.

In the process of the NQFS development and implementation, the main tasks of sector councils are:

- analysing the existing and determining the necessary qualifications within the sector;
- identifying the qualifications that need to be updated;
- identifying the qualifications that no longer meet needs of the sector;

- determining draft Qualification Standards within the sector;
- reflecting on the implications of the National Qualifications Framework on sector qualifications;
- proposing the list of qualifications according to levels and types that can be obtained through the recognition of prior learning process.

### Best practices

In cooperation with the National Employment Service, the most common occupations in which potential candidates for RPL work are analyzed, the qualifications to be included in piloting were selected and proposed, and a number of factors were considered when proposing piloting schools, including school verification for certain areas of work and representation of schools from different districts in areas where a large number of potential unemployed candidates have been identified.

<https://www.zuov.gov.rs/wp-content/uploads/2014/02/NQFS.pdf>

[https://eacea.ec.europa.eu/national-policies/eurydice/content/validation-non-formal-and-informal-learning-63\\_en](https://eacea.ec.europa.eu/national-policies/eurydice/content/validation-non-formal-and-informal-learning-63_en)

A very active VET sector, in connection with the NQF

- The Project IPA 07 on the Modernisation of the Secondary VET System in Serbia has a component dealing with continuing adult education within which one of the possible models for validation and recognition of non-formal and informal learning is developed and piloted. The Project IPA 07 about the Modernisation of the Secondary VET System in Serbia has offered an opportunity to **pilot the foreseen model for the validation and recognition of non-formal and informal learning outcomes**. The VET school in Zrenjanin, about 50 kilometres north of Belgrade, was selected to carry out the pilot because it was willing to undertake the project, had the capacity to do it and had some students belonging to the typical target groups. The pilot was conducted also with the help of the **Department for Continuing Adult Education (a.k.a. Regional Training Centre)**. The model was suggested and developed by the expert of the IPA project in cooperation with the Institute for the Improvement in Education (ZUOV). The director and teachers of the school implemented the model with the coordination and support from ZUOV. The Institute presents this activity as a “learning exercise”. The objective is to learn from the findings and to adapt the validation and recognition

procedures and methods accordingly. The activity started in January 2012 and was meant to be completed in December 2012.

- To some extent, **universities are also involved in validation and recognition of non-formal and informal learning outcomes**. And so, universities are somewhat anticipating the future strategy for education, which is in preparation. For instance, the University of Belgrade has a bylaw that stipulates 36 that the Senate and the Educational-Scientific Council decide respectively which non-formal educational activity can be organised at the University. However, it does not say anything about assessment, validation or recognition. Informal learning outcomes are recognised only in the frame of some master programmes for applicants that are employed by companies, when their everyday job in those companies is relevant to the master programme.
- There are also many organisations that deliver language courses, with some element of recognition of prior learning. If a student passes the test in these organisations, then companies and universities accept their language certificate. The Serbian Chamber of Commerce and Industry, the Belgrade Chamber of Commerce, Workers Universities, and the National Employability Service are all very active in the organisation of non-formal learning. They know which enterprises recognise the learning outcomes of their successful learners. The Ministry of Health is also partly involved in recognition of prior learning outcomes in the framework of courses needed for obtaining a license to practice
- **Very active VET sector in connection with the NQF**  
The concept of occupation, that is qualifications, is the frame for modularisation, and the precise description of the occupation is the basis for creating a module. In the educational system, occupations are presented as clusters of modules – sets of functional and organisationally connected packages, or learning units. The same modules can be a part of different clusters of occupations, and that is a way to provide horizontal and vertical passing in the educational system

In the case of full qualifications, modules are created by dividing occupations into smaller, complex but differentiated parts, according to the criteria of jobs, roles, functions or work competences in certain occupations that could be acquired, assessed but not recognised individually. Modules are verified only as a part of a wider set that leads towards an overall qualification, i.e. occupational competences. This

type of modularisation is being implemented in the school system and is mainly intended for young people, although the possibility to pass individual modules is also given to adults in regular schools, and is available in institutions for adult education. In the case of partial qualifications – i.e. those awarded after validation of non-formal and informal learning outcomes – modules are created by dividing occupations into less complex but differentiated parts, or they are the expression of the labour market“ and enterprises“ needs for specific work competences and training for individual jobs, and specific functions and roles which can be acquired separately and recognised (certificated) individually outside the general qualifications system.

## 2. Greece

In Greece, the situation concerning the alternative pathways available for upskilling are still in a developing stage and does not meet current challenges and trends. Evidence shows that the formal educational system does not allow flexible solutions and practices to be developed in order to cover the need for upskilling, while on the other it is also evident that current crises (economic, social, refugee) have made the development of such alternative solutions rather imperative. Some progress has been made during the last few years in the areas of technical and vocational education, leading to some improvements concerning upskilling. It is still impossible in Greece for a person to have upward educational mobility outside the typical educational system (BASIC, 2018-2020).

The Greek Digital Transformation Bible 2020-2025 (June, 2021), indicates that Greece is moving fast forward in taking advantage of the opportunities of the digital revolution that will greatly determine the development of the national economy and the prosperity of society. It has been understood that Greece needs to shape their own development model in the 4th Industrial Revolution, with an emphasis on human skills and entrepreneurship with the support of digital infrastructure and a digital state. Greece's low performance in the recent European ranking (25th place in all 28 countries), according to the DESI (Digital Economy and Society Index), demonstrates the urgent need for an immediate reversal of the existing image. 30% of the Greek population has no digital skills, while 20% have a very low level. Furthermore, it appears that only 30% of the population has the basic level of digital skills while one in five citizens (20%) respond to advanced level.

The new strategy for a comprehensive development plan for all digital skills and abilities seeks to move to an environment where citizens feel safe and active, the state and its services are effective in serving the citizen, education at all levels education will keep pace with the protagonists in the international digital and pedagogical achievements, the economy and the development of the country adapted to the digital future and in the international competition (Digital Transformation Bible 2020-2025).

Greece has implemented a National Qualifications Framework (NQF) in correspondence with the European Qualifications Framework (EQF) as a principal policy priority in the field of lifelong learning (LLL). It is coupled with information based on the EQF Data Model for Qualifications 2015, in order to allow for uniformity in the structure of information concerning qualifications among European countries. The Hellenic QF aims at creating a single and comprehensive tool for describing and classifying qualifications awarded in Greece, while also determining the relationship between them. The HQF provides a common frame of reference for all Greek qualifications as well as the basis for designing new qualifications in the future.

### National Strategies

In Greece there have been developed several strategies the last decade at supporting the international comparability of learning outcomes acquired in various contexts (formal education, through validation of non-formal and informal learning, through mobility or work experience and voluntary activities).

The most important and crucial step in that direction was the implementation of a National Qualifications Framework (NQF), developed by E.O.P.E.P. (National Organisation for the Certification of Qualifications & Vocational Guidance), in correspondence with the European Qualifications Framework (EQF) as a principal policy priority in the field of lifelong learning (LLL). The Hellenic Qualifications Framework was developed in order to provide a national model system for the accreditation of outputs and set the respective legal framework. The final outcome is a system for the recognition and certification of qualifications acquired via non-formal and informal learning and establishing the framework for licensing awarding bodies. The 8 levels of the Hellenic Qualifications Framework at the moment represent qualifications that belong to the formal educational system and there still many steps towards the validation of non-formal and informal learning, through mobility or work experience and voluntary activities.

The existing upskilling pathways cover only the compulsory secondary education (NQF/EQF level 2) through the Second Chance Schools while there is no pathway for the level 4 (upper secondary education) and of course there is no level 3 at all. The main issue is the over-qualified vs. the under-qualified people. The over-qualified people are those for example graduating from universities and getting more and more skills (through post graduate programmes etc.) while the under-qualified are those in need of support (BASIC, 2018-2020).

On one hand E.O.P.P.E.P. (National Organisation for the Certification of Qualifications & Vocational Guidance) has the responsibility of the certification of qualifications and on the other hand the Foundation for Youth and Lifelong Learning implements vocational training and general adult education programs aimed at the general population of the country, the unemployed and employed, young people and older citizens.

Finally, the "Digital Transformation Bible 2020-2025" strategy, through the National Academy of Digital Skills aims to be the central coordinating hub of all digital education providers, public and private, with the aim of escalating digital actions for the acquisition of digital skills from the whole population. More specifically, it seeks to act as a national portal for digital skills by coordinating, through a homogeneous national business logic, the action plan for the acquisition of digital skills of the entire population at a basic, intermediate and advanced level.

