Report on the Referencing of the National Qualifications Framework to the European Qualifications Framework

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Preface

The present report establishes the referencing of levels 1 to 5 of the National Qualifications Framework (NQF) to the European Qualifications Framework (EQF). As such, this report together with the report of the referencing of the Framework for Higher Education Qualifications in Portugal (FHEQ-Portugal) constitutes the referencing the NQF to the EQF. This referencing resulted from a broad consultation process that was coordinated by the National Agency for Qualifications, designated as the National Coordination Point for the EQF referencing process, in coordination with the General Directorate for Higher Education, in what levels 5-8 are concerned.

The preparation of two separate reports, a procedural option based on the autonomy afforded to institutions in the higher education system, was, nevertheless, carefully coordinated and harmonised by the Steering Committee and the Technical Group set up for this purpose. These bodies were supervised by the National Agency for Qualifications in articulation with the General Directorate for Higher Education.

As a result, the present report concerns levels 1 to 5 of the NQF for the Education and Training System and has been prepared in compliance with the criteria and procedures established by the EQF Advisory Group.

In addition to the open consultation processes involving social partners and entities within the Education and Training System, the report also includes a significant contribution from national and international experts who participated actively in discussions and whose opinions were of considerable importance in determining the direction taken by the report.

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Summary

The present report presents the referencing process of the National Qualification Framework (NQF) to the European Framework for Lifelong Learning (EQF), and constitutes a reference for the development and upgrading or the Portuguese education and training system.

The referencing process has demonstrated that there is a clear and direct relationship between the EQF levels and descriptors and the Portuguese NQF levels and descriptors:
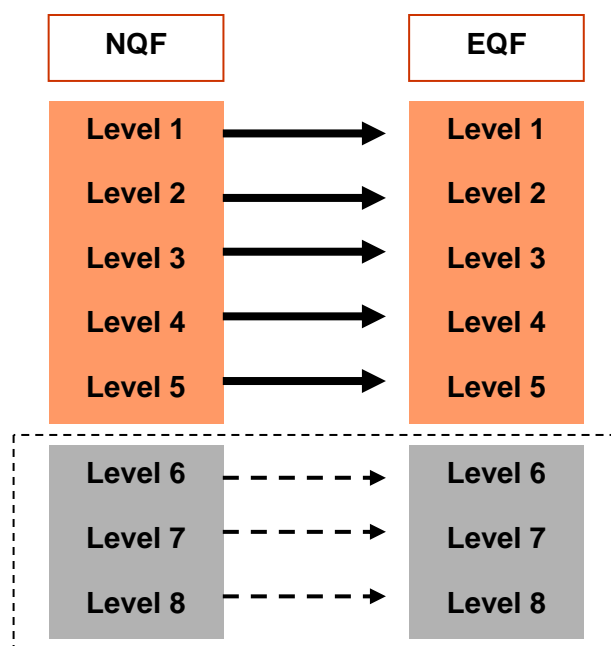
The adoption of the same 8 levels and descriptors of the EQF in the NQF represented an opportunity to adopt a national classification framework that suits better to recognising the difference between types of qualifications and learning outcomes that, for all practical purposes, already existed but which were not properly classified in the *implicit* qualifications framework being used. The NQF is in force since last October 2010, and there has been an effort to progressively adjust the existing qualifications to the expected learning outcomes for the 1-5 levels.

The report covers a set of chapters, starting with the reflexion about the European Qualifications Framework and the referencing process in Portugal. This point is followed by the discussion about the system reform and the creation of the National Qualifications Framework, integrating also the description of the Portuguese Education and Training System.

The taken in meeting the 10 referencing criteria are explained in chapter 3 and constitutes the crucial part of this referencing report - we consider the 10 criterion are met.

In the appendix we include a summary of the guide "Understanding the NQF", a users support guide to the process of including national qualifications under the NQF.

Annexed to this report is the Framework for Higher Education Qualifications in Portugal. Report of the International Committee on the verification of compatibility with the Qualifications Framework for the European Higher Education Area.

This report includes the referencing of level 5-8 national qualifications to the European Qualifications Framework.

1. The European Qualification Framework and the Referencing Process

1.1. The European Qualification Framework

The European Qualifications Framework for Lifelong Learning (EQF), adopted in 2008 by the European Parliament and by the Council, consists of a common reference framework by means of which the qualifications systems of different countries can be compared and correspondences between them can be drawn. In practice, it works as a device for translating/comparing qualification levels in different countries, the aim of which is to make qualifications clearer and more comprehensible between systems and to promote mobility of learners and workers between countries.

The Recommendation of the European Parliament and of the Council for implementation of the EQF (23 April 2008), advises the member States to:

   a. Relate their national qualifications systems to the EQF by 2010, in particular by referencing, in a transparent manner, their qualification levels to the levels of the EQF and, where appropriate, by developing national qualifications frameworks;

   b. Adopt measures so that, by 2012, all new qualification certificates, diplomas and Europass documents issued by the competent authorities contain a clear reference to the appropriate EQF level;

   c. Use an approach based on learning outcomes to define and describe qualifications and promote the validation of non-formal and informal learning.

Although this is a voluntary process, 32 countries agreed to cooperate in the creating of this network of independent but mutually understandable qualification systems. A rapid development of national qualifications frameworks occurred since 2004, which showed the need of increased transparency and comparability of qualifications at all levels. This is also seen as important by the Portuguese state, so it was decided to establish a national qualification framework.

1.2 The Referencing of the National Qualification Framework to the European Qualification Framework

In the context of adoption of the aforementioned Recommendation by the Portuguese state, the National Qualifications Agency, I.P. was designated national coordination point for implementation of the EQF, with responsibility for:

- Referencing the qualification levels of the national qualifications system to the levels of the European Qualifications Framework;

- Ensuring the transparency of the methodology used to reference national qualification levels to the European Qualifications Framework;

- Provide interested parties with access to information and guidance on how national qualifications are referenced to the European Qualifications Framework;

- Encourage the participation of all relevant interested entities (higher education and vocational training and education establishments, social partners, sectors and experts).

As mentioned in the preface, this report establishes the referencing of levels 1 to 5 of the National Qualifications Framework to the EQF and should be read in conjunction with the report that deals with the referencing of qualifications at the higher education level – Self certification report of the Framework for Higher Education Qualifications in Portugal.

Despite this decision, and given that the National Qualifications Framework (NQF) is an inclusive and comprehensive framework which, in legal terms, comes under the responsibility of three ministries – the Ministry of Education, the Ministry of Labour and the Ministry of Science, Technology and Higher Education, the drawing up of two separate reports was a necessary consequence of the coordinating work done by the Steering Committee and the Technical Working Group on the referencing process.

The referencing process structure

The Steering Committee was responsible for overseeing and monitoring the work of developing the referencing process. This committee was made up of those bodies involved in the regulation of the production of qualifications and in the quality assurance processes for the education and training system:

a) The National Agency for Qualifications (NAQ), who presided;

b) The General Directorate for Higher Education (GDHE);

c) The General Directorate for Curriculum Innovation and Development (GDCID);

d) The General Directorate for Employment and Labour Relations (GDELR);

e) The Agency for the Accreditation and Assessment of Higher Education (A3HE).

A technical working group was also set up to support the drawing up of the referencing report. This group was led by NAQ and its members were technical staff drawn from the bodies making up the Steering Committee.

The Portuguese referencing process also had the support of two national and three international experts. These helped the NAQ identify critical issues relating to the referencing process, this contributing to the readability, clarity and coherence of the referencing report.

The process of referencing national qualification levels to the EQF levels 1 to 5 was supported by the guidelines produced by the European Commission's Advisory Group on Implementation of the EQF, made up of representatives of the member States and the European social partners, which adopted a set of 10 criteria and procedures for the process, namely:

Procedures and criteria for the referencing process

1. "The responsibilities and/or legal competence of all relevant national bodies involved in the referencing process, including the National Coordination Point, are clearly determined and published by the competent public authorities.

2. There is a clear and demonstrable link between the qualifications levels in the national qualifications framework or system and the level descriptors of the European Qualifications Framework.

3. The national framework or qualifications system and its qualifications are based on the principle and objective of learning outcomes and linked to arrangements for validation of non-formal and informal learning and, where these exist, to credit systems.

4. The procedures for inclusion of qualifications in the national qualifications framework or for describing the place of qualifications in the national qualification system are transparent.

5. The national quality assurance system(s) for education and training refer(s) to the national

qualifications framework or system and are consistent with the relevant European principles and guidelines (as indicated in annex 3 of the Recommendation).

6. The referencing process shall include the stated agreement of the relevant quality assurance bodies.

7. The referencing process shall involve international experts.

8. The competent national body or bodies shall certify the referencing of the national framework or system with the EQF. One comprehensive report, setting out the referencing and the evidence supporting it shall be published by the competent national bodies, including the National Coordination Point, and shall address separately each of the criteria.

9. The official EQF platform shall maintain a public listing of member states that have confirmed that they have completed the referencing process, including links to completed referencing reports.

10. Following the referencing process, and in line with the timelines set in the Recommendation, all new qualification certificates, diplomas and Europass documents issued by the competent authorities contain a clear reference, by way of national qualifications systems, to the appropriate European Qualifications Framework level."

The stakeholder's involvement

During the referencing process other relevant stakeholders of the education and training system were involved and consulted, including the social partners, most notably:

- the presentation of the referencing process to the Central Coordination Unit of the Employment and Vocational Training Observatory. This Observatory is composed by representatives from these entities: Ministry of Education; Ministry of Labour and Social Solidarity; NAC – National Agriculture Confederation; PCSC – Portuguese Commerce and Services Confederation; PTC – Portuguese Tourism Confederation; PIC – Portuguese Industry Confederation; CGTP-IN – General Confederation of the Portuguese Workers; GUW – General Union Workers

- the presentation of the referencing process and the conclusions of preliminary final report to the Oversight Committee for the New Opportunities Initiative and the National Qualification System:

- National Agency for Qualification;
- Institute of Employment and Vocational Training;
- Office of Strategy and Planning of the Ministry of Labour and Social Solidarity;
- The General Directorate for Employment and Labour Relations;
- POPH – Human Potential Operational Programme;
- Office of the Statistic and Planning of the Ministry of Education;
- The General Directorate for Curriculum Innovation and Development;
- General Directorate of Education.- North; General Directorate of Education.- Center; General Directorate of Education.- Lisbon and Tagus Valley; General Directorate of Education.- Alentejo; General Directorate of Education.-Algarve;
- CGTP-IN – General Confederation of the Portuguese Workers;
- UGT – General Union Workers;
- PIC – Portuguese Industry Confederation;
- NAC – National Agriculture Confederation;
- PCSC – Portuguese Commerce and Services Confederation;
- PTC – Portuguese Tourism Confederation.

- the holding of a reflective seminar on the NQF and the process of referencing national levels to the EQF levels (17th November 2010). The audience of over 400 included public bodies responsible for the management, coordination and development of the education and training system, schools, professional training centres, higher education establishments, other training operators, national and international experts and many others

Besides the stakeholder's involvement, there were also carried out some presentations and discussions about the referencing process, on several network entities of the national system of education and training, namely:

- Institute for the Management of the European Social Fund (24th March 2010);
- Portuguese Air Force (28th May 2010);
- CECOA – Vocational Training Centre for the Trade (28th October 2010);
- Portuguese Catholic University (26th November 2010);
- Center for Applied Psychology – Army (23rd November 2010);
- Institute of Employment and Vocational Training (11 March 2010 and in the 4th and 18th May 2011);
- Education and Doctrine Command – Army (4th May 2011);
- European Skills Competition - Euroskills Lisbon (10th December 2010).

There were also a number of NQF presentations at several meetings that took place in the National Agency for Qualification as part of visits of a large number of foreign delegations to Portugal, specifically Spain, Italy, Poland, Hungary and Cape Verde.

Feedback to the referencing process

From the discussion with various stakeholders, there were some aspects that, on the one hand, reinforce the importance of the referencing process and, on the other, challenge the future development of the qualifications design of education and training system and its integration into the NQF:

- The NQF organization based in learning outcomes allows for positioning the qualifications taking into account the acquisition of competences instead of the content included in different education and training modalities;
- The qualifications design based in learning outcomes gained momentum with the structuring of the NQF;
- The structure of the NQF also allows comparing qualifications from different countries, enhancing mutual trust between member states;
- The inclusion of the NQF and EQF levels in the Diplomas and Certificates awarded for qualifications included in the NQF allows for a major legibility and transparency of the national qualifications system;
- There is still a need to disseminate the information concerning the referencing process to a wide spectrum of stakeholders, especially the labour market, where the NQF is not yet widely known at present;
- The differentiation for the Level 3 and 4 has not been fully grasped by some stakeholders, requiring greater disclosure and discussion of the distinguishing characteristics between these two levels of qualification.

2. The Portuguese Education and Training System and the National Qualification System

2.1 The Reform of the Portuguese Education and Training System

The education and training system has recently undergone a number of major reforms which have basically led to the setting up of the National Qualifications System.

The process of reforming the Portuguese education and training system began in 2007 with the "Agenda for the Reform of Professional Training". Despite the fact that there have been ongoing attempts to invest in qualifications over the last two decades, the working population (in general terms) is still poorly qualified and (more specifically) the rates at which young people are leaving school early or dropping out continue to stand at high levels. Given such a context, the reform process has been shaped to identify innovative solutions in terms of objectives, organisational models and resource use, with the aim of raising qualification levels amongst both young people and adults.

The reform process was embodied in the setting up of the National Qualifications System in 2007 (Decree-Law no. 396/2007, of the 31st of December) which maps the relationships between, and interrelatedness of, education, professional training and employment, creating new instruments and modernising regulatory systems.

The prime political objective of the National Qualifications System is to promote the widespread attainment of secondary education as a minimum level of qualification in Portugal. The importance of such generalised attainment is underscored by the European Union and the OCDE has put forward proposals for strengthening schooling as a way of increase the productivity of the workforce.

In line with the stated objective behind the setting up of the National Qualifications System and with EU and OCDE policy recommendations, Portugal raised the compulsory schooling age to 18 in 2009, Law 85/2009, of the 27th of August.

As a way of boosting qualification levels in Portugal, a strategy was drawn up that included measures aimed at improving schooling completion rates for young people at secondary level as well as at enhancing qualification levels amongst adults.

2.1.1 Objectives of the National Qualifications System

The setting up of the National Qualifications System in Portugal was designed to achieve a number of objectives. By and large, these objectives are in tune with the objectives to be expected of any national qualifications system. A number of these objectives are, however, worth mentioning here.

i)   To strengthen the integration between the general and the professional education and training offer, enshrining the principle of double certification in all cases.

The reform process has sought to ensure that the double certification offer continues to grow, in terms of encouraging both schooling to secondary level and increased employability. This way, the relationship between the two aspects of learning has been tightened, with progress in schooling being associated with professional training for all those pathways which lead to the attainment of a professional qualification, as it can be verified ahead in the presentation of the Portuguese education and training system.

ii)   To build certification mechanisms into the system for school and professional competences acquired in informal and non-formal ways.

The possibility of recognition and attributing value to learning undertaken in informal and non-formal learning contexts, associated with the construction of 'made to measure' training pathways, is believed to be crucial to encouraging adults to participate in lifelong learning and raising their qualifications levels.

To this end, the mechanism for the recognition, validation and certification of competences (RVCC) was extended and strengthened. This investment is clearly perceptible in the following data: the number of individuals enrolled in the Recognition, Validation and Certification of Competences (RVCC) process in 2006 (77.246) practically doubled in 2011 (1.276.909).

Portugal had already made a significant contribution in this area with the setting up of the National Agency for the Education and Training of Adults (NAETA) in the mid-1990s, with the building of a referential system for key 9th year competences and with the introduction of a first network of centres, today known as the New Opportunities Centres. However, there was a pressing need to expand this mechanism:
- through expanding certification to include competences at secondary level, so in 2011, 41,4% (46.829) of the enrolments in RVCC processes aim this level of education;
- through recognition of professional competences across an increased number of professional areas, being presently available 83 referentials for the recognition, validation and certification of professional competences in 26 education and training areas;

- through increasing the number of new opportunities centres, that grew from 271 Centres in 2007 to 452 Centres at present.

iii)   Facilitating the qualification of lifelong learning, promoting flexibility of the offer by organising it into short modular units that can be independently certificated and credited.

