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Sectorial Learning Outcome Transparency

Leonardo da Vinci – Transfer of Innovation

D4.3 Coaching method and report

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Summary

The objective of the SLOT Coaching Method and Report is to help project partners during the deployment of the method. It has as objective to help also VET actors who would like to apply the SLOT methodology of Learning Outcome definition in their institution.

This document contains questions and answers, as well as graphics and tables, to facilitate better understanding of those concepts related to learning outcomes, based on the Spanish system and the results of the SLOT project.

The document is addressed to all partners of the SLOT project. It should also be of help to those outside the project who might wish to apply the SLOT methodology beyond the project.

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1 Introduction

The objective of the SLOT Coaching Method and Report is to help project partners during the deployment of the method. It has as objective to help also VET actors who would like to apply the SLOT methodology of Learning Outcome definition in their institution.

This document contains questions and answers, as well as graphics and tables, to facilitate better understanding of those concepts related to learning outcomes, based on the Spanish National System for Qualifications and Vocational Education and Training (SNCFP) that explain how to define learning outcomes associated to a professional qualifications that is related to a skill card for a given professionthe.

It is composed of a set of information:

- provided in the different work packages of the SLOT project;
- concerning the Spanish system;
- collected during the 5th meeting, while partners were exchanging on their respective deployment experiment.

ANNEX I describes the table that was used by some SLOT partners during the implementation of the SLOT method. This table has been exposed during the kick-off meeting of the project and has been used all along the project as a basis for the definition of Learning Outcomes for a given profession.

ANNEX II is a list of European institutions that study and analyse of vocational training and their professional qualifications.

The document is addressed to all partners of the SLOT project. It should also be of help to those outside the project who might wish to apply the SLOT methodology beyond the project.

2 Frequently Asked Questions

What is a professional competence?

It is a set of knowledge and capacities which allow the performance of a professional activity in accordance with the demands of productivity and employment.

The professional competence comprises a set of diverse capacities which allow to reach a goal. A competence is linked to a professional performance. It is not independent from the context.

The competence of a person includes the complete range of its knowledge and their capacities in the personal, professional or academic scope, acquired by different means and in all the levels, from the basic one to upper one.

Competences allow an individual to adapt to changing labour surroundings: It allows obtaining good results during the professional activity in different domain and context, professional ones as social ones. Competences constitute the key for professional flexibility of workers, making possible mobilities within a same occupational field or from a field to another one.

Whithin the Spanish system, what is a professional qualification?

Following INCUAL (Spanish national institute of qualifications) , a professional qualification is defined as a set of professional competences significant in employment which can be acquired through vocational education and training (VET) modules or any other kind of learning structure as well as through work experience (Organic Act 5/2002 on Qualifications and Vocational Education and Training).

It is understood that a person is qualified when he/she achieves the expected outcome during his/her professional performance, with reasonable resources and quality levels.

From a formal point of view, a qualification is a group of competences (knowledge and capabilities) which satisfy occupations and job posts in the labour market.

The competence of one person comprises the whole range of personal, professional or academic knowledge and capabilities of that person, acquired following different paths and in all levels available.

At the same time, a competence unit is the minimum set of professional qualifications which can be partially recognized and accredited.

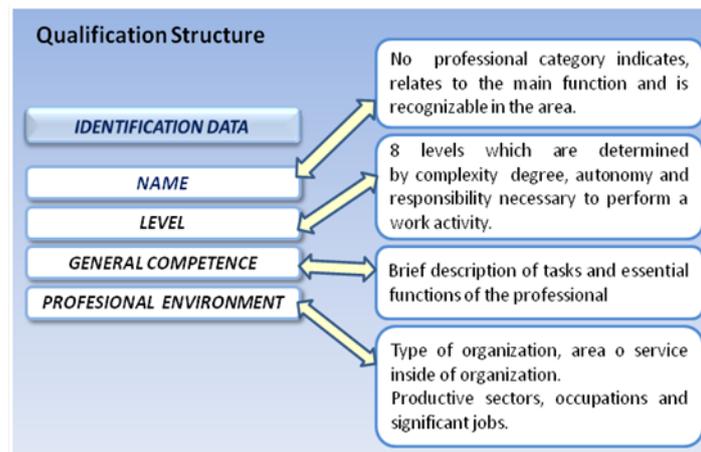
A qualification is composed of a name, a level (EQF), and general competences. It is linked to a professional environment.