## The Hellenic Qualifications Framework

### Legal framework of the tool

The National Organization for the Certification of Qualifications and Vocational Guidance (E.O.P.P.E.P.) has established the Greek Qualifications Register upon its responsibility for the creation and development of the Hellenic Qualifications Framework and its referencing to the EQF, under the supervision and coordination of the Ministry of Education, Research and Religious Affairs. It comprises the qualifications classified in the HQF and referenced to the EQF, coupled with information based on the EQF Data Model for Qualifications 2015, in order to allow for uniformity in the structure of information concerning qualifications among European countries. The Qualifications Register is already interconnected with the European Portal "Learning Opportunities and Qualifications in Europe" ([ec.europa.eu/ploteus](https://ec.europa.eu/ploteus)) in the section of "Qualifications". Evidently it is an application with the dynamics of constant updating and content enrichment. To this date, 674 qualifications analysed in Learning Outcomes are already included in the Register, described and sent by the respective educational institutions (Awarding bodies). The established Greek Qualifications Register has

been used as a pilot project in order to link the learning outcomes of the qualifications to ESCO skills/competences and is showcased as a best practice example in ESCO launch conference.

From May 30th 2013 to January 30th 2014 all Types of Qualifications that are presented in the following table (Image 1), have been analyzed by respective expert working groups. These qualifications belong to the formal educational system. The group members were appointed by the Ministry of Education and Religious Affairs, the Secretariat for Lifelong Learning, EOPPEP, OAED, the Ministry of National Defense, the Ministry of Tourism, Ministry of Shipping & Aegean, the Ministry of Culture and Sport, Presidents of the Technological Education Institutions (TEI) and the Deans of the Universities.

HELLENIC AND EUROPEAN QUALIFICATIONS FRAMEWORK	VOCATIONAL EDUCATION AND TRAINING	GENERAL EDUCATION	HIGHER EDUCATION
1		PRIMARY SCHOOL CERTIFICATE (APOLYTIPIO DINOTIMOU)	
2		LOWER SECONDARY SCHOOL CERTIFICATE (APOLYTIPIO GYMNASIOU)	
3	VOCATIONAL TRAINING SCHOOL CERTIFICATE (SEK)  VOCATIONAL TRAINING INSTITUTE (IEK) CERTIFICATE		
4	VOCATIONAL SCHOOL (EPAS) CERTIFICATE  VOCATIONAL UPPER SECONDARY SCHOOL LEAVING CERTIFICATE (APOLYTIPIO EPAL)  VOCATIONAL UPPER SECONDARY SCHOOL CERTIFICATE (PTYCHIO EPAL)	GENERAL UPPER SECONDARY SCHOOL LEAVING CERTIFICATE (APOLYTIPIO GENIKOU LYKEIOU)	
5	VOCATIONAL TRAINING DIPLOMA (DIPLOMA IEK)  VOCATIONAL POST-SECONDARY SCHOOL APPRENTICESHIP YEAR (PTYCHIO EPAL MATHITIAS)  TERTIARY AND NOT HIGHER EDUCATION DIPLOMA OR DEGREE (DIPLOMA/PTYCHIO ANOTERAS SCHOLIS)		
6			BACHELOR DEGREE (UNIVERSITY/TECHNOLOGICAL EDUCATIONAL INSTITUTE - TEE)
7			MASTER'S DEGREE
8			DOCTORATE

Image 1 - The 8 levels of the Hellenic Qualifications Framework

The architecture of the HQF is simple and, above all, functional:

**Levels - Learning Outcomes - Descriptors - Types of Qualifications**

The current needs of the country as well as the relevant European and international developments were taken into account when designing the Hellenic Qualifications Framework.

The 8 Levels of HQF cover the entire range of qualifications, from compulsory education to higher education. Each level is defined by descriptions of the knowledge, skills and competence which determine the learning outcomes for this particular level. Learning outcomes, i.e. what a person knows, understands and is able to do upon completion of a learning process, are classified into knowledge, skills and competence. The qualifications have the form of learning outcomes which are classified into levels.

### Steps which lead to the creation/development

1st Phase (2009- 2010): Design, Public Consultation and Legal Establishment.

2nd Phase (2010-2013): Developing and referencing process of the HQF to the EQF.

3rd Phase (2014-2016): Referencing of the HQF to the EQF. Updating of the Referencing Report.

4th Phase (2019 - today): The Hellenic Qualifications Register is updated and enriched with new qualifications content.

### Functioning, institutes/bodies in charge for the application of the tools/ mechanisms/ strategies

E.O.P.P.E.P. (National Organisation for the Certification of Qualifications & Vocational Guidance)

### Best practices

The Hellenic Qualifications Framework (HQF) is a single tool or a mechanism, which facilitates transparency and comparability in the Greek context. It will be a benefit for students, graduates and stakeholders of the Greek labour market. On the other hand, in accordance with the common European strategy “Europe 2020”, which aims at smart, sustainable and inclusive growth the Hellenic Qualifications Framework and its referencing to the European Qualifications Framework provides a tool for “translating” and comparing qualifications and aims at becoming an opportunity to help promote the mobility of learners and employees.

### Citizens

By referencing the HQF, Greek citizens will be able to identify their qualifications in comparison with their fellow citizens across Europe. This fact will raise their awareness and capability about working mobility across Europe by gaining access to a larger labour market.

### **Labour market**

Companies in Greece will be able to have a reference point, regarding the qualifications of future candidate employees from European countries since the HQF is referenced to the EQF.

The current and future aim of the Hellenic Qualifications Framework (HQF) is to include, apart from formal education, a classification of all qualifications obtained from non-formal education and informal learning in Greece.

### **The National Academy of Digital Skills self-assessment tool**

#### **Legal framework of the tool**

The "Hellenic National Coalition for Digital Skills and Employment", in accordance with the "Digital Skills and Jobs Coalition" action of the "A new Skills Agenda for Europe" European policy, was established in May 2018 and operates under the coordination of the Ministry of Digital Government. The aim is to disseminate the European policy on digital skills in Greece, the cooperation of its members to inform and raise public awareness about the need to acquire and develop digital skills, as well as the creation of actions to strengthen digital skills and address the digital divide in all sectors of the Greek economy and society.

1. The Development of a National Digital Capacities Framework and Certification System aims to create a framework for reporting and evaluating harmonization with the European Digital Capacity Framework (Digicomp) with specializations by social group and by category (employees, civil servants, educators, citizens, etc.), in collaboration with relevant European Organizations (Cedefop), will lead to the creation of corresponding digital competency profiles, to the formulation of corresponding educational programs and to the development of the digital competency certification system which recognizes and validates digital competencies.
2. The National Academy of Digital Skills aims to be the central coordinating hub of all digital education providers, public and private, with the aim of escalating digital actions for the acquisition of digital skills from the whole population. More specifically, it seeks to act as a national portal for digital skills by coordinating, through

a homogeneous national business logic, the action plan for the acquisition of digital skills of the entire population at a basic, intermediate and advanced level.

### Steps which lead to the creation/development

The National Academy of Digital Skills as central coordinating hub of all digital education providers, public and private, has developed a platform with several online courses to provide the opportunity to citizens or specialized users to enhance their digital skills and evaluate them. The self-assessment tool (and its results), although designed with the utmost care, is provided solely for the convenience and information of the User, and no express or implied warranty is given as to the completeness and / or accuracy of its results, while the latter (results) do not constitute or can be used as certification of any kind of digital skills level. Based on your individual results, you are given the opportunity to attend selected courses in order to improve your digital skills.

### Functioning, institutes/bodies in charge for the application of the tools/ mechanisms/ strategies

Ministry of Digital Government

### Best practices

#### **Citizens' digital skills evaluation and upskilling**

Citizens can evaluate their level of digital skills and competences through the National Academy of Digital Skills self-assessment tool. Depending on the results they can decide on how to improve their digital skills by choosing through a variety of self-learning online activities (offered by both public and private sector) for each category and level of difficulty. There are five categories of activities (Basic use of information and data, Communication and cooperation, creating digital content, Security, Problem solving) which correspond to five areas of digital skill with three levels of difficulty in each category. Citizens can retake the self-assessment tool in order to check on their progress.

#### **Specialized digital skills upskilling**

The Digital Citizens' Academy provides to specialized users or ICT professionals, the opportunity to choose and attend a significant number of courses that focus on specialized skills, ie skills that are needed in their professional field:

- Lessons for teachers
- Courses for entrepreneurs and business executives

- Communication Networks and Cybersecurity Courses
- State-of-the-art technology courses
- Software design and development courses

Specialized users or ICT professionals can use the National Academy of Digital Skills self-assessment tool in order to assess their level of digital skills.

### 3. Romania

The national education system consists of all state and private educational establishments and institutions of various types, levels and forms of organisation of training and education activity. It is structured in educational levels so as to ensure consistency of training and education according to the age and individual particularities of pupils and students.

The national education system shall comprise the following levels:

- a) Early education (0-6 years) consisting of:
- The ante-pre-school level (0-3 years);
  - Pre-school education (3-6 years), comprising:
    - small group;
    - middle group;
    - big group.
- b) Primary education (ISCED 1) consisting of:
- preparatory class
  - grades I to IV.