The reform process has been largely concerned with the training offer aimed at adults. This is why it has sought, in addition to diversifying the offer of professionalising courses, to make it possible for working adults to progress at both the educational and professional levels. It has done so by organising education and training pathways into short certificated units which are easier for such adults to access and follow. They can choose both the content and work rate to best suit their individual situations, increasing the likelihood that the training will contribute to their educational and professional development.

iv)   To build up the oversight and quality control mechanisms for the education and training pathways in the National Qualifications System.

The setting up of the National Qualifications System led to the adoption of a new institutional solution for the general coordination of the system. This took the form of the National Agency for Qualifications, under the aegis of the Ministries of Labour and Social Solidarity and Education. Its mission is to coordinate the implementation of education and professional training policies for both young people and adults and to develop and manage the system for the recognition, validation and certification of competences. This agency, an institutional innovation, was charged with the objective of integrating the education and training subsystems and developing an oversight framework and monitoring mechanisms and improving the system's quality of response.

Mention should also be made here of the reform of the accreditation system for training bodies, the further development work on mechanisms for overseeing the offer to young people and adults and the creation of the Quality Charter for the New Opportunities Centres, under the guidance of the National Agency for Qualifications.

v)   To promote the relevance, certification and recognition of the education and training offer, including improved response to the needs of industry.

The reform process has sought to overcome some of the limitations of the education and training system, particularly as regards training processes that are not linked to the real development needs of either individuals or businesses. In order to properly structure a relevant offer for both initial and in-service

training, a need was identified for regulatory mechanisms that would match training solutions to labour market needs. A key part of this plan is the National Qualifications Catalogue, which is designed to provide a reference system for qualifications for all double certificated pathways. Another pivotal feature is the setting up of Sector Qualification Councils to support the work being done.

vi) To strengthen the degree of integration between academic pathways and double certification pathways, namely through the building up of permeability mechanisms and coordination of inter-competences.

The reform process has sought to strengthen the integration of the academic and double certification pathways by means of a permeability procedure. This procedure makes it possible for students to switch pathways so that, in the following academic year, they may follow a different course from that in which they were originally enrolled, where there is sufficient crossover of the study plans.

2.1.2 Main instruments of the National Qualifications System

As explained, the achievement of the above-mentioned objectives has been closely linked, on the one hand, to the setting up of a new institutional model and, on the other, to the development of a number of instruments, including the National Qualifications Catalogue and the National Qualifications Framework. These developments are worth exploring in a little more detail.

- The new institutional model

The National Qualifications System is supported by a new institutional model. Key elements include the National Council for Professional Training, the National Agency for Qualifications, I.P. (NAQ, I.P.) and the Sector Qualifications Councils. More specifically:

a) The National Council for Professional Training is a tripartite umbrella organisation responsible for approving profiles and the referential system for training.

b) The mission of the National Agency for Qualifications, I.P. is to coordinate the implementation of education and professional training policies for young people and develop and manage the system for the recognition, validation and certification of competences. In terms of the qualification policy for Portugal, which has at its centre the encouragement of the uptake of secondary-level education as a minimum level of qualification, NAQ, I.P.'s work is aimed at achieving the targets that have been established and promoting the relevance and quality of education and professional training. The network of New Opportunities Centres and the National

Qualifications Catalogue are key instruments in this strategy. The structuring and steering of these are prime objectives of the NAQ.

The setting up of this organisation allowed the management of the entire educational and double certificated training offer to be brought together and coordinated by one service, thus improving the coherence and transparency of the system.

c) The Sector Qualifications Councils are working groups that are consulted on technical matters. They support the NAQ, I.P. in identifying the need to update the National Qualifications Catalogue and carry out catalogue development work. The function of these councils is, on the one hand, to offer strategic collaboration in identifying the development and changes taking place in the various sectors of the economy and the subsequent impact of these on qualification needs and, on the other, to help build and maintain a collaborative network.

In addition to setting up these bodies, the reform of the Education and Training System also addressed the reform of the certification system for training entities. This system is designed to promote better quality training by strengthening the capabilities of the training entities that operate within the National Qualifications System. It also provides for regular oversight of their work, ensuring that the financing of training opportunities takes into account the quality of the training and the results obtained. This certification system also covers external audits and assessment procedures focused on checking a range of indicators relating to the internal structure and organisation of the training entity (including aspects relating to human resources, materials and financial stability), the quality of the training service (including aspects of both internal and external evaluation) and the results achieved by the training.

- The New Opportunities Centres

The New Opportunities Centres play a structural role in coordinating adult education and training. They act as an entry gateway for lifelong learning, mediating access to processes for the recognition, validation and certification of competences acquired over a lifetime, to professional training and, above all, to the interrelationship between these. This is an important factor in justifying the relevance of investing in ongoing training services, as the mediation offered by the centres helps ensure that demand for training remains essentially focused on training solutions that are integrated with competence certification pathways, thus responding to people's actual needs. Presently there are 452 New Opportunity Centres, covering practically the whole national territory. More specifically, in territorial terms the distribution shows that around 40% of the centres are in the North, and more than 40% are in the Centre and in Lisbon region.

- The National Qualifications Catalogue

The National Qualifications Catalogue (NQC) is a strategic management instrument for non-higher national qualifications. It also acts as a regulatory instrument for the double certificated training offer. The NQC lists the qualification pathways that are relevant to the economy, organised in a modular format so as to better guide both initial double certificated training and ongoing certificated training. It covers all the business sectors in the economy.

The catalogue contains unique qualifications referencing for the full range of the double certificated training offer as well as for processes for the recognition of competences acquired in informal and non-formal settings. These are organised in a modular format, in the form of short training units which can be independently certificated and can be built into qualification pathways. Currently, there are 253 qualifications spread across 39 education and training areas.

The development of the National Qualifications Catalogue involves the organisation of a qualifications referencing scheme based on learning outcomes in an approach which is more closely linked to competence needs emerging in the labour market and through which objectives can be determined with greater clarity. This basing of the qualifications referencing scheme on learning outcomes, an underlying principle of the National Qualifications Catalogue, is also of critical importance to the organisation of processes for the recognition of competences and for the validation of the pedagogical strategies employed.

The NQC is constantly being updated in an ongoing process that measures and incorporates the needs of the various stakeholders, with the help of the Sector Qualifications Councils. Presently there are 16 Sector Qualifications Councils which try to cover all the education and training needs of the several national sectors of activity such as: Agriculture and Nourishment, Craft and Jewellery, Trade and Marketing, Building Construction and Urban Services, Culture, Heritage and Production of Contents, Energy and Environment, Chemical Industries, Pottery, Glass and Others, Computers, Electronics and Telecommunications, Wood, Furniture and Cork, Metallurgy and Metalworking, Fashion, Services to Enterprises, Personal Services, Healthcare and Services to the Community, Transports and Distribution, Tourism and Leisure.

- The National Qualifications Framework

The National Qualifications Framework (NQF) is both a central anchoring device and a mechanism that drives forward the process of reform. In this sense, the forward momentum created by the adoption of the

European Qualifications Framework is of greater significance in the Portuguese case, as it takes on a central role in the foundation of the National Qualifications System and the development and improvement of all education and training.

The NQF creation, which took place in the context of the process of reform of vocational training and the creation of the National Qualifications System (Decree-Law no. 396/2007), was based on a set of premises:

- The need to integrate and coordinate the qualifications obtained in the context of the different education and training subsystems (education, vocational training, higher education), within a single framework;

- The importance of valuing and recognising competences acquired in non-formal and informal contexts;

- Improving the legibility, transparency and comparability of qualifications;

- Valuing the double certification associated above all with secondary level qualifications;

- Ensuring coordination with the European Qualifications Framework, specifically in using the EQF as an instrument of reference for comparing the qualification levels of the different qualifications systems from the perspective of lifelong learning.

Thus, the building of the National Qualifications System includes the establishment of a National Qualifications Framework that can respond, as regards the classification of qualifications, to the challenges of integrating, in terms of competences, with the various qualification pathways, the ways and places in which learning occurs and the organisation of the referencing scheme that leads to and certificates learning. It is crucial that there be a classifications framework that creates the conditions for: (1) a strengthening of the integration of education and training and the permeability between these, (2) a focus on learning outcomes – an explicit objective of the National Qualifications Catalogue, (3) the classification of learning acquired through experience and (4) an easier and clearer communication of the education and training system.

It should also be noted that the setting up of a National Qualifications Framework, when the process of establishing a "common European qualifications scheme" was already under way, in the form of the European Qualifications Framework, it was deemed appropriate that the National Qualifications Framework should be organised in such a way as to make it correspond more easily and efficiently to the European framework.

2.2 The National Qualifications Framework

The National Qualifications Framework is a single reference framework for classifying all the qualifications produced by the education and training system in Portugal, irrespective of their levels or access routes.

The choices made as regards the design and structure of the NQF aimed to respond clearly and objectively to the premises identified and mentioned in the previous chapter. The following points are of particular note:

- The scope: the NQF includes the qualifications from de different levels of the education and training system, independently from the ways of access (basic, secondary and higher education, vocational training and the processes of recognition, validation and certification of competences obtained via either non-formal or informal paths);

- Organisation into eight qualification levels which encompass all the qualifications currently awarded in our education and training system;

- Adoption of a methodology based on learning outcomes to describe each qualification level: the use of learning outcomes to define qualification levels reflects an important change in the way that qualifications are conceptualised and described, making it possible to compare them according to competences and not according to learning processes. The NQF thus allows comparison of competences acquired, independently of how they were acquired (in formal, informal or non-formal contexts). Describing qualifications on the basis of outcomes affords individuals and employers a clearer perception of the relative value of qualifications, which in turn helps the labour market a better performance. On the other hand, transnational mobility is facilitated by the comparability of qualifications that is ensured by the NQF and facilitated by way of the relationship with the EQF;

- Adoption of the domains "knowledge, skills and attitudes" to define the learning outcomes for each qualification level;

- Adoption of the descriptors of learning outcomes contained in the EQF.

In practice, as well as constituting a device for translating/comparing the qualifications issued by different systems, the EQF has become a tool that has given extra impetus to reform processes in many national qualifications systems and has aided the creation of national qualifications frameworks. The Portuguese case was no exception, and in creating the NQF the decision was taken to adopt the principles of the EQF, both in terms of organizing it into eight levels and of regarding the description of learning outcomes, which proved appropriate to our context and capable of accommodating all Portugal's national qualifications.

2.2.1 The structure of the NQF and referencing of this to the EQF

The National Qualifications Framework has adopted the same 8 qualification levels and the same descriptors for learning outcomes as the EQF. (Table 1and 2).

The NQF was constructed using the domains of knowledge, skills and attitudes for describing the learning outcomes at each qualification level. The concepts employed, as stipulated by Order no. 782/2009, of the 23rd of July, are as follows:

a) Knowledge – "the body of facts, principles, theories and practices related to a field of study or professional activity":

b) Skill – "the ability to apply knowledge and use know-how to carry out tasks and solve problems. A skill may be cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments);

c) Attitude – "the ability to carry out tasks and solve problems of lesser or greater degrees of complexity and involving various levels of autonomy and responsibility.".

In comparing these fields with those in the EQF, it can be seen that there is only one difference: the concept of "attitude" was used as a descriptor in the NQF in the place of the "competence" descriptor used by the EQF.

This choice of descriptor is justified by the fact that the National Qualifications System defines the concept of "competence" as being "the proven ability to use knowledge, skills and attitudes at work, in professional development, in education and in personal development." This explains why it would be less than coherent to make use of "competence" as one of the descriptors for learning outcomes in the NQF.

Although the concept of "attitude" extends, for all intents and purposes, beyond the level of responsibility and autonomy shown in given situations, the term "attitude" is used in the NQF in a more operative sense, in an attempt to facilitate the classification of national qualifications. In this sense, "attitude" may be thought of as consisting of two sub-domains:
-    the individual's level of responsibility for their own actions and for the actions of third parties;
-    the level of autonomy, this being structured from absence of/low level autonomy (level 1/level 2) to maximum autonomy (level 8) on an increasing (-) to (+) scale.

This subdivision of "attitude" is designed to accommodate directly observable behaviours that can be demonstrated through concrete actions (evidence of learning or performance), in accordance with a specific context of application.

Table 1
Descriptors of the levels of the National Qualifications Framework

[in accordance with the Recommendation of the European Parliament and of the Council, of 23 April 2008, on the establishment of the European Qualifications Framework for lifelong learning (OJ, no. C 111, of 6 May 2008)]

Qualification levels	Corresponding learning outcomes		
	Knowledge	Skills	Attitudes
Level 1	Basic general knowledge.	Basic skills required to carry out simple tasks.	Work or study under direct supervision in a structured context.
Level 2	Basic factual knowledge of a field of work or study.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools.	Work or study under supervision,with some autonomy.
Level 3	Knowledge of facts, principles, processes and general concepts in a field of work or study.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information.	Take responsibility for completion of tasks in work or study. Adapt own behaviour to circumstances in solving problems.
Level 4	Factual and theoretical knowledge in broad contexts within a field of work or study.	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study.	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change. Supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Level 5	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge.	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems.	Exercise management and supervision in contexts of work or study activities where there is unpredictable change. Review and develop performance of self and others.
Level 6	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles.	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study.	Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts. Take responsibility for managing professional development of individuals and groups.
Level 7	Highly specialised knowledge, some of which is at the forefront of knowledge in a particular field of work or study, as the basis for original thinking and/or research. Critical awareness of knowledge issues in a field and at the interface between different fields.	Specialised problem-solving skills required in research and/or innovation, in order to develop new knowledge and procedures and to integrate knowledge from different fields.	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches. Take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams.

Level 8			
	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields.	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice.	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research.

Source: Order no. º782/2009, of the 23rd of July

The approach taken to conceive the NQF, taking advantage of the existence of the EQF, made it possible to overcome certain critical issues in terms of the positioning of national qualifications within the levels used hitherto, namely:

- integration of levels of education and levels of vocational training in qualification levels;

- explicit identification, in secondary education, of vocational courses and scientific humanities courses;

- formalisation of double certification at basic and secondary level;

- valuing the qualifications obtained via recognition of competences by including them in the same qualification levels as those obtained by way of training processes;

- valuing double certification at secondary level.

The following table details the different routes by which a given qualification level in the National Qualifications Framework may be obtained. It also explains the certification associated with each of the levels.

Table 2
The structure of the National Qualifications Framework

Qualification level	Qualifications
Level 1	2nd cycle of basic education
Level 2	3rd cycle of basic education (lower secondary education) obtained in basic education or via double certification paths
Level 3	Secondary education with a view to pursuing higher level studies
Level 4	Secondary education obtained via double certification paths or secondary education with a view to pursuing higher level studies plus on-the-job training - minimum six months
Level 5	Post-secondary non-higher level qualification with credits to pursue higher level studies
Level 6	*Licenciatura* degree
Level 7	Master degree
Level 8	Doctoral degree

2.3 The Portuguese Education and Training System

2.3.1 Presentation of the Portuguese Education and Training System

The Education and Training System in Portugal is structured in accordance with the Founding Law for the Educational System (Law no. 46/86, of the 14th of October, with some articles being subsequently amended by Laws no. 115/97, of the 19th of September, and no. 49/2005, of the 30th of August) and the Decree Law no. 396/2007 that provides for the National Qualifications System. The founding law organises education into preschool education, school education (itself subdivided into basic education, secondary education and higher education) and extra-school education. The Decree Law no. 396/2007 sets up the National Qualifications System and defines the regulatory framework for education and training at the basic, secondary and post-secondary levels for both young people and adults.