A qualification is also linked to a national VET system that is influenced by political decisions that determines:

- The role of VET in the society and economy
- The type, breadth and scope of VET qualifications
- Distinct national qualification frameworks

Professional qualifications for a particular occupation can then differ considerably between countries. National qualifications frameworks can then also differ from one country to another as the criteria to define professional qualifications are linked to the national labour market and to the civil society.

Within the ECVET recommendation, the term qualification means a formal outcome of an assessment and validation process which is obtained when a competent institution determines that an individual has achieved learning outcomes to given standards.



How are the professional qualifications acquired?

Qualifications are acquired through vocational education and training, work experience or other non-formal and informal paths of learning. Some learning courses provide professional titles, respecting some assessment and validation processes. Experience acquired by means of work and of non formal or informal ways of training can also allow the acquisition of professional competences.

Within the Spanish system, what are the contents of professional qualification?

Each qualification has a general competence which defines briefly the workers essential tasks and functions. Other elements are also described such as the professional environment in which the qualification takes place, the corresponding productive sectors and the relevant occupations or posts which can be accessed with that qualification.

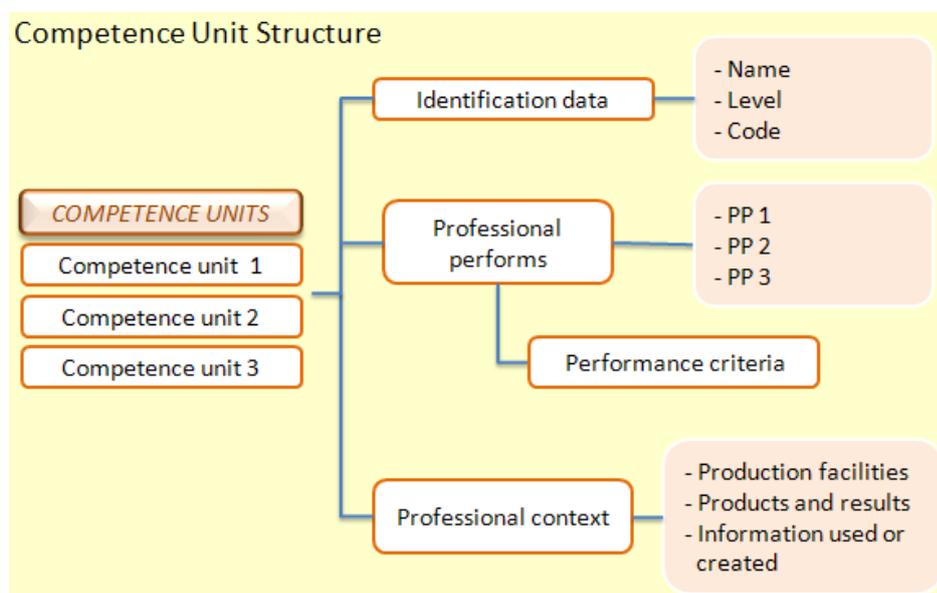
The qualification is divided into competence units which can be accredited partially and associated with the corresponding modules of vocational education and training. In these modules, there is a definition of contents, necessary capacities and assessment criteria as well as spaces and facilities required and the academic education and professional experience of instructors.



Whithin the Spanish system, what is the link between a qualification and a competence unit?

The qualification is divided into competence units which can be accredited partially and associated with the corresponding modules of vocational education and training. In these modules, there is a definition of contents, necessary capacities and assessment criteria as well as spaces and facilities required and the academic education and professional experience of instructors.

The structure of competence units enables the assessment and recognition of each of them to the worker, no matter whether they were acquired through training and education or through work experience. The competence units can also be accumulated to obtain the accreditation of a whole qualification.



The competence unit is divided into professional performs. Describe the expected behaviours of the person, objectified by its consequences or outcomes, so that it can be considered competent in that unit.

The performance criteria express the acceptable level of professional performance to meet the objectives of productive organizations and, therefore, provide a guide for assessing professional competence.

The professional context define, as guideline, the means of production, products and work results, information used or generated and how many similar items deemed necessary to frame the professional performance.