The transition from primary to lower secondary education (gymnasium) is conditioned by the promotion of primary education.

- c) Lower secondary education (ISCED 2) comprises classes V to VIII. Access to the upper level shall be achieved through a national evaluation system and through distribution among available upper secondary education establishments.

d) Upper secondary education (ISCED 3) may be:

- high school education, comprising high school classes IX-XN/XNI, with the following branches:
  - Theoretical
  - Vocational
  - Technological, or
- 3-year vocational education. Graduates of vocational education that pass the professional qualification certification exam may attend high school education. Vocational and technical education consists of:
  - vocational education
  - technical education
  - post-secondary education.

e) Non-university tertiary education (ISCED 4) is made up of post-secondary education.

The pre-school, primary, secondary and non-tertiary post-secondary education form the pre-university education system. This system is subordinated to the Ministry of National Education through the county school inspectorates. Within this system, the primary and lower secondary education (binding education of 11 grades) is compulsory for all individuals.

The completion of high school education shall be attested by a certificate of graduation conferring:

- the right to pursue non-tertiary post-secondary education
- the right to participate in the baccalaureate exam
- the right to participate in the examination of attestation of professional competences.

Graduates also receive their personal portfolio for up-to-date permanent education and, upon request, the grades transcript. High school graduates who pass the baccalaureate exam

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receive a baccalaureate degree that gives them the right to attend higher education, under the conditions laid down by the national education law. The baccalaureate exam is a national exam.

The non-tertiary post-secondary education is organised through post-secondary schools and foreman schools and can only be followed by high school graduates – with or without a baccalaureate degree.

In pre-university education, students can transfer between educational institutions, branches, profiles and specialisations, based on the specific rules established by the Regulation on the Organisation and Functioning of Preuniversity Educational Units.

f) Higher education (ISCED 5-8) is organised in universities, academies of studies, institutes, higher education schools, called higher education institutions or universities, provisionally authorised or accredited. High school graduates with a baccalaureate degree can enrol in higher education. Admission conditions differ from one institution to another.

The structure of higher education reflects the principles of the Bologna process:

- Bachelor's studies
- Master studies
- Ph.D. studies.

The Romanian Higher education is coordinated by the Ministry of National Education, respecting the principles of university autonomy. It is organised by:

- universities
- Institutions
- academies of studies
- postgraduate schools.

Higher education organizations typically include a few:

- faculties

- university colleges
- departments
- educational chairs
- research and micro-production units.

The mission of higher education organizations is:

- education and research, or
- only education.

The establishment of higher education institutions can only be done through dedicated laws, according to procedures for accreditation of higher education and recognition of diplomas. Higher education institutions shall establish the admission methodology, according to the general criteria established by the Ministry of National Education.

The specialisations and nomenclature of specialisations are established by the Ministry of National Education in collaboration with the Ministry of Labour, Social Solidarity and Family and after consulting the National Council for Academic Assessment and Accreditation, educational institutions and other interested actors.

At the level of higher education, openness is ensured by the University Charter.

g) Home schooling is done in accordance with the provisions of the National Education Law (Law 1/2011):

- For children, pupils and young people with chronic diseases or with diseases requiring more than 4 weeks of hospitalisation, groups or classes shall be organised, as appropriate, within the sanitary unit where they are admitted.
- For children, pupils and young people who, for medical reasons or because of a disability, are unmovable, home schooling is organised for a fixed period.
- Home schooling, namely the establishment of classes or groups in hospitals are done by the school inspectorate, at the proposal of CJRAE/CMBRAE,

according to a framework methodology developed by the Ministry of Education.

#### Adults' education Legal framework

The main pieces of legislation that regulate Adults' Professional Training system in Romania are:

- National Education Law no. 1/2011, with subsequent amendments and additions;
- Government Ordinance no. 129/2000 on adult vocational training, modified and completed by the Law no. 167/2013 republished in the Official Gazette, Part I no. 110 of 13 February 2014 - By ANC decision no. 57/03.03.2014 the occupational Education and vocational training standard was approved. Specialists will be able to identify the specific activities for an occupation, and also the skills necessary to practice it, at a minimum acceptable level on the labour market, considering the main tasks and responsibilities specific for an occupation, described in the International Standard Classification of Occupations (ISCO), in the Romanian Classification of Occupations (COR) and in the European Classification of Skills/Competences, Qualifications and Occupations (ESCO).
- Pieces of legislation subsequent to GO 129/2000 (on the application norms, methodologies, procedures, classifications and specific lists), by which they are regulated: criteria and procedures for quality assurance of FPA programs;
- Vocational training, evaluation and certification based on competences;
- Evaluation and recognition of the competences acquired in non-formal and informal education contexts;
- Labour Code (Law no. 53/2003 republished, with subsequent amendments and additions) has specific provisions in relation to the vocational training in enterprises and stipulates the companies' obligation to train professionally the personnel every two years (or every three years, for enterprises with small number of employees);

- Law no. 76/2002 on insurance systems for unemployment and employment stimulation, with subsequent amendments and additions; Governmental Decision no. 918/2013 on the approval of National Framework of Qualifications;
- Order of the minister of labor, family and social protection and president of the National Institute of Statistics no. 1832/856/2011 on the approval of the Classification of Occupations in Romania – occupation level (six figures);
- Other pieces of legislation relating to the vocational training regulated at sectoral level. These regulations can refer to the content of training, conditions of access to training, providing training, evaluation and certification of training results. By FPA legislation in Romania, the main European principles related to the transparency of qualifications and recognition of competences and qualifications, regardless of the learning context in which they were acquired – formal, non-formal or informal, have been implemented

Steps which lead to the creation/development

Adult Professional Training in Formal Context

In accordance with art. 2 of the Methodology for authorizing the providers of adult vocational training, approved by Order 353/5202/2003 of the minister of labor, social solidarity and family and the minister of education, research and youth, with subsequent amendments and additions, vocational training providers are authorized to carry out a specific vocational training program by County Authorization committees of the providers of adult vocational training, Bucharest municipality, respectively. ANC coordinates the activity authorizing the providers of adult vocational training, but the authorization proper of vocational training providers is a task of county authorization committees, which are not organizational structures of ANC (in total, there are 42 such functional authorization committees).

The authorization committees consist of representatives of county school inspectorates, county agencies for employment, employers' associations, labour unions, and the County Agency for Payments and social inspection. The Manager of County Agency for Payments and inspection is the chairman of the county authorization authority. It should be borne in mind that, according to adult training law, nationally recognized vocational qualification certificates are issued to the graduates of qualification programs, and nationally recognized graduation

certificates are issued to the graduates of initiation, specialization and retraining programs. National Registry of the Providers of Adult Vocational Training (RNFFPA) is updated by the ANC, based on information submitted by the County and Bucharest Committees for authorizing the providers of adult vocational training county and Bucharest.

#### Adult Professional Training in Non-Formal and Informal Contexts

Romania has developed and implemented a system of evaluation and certification of vocational competences acquired in other ways than formal, since 2004. Assessment and certification can be achieved in the centres of assessment and certification of vocational competences, authorized by the National Authority for Qualifications (ANC) based on the Procedure of evaluation and certification of vocational competences acquired in other ways than formal, approved by the Order of the Minister of Education and Research and the Minister of Labour, Social Solidarity and Family no. 4543/468/2004, with subsequent amendments and additions.

According to the National Education Law no. 1/2011, with subsequent amendments and additions, the ANC assesses and certifies evaluators of vocational competences, evaluators of evaluators and external evaluators and draws up the National registry of certified vocational competences evaluators, evaluators of evaluators and external evaluators. The ANC accredits the assessment centres and assessment bodies, based on evaluation reports prepared by the external evaluators.

Currently, people who wish to be evaluated for recognition of vocational competences acquired in other ways than formal, based on an occupational standard/ vocational training standard, addresses to an authorized center for the occupation/qualification in question. If the person is declared competent, a certificate of vocational competences is issued and vocational competences for which he has been declared competent are mentioned overleaf. If he has all the competences of an occupational standard/vocational training standard, the certificate of vocational competences has the same value as a vocational qualification certificate obtained in formal context, with national recognition

#### Examination and Certification of apprentices

Upon the completion of these courses a graduation exam shall be held in front of a committee consisting of the provider's representatives and specialists outside the training provider.

Students who are not present at the graduation exam or those who do not pass it, receive a certificate of participation in the vocational training program, based on which they can register for sitting another graduation exam, under the same conditions. If the vocational training provider no longer organizes a new graduation exam, participants may ask the county authorization committee to sit the graduation exam to another vocational training provider, based on certificate of participation in the vocational training program.