Figure 1 – Portuguese Education and training system

Agência Nacional para a Qualificação, I.P.
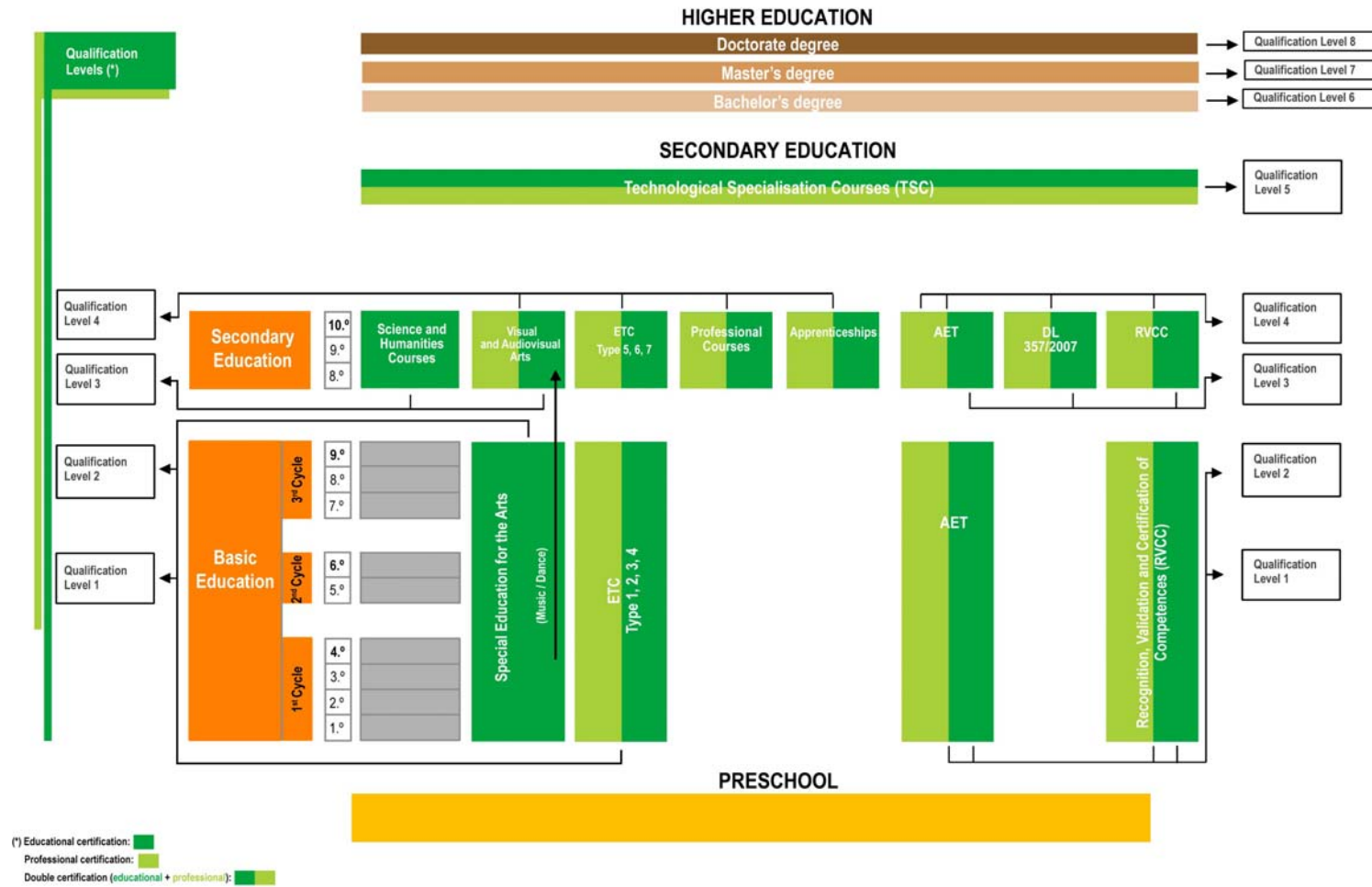
2.3.1.1 Preschool Education

Preschool education is the first step in the education system. It is optional and is aimed at children between the ages of 3 and the basic school starting age. Law no. 85/2009, of the 27th of August, stipulates that preschool education should be available to all children from age 5 onwards. The state is obliged to ensure that there is a preschool network with sufficient coverage to offer places to all those children who are entitled to them. Moreover, it also has the duty to ensure that children are able to attend the educational component of preschools free of charge.

Preschool education takes place in private or public nursery schools.

2.3.1.2 Basic Education

Basic Education corresponds to what the Founding Law, in its initial version (Law no. 48/86, of the 14th of October), established as required basic training for all citizens. This stipulation was reaffirmed by subsequent alterations to this law (including the most recent changes introduced by Law no. 49/2005, of the 30th of August). This is irrespective of the fact that compulsory schooling now goes beyond these limits, as seen recently in the extension of compulsory schooling to the age of 18, or until the student has completed a course equivalent to secondary level education (Law no. 85/2009, of the 29th of August).

Basic education is compulsory, unified and free. For a better understanding of how it works, the arrangements for young people and adults are dealt with separately here.

2.3.1.2.1 Young people

Basic education lasts for nine years, from ages 6 to 15 and is organised into three sequential cycles:
- In the 1st cycle there is a single class teacher, though specialist teachers may be used in certain areas, particularly those of curriculum enrichment activities (e.g. for English, physical education and sport and music).
- In the 2nd and 3rd cycle, teaching is organised by subject and multidisciplinary study areas. There are various teachers for each class, with specialists teaching the various subjects/subject areas.

As a whole, and for basic education, all essential and structuring competences are defined in the national curriculum. This defines the profile of exit competences for each of the cycles within the basic education system, as well as the types of educational experiences that all students should have access to.

Upon completion of the cycle, the student is awarded either a level 1 (2nd cycle of basic education) or a level 2 (3rd cycle of basic education) qualification from the National Qualifications Framework.

In addition to the general path described above, the basic education system also offers a specialised arts stream and education and training opportunities for young people designed to combat early school leaving or to reintegrate young people who have left before concluding their compulsory education.

Whatever path considered – regular, special for the arts and an education and training offer for young people- at the end of the 3rd cycle of basic education (level 2 qualification from the National Qualifications Framework) there is a possibility to continue the studies in secondary education.

- **Specialised Basic Education Course for the Arts**
The Specialised Basic Education Courses for the Arts, in the areas of music, Gregorian chant and dance (set up by Order no. 691/2009, of the 25th of June), are courses taught in the 2nd and 3rd cycles of the basic education system. They are designed to offer a specialist musical education and an understanding of the musical sciences together with dance techniques and a development of an aesthetic awareness and an understanding of the history of dance.

The completion of a Specialised Basic Education Course for the Arts, in music, in Gregorian chant and in dance, entitles the student to a basic education diploma at level 2 of the National Qualifications Framework.

- **Education and training courses for young people**
The education and training courses (set up by Joint Decree no. 453/2004, of the 27th July) are designed for young people, aged 15 or over, who are at risk of leaving school early or who have already left the school system before completing their compulsory education. They are also aimed at young people wishing to obtain a professional qualification that will allow them to enter the professional labour market. These courses are structured with sequential entry points which encourage progression through increasingly higher levels of learning, and so help prevent early school leaving.

For those young people intending to complete the 2nd and 3rd cycles of basic education, there are four training paths available (type 1 to type 4), all of which lead to school and professional certification.

Table 3 – Training paths (type 1 to type 4)

Training paths	Minimum conditions of access	Minimum Duration (hours)	School and Professional certification
Type 1*	Less than the 6th grade, having failed once or twice during schooling	1872/1125 (Path with the duration of one or two years depending on the conditions of access)	6th Grade of schooling (2nd cycle of basic education) Level 1 qualification
Type 2*	Having completed the 6Th or 7th Grades or having attended the 8th Grade without success	2109 (Path with the duration of one year)	9th Grade of schooling (3rd cycle of basic education) Level 2 qualification
Type 3*	Having completed the 8th Grade or having attended the 9th Grade without success	1200 (Path with the duration of one year)	9th Grade of schooling (3rd cycle of basic education) Level 2 qualification
Type 4	9th Grade certificate or having attended the secondary level of education, without completing it	1230 (Path with the duration of one year)	Recognition of school competences Level 2 qualification

* Young people under the age of 15 can also have access to these paths according to authorization of the Regional Director of Education.

The conclusion of each training path allows the student to carry on his/her studies in the next levels as follows:

- the conclusion of an Education and Training Course Type 1 allows attending the 3rd cycle of basic education;

- the conclusion of Education and Training Courses Types 2 or 3 allows attending the 3rd cycle of basic education;

- the conclusion of an Education and Training Course Type 4 allows carrying on studies on an Education and Training Course Type 5.

Levels are attributed according to the cycle that is completed: level 1 (type 1 – 2nd cycle) or level 2 (types 2, 3 and 4 – 3rd cycle) of the National Qualifications Framework.

2.3.1.2.2 Adults

Adults may obtain their basic education through adult education classes, by completing a course on the adult education and training (AET) programme, through the Recognition, Validation and Certification of Competences (RVCC) procedure or through certified training modules (flexible qualification pathways).

The system also offers a literacy programme – the training programme in basic competences (Order no. 1100/2010, of the 22nd of October) - which is aimed at people aged 18 or over who did not attend the 1st cycle of basic education (or an equivalent) or who did attend but did not demonstrably acquire basic competences in reading, writing, mathematics or the use of information and communication technology. The acquisition of these basic competences will make it possible for these adults to then enter qualification pathways (namely, adult education and training courses or processes for the recognition, validation and certification of basic level competences) which will allow them to acquire further competences and the appropriate certification as well as encouraging autonomy, self-learning and cooperative working.

- Adult education and training courses

Adult education and training courses (regulated by Order no. 230/2006, of the 7th of March) provide the main route by which adults may acquire education and training qualifications by following education and training pathways.

These courses are aimed at adults, aged 18 or over, who have low levels of educational or professional qualifications. These will be adults wishing to complete the 1st, 2nd or 3rd cycles of basic education or to complete this schooling and, at the same time, become professionally certified. Depending on the training pathway selected, these courses may lead to school certification alone, professional certification alone or a double certification (school and professional). This education and training system also works in conjunction with procedures for the recognition, validation and certification of competences, in such a way as to make it possible for adults to obtain, through selective training, any competences that they do not yet have for a given qualification.

As far as evaluation is concerned, the adult education and training courses include a formative assessment (allows to obtain information about the development of the apprenticeship) and a summative assessment (as a basis to final certification).

School certification, following a basic level adult education and training course, allows adults to continue their studies by following a similar type of course at secondary level.

The student is awarded either a level 1 (2nd cycle of basic education) or a level 2 (3rd cycle of basic education) qualification from the National Qualifications Framework.

- System for the Recognition, Validation and Certification of Competences

The National System for the Recognition, Validation and Certification of Competences (regulated by Order no. 370/2008, of the 21st of May) implements a process of recognition of educational and professional competences.

The National System for the Recognition, Validation and Certification of Competences aims to improve the certification levels of adults over the age of 18 who have not completed the basic or secondary levels of education, and operates in lifelong learning system. The system allows knowledge and competences acquired over a lifetime, in formal or informal learning contexts, to be recognised, validated and certificated. Certification via this pathway has equal stature to any other method of obtaining the same certification and allows the holder to continue their studies.

Adults aged 18 or over who have not completed their 4th, 6th or 9th years of schooling are entitled to access the basic education level.

Once the education RVCC process is complete, a basic level certificate is issued (certificate of qualifications corresponding to the 1st, 2nd or 3rd cycle of basic education plus a basic education diploma). The student is awarded either a level 1 (2nd cycle of basic education) or a level 2 (3rd cycle of basic education) qualification from the National Qualifications Framework.

Adults aged 18 or over who are not qualified in their professional areas may also choose a process for the Recognition, Validation and Certification of Professional Competences

This system allows experience-based professional knowledge and competences, acquired in various contexts over a lifetime, to be recognised, validated and certificated. The certification obtained through this system not only increases personal, social and professional worth but also opens the way to the training pathway at the next highest level.

Like the Educational RVCC, the Professional RVCC process is managed by the New Opportunities Centres. These processes are based on the referencing of the Professional RVCC in question to each level 2 NQF qualification, as listed in the National Qualifications Catalogue.

In general, the recognitions processes for educational and professional competences involve the following steps:
- Identification and recognition of the adult's educational and/or professional competences;

- Identification of areas in which competences may be missing, together with an indication of the additional training that is required;
- Certification of the educational and professional competences and the issue of a Certificate or Diploma of Qualifications.

At the end of the Professional RVCC process, the certification of competences leads to a certificate of qualifications (which proves and explains the certificated professional competences) and/or a diploma, in the case of basic education, for a level 2 National Qualifications Framework qualification, provided that the adult has already completed the 3rd cycle of basic education.

- Modular Training – flexible qualifications pathways
Modular training (regulated by Order no. 230/2008, of the 7th of March), integrated into the long-life training programmes of the working population, was created with the objective of allowing adults (aged 18 or over) to acquire competences in a flexible manner. The purpose is to help such adults obtain further educational qualifications and professional certification, thus allowing them to (re)enter or progress within the labour market.

In the case of basic education, modular training is developed and run by Short Training Units (STU) and is integrated with level 2 NQF training pathways.

Modular training courses may be accumulated to obtain one or more qualifications in the National Qualifications Catalogue. They allow variable duration training pathways to be created. These are adaptable to a range of training modalities, target publics, methodologies, training contents and validation methods. The curricular organisation of modular training, for each course unit, is harmonised with the relevant training references in the National Qualifications Catalogue. Thus, each unit may correspond to a basic training unit, a technology training unit or both.

The process of evaluation of the modular training courses includes the formative assessment, which allows getting information about the development of apprenticeship and the summative assessment that is used to take the decision of certifying the adult. The criteria of the formative assessment include the participation, the motivation, the acquisition and use of knowledge, the mobilization of competences in new situations, the interpersonal relationships, the team work, the accommodation to new tasks, the punctuality and the assiduity. The summative assessment expresses if the trainee has or hasn't reached the training objectives.

The completion of a qualification pathway by means of modular training based on STU integrated with a basic level qualification pathway, will result in the award of a level 2 National Qualifications Framework qualification.

2.3.1.3 Secondary Education

Secondary education is organized in different ways including courses mainly designed for those intending to continue their studies, and education and training courses designed for immediate entrance in the labour market, but also allowing the continuation of studies. The organisation of courses within this double track approach, allows for the building of flexible training pathways, including inter-course crossover, making it much easier to redirect a students' progress through the school system.

Secondary education involves a wide-ranging training offer – at the curricular planning, organisational and operational levels. As with basic education, the description of secondary education given here has been subdivided into education and training modes aimed at young people and those offered to adults.

2.3.1.3.1 Young people

Secondary education offers a wide range of education and training possibilities for young people. In terms of school qualifications, there are the science and humanities courses and a number of special courses for the arts. In the double certification format, there are professional courses, the remaining special courses for the arts, apprenticeship courses and education and training courses for young people. These double certificated courses not only develop competences at the secondary education level but also develop professional competences that will allow young people to enter the labour market and exercise a profession.

- Science and Humanities Courses

The science and humanities courses (regulated by Order no. 1322/2007, of the 4th of October) are designed to prepare students for higher education studies. There are four types of courses: Sciences and Technologies, Socioeconomic Sciences, Languages and Humanities and Visual Arts.

The conclusion of a course of the secondary level of education depends on the approval in all the subjects – what, in the case of the science and humanities courses, requires taking national exams (article 10th of the Order no. 259/2006, of the 14th of March). Besides the Portuguese national exam, common to all science and humanities courses, the student has to take three more national exams, depending on the study plans of each course.

Currently, these courses are certificated by means of both a diploma, naming the course, stating that the student has completed secondary education and a certificate detailing the subjects studied, the project area and the final marks obtained together with the marks for those subjects in which exams were taken. On completion of a sciences and humanities course, the student can continue his/her studies in higher education, and a level 3 National Qualifications Framework qualification is awarded.

- Specialised Secondary Education Course for the Arts
The specialised secondary education courses for the arts cover the areas of the visual and audiovisual arts, dance and music and are designed to provide specialised training in the arts. As a function of the study area, these courses are intended either to lead to further studies (Music and Dance) or to offer the choice of entry to the labour market or further studies (Visual and Audiovisual Arts – set up by Order no. 550-D/2004, of the 21st of May).

In the specialised secondary education courses for the arts the evaluation includes the formative and the summative assessments. The students who want to continue their studies in higher education have to take the national exams.

Completion of a Specialised Course for the Arts in Music or Dance entitles the student to a secondary education diploma and the award of a level 3 National Qualifications Framework qualification. Completion of a Special Course for the Arts in the Visual or Audiovisual Arts entitles the student to a secondary education diploma and the award of a level 4 National Qualifications Framework qualification.

- Professional Courses
Professional courses (set up by Order no. 550-D/2004, of the 21st of May) are double certificated and are designed for preparing students both to enter the labour market and continue their studies in non-higher post-secondary courses or in higher education. These courses are three years long, correspond to the 10th, 11th and 12th years of school and are organised into modules.

The evaluation can be formative and summative, the latter taking place when all the modules of each subject are concluded. The summative evaluation includes the assessment of the on-job training period and at the end of the 12th Grade the assessment of the Final Vocational Examination.