Following the Spanish national institute of qualifications, each competence unit has a standardized format, which includes its identification information (denomination, level, alphanumeric code) and the specifications of that competence.
Identification:

- Denomination
- Level of the qualification to which it is linked
- Code (alphanumeric)
- Competence unit to which it is linked
- Length in hours

What is a Training Module?

Each competence unit is associated with a training module, which describes the necessary training to acquire that competence unit.

The training module is a training block associated with a competence unit that composed the qualification. In Spain, it is the smallest unit for determining creditable vocational diplomas and certificates of professionalism.

Within the SLOT project, a training module corresponds to a training unit. A training unit is composed of learning outcomes that are linked to competences necessary to perform a task in a given activity for a specific profession.

Whithin the Spanish system, what is the structure of training module?

Each training module has a standard format that includes the identification data and training specifications.

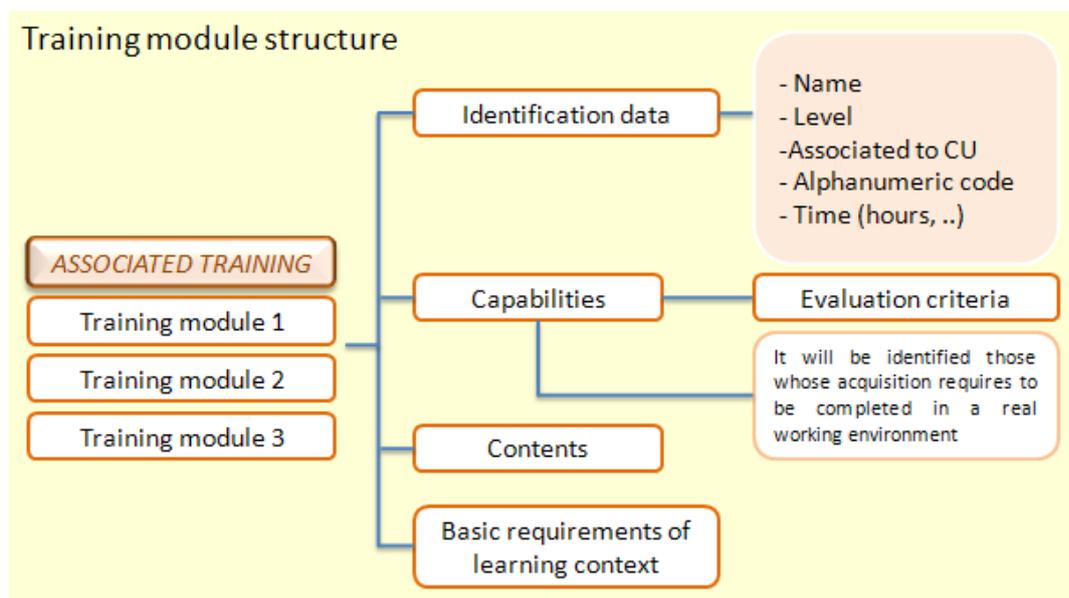
Specifications data:

- Name.
- Qualification level.
- Alphanumeric code.

- Competence unit to which it is associated.
- Time.

Training specifications:

- *Capacities*: expression of people expected outcomes in a learning situation at the end of training module.
- *Assessment criteria*: set of details for each capability that indicate the acceptable degree of precision it. Define the scope and level of ability and the context in which it will be evaluated.
- Training contents necessary to acquire the associated competencies.
- *Basic requirements of learning context*: space and facilities and expertise of the trainer. These requirements are intended as guidelines for the basic law regulating of training offers.



What are the elements of a skill card?

To develop a skill-card, it is necessary to conceptualize the four levels of precision of the job's description: missions, activities, tasks, skills (adapted from Le Boterf, 2001)

A skill-card/job profile describes the work that professionals/practitioners do in their daily job. A skill-card is described in terms of missions, activities, subdivided in tasks, tasks are subdivided into knowledge, skills, and competences.

Missions:

All the missions assigned to a work situation feature a job / function. The missions express the meaning, purposes of individual action, conducted by one person.

The missions can be summarized by the question: "Could you in few words summarize your job, its purpose?"

There are maximum 5 to 7 large missions.

Activities

An activity is a set of actions needed to the completion of a job.

Activities can be summarized by the questions: What are (would be) the main activities? Can you describe what you (will) do? With what means? Which interlocutors?