Depending on the type of program and the forms of vocational training, the authorized vocational training provider can issue the following types of certificates:

- vocational qualification certificate for qualification or requalification courses and apprenticeship training programs organized at the workplace for the qualifications contained in the Nomenclature of qualifications for which vocational training programs completed with qualification certificates can be organized;
- graduation certificate, for courses and initiation stages, retraining or specialization courses and stages, and also for vocational training programs through apprenticeship at the workplace organized for the occupations comprised in Classification of Occupations in Romania for major groups 3, 4, 5, 6, 7 and 8

Vocational qualification and graduation certificates bear the heading of the Ministry of Labor and Social Solidarity and Ministry of Education and Research and are issued by the vocational training provider to the holder under signature, based on the identity document within 30 days after passing the graduation exam, accompanied by an annex in which the acquired vocational competences are specified. In exceptional cases, the certificate is issued to an empowered person, based on a power authenticated by Notary office/consulate.

Qualification certificates issued by the National Authority for Qualifications of the Association for the Support of Unemployed, Dambovită are recognized nationally and in European Union member states, according to the provisions of GO 129/2000, with subsequent amendments and additions. These certificates are issued by the Ministry of Labour and Ministry of Education and are issued to persons who have completed vocational training programs in the following categories:

1. Qualification programs level 1;

2. Qualification programs level 2;
3. Qualification programs level 3.

#### Graduation certificate

Graduation certificates issued by the National Authority for Qualifications of the Association for the Support of Unemployed, Dambovită are recognized nationally and in European Union member states, according to the provisions of GO 129/2000, with subsequent amendments and additions. These certificates are issued by the Ministry of Labor, Family and Social Protection and Ministry of Education, Research, Youth and Sports and are issued to persons who have completed vocational training programs in the following categories:

- Initiation programs;
- Retraining programs;
- Specialization programs;
- Common competences

The front page of the qualification/graduation certificate contains:

- Series and number of certificate;
- Identification data of trainee (surname, first name, CNP, date of birth, place of birth, parents);
- Period when the course took place;
- Denomination of the course;
- Duration of the course;
- Vocational training provider;
- Date when the exam was passed;
- Passing mean of the exam;

- Qualification obtained.

It is signed by the Manager and secretary of the Training center, and also by the president of the examination committee, and an impressed stamp is applied in the upper right corner.

The descriptive supplement of the certificate contains:

- Type of certificate, its series and number;
- Qualification / occupation acquired and its Nomenclature code / COR code;
- Denomination of the training provider that issued the certificate;
- Qualification level and evaluation system;
  - Legal base for issuing the certificate;
  - Level of studies for the participation in the program;
  - Type of training program and its duration in hours;
  - Vocational competences acquired;

It is signed by the Manager and secretary of the Training center, and also by the president of the examination committee.

Also, the organization of vocational training certification is regulated by certification methodology of adult vocational training, approved by joint order of the MMSSF (Order no. 201/2003) and MECT (Order no. 5253/2003).

Certification Methodology of adult vocational training, hereinafter referred to as methodology, includes procedures for organizing and conducting the graduation exam for adult vocational training programs and the procedures for issuing, managing and archiving graduation and qualification certificates with national recognition.

This methodology is applied to training programs organized by authorized training providers as provided by Government Ordinance no. 129/2000, republished, on the training of adults hereinafter referred to as the Ordinance.

Training provider issues the following type of certificate, if applicable, to the person who passed the graduation exam of a vocational training program:

- vocational qualification certificate for qualification or re-qualification programs;
- graduation certificate for initiation, retraining, specialization programs, and also for the graduation of each module, in the case of vocational training programs structured on modules
- Vocational qualification or graduation certificates with national recognition are issued with an annex denominated “Descriptive supplement of the certificate”, in which the vocational competences acquired are specified.

Functioning, institutes/bodies in charge for the application of the tools/ mechanisms/ strategies

National Qualifications Authority - ANC is the main institution in charge with adult professional education. It is a public institution with legal personality, a specialized body coordinated by the Ministry of Education and Science (MECS), founded by the Law of National Education no. 1/2011, published in Monitorul Oficial no. 18 / 10.01.2011, Part I.

Law of National Education no. 1/2011, art. 340 provides the base for the establishment of the National Authority for Qualifications - ANC with responsibilities in terms of developing and managing the National Qualifications Framework, the National Register of Qualifications and the National Register of providers of vocational training for adults. The ANC has also responsibilities in ensuring the compatibility of the national qualifications with other qualifications systems at European and international level, in developing proposals to MECS regulatory actions relating to the qualifications system and human resource development, including training of adults.

The legal framework for the organization and functioning of the National Qualifications Authority is ensured under Government Decision no. 556 of 25 May 2011 (on the organization and functioning of the National Authority for Qualifications), amended and supplemented by GD no 780 of October 16, 2013.

[Best practices](#)

## 1. Consolidation of the professional and technical education, and especially the on-the-job-training component

As regards the consolidation of technical and vocational education and training, especially the on-the-job training component, the 2020 Report on the implementation of the Strategy of Romanian Vocational Education and Training for 2015-2020[1] has been drafted.

At present, the draft National development strategy for the vocational training of students in dual education 2021-2025 is being updated, and its calendar and how it will be endorsed/approved will be determined soon.

With regard to the projects funded under the Human Capital Operational Programme, i.e. Traineeships for school students and university students, which support on-the-job training for university students and students in lower secondary education, high-school education and post-secondary education, including the foremen schools, 38 projects have been completed, and other 50 are under implementation.

The Ministry of Education has drawn up the fiche of the non-competitive project Systemic development of vocational and technical education and training in accordance with the socioeconomic development needs at national, regional and local levels. The project aims to apply some measures designed to improve the relevance and the quality of the technical and vocational education and training system (TVET), in accordance with the development needs at national, regional and local levels and in close cooperation with the stakeholders.

## 2. Consolidation of the professional and technical education, and especially the on-the-job-training component

The vocational education and training programmes are adapted to the needs for competences and the trends in the labour market, so as to respond to the priorities of national economic and social development.

Phases for school year 2020-2021:

- Implementation of the Strategy for Romanian Vocational Education and Training 2015-2020, with the completion of: 2020 Action Plan.
- Implementation of the Master Plan 2015 – 2020 with a view to putting into practice the apprenticeship programmes in the initial vocational training system (In the

project DALIVET funded by Erasmus+ and implemented by the National Centre for the Development of Vocational and Technical Education).

- Developing the National Strategy for the Development of Vocational Training for Students in Dual Education 2021-2025. For the development of this Strategy an analysis will be conducted on the state of dual education over the last 3 school years, as from the 2017/2018 school year, in order to identify issues, models for good practices and development opportunities.
- Implementation of the projects under the call for proposals Traineeships for school students and university students, which provides support for on-the-job training programmes for university students and students in lower secondary education, high-school education and post-secondary education, including the schools of foremen. The projects are intended to achieve the following (88 projects have been contracted for implementation in the period 2018-2020):
  - to develop partnerships/conventions between organisers (school education establishments/higher education institutions) and training partners (potential employers of future graduates, especially with entities from economic sectors with a competitive potential and in intelligent specialisation fields);
  - to organise and carry out on-the-job training programmes (internship/traineeship, practical training, technological laboratory etc.), including practice enterprise activities (in compliance with the methodologies applicable to each type of activity);
  - to provide career counselling and guidance services for school students and university students, focused on the acquisition of competences which meet the needs of the labour market;
  - to pilot innovative solutions for facilitating practical training, innovative counselling, guidance, and competence assessment instruments, including through ICT;
  - to organise traineeships in the EU Member States. (Duration for the implementation of the projects: 9 - 24 months).

- The project The key to the future is made by you!, funded by Norwegian grants 2014-2021, has been contracted and implemented.
  - Objectives:
    - § reducing the risk of social exclusion for high-school and lower secondary students;
    - § promoting and supporting the integration of students in dual education;
    - § providing long-term support to communities through information, training and counselling for 470 teachers, educational and social specialists, parents.