The conclusion of a professional course allows continuing studies in a Technological Specialization Course or in higher education.

Successful completion of a professional course entitles the student to a secondary education diploma and the award of a level 4 National Qualifications Framework qualification.

- Apprenticeship Courses

Apprenticeship Courses (regulated by Order no. 1497/2008, of the 19th of December) are initial professional sandwich courses (there being a balance of theoretical and practical training taking place in both the training institution and the company). These courses are aimed at young people under the age of 25 who have successfully completed the 3rd cycle of basic education or who have attended, but not completed, a secondary level course. The courses are specifically designed to help young people enter the labour market, although they also allow further studies in higher education.

As far as evaluation is concerned, these courses include a formative and a summative evaluation. In the last year (12th grade) there is a Final Vocational Examination. This examination consists of the doing or making, before a jury, of one or more practical work(s), based on the activities of the professional profile, thus evaluating the key competences of the training referential.

Apprenticeship courses are double certificated and a level 4 National Qualifications Framework qualification is awarded.

- Education and Training Courses for Young People (ETC)

The education and training courses, which, as described above, also exist at the level of basic education, are designed for young people, aged 15 or over, who are at risk of leaving school early or who have already left the school system before completing 12 years of schooling. They are also aimed at young people wishing to obtain a professional qualification that will allow them to enter the professional labour market.

There are 4 training pathways (type 5 to type 7) open to young people wishing to obtain a secondary-level education. These pathways lead to double certification (educational and professional).

Table 4 – Training paths (type 5 to type 7)

Training paths	Minimum conditions of access	Minimum Duration (hours)	School and professional certification
Complementary Training Course	Certificate of courses type 2 or 3 or level two qualification or certificate of the 9th grade intending to continue studies	1020 (Path with the duration of one year)	Recognition of school competences
Type 5	Having completed the 10th grade of the secondary level of education, or having attended the 11th grade without success, or certificate of course type 4, or level 2 of qualification plus the certificate of complementary training course	2276 (Path with the duration of two years)	12th grade of schooling Level 4 qualification
Type 6	Having completed the 11th grade of the secondary level of education or attended the 12th grade without success	1380 ((Path with the duration of one year)	12th grade of schooling Level 4 qualification
Type 7	Certificate of the 12th grade of a science and humanities course of the secondary level of education	1155 ((Path with the duration of one year	Level 4 qualification

The conclusion of an education and training course for young people Type 5, 6 or 7 allows continuing studies in a Technological Specialization Course or in higher education.

Completion of a secondary-level education and training course entitles the student to a level 4 National Qualifications Framework qualification.

2.3.1.3.2 Adults

Adults may complete their secondary education via the adult education programme, an adult education and training course (AET), the recognition, validation and certification of competences (RVCC), modular training (flexible training pathways) or through a number of other ways.

- Adult education and training courses
Adult education and training courses are offered to adults wishing to improve their qualifications. As with basic education, these courses may be taken in the form of educational certification pathways, wherever the adult in question has a suitable profile and background experience, or via double certification pathways.

There are a number of learning pathways on offer, with various entry conditions, for those adults obtaining educational certification. Entry is dependent on the adult's prior formal educational certified before. Both

these adults and those obtaining double certification may then follow a Course in Technological Specialisation (level 5 of the National Qualifications Framework) or a higher education course.

Adults who complete a secondary-level adult education and training educational course are awarded a level 3 National Qualifications Framework qualification. Those completing a secondary-level adult education and training course (education and professional training track) are awarded a level 4 National Qualifications Framework qualification.

- System for the Recognition, Validation and Certification of Competences
As described above for the basic education level, the recognition, validation and certification of competences process may lead to certification of educational competences (Educational RVCC) or of professional competences (Professional RVCC).

Adults over the age of 18 may apply for educational RVCC at the secondary level, provided they have at least three years professional experience. On completion of the educational RVCC process – which is based on the Adult Education and Training Key Competences Reference System (secondary level) – and in accordance with the competences held, adults are awarded partial certification, corresponding to a number of secondary-level educational competences, or full certification, corresponding to a level 3 National Qualifications Framework qualification.

The professional RVCC process is based on the referencing of the Professional RVCC to the level 4 qualifications contained in the National Qualifications Catalogue. On completion of the professional RVCC process, and in accordance with the competences held, adults are awarded partial certification, corresponding to a number of the competences required for the professional certification in question, or full certification, corresponding to a level 4 National Qualifications Framework qualification, where they have already completed their secondary education.

All adults completing a secondary-level RVCC process may continue on to higher education by taking special exams, done by higher education establishments, under the regulation of access to higher education for people over 23 years old (Decree-Law no. 64/2006, of the 21st of March), or by taking the national exams of the secondary level of education. .

- Modular training – flexible qualifications pathways

As mentioned above, modular training was set up to enable those adults aged 18 or over who do not hold sufficient qualifications to enter or progress in the labour market, to acquire competences. Priority is given to those adults who have not completed their basic or secondary education.

In the case of secondary education, modular training courses made up of Short Training Units (STU) integrated with secondary-level training pathways from the National Qualifications Catalogue are only open to those adults who have completed at least the 3rd cycle of basic education.

On completion of a modular training qualifications pathway based on STU integrated with a secondary-level NQC qualifications pathway, a level 4 National Qualifications Framework qualification is awarded and it is possible to carry on studies in higher education.

- Other ways of completing secondary-level education

There are number of other ways of completing secondary-level education. The secondary-level completion programme is aimed at adults who attended, but did not complete, courses which are no longer in existence (up to six subjects per year to be completed) (regulated by Decree-Law no. 357/2007, of the 29th of October).

These secondary-level completion programmes are implemented either through the taking of exams or by following modular training courses referenced to the training offer described in the National Qualifications Catalogue.

a) Exams

The completion and certification of courses which are largely designed to prepare students for further study and courses leading to professional qualification is achieved through the taking of exams in subjects which are similar to the subjects not completed in the student's original course of study. The completion and general certification (without course specification) of secondary-level education is achieved by the taking of exams in selected subjects, but without these necessarily matching subjects on the student's original course of study.

Certification of courses primarily designed for further study and of general courses is at level 3 of the National Qualifications Framework, while certification of courses leading to professional qualifications is at level 4 of the National Qualifications Framework.

b) Training modules

Completion and certification by means of the successful completion of short training units referenced to the training system integrated with the secondary-level qualifications pathway contained in the National Qualification Catalogue leads to a level 3 National Qualifications Framework qualification.

Certification acquired through secondary-level completion mechanisms allows students to continue on to post-secondary or higher education.

2.3.1.4 Non-higher post-secondary education

Technological specialisation courses (TSC) set up by the Decree-Law no. 88/2006, of the 23rd of May, are specialised training pathways that focus on various technological areas and are designed to prepare students for entry into the labour market, to requalify professionally or to continue studies in higher education. These courses last for about a year and a half (between 1200 and 1500 of contact hours) and are run by both higher education establishments and non-higher education establishments.

Successful completion of a course in a technological specialisation leads to a Diploma in Technological Specialisation (DTS). This diploma allows students to apply for higher education courses via the special entry track, regulated by subparagraph b) of paragraph 2 of article 3 of the Decree-Law no. 393-B/99, of the 2nd of October, and the training that they have already undertaken is accredited to whichever higher education course they enter.

Completion of a course in a technological specialisation entitles the student to a level 5 National Qualifications Framework qualification.

2.3.1.5 Higher Education

Higher education is structured into three cycles (Decree-Law no. 74/2006, of the 24th of March, amended by the Decree-Laws no. 107/2008, of the 25th of June and no. 230/2009, of the 14th of September)), as stipulated by the second amendment to the Founding Law for the Education System (Law no. 49/2005, of the 30th of August, which amended the Law no. 46/86, of the 14 of October, altered by the Law no. 115/97, of the 19th of September): the 1st cycle granting the graduation degree, the 2nd cycle granting the master's degree and the 3rd cycle granting doctorate..

In organisational terms, the Portuguese higher education system incorporates both university and polytechnic education. As a consequence of this binary system the institutions of higher education are divided into University institutions and polytechnic institutions.

As far as the degrees of higher education are concerned, the universities grant the graduation degree, the master's degree and the doctorate, while the polytechnic institutions only grant the graduation degree and the master's degree.

On the other hand, the Portuguese high education system includes the public high education system (institutions belonging to the state) and the private high education system (institutions belonging to private and cooperative entities and the Portuguese Catholic University).

a) 1st Cycle of studies

The 1st cycle of higher education studies lasts for 3 academic years and leads to a bachelor's degree. Bachelors' degrees are awarded by both universities and polytechnics. In polytechnic education the study programme leading to a bachelor's degree should be particularly focused on professional training, ensuring that courses contain components in which students apply their knowledge and know-how to concrete activities related to the professional profile in question.

In the normal case, the cycle of studies leading to a bachelor's degree in the polytechnic system lasts for six curricular semesters and corresponds to 180 credits. In exceptional cases, when it is essential for the exercise of a certain activity, and as imposed by national or European legal standards, courses may last up to seven or eight semesters and have up to 240 credits for coursework.

The cycle of studies leading to a bachelor's degree in the university system has 180 or 240 credits and normally runs over six or eight curricular semesters, corresponding to similar values adopted by European reference universities in the same areas.

In the 1st cycle of studies of higher education the graduation degree is granted to those who passed all the curricular units that are part of the study plan, thus obtaining the number of credits established.

Completion of a 1st cycle higher education course entitles the student to a level 6 National Qualifications Framework qualification.

b) 2nd Cycle of studies

The 2nd cycle of higher education studies leads to a master's degree. As with the bachelor's degree, the master's degree may be awarded by both polytechnics and universities. In the polytechnic system, the study cycle leading up to a master's degree should primarily ensure that students acquire a professional specialisation. In the university system, the study cycle leading up to a master's degree should primarily ensure that students acquire an academic specialisation through research activity or further development of their professional competences.

The study cycle leading to a master's degree has 90 to 120 credits and normally lasts for three to four curricular semesters, or exceptionally as a consequence of a stable practise consolidated internationally, lasts two semesters corresponding to 60 ECTS.

In the university system, a master's degree may also be awarded following an integrated study cycle of 300 to 600 credits and a normal duration of between 10 to 12 curricular semesters. This integrated master's is offered where there are statutory European standards regarding the duration of courses that allow the practice of certain professions or where these is a common stable tradition of such durations in the European Union. On such courses, a bachelor's degree is awarded to students who obtain the 180 credits corresponding to the work undertaken during the first six curricular semesters.

For both the polytechnic and university systems, the master's degree is awarded on completion of the master's course study plan to those students who, by passing all the curricular units in the master's course study plan and successfully defending their dissertation, project report or internship report in a public hearing, have obtained the requisite number of credits.

Completion of a 2nd cycle higher education course entitles the student to a level 7 National Qualifications Framework qualification.

c) 3rd Cycle of studies

The 3rd cycle of higher education course grants the Doctorate degree. It is awarded to those students who have passed all the curricular units in the doctorate study plan (where applicable) and have successfully defended, in a public hearing, an original thesis written for the express purpose, have gathered a coherent and relevant number of research works or in the domain of the arts, have presented a piece or gathered several creative pieces.

Completion of a 3rd cycle higher education course entitles the student to a level 8 National Qualifications Framework qualification.

3. Response to the referencing criteria

3.1 Criterion 1

> The responsibilities and/or legal competence of all relevant national bodies involved in the referencing process, including the National Coordination Point, are clearly determined and published by the competent public authorities.

The referencing process involved the direct collaboration of a group of national bodies with regulatory responsibilities, specifically as regards the production of qualifications and the quality assurance processes for the education and training system.

The National Agency for Qualifications, I.P. (NAQ) was designated National Coordination Point for the European Qualifications Framework (EQF) by means of the publication, in the Official Diary of the Republic, of Order no. 782/2009, of the 23rd of July (article 5). Besides NAQ, were also involved 4 organisations:

- The General Directorate for Higher Education (GDHE);
- The General Directorate for Curriculum Innovation and Development (GDCID);
- The General Directorate for Employment and Labour Relations (GDELR);
- The Agency for the Accreditation and Assessment of Higher Education (A3HE).

These entities had an intervention at two levels: macro level, as Members of the Steering Committee for the referencing process, and at a micro level, through the participation of their representatives in a technical working group that support the development of the referencing report.

Those bodies, in addition to the NAQ, which constituted the Steering Committee and the Working Group for the referencing process, were also directly involved throughout the whole process, namely:

- they participated in meetings to discuss the organisation of the referencing process, the setting of a timetable, a methodology and a structure for the report, the technical opinions of the national and international experts;

- they were involved through a national seminar, where they presented communications concerning the NQF;

- they analyse and discuss some previous versions of the intermediate report and of the final report on the Referencing of the National Qualifications Framework to the European Qualifications Framework.

The NAQ besides being involved in all the previous tasks, prepared this referencing report ensuring that a transparent methodology is used in all process and supporting the distribution and publication of the results of the referencing process in an understandable way for national and international users and interested parties. The NAQ is also responsible for disseminating information about the national referencing process and the results.

Below is a brief description of the bodies making up the Steering Committee and the Working Group. Further information on each of these is available from their websites.

- National Agency for Qualifications (NAQ)

The National Agency for Qualifications is a public institution set up in 2007 (Decree-Law no. 276-C, of the 31st July), under the aegis of the Ministry of Labour and Social Solidarity and the Ministry of Education. Its mission is to coordinate and implement education and training policies for young people and adults and to develop and manage the system for the recognition, validation and certification of competences. It has a key role to play in achieving the targets set out by the New Opportunities Initiative.

In terms of the qualification policy for Portugal, which has at its centre the encouragement of the uptake of secondary-level education as a minimum level of qualification, NAQ's work is aimed at achieving the targets that have been established and promoting the relevance and quality of education and professional training.

NAQ's main responsibilities are: to coordinate and implement the education and double certificated professional training offer, for adults and young people, participating in the drawing up of guidelines for financing models and for the allocation of resources to qualification offers for adults and young people; to develop and manage the system for the recognition, validation and certification of both educational and professional competences, and maintaining the network of New Opportunities Centres; to design and update the National Qualifications Catalogue with the help of the Sector Qualifications Councils, designing education and training pathways for young people and adults that are flexible, modular and cumulative; to promote innovation in curriculum design, in methodologies and in pedagogical resources; to participate in the drawing up of mechanisms for integrated assessment and quality assurance as they apply to the

education and training offer for young people and adults and to establish, within its mission parameters, cooperative or associative links to other public or private entities, Portuguese or foreign.[1]

- The General Directorate for Higher Education (GDHE)

The General Directorate for Higher Education (GDHE) is a directly administered state organisation (Decree-Law no. 151/2007, of the 27th of April) under the aegis of the Ministry of Science, Technology and Higher Education. The GDHE designs, implements and coordinates the policies set out by the Ministry of Science, Technology and Higher Education. Its main responsibilities are: to support the government minister for higher education in the drawing up of higher education policies, particularly as these regard the network of institutions, access and social support; to prepare and implement decisions taken by the minister, without compromising the autonomy of the higher education establishments that these affect; to coordinate the higher education application and placement processes; to give support as requested by the Agency for Assessment and Accreditation for Quality Assurance in Higher Education, regarding accreditation and assessment processes in higher education; to register the study cycles operating within the higher education system and the technological specialisation courses and to promote the mobility of Portuguese higher education students within Europe.

The General Directorate for Higher Education is the organisation responsible for the referencing levels 5 to 8 of the National Qualifications Framework to the EQF, in collaboration with the National Qualifications Agency, I.P. [2]

- The General Directorate for Curricular Innovation and Development (GDCID)

The General Directorate for Curricular Innovation and Development (GDCID) is a directly administered state organisation set up in 2007 (Regulatory Decree no. 29/2007, of the 29th of March) under the aegis of the Ministry of Education.

Its mission is to ensure implementation of policies relating to the pedagogical and didactic component of preschool education, basic education and secondary education (school track) as well as extra-school education. It is also responsible for organising and running exams and for providing technical support to the policy-making process, specifically in the areas of curricular innovation and development, teaching and assessment instruments and educational support and complementary structures as well as for overseeing and assessing the effectiveness of these.