Activities are expressed in terms of action verbs: define, view, check, plan, do, manage, etc.

An activity includes a family of tasks for a job.

There are maximum 5 to 6 activities.

Tasks

The activities are divided into tasks: to perform an activity, an agent must accomplish several tasks. The task is therefore understood as a subdivision of the activity.

A task means the basic operation (intellectual or manual) to be performed by an agent.

There are maximum 5 to 6 tasks

Knowledge / Skill / Competence

The tasks are divided into skills, knowledge, competences.

There are maximum 8 knowledge /skills / competences for one task.

How to build a skill card?

Different steps can be followed:

Step1 : building the structure of the skill card from a watch on the job

The watch/intelligence cycle consists of collection and continuous use of information concerning the business environment.

The sources of information can be for example: internet sites in connection with service science, standards, benchmarks or labels, scientific articles, studies, publications, bibliographical references, networks of experts, federations or chambers, etc.

The watcher can be the one who is responsible for designing the skill card, the one who initiates the process.

The watch is cyclical; it is divided into several steps:

→ The first step is to clearly define the information being sought; this step is a needs analysis,

→ Once the needs clearly expressed the watcher will begin the research of relevant information and the data collection in those sources,

→ The third step is analyzing the information. Following the collection, sorting information is achieved; their significance and relevance are assessed,

→ Finally analyzed information is collected in a report. This result may bring new issues or questions, new information search of the topic being studied to enable an alert based on its development.

Input. Information provided by different sources of information, experts, trainers, etc.

Output: 1st draft of the skill card

Step 2: Contextualization of the skill card with interview of group of experts

The goal is to compare the first version of the skill-card to experts' speech. Experts have to deliver the vision of their job through the description of their working practices. These experts must do/know the job or have a role linked.

To conduct this group of experts, the following guidelines can be used:

- Presentation of the context
- Presentation of the process that will lead to the skill card building
- Brief definition of the job profile
- Key points – already activities and tasks identified in a first draft of the skill card

Prior, an e-mail is sent to professionals to present the conditions and group's interview's process. It is specified that they will be asked to describe their daily work, their working environment.

The interview requires the presence of two persons, one runs the exchange and the other fully transcribed the expert's speech.

Time management is flexible. A time of 120 minutes could be fixed but it could be less.

Input: first version of skill card + interview guide

Output: interview transcript + 2nd skill card version

Step 3: Contextualization of the skill card with interview of group of trainers (optional can be done with professional experts)

The goal is to compare the second version of the skill-card to trainers' speech. Trainers have to deliver the vision of the job through the description of their training practices. These trainers must do/know the job or have valuable training experiences in the domain.

Prior, an e-mail is sent to trainers to present the conditions and group's interview's process. It is specified that they will be asked to describe their view on the professional profile.

The interview requires the presence of two persons, one runs the exchange and the other fully transcribed the trainers' speech.

Time management is flexible. A time of 120 minutes could be fixed but it could be less.

Input: second version of skill card + interview guide

Output: interview transcript + 3rd skill card version

If this 3rd steps is realized, the results will be presented to professional experts for validation in step 4. If this is not done, go from step 2 to step 4 directly.

Step 4: Skill card validation

If feasible, the goal of this step is to ask institutional actors (Chamber of Commerce, professional organizations, ministries in charge of NQF, etc. to validate the skill card produced by professional experts and trainers.

This validation can be done during a face-to-face meeting or by electronic means.

Input: second or third version of skill card

Output: final skill card version

For a full description of the specific skill card building methodology applied within CRP Henri Tudor, please contact: info@tudor.lu

What is a Learning Outcome?

‘Learning outcomes’ means statements of what a learner knows, understands and is able to do on completion of a learning process and which are defined in terms of knowledge, skills and competencies.

How are learning outcomes defined?

Learning outcomes will be expressed in terms of contextualized competence, namely, the set of skills and knowledge acquired in the context of learning, which should enable people to perform effectively and efficiently in the professional functions associated with them.

Once learning outcomes are identified and defined, the group of experts will review and analyze the learning outcomes and verify their suitability to the professional profiles for which have been developed.

The group of experts will validate the learning outcomes. In the case that learning outcomes are not valid, they will mention that modifications should be made for their validation.

How are learning outcomes formulated?