#### 4. Italy

##### Validation and certification of skills

In Italy the most important **framework for validation and recognition of the qualification** is the “Legislative Decree on the national system of certification of skills and validation of non-formal and informal learning”

1) Legislative Decree on the national system for the certification of skills and validation of non-formal and informal learning which sees the light on January 16, 2013 (<https://www.gazzettaufficiale.it/eli/id/2013/02/15/13G00043/sg>)

*a) clear and institutional glossary definition on concepts such as: skills; formal, non-formal and informal learning;*

*b) identification of responsible parties and holders of the public certification system; validation of learning; skills certification*

*c) definition of 3 types of standards for validation and certification services: process standards (how certification and validation services are provided); certification standards (what is released, what information "travels" in the certificates and how it remains traceable); system standards (who does what and with what guarantees of adequacy, quality and protection of beneficiaries)*

*d) Institution "National Directory of education and training qualifications and professional qualifications" which constitutes the unitary reference framework for the certification of skills*

*National Repertoire is made up of all the repertoires of education and training qualifications, and professional qualifications issued in Italy by a holder or issued following an apprenticeship contract*

The Qualifications in the National Repertoire: organized in three sections:

Second cycle of education

High school education

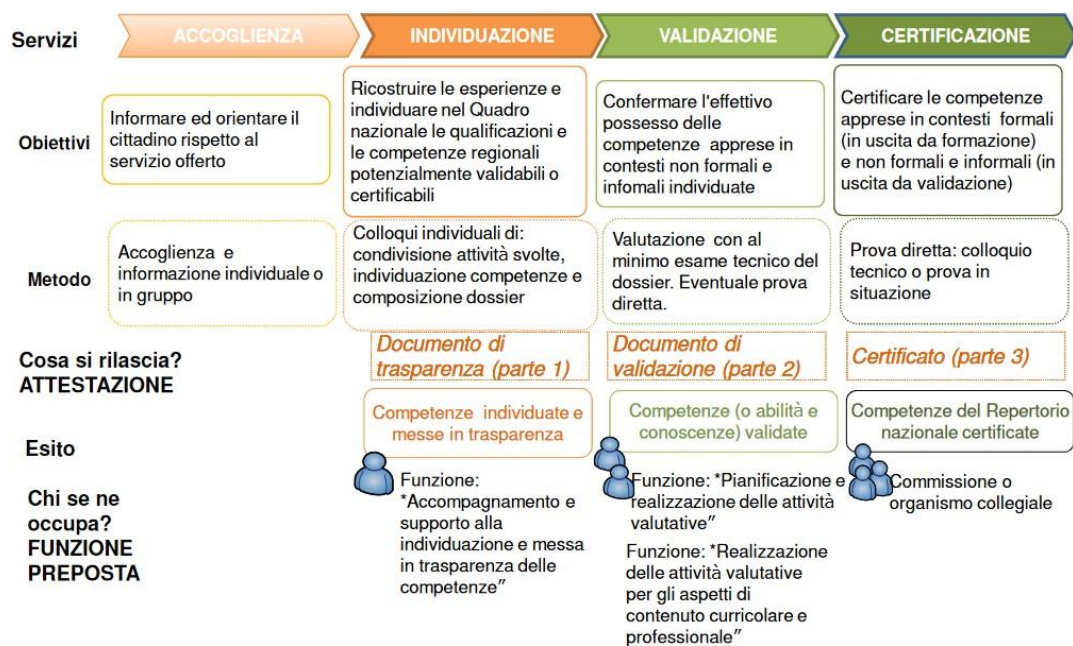
Regional vocational training and IFTS

[https://atlantelavoro.inapp.org/repertorio\\_nazionale\\_qualificazioni.php](https://atlantelavoro.inapp.org/repertorio_nazionale_qualificazioni.php)

2) Definition of an operational framework for the national recognition of regional qualifications and related competences, within the National Directory of education and training qualifications and professional qualifications referred to in Article 8 of Legislative Decree 16 January 2013, n. 13

(<https://www.gazzettaufficiale.it/eli/id/2015/07/20/15A05469/sg>)

**Schema riassuntivo degli standard in linea con il Dlgs 13/2013 e il Di. 30 giugno 2015**



### 3) <https://valico.inapp.org/>

#### Best practices

*practices of Identification, Validation and Certification of Skills collected in the INAPP (Public policy Innovation) archive for the years 2007/2012*

<https://valico.inapp.org/elenco-pratiche-2007-2012/>

Skills validation *Skill-Inn: skills per l'innovazione*

<https://valico.inapp.org/skill-inn-skills-per-linnovazione/>

*The Skill-Inn project is aimed at building a device for the recognition of skills acquired through a non-formal and informal learning process. The project was managed by Confindustria Veneto SIAV Spa and involved the design of a model based on different methodological steps (structured interview to profile the recipient of the intervention, acquisition of the most relevant information on the person (or persons) interviewed, identification of skills mainly related to innovation and association processes of an EQF level for each competence).*

4) Decree January 5, 2021 (<https://www.lavoro.gov.it/documenti-e-norme/normative/Documents/2021/DI-del-05012021.pdf>) - legislative decree for the adoption of the Guidelines that make the National Skills Certification System operational. (Provisions for the adoption of guidelines for the interoperability of public bodies holding the national skills certification system)

<https://www.lavoro.gov.it/notizie/Pagine/Sistema-nazionale-di-certificazione-delle-competenze.aspx>

## 5. Cyprus

### The third system on the Recognition of Qualifications Law of 2004

#### Legal framework of the tool

The law on the “Third system on the Recognition of Qualifications of 2004” is a typical example of harmonization meaning the need for each Member State which enters the EU to align crucial aspects of its national legislation with the EU acquis (Cyprus entered the EU in 2004). The law could be characterised as an “umbrella” regulatory framework which sets the

basic terms and conditions under which an individual (native or EU citizens) may request the recognition and validation of his/her vocational competences and qualifications.

### Steps which lead to the creation/development

The basic procedure under this legislation instrument is the following:

1. The Republic of Cyprus publishes and periodically updates catalogues of professions (can be found in the law's ANNEX), ranking of vocational qualifications depending on quantitative (years of experience in a specific job, field or activity) or qualitative criteria (certificates etc.). Especially the second type of criteria -certificates- is closely related to DigitA's scope since it inserts the concept of "competences" beyond typical professional experience or studies. It is noted that the law explicitly refers to vocational training qualifications, among others.
2. The authorized body cannot deny the recognition of competences acquired in another EU member state listed in the above catalogues except if there is significant deviance from the law's prescriptions. The authority has the discretion to ask for more information or documents from the applicant.
3. If no other issue rises, the applicant is granted recognition of his/her qualifications

### Functioning, institutes/bodies in charge for the application of the tools/ mechanisms/ strategies

The Department of Labour of the Ministry of Labour and Social Insurance is the competent authority to run and monitor the above procedure. It is actually named as the *"National Stakeholder for the purposes of the application of the law [meaning the recognition law]"* Το Τμήμα Εργασίας του Υπουργείου Εργασίας και Κοινωνικών Ασφαλίσεων ορίζεται ως Εθνικός φορέας αναφοράς για σκοπούς εφαρμογής του παρόντος Νόμου.

In case of rejection, the applicant may address an appeal to the Supreme Court of the Republic of Cyprus.

In matters of National Strategy, the Cabinet of Ministers appoints a person of their choice as National Coordinator of the overall procedures. He/she is the contact person for the European Commission to which he/she is charged with sending a report every two years.-

### Best practices

The **Final Action Plan** which was created by the University of Cyprus along with consulting firms, (after being assigned by the authorities of the Republic of Cyprus) within the framework

of the **National Strategy for the Inclusion of Migrants** may be considered as a best practice regarding the above mentioned legal tool.

Axon 1 of the Final Action Plan sets the general framework of this best practice. Specifically:

1. It initiated the Development of a System of Recognition of Prior Learning based on 4 steps
  - a. Information
  - b. identification
  - c. Assessment
  - d. Certification

What is important regarding the specific best practice is that it takes as a base the aforementioned legal tool and through the parallel interpretation of the migration/refugee legislation it expands the law's beneficiaries beyond natives and EU citizens.

### The National Qualifications Framework

#### *- Legal framework of the tool*

According to the [Referencing of the Cyprus Qualifications Framework to the European Qualifications Framework for Life Long Learning National Report](#) issued by the **Ministry of Education and Culture in 2017:**

*“The European Qualifications Framework is a reference framework whose aim is to relate the qualifications systems of various countries. In order to facilitate this effort, each Member State is expected to develop a National Qualifications Framework. Therefore, the Council of Ministers, with the Decision number 67.445 of the 9<sup>th</sup> of July 2008, decided the appointment of a National Committee for the Development and Establishment of a National Qualifications Framework in Cyprus, which consists of the General Director of the Ministry of Education and Culture (President of the Committee), the General Director of the Ministry of Labour and Social Insurance and the General Director of the Human Resource Development Authority or their representatives.*

*The National Committee has appointed a three-member Working Committee for the preparation of an Interim Report on the development of a National Qualifications Framework in Cyprus, which consist of representatives of the three members of the National Committee.”*

*Additionally the Committee's objectives are:*

- The recognition and validation of Qualifications*

- *Mobility*
- *Quality assurance of education and training programmes*
- *Promotion of lifelong learning*

#### Steps which lead to the creation/development

- *Study the examples of other countries that have already developed and established National Qualifications Frameworks.*
- *Develop the National Qualifications Framework of Cyprus based on the eight levels of the European Qualifications Framework in order to ensure the smooth referencing of the NQF to the EQF.*
- *Take into account the traditionally and socially acceptable norms and frameworks of Cyprus, as well as the reservations regarding the validation of informal and non-formal learning*

#### Functioning, institutes/bodies in charge for the application of the tools/ mechanisms/ strategies

The members of the National Committee are:

- *Permanent Secretary - Ministry of Education and Culture*
- *Permanent Secretary - Ministry of Labor and Social Insurance*
- *Director General Human Resource Development Authority*

The Committee steers and approves the development of the National Qualifications Framework with the accompanying Standards, Learning Pathways and Quality Assurance procedures.