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[1] For further information on NAQ, see: www.anq.gov.pt

[2] For further information on the GDHE, see: www.dges.mctes.pt

The GDCID's main responsibilities, amongst other areas, are: to study the curriculum, subject programmes and the guidelines for non-subject curricular areas and propose any changes necessary to bring these into line with the objectives of the educational system; to study the pedagogical organisation of schools, putting forward appropriate measures for reorganisation; to promote scientific research and technical studies, particularly oversight and assessment studies into curricular development and innovation, pedagogical and didactic organisation and assessment of the educational system; educational innovation and the quality of teaching and learning; to coordinate, oversee and suggest guidelines, in pedagogical and didactic terms, for school and preschool educational activities, including provisions for special education needs, distance learning and Portuguese schools abroad as well as the teaching of Portuguese in foreign schools, in collaboration with the Foreign Ministry service responsible for managing the network; to coordinate, oversee and suggest guidelines, in pedagogical and didactic terms, for school success rates and the prevention of early school leaving, specifically as regards guidance and support measures, educational recovery and complements, particularly those required by students with special earning needs and to certify qualifications and decide up the equivalence of qualifications held by students, without prejudice to the legal responsibilities of the schools themselves.[3]

- The General Directorate for Employment and Labour Relations (GDELR)

The General Directorate for Employment and Labour Relations (GDELR) is a central service directly administered by the state (Decree-Law no. 210/2007, of the 29th of March and Order no. 633/2007, of the 30th of May and article 13 of Decree-Law no. 211/2006, of the 27th of October). Its mission is to support the drawing up of policies on employment, training and professional certification and professional relations, including health, safety and wellbeing at work. It is also responsible for overseeing and encouraging collective contracts and the prevention of collective conflict in the workplace.

GDELR's main responsibilities are, amongst others: to prepare policy measures, legislation, including the transposition of community directives, and regulation, particularly as regards access to professions and professional training with measures on double certification, school and professional, being drawn up in collaboration with the National Qualifications Agency, I.P.; to participate in determining employment and training development strategies for workers at both the national and community levels; to assess policy measure and programmes; to prepare and support technical intervention at the national level for the adoption of community and national normative instruments, as well as cases before the European Community Court of Justice; to set criteria, to assess the quality and accreditation of training entities, as

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[3] For further information on the GDCID, see: www.dgidc.min-edu.pt

well as promoting knowledge of these in order to encourage a balanced growth of the training sector and the quality of its work and also the assessment of training results.[4]

- Agency for the Accreditation and Assessment of Higher Education (A3HE)
A3HE was set up by the state (Decree-Law no. 369/2007, of the 5th of November) to promote and assure the quality of higher education

The agency's main objective is to support improvements in the quality of the performance of higher education institutions and their study cycles and ensure that these comply with the official recognition requirements.

These objectives are achieved through the assessment and accreditation of higher education institutions and study cycles and, through these, by the encouragement of an internal institutional culture focused on quality assurance.

This, A3HE's main objectives are: to develop the assessment of performance quality at higher education institutions and for their study cycles; to apply assessment criteria in such a way as to be able to express the results of this process in a qualitative form and to determine the consequences of assessment results for the way in which institutions and their study cycles operate; to promote the accreditation of study cycles and institutions, ensuring that these comply with official recognition requirements; to publicise and explain to the public in general the quality of performance at higher education institutions and to promote the internationalisation of the assessment process.[5]

[4] For further information on the GDELR, see: www.dgert.mtss.gov.pt
[5] For further information on the A3HE, see: www.a3es.pt

3.2 Criterion 2

There is a clear and demonstrable link between the qualifications levels in the national qualifications framework or system and the level descriptors of the European Qualifications Framework

As it was stated in part 2.2, the National Qualifications Framework has adopted the same 8 level and descriptors of the EQF. Taking this in consideration, there is a direct link between these two frameworks, and the result of our referencing process can be explicit in the following figure:

Figure 2: The referencing of Portuguese NQF to the EQF
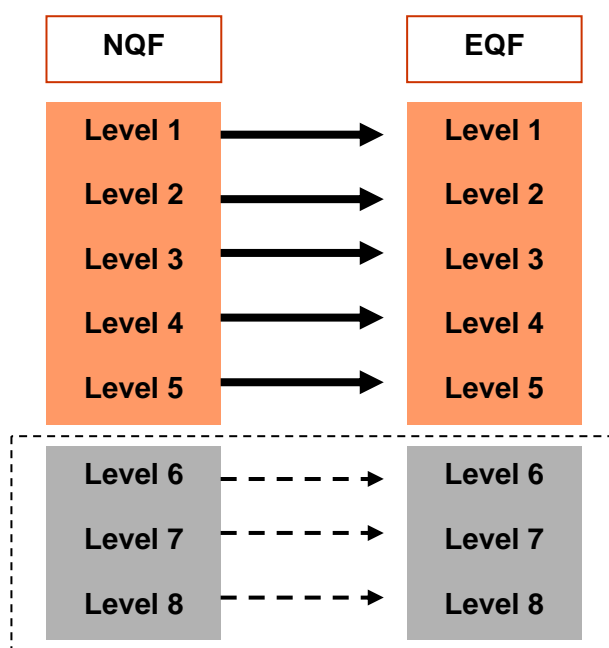
The Portuguese answer to this criterion assumes, firstly, that it is necessary to clarify the understanding of the referencing process issued in our own qualifications framework. Obviously, this is not a problem of diverging face values of the two classification structures as these, where this difference does exist, will be brought into line as explained by the criterion. Rather, the difficulty lies in making it plain that the levels and classification descriptors for the results produced by the Education and Training System in Portugal have been adjusted to the framework in use. In other words, the purpose of referencing the Portuguese National Qualifications Framework is more focused on demonstrating the system's internal coherence - the relationship between the qualifications produced and the framework in use - than it is on the analysis

of the relationship between the national framework and the target European framework given that these do not, on the face of it, differ significantly.

Thus, the referencing process comes down to the need to make clear why levels and descriptors in the European Qualifications Framework are able to classify, in a single framework, the qualifications produced by the different qualifications pathways in the Education and Training System in Portugal., and reinforce that this option has brought gains to the national system.

The NQF in the context of VET system reform

The answer to this question must begin with the need to situate the setting up of the National Qualifications Framework within the context of the reform process for the Education and Training System that was begun in 2007 with the "Agenda for the Reform of Professional Training". Although this reform process started off by looking specifically at professional training, it is certainly true that it covers much more than just this one aspect of the system. In effect, not just professional training but also the whole education and training offer (double certification) and the recognition of competences acquired in informal contexts were directly touched upon by this reform which began in 2007 and led to the setting up of the National Qualifications System.

The development of the National Qualifications System assumed the setting up of a National Qualifications Framework that would, in classifying qualifications, respond to the challenges of integrating the various qualifications pathways in terms of competences, ways in which, and places where, learning takes place, qualification standards definition and the certification of learning outcomes.

Concerning to the setting up of the National Qualifications Framework two key ideas arise:

i)   The NQF contributed to leverage the Education and Training System reform, in close coordination with policy priorities at the European level and in line with the expected dynamics of setting up national qualifications frameworks;

ii)   The objectives and guiding principles of the European Qualifications Framework were aligned with those that underpinned the objective of setting up the National Qualifications System and the National Qualifications Framework. A central advantage of this plan is the change in the organisation of the system to one based on learning outcomes.

This underlines the need to see the setting up of the National Qualifications Framework, and the options taken in doing this, in a context of reform and, simultaneously, the fact that the context and the objectives

of the change established a comfortable relationship, of both objectives and organising principles, between this and the European Qualifications Framework.

Comparative analysis of descriptors

The second step that needs to be taken in, responding to criterion 2 of the referencing process, is to explain why the favouring of a linear relationship between the levels and qualification descriptors of the two frameworks, national and European, did not lead to difficulties in classifying the qualifications produced by the Education and Training System in Portugal. To do this, it is necessary to look at how these qualifications were organised and classified leading up to the setting up of the National Qualifications Framework.

Up until this time, the Education and Training System in Portugal functioned, to a certain extent, with *implicit* qualifications framework that incorporated two broad points of reference:

i)   Schooling levels, for classifying the various stages of learning within which the pathways for study were organised;

ii)   Schooling levels associated with training levels (established by the Council Decision of the 16th of July 1985 (85/368/CEE))for classifying the various stages associated with VET pathways.

Strictly speaking, it was at the level of VET pathways that there was a true classification by qualification levels, although these were markedly professional. However, if it did establish a distinction between school based qualifications and professional qualifications, this implicit national qualifications framework also contemplated, through the access requirements for professional qualification, a correlation of the certification stages of both of these.

With the setting up of the National Qualifications System the relationship between the two dimensions of learning (school and professional) was strength, with the permanent association of a school level with a with professional training level, in the double certification qualifications .

 The next table intends to explicit the relationship between the descriptors (briefly detailed) associated with the training levels established by the Council Decision of the 16th of July 1985 (85/368/CEE) and the descriptors of the European Qualifications Framework adopted in the National Qualifications Framework.

Table 5- Relationship between descriptors in the "implicit" framework and descriptors in the NQF/EQF

Implicit Framework				NQF/EQF	
Training levels	Descriptors for professional training levels (Decision no. 85/368/CEE)	ISCED levels	ISCED descriptors	NQF/EQF levels	NQF/EQF descriptors
1	The amount of <u>technical knowledge and practical ability is extremely limited</u>. This training serves for carrying out a <u>relatively simple task</u> that can be learned quickly.	1 (primary education or 1st stage of basic education)	A <u>basic education</u> in reading, writing and mathematics, together with an <u>elementary understanding</u> of other subjects such as history geography, natural sciences, art and music.	1	<u>General basic knowledge</u> <u>Basic skills</u> necessary for carrying out <u>simple tasks</u> Work or study under direct supervision in a structured context
2	This level corresponds to a full qualification for the <u>carrying out of a closely specified activity</u>, with the ability to use the instruments and techniques associated with this task. This activity is essentially understood as the <u>carrying out of a task</u>, <u>possibly in an autonomous manner within the limits of the techniques</u> that are associated with it.	2 (lower secondary/ 3rd cycle of basic education)	To create the base for lifelong learning and human development Programmes at this level are usually more guided/specialised. <u>Full implementation of basic competences takes place at this level.</u>	2	<u>Basic factual knowledge in an area of work or study.</u> Basic cognitive skills and practices necessary for applying appropriate information to the <u>carrying out of tasks and solving of ongoing problems through the application of simple rules and instruments.</u> <u>Work or study under supervision, with a certain degree of autonomy.</u>
-	-	3 (secondary education)	More specialisation than level 2 Divided into levels 3A and 3B ISCED level 3A is higher than NQF level 3 as it gives direct access to ISCED level 5A (more theoretical learning)	3	Knowledge of general facts, principles, processes and concepts in an area of work or study A range of cognitive and practical skills for carrying out tasks and resolving problems through the application of methods, instruments, materials and basic information. <u>Assume responsibility for carrying out tasks in an area of work or study</u>. Adapt behaviour to circumstances in order to solve problems.

3	This training involves <u>more technical knowledge than level 2</u>. This activity mainly relates to technical work that can be <u>carried out in an autonomous way and/or include responsibilities</u> for contextualising or coordinating the same.		ISCED level 3B is equivalent to NQF level 4 as it allows direct access to ISCED level 5B (more <u>practical and technical</u> learning)	4	A broader-based factual and theoretical knowledge in an area of work or study. A range of cognitive and practical skills for devising solutions to <u>specific problems</u> in an area of work or study Manage one's own work within the established guidelines in a work or study situations that are generally predictable but which may change. <u>Supervise routine activities carried out by others and assuming certain responsibilities</u> regarding assessment and improvement of activities in work or study contexts.
4	This <u>high level technical training</u> may be acquired in or out of institutional school contexts. The qualification resulting from this training includes knowledge and abilities of a higher order. It does not normally demand a full understanding of the scientific basis of the various areas in question. These abilities and knowledge make it possible to take on, <u>in a generally autonomous or independent way, responsibilities for design and/or direction and/or management.</u>	4 - (post-secondary education)	The programme will be more <u>specialised</u> or detailed and the applications more complex in some cases.	5	Broad <u>specialist</u>, factual and theoretical <u>knowledge</u> in a given area of work or study and an understanding of the limits of this knowledge. A wide range of cognitive and practical skills for <u>devising</u> creative <u>solutions</u> to abstract problems. Manage and supervise in work or study situations subject to unpredictable change, Review and develop both own performance and that of others.
5	*Higher level training*	*5 e 6*	*Higher Education*	*6, 7, 8*	*Higher Education*

An analysis of this table leads to the conclusion that, from the point of view of progression of learning outcomes, in terms of knowledge employed, the complexity of tasks carried out and the level of autonomy expected, the descriptors form the National Qualifications Framework are, despite being more complete and wide-ranging, strongly similar to the descriptors previously used to classify training levels. They are also similar to the classification used in the ISCED levels. In the implicit qualifications framework used to organise certification in Portugal, the level of training is associated with a predetermined level of schooling. Thus, the option to establish a relationship between the descriptors and access conditions for this implicit framework and those defined in the National Qualifications Framework makes sense, remembering that the levels and descriptors in this latter framework closely mirror those in the European Qualifications Framework.

The next table is intended to identify the common elements of the descriptors of the "implicit framework" and the EQF, in order to explain why we have adopted it, instead of conceiving new descriptor for each qualification level.

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Table 6 – Common elements of the descriptors of the "implicit framework" and the NQF

Access to the Qualification	Implicit Framework Training Level	Common Descriptor Elements	NQF Qualification Level	Access to the Qualification
2nd cycle of basic education + Professional Training	1	Basic knowledge applied to carrying out simple tasks	1	2nd cycle of basic education
3rd cycle of basic education + Professional Training	2	Technical knowledge and ability to use instruments and techniques required to carry out a closely determined activity. Work with a certain degree of autonomy.	2	3rd cycle of general or double certificated basic education
Secondary Education + Professional Training or Secondary Education on a double certificated pathway	3	Assumes higher degree of knowledge and skills than the previous level, expects a greater degree of autonomy and responsibility	3	Secondary education aimed at further study
			4	Secondary education obtained through double certificated pathways or secondary education aimed at further study plus a professional internship of at least 6 months.
Post-secondary training	4	Assumes acquisition of knowledge and skills required to manage work autonomously and take on design and supervisory responsibilities.	5	Non-higher post-secondary qualification with credits for further study.
Higher training	*5*	*-*	*5*	*Higher education*

As can be seen almost immediately, there is much in common in the progression through the two frameworks concerning to learning outcomes, in terms of knowledge, skills, autonomy and responsibility, when applied to professional contexts. This is even more evident when considering the relationship between the first three levels. Here, the development of knowledge, skills and autonomy is almost identical, thus legitimising the correlation made between the levels of access to certification in each of these referencing systems. The main difference found between the descriptors relates to the context in which the competences are applied. In the case of the implicit framework, the contexts are exclusively professional whereas in the National Qualifications Framework study contexts are also included.

Options resulting from the new 8 level structure

The analysis of the first three levels shows that the level 1 is no longer achievable via VET. In effect, as a result of the growing demand regarding the competences required by different professions and the contexts in which these are carried out, it was decided to exclude from the National Qualifications System access to a VET qualification on the basis of learning associated with level one qualification. Thus, this level remains referenced to the school level that was already required for obtaining it.

Given that, the new framework extends the number of classification stages, using the last three (6, 7 and 8) for higher education level and that the first three are closely aligned with the previous implicit framework, the main innovation proposed by the new classification is centred on levels 4 and 5. For these levels, it is worth mentioning two underlying factors:

i)   The 'pulling' of the qualification level associated with post-secondary training up to level 5 of the National Qualification Framework, for the reason that the expected learning outcomes fit with a more demanding level of challenge, with possible links to higher education;

ii)   The differentiation of classification levels for secondary-level qualification, depending on whether this results from a general secondary education pathway (level 3 of the NQF) or a VET pathway, that means a double certification qualification (level 4 of the NQF).

The possibility of differentiating in terms of qualification level, the learning outcomes achieved through general secondary education pathway and through a VET pathway, makes an important contribution to the clarity and coherence of the National Qualifications Framework. In effect, analysis of descriptors 3 and 4 shows that passing from level 3 to level 4 involves the acquisition of knowledge and skills which will allow activities to be carried out with greater autonomy and will also allow the exercise of some supervisory functions. This progression accentuates one of the main acquisitions associated with the VET pathways

included in the National Qualifications System, thus overcoming one of the drawbacks of the *implicit* qualifications framework.