The learning outcomes of professional modules are formulated through three major components:

Achievement: Is the action that must be achieved related to a function, technique, process, equipment, etc. While writing LO, it could be interesting to refer to examples of verbs that corresponds to the 6 levels of intellectual behaviour important in learning identified by Benjamin Bloom in 1956: knowledge, comprehension, application, analysis, synthesis and evaluation.

Purpose: Is the content on which to achieve success.

Actions in the learning context: They express the concepts most important related to achieve the accomplishment in the learning context.

Structure of Learning Outcome		
Achievement	Purpose	Actions in the learning context
Answer the question what do I get?		Answer the question how do I get?
HANDLESS	MACHINES	APPLYING AND ACCOUNTING TECHNIQUES TO BE USED
It is recommended to use only one verb (simplifies the learning situation)		Do not recommend using more than two gerunds IMPORTANT: Whenever reference is made to an achievement of a procedural nature (which should almost always be) ensure that there is a gerund in the field of cognitive.

Definition of Learning Outcome

Example 1

Structure of Learning Outcome		
Achievement	Purpose	Actions in the learning context
Calibrate	physical testing equipment	justifying the measurement uncertainty.

L.O.: Calibrate physical testing equipment, justifying the measurement uncertainty.

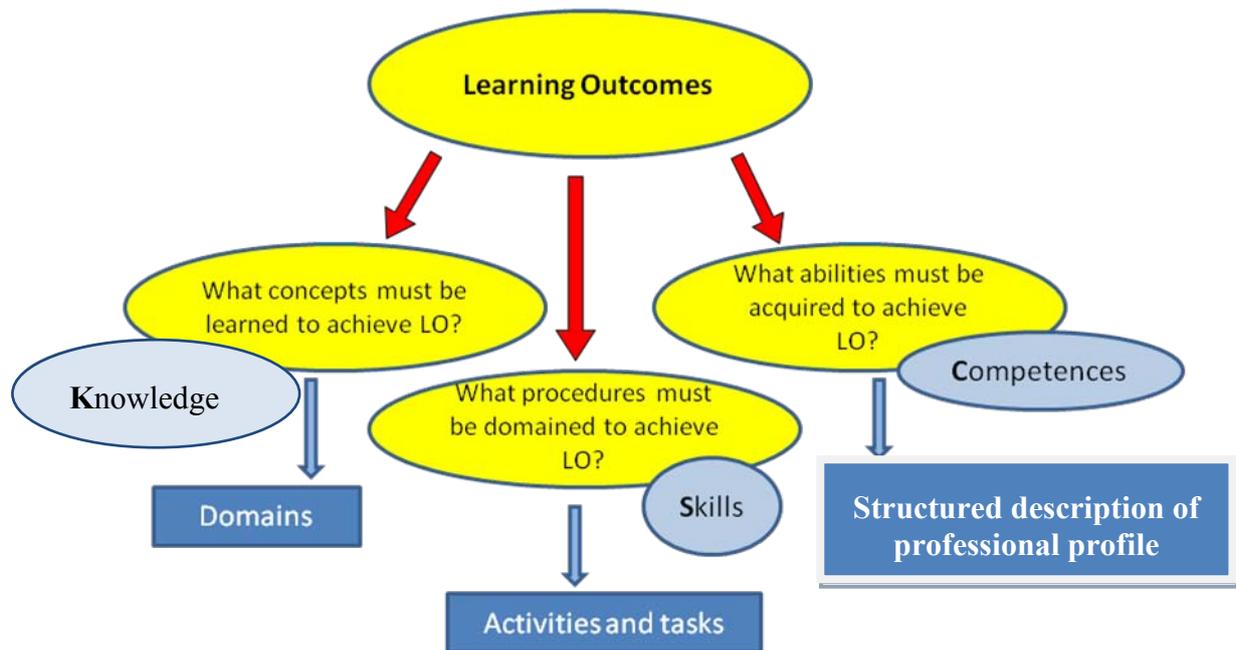
Example 2:

Structure of Learning Outcome		
Achievement	Purpose	Actions in the learning context
Measure and evaluate	the regulatory parameters of power lines	describing the operation and implementation of equipment.

L.O.: Measure and evaluate the regulatory parameters of power lines, describing the operation and implementation of equipment.

How are the learning outcomes obtained?