#### Best practice

The [Validation of non-formal and informal learning \(VNFIL\) procedure of the Human Resource Development Authority of Cyprus](#) (HRDA) is strictly based on the National Qualification Framework and applies in a very concrete and well structured way its principles and criteria in specific and crucial fields of the Cypriot Economy. What is important to note is the width of the body's target group: workers, unemployed and economically inactive.

According to the official website of the authority, the beneficiaries are “*citizens of the Republic of Cyprus or citizens of any other European Free Trade Association Member State or people who have the same rights as the above categories and who legally reside in the areas controlled by the Republic of Cyprus have the right of free access to the labor market of Republic of Cyprus.*”

The followed steps that the HRDA takes are:

- Stage 1: Determine learning outcomes obtained through formal and / or non-formal and / or informal learning
- Stage 2: Documentation of learning outcomes obtained through formal and / or non-formal and / or informal learning
- Stage 3: Evaluation of learning outcomes acquired through formal and / or non-formal and / or informal learning
- Stage 4: Certification of Vocational Qualifications acquired through formal, non-formal and informal learning

## 7. Spain

Spain has two main systems in place to certify and organise competence qualifications. These are the only two systems which are valid in all 17 autonomous communities and the 2 autonomous cities of Spain.

### Marco Español de Cualificaciones (MECU)

One of the tools is the *Marco Español de Cualificaciones* (en: Spanish Framework for Qualifications). The Spanish framework was developed according to the European Qualifications Framework (EQF) to allow for easier transition of certificates across EU countries. The framework was set by the Ministry of Education and Vocational Training. It certifies knowledge obtained in formal as well as specific non-formal education (professional training, work experience, collaboration with NGOs,...). The MECU system is also separated into 8 levels with the first four levels covering basic and mandatory education as well as vocational training. Level 5 to 8, also called the *Marco Español de Cualificaciones para la Educación Superior* (MECES, en: Spanish Qualifications Framework for Higher Education), focus on vocational as well as tertiary education (university, etc.).

While it does structure Spanish certifications and qualifications according to the European framework, it does not provide new certificates but only classifies which certificate adheres to which level in the European framework to enable easier cross-European qualifications.

### Instituto Nacional de las Cualificaciones (INCUAL)

Spain does provide a certification system for professional and vocational competences. It is provided by the *Instituto Nacional de las Cualificaciones* (en: National Institute of Qualifications) and was founded after the Royal Degree 375/1999 from March 5<sup>th</sup> of 1999 by

the Ministry of Education and Vocational Training. INCUAL aims at structuring, organising and observing professional competences and qualifications and developing a system which is recognized in all autonomous communities and cities in Spain.

INCUAL provides a catalogue of professional qualifications, which is continuously developed and updated. The catalogue includes 26 sectors, for example including Physical Activities and Sports, Commercial and Marketing, Energy and Water, Personal Image, Health, Sociocultural and Community Services and Glass and Ceramics, among others. In May 2021 the catalogue covers 687 qualifications across 26 sectors. All qualifications are valid in all communities and cities of Spain.

To verify a certification as part of the INCUAL system, the qualification is separated into two sectors: *Unidades de Competencia* (en: Competency Units) and *Referencia Formativa* (en: Training References). The Competency Units take into account the level and denomination of the learned competences, professional achievements, performance criteria, professional context, production, results and information/knowledge used or generated. The Training References focus on the acquired capacities, evaluation criteria, skills acquired in the actual work environment, content, duration, location and resources of the training and the professional profile of the trainer (work experiences, education, etc.). Once all these factors have been determined, they are structured into three levels, determining their final level of competency in the INCUAL catalogue of professional qualifications.

INCUAL works with local institutions across Spain to guarantee the overall recognition and validation of all the qualifications (for example the *Instituto Andaluz de Cualificaciones* for the autonomous community of Andalusia).

INCUAL is the first and the best practice currently implemented in Spain. Through its collaboration with local and regional institutions it is able to guarantee its validation of qualifications across Spain. This is essential due to the challenge of organising the different frameworks of certifications, education and training in each autonomous community in Spain. Due to each community being able to set their own priorities in education and training, based on the general pre-set of the national authorities, each autonomous community usually has very different criteria on certification, recognition and qualifications. The MECU and INCUAL systems allow for recognition of formal as well as non-formal education across Spain and in relation to other member states of the European Union.

## II.D DigitA tools for Assessment, Validation and Recognition of skills acquisition

### Assessment tools and strategies

The design of the assessment on the DigitA e-learning platform includes a Quiz Assessment at the end of every Unit in each Module. After finishing each Quiz Assessment, the learners are informed about their scores and they can gain access to all the correct answers in case they gave wrong answers during the test.

Using the Quiz Online Assessments provided flexibility to easily create assessments for each of the Units, while also allowing learners to take the assessments at their own convenience.

Online assessments can also give the opportunity for learners to interact and collaborate with their peers during online discussions, reflection exercises, self and peer review, and group work. Such assessments provide students with a detailed record/portfolio of learning that they can use to showcase their achievements.

Some advantages of using online assessments include:

- Easy identification of areas of learner misunderstanding and misconceptions
- Flexibility that allow learners to take a test from anywhere and at any time
- Offering new possibilities for interactivity
- Providing detailed and immediate feedback
- Facilitating enhanced social interactions
- Facilitating the exposition of advanced skills and capabilities
- Increasing grading accuracy
- Providing repeated opportunities for learners to practice understanding when online quizzes or assignments can be repeated multiple times
- Storing and reusing of assessments
- Shuffling and randomizing assessment questions and options

The assessment application (online Quizzes) provided by DigitA e-learning platform could evolve and expand with new characteristics that will create new features for the Assessment, Validation and Recognition of skills acquisition of the learners. The following features could be implemented:

### *Library of questions*

All questions will be part of a library.

## *Categorisation of questions*

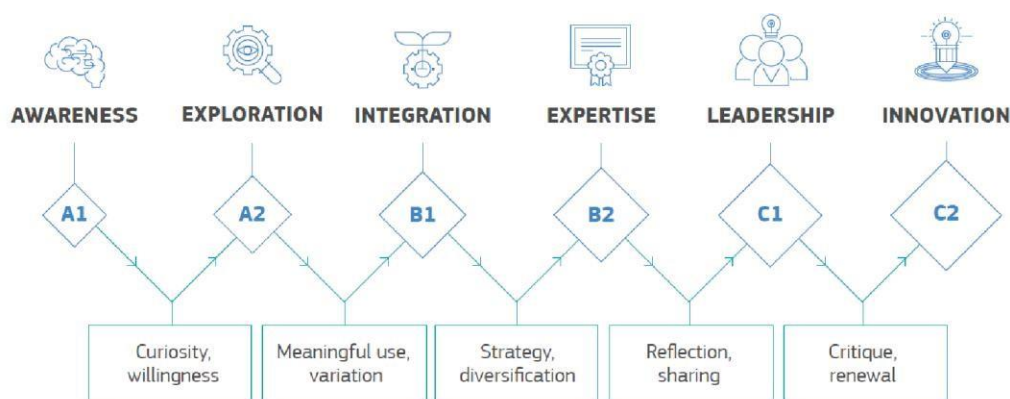
### *Relevance of content*

Every question will be assigned to a certain category corresponding relevance of content e.g. one question is assigned to Module 1/Unit 2/Topic 1.

### *Level of difficulty*

Every question will be assigned to a certain category corresponding relevance of content and level of difficulty, e.g. one question is assigned to A1 level of difficulty.

Levels can be defined in accordance to the 6 levels of DigiCompEdu Framework using the taxonomy of the Common European Framework of Reference for Languages (CEFR), ranging from A1 to C2.



## *Compilation of quizzes*

Every time learners trying to take a Quiz there is a random pick of a certain number of questions and a unique Quizz is being created.

## *Categorisation of the scores*

Every score that learners achieve will be described by a scale 0-100%. There can be 6 levels of scores (A1 to C2) in accordance with DigiCompEdu

## *Providing essential feedback*

Since every question belongs to a content category (Module/Unit/Topic) when the learners provide a wrong answer they could receive feedback about which parts of the contents should be revisited in order to improve their knowledge, skills and competences on the subject.

## *Awarding skills acquisition*

At the end of every quiz learners could receive a kind of special report or certification (or both) that will help them recognize the level of their knowledge, skills and competences and an analysis of their learner profile (A1 to C2) based on the answers they provided.