In effect, all qualification standards included in the National Qualifications Catalogue that supports VET courses at secondary level presupposes the acquisition of competences required for the autonomous exercise of professional activities and some, if limited, exercise of supervisory functions. This is an gain that, without doubt, adds to the learning outcomes achieved in a general secondary education pathway in that it demands, in addition to the learning outcomes that takes place, the acquisition of competences that are aimed at a quick and appropriate placement in the labour market. This is also why it was thought fitting that access to this qualification level should be available to those who, having completed a general secondary education pathway also undertake a professional internship of at least six months. Such a learning experience should allow the acquisition of the necessary competences for a more autonomous performance in a professional context.

In this sense, the descriptors from the European Qualifications Framework represented an opportunity to adopt a national classification framework that was better suited to recognising the difference between these two types of learning pathway and outcomes that, for all practical purposes, already existed but which was not properly classified for in the *implicit* qualifications framework being used.

The next table identifies the referencing of the different routes existing in the national system to the levels and qualifications included in the NQF. It confirms that the NQF is a comprehensive framework and that the 8 levels and the expected learning outcomes are suitable to include all types of qualifications awarded in our national system.

Table 7

Qualifications and routes

NQF levels	Qualification	Routes to qualifications and levels
Level 1	2nd cycle of basic education	Basic education – 2nd cycle Education and training courses for young people ((ETC) – Type 1 (double certification) Adult basic education programme – 2nd cycle (school) Education and training courses for adults (ETA) (B1+B2; B2) (double certification) Recognition, validation and certification of educational competences (RVCC)

Level 2	3rd cycle of basic education 3rd cycle of basic education and professional certification	Basic education – 3rd cycle Education and training courses for young people ((ETC) – Types 2, 3 and 4 (double certification) Special basic education courses for the arts (school) Adult basic education programme – 3rd cycle (school) Education and training courses for adults (ETA) (B2+B3; B3) (double certification) Recognition, validation and certification of educational competences (RVCC) Recognition, validation and certification of professional competences (RVCC) Certificated modular training (double certification)
Level 3	Secondary education	Science and humanities courses Special courses for the arts in the areas of music and dance (school) Adult education programme – Science and humanities courses Education and training courses for adults (ETA) (school) Recognition, validation and certification of competences (RVCC) (school)
Level 4	Secondary education and professional certification Secondary education and professional internship – minimum 6 months	Education and training courses for young people ((ETC) – Types 5, 6 and 7 (double certification) Professional courses Apprenticeship courses Special courses for the arts – visual and audiovisual arts (double certification) Adult education programme – Special courses for the arts (visual and audiovisual arts) Education and training courses for adults (ETA) (double certification) Recognition, validation and certification of competences (RVCC) (double certification) Certificated modular training (double certification) Science and humanities courses plus a professional internship – minimum 6 months
Level 5	Diploma in technological specialisation	Course in a technological specialisation
Level 6	Bachelor's degree	Bachelor's degree
Level 7	Master's degree	Master's degree
Level 8	Doctorate degree	Doctorate degree

The way forward

Having explained that the adopted referencing system is coherent with the organising logic behind the Education and Training System, including the reasoning underpinning the consistency of the reorganizational choices implicit in the adoption of an eight-level framework that offers descriptors that cover both the professional and educational fields, and also the recognition of informal and non formal learning, we can say that the true referencing process that needs to take place is to check the correlation between the existing qualifications, and the NQF levels in which they have been classified.

This basically means checking to see if there are divergences in the relationship between the expected learning outcomes from the NQF descriptors and the ones that are associated with current qualifications, which were already in place when the new NQFand its descriptors were adopted, and can be achieved trough the different routes identified in the table 7

For this work, the organisation of qualification standards on the basis of learning outcomes is a decisive contribution. In effect, this option will make it possible to fine-tune the relationship between these and the adopted descriptors. This work has already begun for the qualifications included in the National Qualifications Catalogue, and around 25% of these qualifications have been updated and its learning outcomes adjusted regarding the descriptors of the NQF levels. As would be expected, these are not major changes but, rather, small adjustments that strengthen the relationship between the qualifications and the levels and, so, boost confidence in the Education and Training System as a whole.

3.3 Criterion 3

> The national framework or qualifications system and its qualifications are based on the principle and objective of learning outcomes and linked to arrangements for validation of non-formal and informal learning and, where these exist, to credit systems.

The political impetus of reform and the NQF

Under the reform process of the Education and Training System, that begun in the last decade and already mentioned in this report, the definition and description of qualifications based on learning outcomes has been one of the central pillars in meeting the set strategic objectives, particularly as regards the role of quality assurance and system transparency.

This decision was based on a set of options regarding the design and structuring of the NQF:

- Each of the qualification levels is defined by a set of indicators that specify the learning outcomes for qualifications at this level;

- The learning outcomes are expressed in terms of "knowledge, skills and attitudes" for each one of the eight qualification levels.;

- The learning outcomes may be achieved in different contexts and through following different pathways (education, training or recognition of competences/ prior learning);

- The concept of learning outcomes is understood in the way it is expressed in the European Qualifications Framework, where it is defined as "*the description of what a learner knows, understands and is able to do after following a learning process, described in terms of knowledge, skills and attitudes*" (EQF, 2008).

This option formed the system's political impetus to make more coherent and uniform the way of organising qualifications that began about 10 years ago with the publication of the first referencing of competences (The National Curriculum for Basic Education and the Key Competences Referencing for the teaching and training of adults, 2001) and which has been increasingly widened to cover other education and training subsystems.

In general terms, we may say that, although it does not embrace all the education and training systems in Portugal, the definition of qualifications in terms of learning outcomes is an approach that has certainly been expanding over the last ten years. This time has been used fruitfully by the players in the system for

reflection and discussion and there is now in place an ongoing process of matching concepts to the model, testing it and putting it into operation. At this stage, things may not yet be uniform and stable in all the subsystems, nor within each educational or training modality: qualifications defined by contents (input) coexist with qualifications defined in terms of learning outcomes (output). The adoption of the National Qualifications Framework concepts will provide enough impulse to ensure that the processes of change started in 2001 will come to an end.

The current situation

GENERAL EDUCATION

- Basic education

As part of the curricular change and reform processes for basic and secondary education that were begun in 2001, a National Curriculum of Essential Competences for Basic Education was drawn up in accordance with the guiding principles for the curricular organisation and management of this level of education.

This document describes a set of general competences that should be acquired by the end of basic education. In order to make it easier to put into operation, each general competence is defined in the context of each subject and is expressed in terms of the knowledge, procedures, instruments and techniques to be used in working towards the target competences. Although the nomenclature is somewhat different, the knowledge and skills associated with each competence corresponds to the domains of knowledge and skills used in the NQF descriptors.

Since 2001, the teaching and learning of foreign languages, in the various levels and modalities, has been based in the Common European Framework of Reference for Languages. This is also organised into learning outcomes, expressed in terms of knowledge, skills and attitudes and which are to be addressed in a global way: "*Knowledge, skills and attitudes are integrated in the formulation of competences which include aspects that are not merely cognitive but also meta-cognitive, affective and social in nature*" (CEFR, 2001).

- Secondary education

In Portugal, the secondary education qualification obtained at schools, particularly through science and humanities courses, offers specialisation in the various knowledge areas and subjects and for these to be studied in greater depth, in accordance with the different pathways students may follow. As mentioned in chapter 1, these qualifications are generally designed to prepare students for higher education. The

learning path followed by students on secondary education is referenced by the subject programmes which are approved by the Ministry of Education.

The curricular design of each subject/ subject area is expressed in the form of a subject programme. A number of different nomenclatures and organisation do coexist,, but, in general terms, each subject programme defines:

i)   A set of generic formulations which are related to the guiding principles for teaching the subject areas in question and which link to the eight key competences for lifelong learning[6],;

ii)   A set of competences and general objectives, expressed in terms of knowledge, abilities/skills and attitudes/values.

In many subject programmes the concept of integrated development of the conceptual, procedural and attitudinal domains, is explicitly expressed, as may be seen in the programme for 12th year Biology, associated with the secondary education qualification on Sciences and Technologies. See http://www.dgidc.min-edu.pt/recursos/Lists/Repositrio%20Recursos2/Attachments/188/biologia_12.pdf.

Another example is an excerpt from the programme Portuguese for the secondary education qualifications:

Example: "Portuguese" programme for science and humanities courses – excerpt

> **Outcomes**: 1) To develop communicative competence, combining functional use with reflective knowledge about the language; 2) To train reflective and autonomous readers (..) aware of the role of the language in accessing information and its value in literary and aesthetic expression; 3) "To promote education for citizenship for culture and for multiculturalism, for becoming aware of the linguistic richness of the Portuguese language" (...)
>
> **Objectives of the subject**:: 1) To interpret written and spoken texts/discourses, recognising their different purposes and the communicative situations in which they are produced; 2) To express oneself with coherence both orally and in writing, in accordance with the outcomes and as a function of communicative context. (...)

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[6] These are: Communication in the mother tongue, Communication in foreign languages; competence in mathematics and basic competences in science and technology; digital competence; learning to learn; social and civic competences; initiative and entrepreneurship; cultural sensitivity and expression. Recommendation of the European Parliament and Council, of the 18th of December 2006, on the essential competences for lifelong learning (2006/962/CE).

> Linguistic **competences** to develop: oral expression and understanding, described in terms of the procedural and declarative content associated with three areas: writing, reading and the functioning of the language.

### Specialised education for the arts

The qualifications on arts, are accessible through specialised courses for the arts in the visual and audiovisual arts, music and dance. These qualifications are defined mainly in terms of inputs (learning content)   but it also contains some similarities to the double certificated qualifications. We will return to this in the point on VET.

II. VOCATIONAL EDUCATION AND TRAINING (VET) – DOUBLE CERTIFICATION

The qualifications obtained in VET subsystem are organised by the standards included in the National Qualifications Catalogue. It is based on the occupational profile which contains a description of the activities associated to qualification and the competences required to carry out these activities.

Each qualification is associated with three kinds of standards/ referential, making it possible to establish a link between the labour market needs and the training system: the occupational profile, the training standard and the standard for the recognition, validation and certification of competences (school and professional), as shown in figure 3.

### Figure 3 – Qualifications standards available in the NQC

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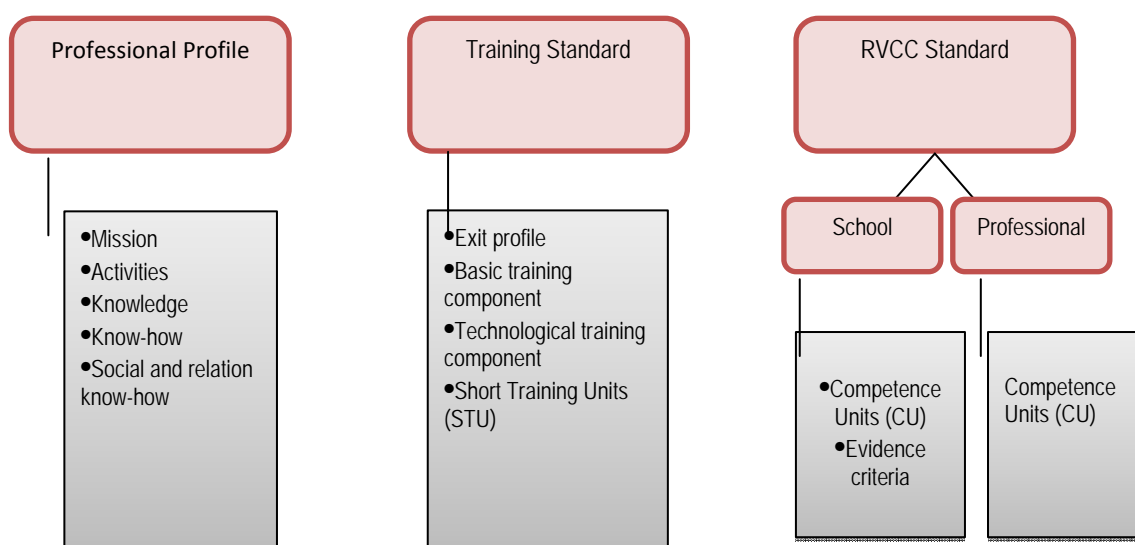
The training referential in the catalogue is organised into short duration, capitalisable, training units (STU), that allows for autonomous certification of competences and a greater flexibility in building qualification pathways.

Since the 1980s the curricula associated to the VET qualifications have been organised by learning objectives, which is an advance over the traditional content approach . It is closer to the logic of learning outcomes, but starting from a different standpoint.

With regard to the development and updating of the National Qualifications Catalogue, it is planned that this instrument will be fully organised in accordance with a competence based qualifications model, describing learning outcomes in terms of knowledge, skills and attitudes. Thus, each qualification will be organised in competence units, describing the set of competences required for the qualification.

Figure 4 shows the model which is still work in progress, for designing qualifications on the basis of competences.

Figure 4– Constituent components of the competence and training reference systems
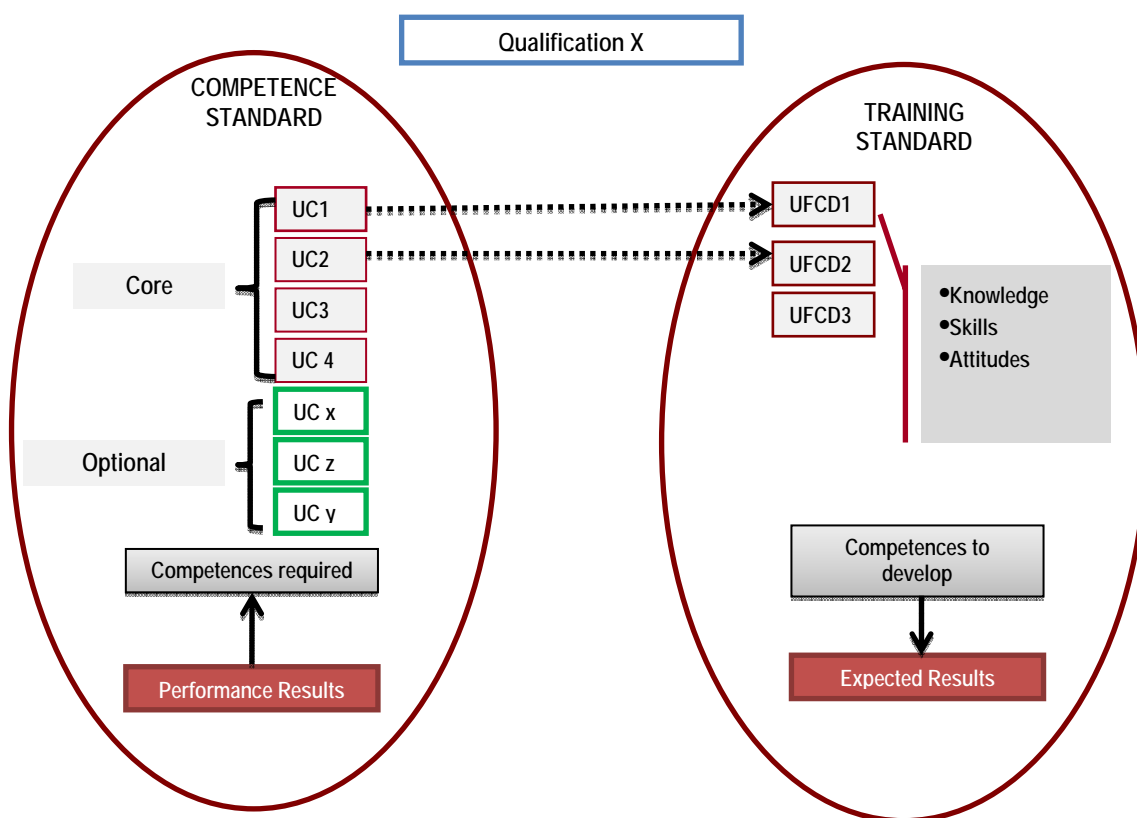
The National Qualifications Catalogue is, thus, a central pillar of the National Qualifications System as it will constitute the unique reference for double certification pathways, through a joint work with a large number of stakeholders from a range of education and training sectors.

- VET for Young People

As mentioned in the introduction to this criterion, we cannot yet really speak of uniform qualification organisation and definition in relation to the various VET pathways aimed at young people. There are qualifications defined in terms of inputs - programme content, subject objectives and even by learning outcomes.