The procedure to obtain the learning contents will do according the next method:



The definition of LO should answer three questions: what concepts should be learned? What procedures must be mastered? What abilities must be acquired? Survey answers should cover the knowledge, skills and competences that must have the professional profile for which the learning outcomes have been defined.

Learning outcomes (LO) may also be associated with the assessment process if they are described with criteria that will be used to define the assessment method. In the context of the SLOT project, it has been decided that LO should be defined with assessment criteria.

Example: *On successful completion of the module, trainees will be able to present the findings of their experimental work through an oral presentation.*

To what extent a student achieves the following learning outcome can only be determined if a presentation is used as the assessment method in conjunction with appropriate assessment criteria.

In conclusion, a well designed training unit module should show clear alignment between the learning outcomes and the assessment methods used to evaluate the achievement of the learning outcome.

How are learning outcomes acquired?

To achieve learning outcomes, it is necessary to possess the knowledge, skills and competences to develop a professional work, acquired through the study of training module, through the recognition of professional experiences, or through experiences acquired on the job.

Learning outcomes can be acquired through formal, non-formal and informal learning.

How are learning outcomes validated?

Learning outcomes can be validated via a usual and formal assessment in a formal and non-formal learning process.

In the context of informal learning, learning outcomes of experiences can be validated through a validation of experience outcomes (validation des acquis de l'expérience) if this exists in the national context (like in France and in Luxembourg for example)

3 Conclusions

This deliverable has gathered concepts and definitions related to the SLOT methodology of learning outcomes definition that were useful to project partners for the deployment of the SLOT method within their respective institution.

ANNEX II

European institutions for study and analyse of vocational training and its qualifications

An important task to be performed by the social partners regarding the evolution and emergence of new professional profiles, is to know the current status of professional profiles required by the labour market today and job places which should be cover in future by the emergence of new professions.

This task will be made by so-called professional observatories. In Spain, the Professional Observatory is an organization which provides information about the evolution of supply and demand for jobs, occupations and profiles in the labour market. The main objective of the Observatory is to observe the qualifications and their evolution, and to promote, in an active manner, the cooperation with the rest of observatories establishing the necessary procedures and agreements to ensure the cooperation and a reciprocal information flow among the different professional observatories.

The observatories have the function of collecting labour market data for study and analyze of the vocational training and their qualifications in European Union.

In Europe there are organizations and entities, such as:

EUROPEAN CENTRE FOR THE DEVELOPMENT OF VOCATIONAL TRAINING (CEDEFOP)

- More information: www.cedefop.europa.eu/EN/about-cedefop.aspx

GERMANY

- Bundesinstitut für Berufsbildung (BIBB)
- More information: www.bibb.de/en/index.htm

DENMARK

- Danish Agency for International Education (DEK)
- More information: en.iu.dk/

FRANCE

- Centre d'études et des recherches sur les Qualifications (CÉREQ)
- More information: www.cereq.fr
- Département Formation et Certification (DFC)
- More information: www.cereq.fr/index.php/Annuaire/Departement-Formation-et-Certification-DFC

GREECE

- OEEK
- More information: www.oEEK.gr

ITALY

- Istituto per lo Sviluppo della Formazione Professionale dei Lavoratori (ISFOL)

- More information: www.isfol.it/

IRELAND

National Qualifications Authority of Ireland (NQAI)

More information: www.nqai.ie and www.nfq.ie

NETHERLANDS

- Centre of Expertise on Vocational Education and Training (CINOP)
- More information: cinop.brengtlerentotleven.nl

PORTUGAL

- Agência Nacional para a Qualificação (ANQ)
- More information: www.en.anq.gov.pt and www.catalogo.anq.gov.pt

UNITED KINGDOM of Great Britain: SCOTLAND

- Scottish Qualifications Authority (SQA).
- More information: [Scottish Qualifications Authority \(SQA\)](#), [Scottish Vocational Qualifications \(SVQ\)](#)

UNITED KINGDOM of Great Britain: ENGLAND, WALES AND NORTH IRELAND

- Qualifications and Curriculum Development Agency (QCDA)
- More information: www.qcda.gov.uk/6640.aspx
- Qualifications and Credit Framework (QCF)
- More information: www.qcda.gov.uk/8150.aspx

SPAIN

- National Institute of Qualifications (INCUAL)
- More information: www.educacion.gob.es/educa/incual