### Best practices in partners' countries

#### Italy

The national initiatives in the field of innovation and digitization, with specific declinations in digital skills, have had greater impetus recently. In 2019 the then Minister for Technological Innovation and Digitization presented the [National Innovation Plan 2025](#) which offers the vision and strategy that will guide the country's technological, inclusive and sustainable development. A call to action is then launched for public and private stakeholders in favour of initiatives on digital skills, thus the [Manifesto of the Digital Republic](#) is born; those who join it undertake to implement concrete and measurable digital inclusion initiatives, in terms of results. Digital Republic is included by the Minister for Technological Innovation and Digitization in the 2025 document as the national strategic initiative for the development of digital skills. After having achieved a first and important milestone, by adopting the National Strategy for Digital Skills, Italy now has its [Operational Plan](#).

There are four axes of intervention: Higher Education and Training, Workforce, ICT specialist skills, Citizens. In particular, in the field of higher education and training, the Plan intends to implement an integrated training program of the Ministry of Education, aimed at all school staff, on integrated digital teaching and digital transformation of the school organization; Design the digital curriculum to evaluate and certify students' skills in schools, according to the DigComp framework; Strengthen university training courses strongly oriented towards industrial research and innovation.

<https://repubblicadigitale.innovazione.gov.it/assets/docs/Appendice1-Istruzione-e-Formazione-superiore.pdf>

Within this national strategy, the initiative of the Digital Business Points of the Italian Chambers of Commerce is also included, which for 4/5 years have already been involved in raising awareness, informing and providing first assistance on digital transformation. SMEs, entrepreneurs, young people, schools. Among the tools for assessing and self-assessment of the level of digital maturity, the digital promoters of these PIDs use the Digital Skill Voyager.

#### Digital Skill Voyager

A new tool prepared by the Digital Business Points of the Chamber system to measure their digital skills; is one of the digital assessment tools offered by the digital enterprise point (Selfie and Zoom to measure the degree of digitalisation of the company).

Digital Skill Voyager is a real online test designed especially for students, workers and young managers and more generally for all those who are looking for a specific preliminary tool to measure their digital skills by enhancing them on the job market.

It is set up with the techniques of gamification: the user will face a journey through time that will lead from Prehistory to the Renaissance, and then take a leap into the future ... II all in a digital key! Despite being an effective and rigorous instrument, its execution is fun and dynamic.

<https://www.dskill.eu/>

## Cyprus

Center for Social Innovation has cooperated with an Erasmus+ transnational partnership on project [“Go Digital”](#) to create an Assessment Tool of adult educators’ competencies to encourage female employment in the digital sector of the labour market.

According to the deliverable **IO2/A3 – Guidelines for developing the questions for the effective self-assessment tool:**

*“The Assessment tool will be developed as a digital test to evaluate the impact of the learning process. It will be based on the questions related to the specific and basic competences of adult educator needed to become a coach. Thus, the questions have to be formulated in the way to cover the core soft skills for each of the six defined competences.*

*This test will be completed by learners in the beginning (pre-assessment) and at the end of the learning process (post-assessment).*

*The methodology of development of the effective self-assessment tool with the learning aspect includes possibility for learners to get a clear explanation of correct answer; it will appear after answering each question in any case (if the answer was correct or incorrect). It gives the possibility to learn continuously, thus the Assessment tool has also an educational value in line with supporting for recognising of the adult educators’ competences.*

*The training programme contains 6 competences; each competence consists of 5 skills -which means 30 skills in total. The Assessment will include 60 questions, which means 2 questions per skill.*

*The six core competences of adult educators-coaches are grouped into two clusters according to those that fit together logically based on objectives of the training course for coaches: specific and basic. Specific competences of the coach are related to promoting gender balances in digital sector through education.*

*Specific competences of the adult educator-coach:*

- *Understanding of gender equality (LWLO)*
- *Understanding of importance for women to be employed in the digital sector (CSI)*

*Basic competences of the adult educator-coach:*

- *Meeting ethical guidelines and professional standards (IVC)*
- *Establishing a trust-based relationship with the women-learner (MAGENTA)*
- *Communicating effectively (DANMAR)*
- *Facilitating learning and its results (IMC)*

*Each partner organisation has to provide 10 questions in total for the skills of the competence for which has already worked on. This means to choose, review and modify if necessary, a question (for each skill) already created for the training course AND develop an additional new question for each skill. Each question will contain an explanation that will appear with the answer.*

*Question no. 1: The 1st question for each skill will be taken from the questions that have already been developed during the development of the training course.*

*Question no.2: The 2nd question for each skill will have to be newly developed.*

*More precisely:*

<b>LWLO</b>	<p><i>10 questions related to “Understanding of gender equality”</i></p> <p><i>1 old modified question per skill</i></p> <p><i>1 new question per skill</i></p>
<b>CSI</b>	<p><i>10 questions related to “Understanding of importance for women to be employed in the digital sector”</i></p> <p><i>1 old modified question per skill</i></p> <p><i>1 new question per skill</i></p>
<b>IVC</b>	<p><i>10 questions related to “Meeting ethical guidelines and professional standards”</i></p> <p><i>1 old modified question per skill</i></p> <p><i>1 new question per skill</i></p>
<b>MAGENTA</b>	<p><i>10 questions related to “Establishing a trust-based relationship with the women-learner”</i></p> <p><i>1 old modified question per skill</i></p> <p><i>1 new question per skill</i></p>
<b>DANMAR</b>	<p><i>10 questions related to “Communicating effectively”</i></p> <p><i>1 old modified question per skill</i></p> <p><i>1 new question per skill</i></p>

<b>IMC</b>	<p>10 questions related to “Facilitating learning and its results”</p> <p>1 old modified question per skill</p> <p>1 new question per skill</p>
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### Sample Question and Answers

#### Question:

*The possible benefits of the digital jobs are limited to specific regional areas.*

*Choose the right answer:*

- A. TRUE
- B. FALSE

*Correct answer: B. You have provided the correct answer!*

*Incorrect answer: A. Your answer is not expected. The correct answer is: B.*

#### Explanation:

*Women in both rural and urban economies, who are often the primary caregiver at home and try to supplement household income, can benefit from more flexible work and employment types (for instance, female entrepreneurship).*

*OR*

*Women living in specific regional areas (rural) often face challenges because of the dismantling of the former social and economic structures. However, one of the benefits of digital jobs is that it allows remote working, where gender may not matter as much as in the physical economy. This is the case no matter where you choose to live.*

*To present the Questions please fill in the template:*

<i>Question</i>
<i>Answers</i>
<i>Correct Answer</i>
<i>Explanation</i>

## Spain

The Spanish partner, Asociación Caminos, developed a qualification and competence evaluation tool according to the Spanish National Framework (MECU) and the European Qualifications Framework (EQF). It is structured into three levels: Basic, Intermediate and Advanced. It can be adapted to any field of work or education and is based on the definitions of the first three levels of the European Qualifications Framework. The areas of competency are defined according to the Spanish Qualifications Framework (MECU), with digital skills being covered through the “Digital and Communication Skills”.

The system works according to the Knowledge – Skills - Responsibility and Autonomy (Competency) levels:

	Knowledge	Skills	Responsibility, Autonomy (Competency)
<b>Description</b>	Acquired knowledge through learning; theory, principles and related practices regarding a specific field of work or study	Ability to apply/implement the acquired knowledge, complete tasks and find solutions	Ability to utilise knowledge, skills and one’s personal and social abilities in work and study situations independently

<b>Level 1</b>	Basic knowledge of a topic	Basic ability to effectively complete simple tasks	Work or study under direct supervision in a structured context
<b>Level 2</b>	Basic knowledge and facts in a specific field of work or study	Cognitive skills and basic abilities necessary to effectively use acquired knowledge to complete tasks and solve problems	Work or study under supervision with a certain degree of autonomy
<b>Level 3</b>	Knowledge of theory, principles, processes and general concept in a specific field of work or study	Cognitive and practical skills necessary to perform tasks and solve problems by selecting and applying methods, tools, materials and learned information	Independent responsibility for the performance of tasks in work and study. Ability to adapt to unforeseen situation without supervision.

Learners shall be evaluated according to these key points through questionnaires to evaluate the knowledge part of the system or through their ability to complete tasks, enabling an evaluation of skills as well as their own capability to adapt and solve problems on their own.

### III. Future policies & initiatives. Policy papers & Recommendations

#### III.A Definitions and scope

This guide is intended to be used also as a road map for policy and decision makers on the development of future training initiatives at national and European Context. The current project and this Guide are expected to serve as a good example of implementation of a wide range of EU policies and directives related to training provision, accreditation, certification as well as social cohesion, socio-economic development and EU advancement.