Irrespective of the VET pathway or level of qualification, the learning outcomes from the double certification qualifications are defined in the different curricular standards and, for some qualifications, they are defined in the National Qualifications Catalogue. The curricular standards are organised into 4 components: i) socio-cultural; ii) scientific; iii) technical/technological and iv) practice. The socio-cultural and scientific components are organised in accordance with the referencing and curricular guidelines stipulated by the Ministry of Education (ME) for general education. These specify the acquisition of competences in the areas of languages, culture, communication, citizenship and society as well as the various sciences. The competences are transdisciplinary and transversal in terms of instrumental learning and the approach to themes that are of relevance to personal and social development. These components are organised into areas of competences, study domains and subjects.

The technical/technological component varies regarding the training area, incorporating a set of qualification-specific training units, available in the National Qualifications Catalogue.
All these training paths include also a workplace training component.

The following table summarises the current situation:

QUALIFICATION	AWARD	NQF LEVEL	LEARNING OUTCOMES	CURRICULAR COMPONENTS		
				SOCIO-CULTURAL	SCIENTIFIC	TECHNOLOGICAL
3rd Cycle of basic education (lower secondary) and professional certification (double certification qualification)	Education and Training Courses (ETC) Certificate and Diploma	2	Are defined in the different curricular standards	Based on national curriculum of essential competences, organised by learning outcomes	Based on national curriculum of essential competences, organised by learning outcomes	Training unit structure organised by learning objectives and content
(upper) Secondary education and professional certification (double certification qualification)		4	Are defined in the different curricular standards	Based on general education secondary-level curricular plans for each study area. Subjects are organised by modules, which are structured by output competences, learning objectives and content.	Based on general education secondary-level curricular plans for each study area. Subjects are organised by modules, which are structured by output competences, learning objectives and content.	Modular/unit structure organised by learning objectives and content
	Apprenticeship Courses Certificate and Diploma	4	Are defined in the National Qualifications Catalogue as well as in the different curricular standards	Based on general education secondary-level curricular plans for each study area. Structured by competence areas, training domains and short training units defined by learning outcomes and content	Based on general education secondary-level curricular plans for each study area. Structured by competence areas, training domains and short training units defined by learning outcomes and content	Structured by short training units, organised by learning objectives and content
	Professional Courses Certificate and Diploma	4	Are defined in the different curricular standards. For some qualifications, the LO are defined in the National Qualifications Catalogue.	Based on general education secondary-level curricular plans for each study area. Subjects are organised by modules, which are structured by output competences, learning objectives and content.	Based on general education secondary-level curricular plans for each study area. Subjects are organised by modules, which are structured by output competences, learning objectives and content.	Subjects are organised by modules which are structured by output competences, learning objectives and content , regarding specific technical/professional areas

Table 8 – Curricular components for qualifications – VET for young people

In all these VET programmes the assessment of the learning outcomes includes an examination from external examiners. These examiners are teachers or trainers from the training area in question, or experts from the industry, and in many, cases from the social partners. This procedure is part of the quality assurance mechanisms existing in the VET system to ensure the use of the same assessment standards on the validation of learning outcomes associated with each qualification to be awarded.

Specialised education for the arts

At both the basic and secondary education levels, the qualifications obtained through the specialised courses for the arts are not yet organised according to learning outcomes, being still focused on content/process learning.

In the case of specialised courses for the arts at secondary level, which include visual and audiovisual arts, dance and music, the curricular standard includes three components of training: general, scientific and techno-artistic. General training is exactly the same as general education secondary-level courses, and the scientific and techno-artistic components vary accordingly to the courses and the study plans of the schools teaching these. These secondary courses also include a workplace training component.

The curricular standard includes:

- Employment referential, describing, in a general way, the outcomes to achieve – referenced to the needs of the labour market.
- Career paths, indicating which business sectors and professions the qualification gives access to;
- Course plan containing the subjects and the learning objectives for the general, scientific and techno-artistic components.

As an example, the following is an excerpt from the curricular standard for the Artistic Production course[7]:

> "The course in Artistic Production aims to promote a visual culture and an aesthetic awareness and develop communication and creative skills of expression, providing the student with the techno-artistic competences required for the design, experimentation and implementation of a wide range of arts projects or objects based on a knowledge of materials, processes of use and two-dimensional and three-dimensional construction practices".

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[7] Available at http://www.anq.gov.pt/default.aspx **»** Jovens**»** Cursos do Ensino Artístico Especializado**»** Artes visuais e audiovisuais

- Post-Secondary

Technological Specialisation Courses

The qualification obtained through a Technological Specialisations Courses (TSC) is a post-secondary non-higher qualification. These courses prepare learners for a scientific or technological specialisation in a given training area. They run about for one year or one year and a half (between 1200 and 1560 contact hours) and result in a level 5 professional qualification.

TSC can be developed in higher and non-higher education establishments, meaning that considerable differences do exist as regards their curricular organisation. They may be organised by "learning outcomes" or by "thematic area/content".

TSC course run by entities that are not part of the higher education system use a curricular organisation that is similar to all the other modalities in the VET subsystem. They are designed using the National Qualifications catalogue standards: a professional profile and a training standard organised into short training units for each of the areas (general, scientific and technological). An example of a TSC study plan, for the course Programming Web Applications (CTS-PWA), can be accessed via this link: http://www.catalogo.anq.gov.pt/Qualificacoes/Referenciais/231

The technological specialisation courses run by higher education establishments are constructed along similar lines. They are based on competence references which describe the expected outcomes in terms of competences to be acquired for each curricular unit. Although, they don't have to follow the National Qualifications Catalogue, as the higher education institutions have scientific and pedagogical autonomy.

The TSC are linked to the ECTS credit system. A technological specialisation diploma is awarded after following a study plan of between 60 and 90 ECTS credits..

- Adult Education and Training

Training and recognition of competences

Both the Adult Education and Training Courses (AET) and the recognition, validation and certification of competences processes (RVCC) are organised on the basis of the basic education and secondary education level key competences standard/referential which are organised in terms of learning outcomes.

The design of each referential is based on an organisation involving the nuclear competence areas thought to be necessary for the education and training of the person/citizen in today's world. They are in accordance with the eight key competences of lifelong learning and training.

At the basic education level, the nuclear competence areas are:

    i)   Language and Communication

    ii)   Information and Communication Technologies

    iii) Mathematics for Life

    iv) Citizenship and Employability

In the case of the secondary-level referential of key competences, there are three nuclear areas:

    i)   Culture, Language and Communication

    ii)   Society, Technology and Science

    iii) Citizenship and Professionalism

Irrespective of the qualification level, each competence area has its own internal structure based on the following elements:

i.   Competence units – the adult should be able to show what knows and know how to do, as the result of the employment of a coherent set of knowledge, skills and attitudes;

ii.   Evidence criteria - different actions/acts/performances through which the adult can show that have acquired the competence in question;

iii. A set of suggested contextualised activities focusing on various life themes;

iv. The competence profile associated with each competence area.

The technological component of the AET courses and the processes for the recognition, validation and certification of professional competences are drawn up on the basis of the standard, available in the National Qualifications Catalogue, respectively:

- Training standard organised in short training units;
- Competence standard, organised in competence units.

It is important to emphasise here the competence standard available in the National Qualifications Catalogue. Although these are mainly used in implementing the processes for the recognition, validation and certification of professional competences, they do represent a developmental step in, considering the fact that the qualification is organised in terms of competence units, based on learning outcomes. In this sense, the competence standards for the professional RVCC have an extremely important role towards a generalised qualifications design on the basis of learning outcomes.

To illustrate this point, the following is an excerpt from the referential of a professional RVCC for a level 4 qualification.

To illustrate this point, the following is an excerpt from the referential of a professional RVCC for a level 4 qualification.

**Table 9 – Referential for the professional RVCC (excerpt)**

Code/name of the training area: 345. Management and Administration

Code/name of the career path: 345033 – Management Support Technician

Qualification level: 4

Competence Unit	Tasks	Knowledge	Attitudes

CU 4 – Make accounting entries	4.1. Calculate VAT for credits and debits
	4.2. Classify documents ion classes 1 to 8 of the SNC, according to applicable legislation
	4.3. Make accounting entries using IT tools
		• Introduction to the accountancy code and standards
		  o Accounts code (CC)
		  o Accounting entries
		  o IT Tools
		  o IT use
			Facilitate the communication between various interlocutors

CU 9 – Carry out human resources administrative procedures	9.1. Organise processes of recruitment, selection, admission and evaluation of human resources
	9.2. Plan internal human resources training courses 9.3. Manage the human resources data base (IT application)
	9.4. Process salaries in IT applications
		• Basic notions of the technical management of human resources:
		  o Technical management of human resources
		  o Human resources techniques
		  o Internal human resource straining
		  o Human resources administrative procedures
		• Organisational structure, organisational communication, functions in the company
		• Labour legislation
		• Administrative legislation
		• Tax principles
		• Income tax
		• Human resources – Single Report
		• IT application for human resource management
			Take the initiative in resolving concrete situations

CU 11 – Draw up operational marketing plans	11.1. Analysis the internal and external situation of the business – company, competition and SWOT 11.2. Establish the objectives of the marketing plan 11.3. Design / prepare marketing-mix strategies 11.4. Establish/ plan action plans	• Marketing plan – needs and principles • Implementation of the marketing plan	
CU 12 – Carry out management control	12.1. Draw up management budgets 12.2. Calculate and analyse budget overruns 12.3. Diagnose the company's needs and decide on management control system	• Management control: basic concepts • The budget and budgetary control • Definition and implementation of management control systems	Manage time as a function of management priorities

Recognition of non formal and informal learning - the Portuguese RVCC methodology

RVCC processes are run in the New Opportunities Centres and are based on a set of methodological assumptions (i.e. *bilan de competence*, (auto)biographical approach) that allow adults to show the competences that they have already acquired along their lifelong experience in formal, informal and non-formal contexts. On the basis of this, a Learning Reflective Portfolio (LRP) is constructed. This portfolio is guided by a key competences standards (school and/or professional). The diagram in figure 5 shows the New Opportunities Centres main steps.

Figure 5 – Main Steps in the New Opportunities Centres
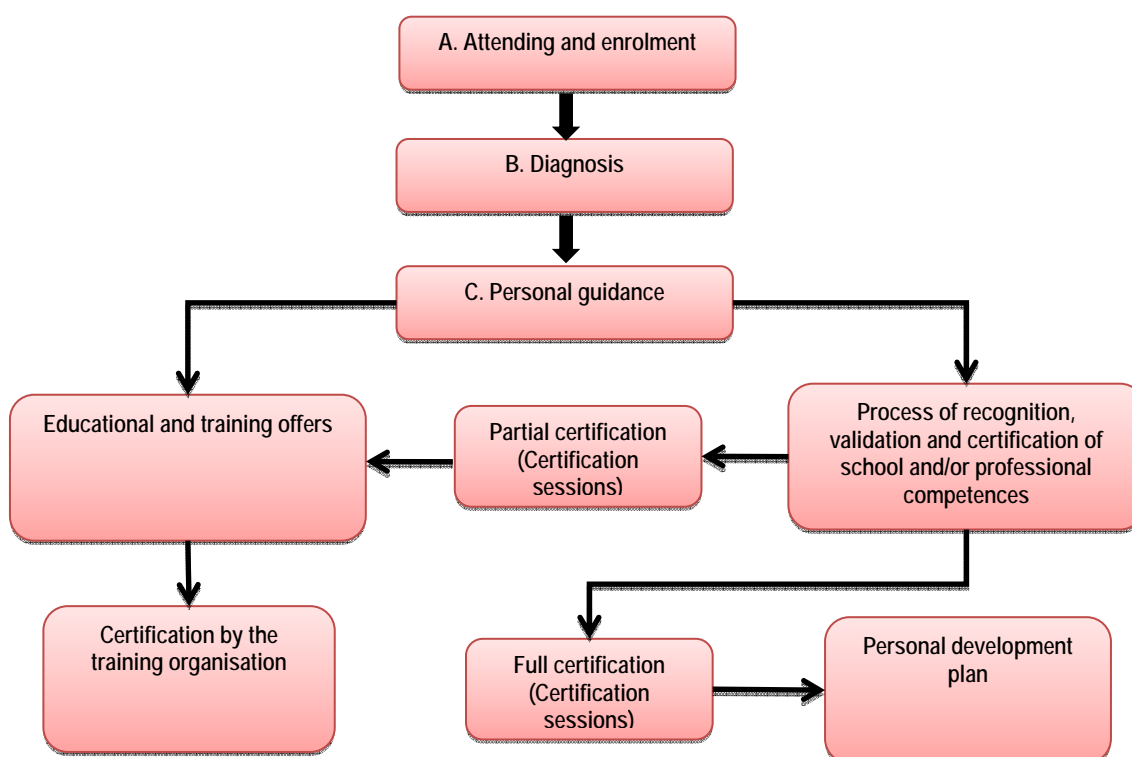
Source: Gomes & Simões, 2007

In general terms, the RVCC process can be broken down into the following phases:

- Recognition of competences with a view to identifying and valuing the candidate's competences. This is achieved using a methodology based on a *bilan the competences* and a range of assessment instruments;
- Validation of competences shown in a portfolio developed by the candidate, under the supervision of the assessor, the tutor and the RVC professional;
- Certification of competences, by means of a certification jury.

The certification takes place in a session with the certification jury, attended by the team that supervised the candidate and an external evaluator accredited by the National Qualifications Agency. If the candidate has made evidence of the learning outcomes, he/she be certified and a basic or secondary education diploma is issued. In the case of a professional RVCC this would be a qualifications certificate (the document that proves and explains the professional competences held).

It is worth mentioning here that the assessment applied to these processes is based on a system of credits. Throughout the process, and for around 12 hours of adult work used in preparing the recognition and validation of a competence in a given domain, 1 credit will be awarded. These credits will accumulate until the minimum number is reached for certification under this system. Thus, the award of credits corresponds to the production of evidence on a given theme included in one of the key competences areas. The credits are distributed across the key competence areas in the referencing standards. In the case of the RVCC for the secondary level, a minimum of 44 credits, out of a possible 88, is required. When the candidate reaches this number, a secondary education qualification certificate is issued as well as a secondary education diploma. If the candidate achieves partial certification only, a qualifications certificate is issued showing only the competence units that have already been validated.

The certificate obtained through this process contributes not only to the personal, social and professional development of the adult but also allows them to go on to further study/training.

Having, thus, described the current situation in Portugal as regards the learning outcomes approach as well as curricular organisation of the various education and training subsystems, we can conclude that over the last 10 years, and despite there still being a number of differing and diverse practices – qualifications defined by outcomes (output) and others centred on content (input), we are on the way to harmonising and bringing coherence to both concepts and practices.

The adoption in 2001 of the National Curriculum for basic education and the key competences referential for adult education and training, both organised in terms of learning outcomes, marked the start of a movement of reflection, appropriation and involvement of the various players with a crucial role in this paradigm shift.

Another important milestone was the institutional adoption of the National Qualifications Framework based on learning outcomes, which acted as a political wake-up call to the various education and training subsystems and the participants in these, alerting them to the need to come into line with a national strategy for qualifications reorganisation.

As a strategic instrument for change in the education and training system, the NQF has taken on the role of a meta-referencing system, harmonising and guiding management practices and curricular organisation in the various education and training subsystems. It has been the driving force behind the take-up of new pedagogical practices that are increasingly focused on the new and emerging needs of agents in education and the labour market.

3.4 Criterion 4

> The procedures for inclusion of qualifications in the national qualifications framework or for describing the place of qualifications in the national qualification system are transparent.

As was explained in our answer to Criterion 3, there are basically two qualification typologies in the national education and training system: the qualifications which are developed through the general education path and those that are developed through double certification pathways[8] - VET path, including recognition of informal and non formal learning (RVCC). The principles for including qualifications in each of these typologies into the National Qualifications Framework (NQF) are the same, but the procedures are different.

With the NQF in force since October 2010,, the principle for the integration of these qualifications into the NQF involves ensuring that the expected learning outcomes are in line with the levels descriptors in the NQF, in terms of knowledge, skills and attitudes.

The integration of qualifications awarded through the general education paths is decided by the Ministry of Education, taking into account the national curricula stipulated for basic and secondary education and relates to the competences to be acquired in each educational level and in each subject area.
Any proposal to develop new qualifications and associated curricular plans is the responsibility of the General Directorate for Curricular Development and Innovation (GDCDI), from Ministry of Education which will put such plans forward for approval by the ministry.