The following policy guidelines outlined in the following paragraph intends to provide instructions and inputs on how policy advices and guidelines should be prepared and drafted pointing out the main elements that should be taken in consideration when structuring an online learning environment in different areas. The inputs provided are thought to be addressed to groups, persons and other stakeholders interested to influence policy makers and persons that has the authority to take policy decisions, whether that is a minister, a member of parliament, a local authority, parliamentary committee or other public body such as a health or education agency.

### III.B Policy Guidelines

#### 1. Identification of the issue for that particular sector

When carrying out a project it is very important to know to whom it is directed and to know the needs of that particular sector. The creators of the project have the responsibility to investigate and know these needs when programming.

Often in digital projects the following problems arise:

- *poor digital accessibility (connection, IT equipment)*
- *learning difficulties for IT and innovative subjects*
- *difficulty in involving and sharing, especially if to be achieved with very innovative tools, methodologies and dynamics*

Therefore, before carrying out the project activities, we must be informed of the resources that can be accessed. To do this, we must know the target audience of the project. In order to find out the needs of the target audience, meetings could be held with each of them, surveys, etc.

Even if the activities can be carried out in person, we should look for a space that has the necessary digital tools.

#### 2. Target groups

In order to identify the most suitable educators and trainers, it is necessary to contact training bodies and agencies (public and private) that have the experience and background to carry out this activity.

The possibility of making use of digitally competent educators who integrate their training activity with DigCompEdu means being able to guarantee better training to potential final beneficiaries of national and local active labour policies.

Among the potential final beneficiaries of adult training:

- a) aspiring entrepreneurs, in particular disadvantaged individuals who have left the labour market*

*b) workers who need to update their skills and / or acquire new ones (upskill- reskill), especially for the professions of the future*

*c) women, favouring their access to work and business opportunities other than traditional ones (services, commerce, tourism).*

In order to guarantee an optimal online learning environment that is truly functional to the needs of the recipients (educators) and final beneficiaries (aspiring entrepreneurs, women, etc.) it is necessary to involve them first.

This involvement can be achieved through the administration of online questionnaires, surveys, in orientation and updating meetings, in meetings with their associative representatives.

### 3. Sector of intervention

Being able to count on competent educators trained in digital technologies, decision makers will have to be able to direct them towards sectors that guarantee a greater social and productive impact.

Among the possible sectors in which to insert these professional teachers:

*a) **funded training** (inter-professional funds) in which companies offer continuous and specialized training to their employees (educational institutions and agencies)*

*b) **business start-up support**: the territorial offices of the regional agencies for active employment policies (the former employment centers); branches and new business services of the Chambers of Commerce; regional agencies that support the competitiveness and economic growth of the territories (facilitations for business start-up, European planning, technical assistance)*

*c) **adult training through the school education sector and structures**: Provincial Center for Adult Education (C.P.I.A.).*

Decision makers can facilitate contact between professional figures and these possible entities (companies, chambers of commerce, educational institutions) through the implementation of specific actions such as:

- *stipulation of agreements*

- *collaboration agreements*

- *creation and promotion of lists of certified educators and trainers, especially online (platform).*

#### 4. Methodology definition

The definition and specification of principles, standards, training methods and techniques in order to enhance the learning procedure. More specifically the methodology should take under account the certain characteristics of the e-learning process of training in such a way so as to lead to the acquisition of the desired knowledge, skills and competences that are defined in the previous step (Training learning objectives). Finally, there is a need to include adult education principles and pedagogic principles for e-learning in the development of the training methodology.

#### 5. Content production

After taking account of the previous steps (learning objectives and methodology definition), at first the content is divided in different Modules/Units/Topics (or other ways of categorisation) and then the Course Modules' Outlines are implemented in order to provide a clear overview of the content roadmap development. The content development should include the assessment strategies and the tools that are going to facilitate the assessment process of knowledge, skills and competences of the learners. The development of the content should follow principles and guidelines of e-learning in order to be interactive, easy to use and understand, exciting and engaging for learners (visual segmentation of the content using icons, etc.). The content should be checked thoroughly in terms of quality with the aid of appropriate tools that could be used or developed.

#### 6. E-learning environment set up

The online learning environment will be the tool used for the transfer of concepts and information addressed to facilitate the acquisition of new knowledge or the development of skills by the people who will attend the course. Before starting with the technical steps which will lead to the creation of your online platform, it is relevant to have a clear picture of some core elements:

- **What is the main aim of your E-learning environment?**

- **Who are the people of your target group?** Final beneficiaries: The structure of the platform, elements characterizing it, dynamics, flow and contents should be tailored

according to the specific needs of the people attending the course. (I.E. Youngsters feels usually more engaged using interactive, visual and fun features – videos, quizzes, serious games, etc.).

- **What are the topics covered?** the E- learning environment's structure should be drafted according to the specificity of the topics covered (Some topics could be better treated through formal education tools, some others could require exercises and lectures stimulating the reflection, or being more interactive).

**Main steps which will lead to the creation and use of your learning environment:**

- Selection of the most suitable content management system (e.g. WordPress, Wix, Joomla, Progress Sitefinity, Squarespace, etc.);
- Selection of a Domain Name;
- Getting Web Hosting and Registration of a Domain Name;
- Selection of the online platform Hosting Plan;
- Set up of the sections of the online platform;
- Design and visual identity of the platform;
- Creation and publication of the content;
- Pilot testing
- Revision
- Adaptation
- Dissemination
- Suitable technological equipment (connection, hardware and software, interactive whiteboards, etc.)
- Creation of homogeneous classes by skill level

## 7. Pilot testing

Conducting a Pilot Evaluation (PE) can help in the early identification of flaws which impede collection and analysis of objective, meaningful data while saving time, effort and money.

Pilot programs assess the feasibility of the e-learning training platform before scaling up, replicating or disseminating. This rehearsal and testing stage with a handful of participants, allows time to critique, test and iteratively improve the evaluation design and administration. Improving evaluation is more than mere vetting of questions and evaluator's thinking, to account for the pilot group's perspective.

Pilot Testing is the part of the Pilot Evaluation that involves administering the PE, to check for inconsistencies in scheduling, necessary materials and resources (e.g. which software is best supporting the analysis) for the full-scale. Pilot Testing usually involves testing of the e-learning platform from a narrow group of people that meet the criteria of the target group in order to test both the usability and the content of the platform. There are a variety of tools that could be used or developed in order to facilitate the pilot testing process in order to record comments and suggestions made by the pilot group of users so that they could reach the administrations for scheduling corresponding decisions.

## 8. Feedback, evaluation, revision

Often, feedback, evaluation and revision are perceived as the same procedure with different words. Actually, despite the fact that each procedure impacts the others they are and must be independent because they aim at different objectives.

*Feedback* can be either formalised or of a more freestyle. Usually feedback is given orally in a group discussion after the completion of an activity. It can be either an open discussion without specific rules or it can take place in a more structured way. In the case of the e-learning platform, the moderator of feedback discussion can follow a middle path, setting out some topics related to the function of the platform, gather users in a circle (if the training is taking place face to face) and start chatting with them.

*Evaluation* can be either quantitative or qualitative or both. It is very useful and effective to create an online questionnaire (google forms is strongly recommended) which would combine both ratings (ex. from 1 to 5 how satisfied are you with...) and open-ending question (ex. Please mention 2 things you learned). It is also very useful to gather demographics. Evaluation has analysis in its core since you can have compact data out of which you can draw safer conclusions. Also, people, when they fill in a questionnaire tend to think twice and process their initial impressions.

*Revision* is more an action to take once you have gathered the impressions of the users in whichever way and you need to move forward with improving the service or product you have tested with them. In the case of DigitA, the feedback or the evaluation will guide you throughout the steps you have to take to re-adjust learning approaches or methodologies that possibly could work better.

## 9. Promotion, dissemination, replication

### *Promotion:*

The promotion is essential to give others the option of learning and understanding of the digital methodology and philosophy in DigitA.

There are many ways to target the promotion to different groups, organisations and other actors. Meeting with policy makers can be useful, presenting the methodology through events, conferences etc. Another path is acting directly with schools, firms to introduce teachers, trainers and employees to both the philosophy and the methodology in the material.

### *Dissemination:*

Promotion and dissemination are inter connected. The dissemination is carried out by having the tools and the path tested in various contexts such as training courses, professional refresher courses, school and university orientation, etc.

Creating cooperation between policy making organizations and schools/businesses will ensure a more solid use and a broader learning perspective for the learners.

### *Replication*

The material is already tested twice in target groups of teachers, trainers and employees. Hence, the aim now is to integrate with third partners. The replication involves educators, trainers, etc., who have carried out the DigitA course as "ambassadors"; who should encourage the inclusion of the tools created in the context analysis and dissemination phases of other European projects.

An example could be acting in intercultural communities; in migration programs within your nation/city or could also be carried out with collaboration with schools/other actors in bilateral set-ups.

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