In the case of VET qualifications (double certification qualifications), all the qualifications integrated in the National Qualifications Catalogue (NQC), are included in the NQF.

The National Qualifications Catalogue (NQC) is an instrument for the regulation of the national qualifications system. It includes double certification, qualifications organised by qualifications level (NQF levels 2, 4 and 5) and the national classification of education and training areas. The qualifications included in the NQC can be accessed, progressively, through the different VET modalities defined in article 9 of Decree-Law no. 396/2007, of the 31st of December including recognition of non formal and informal learning (RVCC).

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[8] Double certificated qualifications involve the recognition of competences to practice one or more professions and an educational qualification, awarded in the form of a diploma (in compliance with paragraph c) of article 3 of Decree-Law no. 396/2007).

Inclusion of qualifications in the catalogue is the responsibility of the National Agency for Qualifications, I.P. (NAQ), a public organisation from the Ministries of Labour and Social Solidarity and of Education. For the process of developing and updating the catalogue, NAQ has the support of Sectors Qualifications Councils.

As we said before, the principle for including qualifications in the NQF, either through the general education path or VET is the matching of the expected learning outcomes with NQF levels descriptors.

In order to make it easier to classify and evaluate the match between national qualifications to the NQF, irrespective of the type of qualification, a support tool was produced for NQF users – *Understanding NQF: Users guide support.* This guide is a useful tool that explains how qualifications are positioned in the system in terms of knowledge, skills and attitudes. It has two main objectives:

i) To check the match between existing qualifications and NQF levels. This may result in a realignment of the qualifications to another qualification level or in an adjustment being made to the expected learning outcomes for a given qualification, to bring it in line with its current level;

ii) To guide the inclusion of new qualifications in the NQF.

The classification of a given qualification at a given NQF level is achieved by comparing the expected learning outcomes associated with the qualification with the learning outcome descriptors for each of the NQF levels. These are characterised in terms of knowledge, skills and attitudes. Thus, by making the descriptors more explicit and more readable, the guide is clarifying the criteria used to classify a national qualification into a given NQF level while also making the NQF easier to use for the operators of the national education and training system.

The domains and sub domains for the assessment of learning outcomes can be summarise in the table below:

Table 10 – Criteria used to classify a qualification into a NQF level

Domain	Descriptor		Context
Knowledge	Depth of knowledge	- Depth of knowledge increases progressively from the lowest to the highest level: qualifications at level 1expects that the individual is able to demonstrate basic knowledge of facts and concepts (emphasis on declarative knowledge); and at the highest level, to be able to demonstrate possession of in-depth knowledge at the forefront of a specialised area of work or study and also at the interface between different areas. - Depth of knowledge increases, the greater the complexity and variety of objects of knowledge	Context of Application Predictability and Complexity
	Understanding	Interpretation of information and application in the context and, at the highest, critical awareness of knowledge-related issues in the field and at the interface with other fields	
Skills	Depth and Breadth	Progressive broadening and specialisation of the range of cognitive and practical skills, from a range of restricted breadth and basic depth at qualification level 1, to an advanced range of skills at the forefront of a field of work or study at the highest level of qualification;	
	Purpose	At the lowest level the individual should be capable of performing tasks and solving simple problems by interpreting basic information (tasks of execution), and at a higher level of qualification it is expected to be able of research and innovation to solve critical problems and perform highly complex tasks or to redefine existing knowledge and professional practices (research and development tasks, innovation).	
Attitudes	Autonomy	Includes both responsibility for one's own work and responsibility for others: - responsibility for one's own work: a gradation was adopted from work under instructions with shared responsibility (level 1) to work taking responsibility and with a sustained commitment to the development of new ideas and new processes at the forefront of a field of work or study (level 8). - responsibility for others: there is considered to be a progression from no responsibility (level 1) to responsibility for others, demonstrating authority, innovation and scientific and professional integrity (level 8)	
	Responsibility	Iis structured from no autonomy/ a low degree of autonomy (level 1/level 2) to maximum autonomy, understood as a sliding scale from (-) to (+).	

This tool, *Understanding NQF: Users guide support*, can be found at www.catalogo.anq.gov.pt and is also summarised in Appendix 3 of this report.

The inclusion of qualifications in the NQC - Submission of proposals

New qualifications can be included in the NQC as part of the update work being done by the Sector Qualifications Councils or through a more open process – the Open Consultation Model - that involves the spontaneous participation of a wider range of entities, going beyond the remit of the Sector Councils.

Irrespective of the process type, all changes to the NQC, and specifically the inclusion of new qualifications, are published in the *Labour and Employment Bulletin* and on the NAQ's website, as per nº. 7 of article 6 of Decree-Law no. 396/2007.

The **sectors qualifications councils** support the National Agency for Qualifications in to the updating and development of the NQC (no. 5 of article 6 of Decree-Law no. 396/2007), namely:

a. In the area of the strategic definition of qualifications and competences that respond to the needs of the various economic sectors

b. In the analysis of update proposals for the NQC, specifically in terms of the inclusion of new qualifications and the updating/restructuring/excluding of existing ones

The SQC aim to encourage greater cooperate and interaction between a significant number of key players, thus helping to ensure that the qualifications offer is adjusted to market demand. To this end, the SQC are composed of: social partners, training providers from the National Qualifications System (schools, professional training centres certified training entities,....); entities responsible for regulating of professions; public structures that oversee business sectors; technology and innovation centres, and companies who are both users of competences and suppliers of competences and learning contexts.

The SQC also act as drivers of a collaborative network that extends well beyond the Sector Councils themselves, particularly as regards their interaction, for the purposes of updating the catalogue, with other important bodies in each business sector.

All proposals for the inclusion of new qualifications in the NQC are discussed and approved by the SQC. There are currently 16 Sector Qualifications Councils that cover almost every business sectors in the national economy.

The **open consultation model** is an ongoing far-reaching mechanism for consultation which is open to all the entities comprising the National Qualifications System, including enterprises. The mechanism allows interested parties to submit proposals for updating the National Qualifications Catalogue, by filling out forms made available online by the NAQ (at www.catalogo.anq.gov.pt) for the submission of proposals, which can then be sent to catalogo@anq.gov.pt

Whether through the work carried out by the sector councils or through the open consultation model process, the submission of new proposals for including qualification in the NQC should be made:

✓ On the basis of a solid rationale, particularly as regards (1) <u>need</u>, that is the importance of creating that qualification for the business activity / labour market (type and area of professional activity, type of target companies, correlation with socioeconomic factors,...); (2) the uniqueness

of the proposed qualification: the occupational profile should be unique – the qualification should not overlap with existing ones;

✓ In compliance with the methodology principles and plans for updating the NQC: in defining the qualifications; in drawing up professional profiles; in designing referencing for the recognition of professional competences; in designing training referencing (available at www.catalogo.anq.gov.pt);

✓ Using the <u>referencing models</u> for qualifications made available by the NAQ (at www.catalogo.anq.gov.pt), namely: occupational profile; training referential and the referential for the recognition of professional competences.

The process of introducing new qualifications into the NQC includes 5 stages:

- Stage 1: Submission of a proposal to NAQ for preliminary analysis;
- Stage 2: Opinion of the Sector Qualification Council;
- Stage 3: Drawing up of the standards for the qualification;
- Stage 4: Analysis of the standards and decision on accepting the inclusion of the qualification, in collaboration with the SQC;
- Stage 5: Inclusion of the qualification in the catalogue and in the NQF and publication in the *Labour and Employment Bulletin* .

The inclusion of level 5 qualifications in the NQC – a specific case of shared regulation

Level 5 qualifications, which lead to a Diploma of Technological Specialisation (through the technological specialisation courses – TSC), are handled somewhat differently. The processes for inclusion of these qualifications in the NQF go beyond the NQC in regulatory terms.

There is a process for proposals for the creation and authorisation of Technological Specialisations Courses, that training operators must follow with the competent instructing agencies in each Ministry. These are: the National Qualifications Agency, I.P. (Ministry of Education), the General Directorate for Employment and Labour Relations (Ministry of Labour and Social Solidarity), IAPMEI (Institute for Supporting Small and Medium Sized firms and Innovation, from the Ministry of the Economy and Innovation), General Directorate for Agriculture (Ministry of Agriculture, Rural Development and Fisheries) and the General Directorate for Higher Education (Ministry of Science and Technology and Higher Education) which are represented on the Technical Committee for Post-Secondary Technical Training (TCPSTT). The first ones are responsible for developing the procedure and technical analysis and to issue a technical opinion, and the last one, issues a recommendation for the proposals approval, being the decision on setting up the TSC, a responsibility of the oversight Ministry.

In this way, these are the entities responsible for assuring the alignment of the expected learning outcomes of these qualifications with the level 5 descriptors of the NQF,.

The analysis of proposals for the setting up, authorising and commissioning of TSC by the instructing agency is carried out in compliance with the procedures laid down and published in the Procedures Guide available at www.anq.gov.pt, and in the standard model for higher education TSC register, available in www.dges.mctes.pt.

The approval of a TSC is dependent on the following conditions being met:
▫ Compliance with the general instructional requirements;
▫ Compliance with the standards in the National Qualifications Catalogue (in the case of TSC developed by non higher education training providers);and the learning outcomes associated with level 5 of the NQF;
▫ The pertinence of setting up the TSC given the training supply already available and the labour market needs.

3.5 Criterion 5

> The national quality assurance system(s) for education and training refer(s) to the national qualifications framework or system and are consistent with the relevant European principles and guidelines

The national quality assurance system incorporates a wide range of organisational models and various players across the different education and training subsystems. Within this diversity, it is possible to identify two regulatory areas: one relating to schools run by the Ministry of Education and another relating to the training providers under the control of the Ministry of Labour. Although, as explained above, there is no clear difference between these two groups in terms of the types of qualification that they are responsible for, there are differences in their quality assurance mechanisms, specifically in terms of organisational models.

Without setting aside these differences, which we summarise below, a common set of principles, do underpin their regulatory arrangements, procedures and methodologies.

A first principle is the licensing of an education and training provider within the education and training system. This means that to became a education and training provider it requires the demonstration and verification of certain technical and materials capabilities, with minimum standards for these being set as a function of the type of course they offer.

The adoption of planning, monitoring, assessment and improvement mechanisms is common to the various quality devices operating within the internal management systems of all education and training institutions.

A second principle which is evident in the national quality assurance system is the ongoing monitoring and assessment of the work being done and the results achieved by the various operators in the system. One part of the assessment mechanism involves comparing performances with established quality references and, to this end, monitoring and evaluation locally..

The control of the quality of the qualifications produced by the system (third feature) is, to a large extent, focused on the efficiency achieved in drawing up the curriculum and, complementarily, in the checking and correction mechanisms applied to deviations in the results obtained. Here, it can be seen that the quality assurance procedures applied to the qualifications produced in the Portuguese education and training

system are highly demanding. In what concerns to the general education based qualifications, they are organised in the basis of national curricula, under the supervision of the Ministry of Education and are only approved following a broad consultative process. VET qualifications. are referenced to the National Qualifications Catalogue.

The concern with a focus on results, and its assessment, forms an important fourth feature of the quality assurance system. It involves the definition of a strategy of curricular innovation which focuses on learning outcomes. This is stipulated in the legislation as a medium-term objective of the National Qualifications System, as well as on the progressive adoption of assessment mechanism that allow for the measurement of the results and gains.

In overall terms, these principles are to be found throughout the system in all levels covered by this report, although with a number of organisational differences. In the following section of our response to criterion 5, the general outlines of the quality system will be described, with attention being given to the differences between the organisational features of the education and training subsystems.

In the case of the general education subsystem, at its various levels – preschool education, basic and secondary education - quality assurance is the responsibility of the Ministry of Education (ME) through the General Inspectorate for Education (GIE).

The GIE carries out a range of tasks aimed at ensuring that the legitimate interests of all those working in the system, and its users, are safeguarded. It assesses legal and regulatory compliance of the work of the entities and services belonging to the ME and evaluates the performance and management of schools. It covers both pedagogical and administrative/financial aspects of the system, through a number of approaches to this end. Amongst these are:

- **Oversight mechanisms** which are designed to observe and supervise the educational work being done in schools, with the aim of better understanding the way in which educational policy measures are implemented.
- **Control mechanisms** which are used to check that organisational units are operating in compliance with the legislation and to identify constraints on efficiency and effectiveness, as a function of the resources available and the services provided.
- **External audits** that analyse the management practices in schools, over a given time period, on the basis of compliance effectiveness, efficiency, pertinence and coherence with criteria referenced to current legislation or any applicable regulations and standards. The main purpose of such audits is to be able to inform the management of the bodies being audited on their operational practices and the services they provide and to recommend solutions designed to improve management results.

- **External assessment** that focuses on organisational assessment and which is designed to contribute positively to the development of schools and the improvement of the quality of student learning through a process of reflection and ongoing progress.
- **Support for the development of self-assessment in schools**

In this assessment process, a range of aspects is evaluated. These relate to i) results, ii) the educational service provided, iii) school organisation and management, iv) leadership and v) capacity to self-regulate and improve the school. Within each of these aspects, there are a number of factors that can be evaluated by the technical team, using both quantitative and qualitative methodologies and involving the whole educational community – round table discussions with the coordinators of the educational units, with representatives from the parents association, with class teachers and area coordinators, with teachers and with student representatives, amongst others. The information leaflet, External Assessment of Schools – 2010/2011, and the classification scale used, can be accessed at: http://www.ige.min-edu.pt/upload/AEE_2011/AEE_2010_11_Folheto.pdf.

For operators in the education system, a self-assessment scheme for preschool, basic and secondary education teaching establishments has been in place since 2002. This self-assessment by schools is compulsory and ongoing. It is supported by the educational administration services in accordance with a set of guidelines established by Law 31/2002, of the 20th of December.

Like other European countries, there is no compulsory model or template for self-assessment of schools in Portugal. Most establishments use the Common Assessment Framework (CAF), which is a European quality assessment model that has been adapted for the public sector and which may be used by organisations for self-assessment. This self-assessment model, specifically designed for public sector organisations, uses a methodology based on the principles of Total Quality Management. It involves employing a set of techniques and instruments that ease the process, including tools and materials designed to help put it into practice.[9]

An example of the application of the CAF to a public teaching establishment may be accessed at http://www.a-e-s-c.info/folheto_aval_interna.pdf

Also of importance in the quality assurance of the general education subsystem is the role played by the National Education Council, an independent organisation with consultative functions, which is responsible for drawing up opinions and recommendations regarding the standards used in the self-assessment of schools, the annual external assessment plan and the results of both internal and external assessment

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[9] Available at http://www.caf.dgaep.gov.pt/media/docs/10.05.01.01_Guiao%20de%20auto-avaliacao.pdf

processes. The National Education Council analyses the results of the assessment processes and proposes measures for improving the education system (Decree-Law no. 125/82, of the 22nd of April).

In the case of the VET subsystem, that corresponds to the National Qualifications System, the quality assurance system largely reflects the organisational principles and recommendations of the European Quality Assurance Reference Framework (EQARF), particularly as regards the interrelationship of the four phases of the quality assurance cycle: planning, implementation, assessment and review/updating.

Of the range of quality assurance mechanisms employed over the various phases of the cycle, we focus below on those we consider to be of most relevance from the point of view of the system level and the operators level.

The National Qualifications Catalogue and the Sector Qualifications Councils
In the area of designing, revising and updating qualifications, and in the belief that the curricular aspect is key to the credibility of the qualification system, the National Qualifications Catalogue is one of the core quality assurance mechanisms for the VET subsystem and the qualifications it produces.

As the instrument for the referencing of processes for the recognition, validation and certification of competences, the NQC also has a role to play as facilitator of the transparency between learning achieved in formal, non-formal and informal contexts.

With a view to ensuring that the NQC is updated and in constant development through the active participation of social and economic agents, 16 Sector Qualifications Councils were set up and these are now a structural part of the National Qualifications System.

The Open Consultation Model for the updating of the National Qualifications Catalogue is another important mechanism in the process for revising and updating qualifications. This model allows interested parties to submit proposals for updating the National Qualifications Catalogue.

On its site the NAQ offers a set of forms and guidelines, aimed at all those operating in the education and training system, which are to be used in the development of the qualifications. They ensure compliance with the principles and methodological approaches inherent in developing/updating the catalogue. This information can be consulted at: http://www.catalogo.anq.gov.pt/Home/MAC .

The NQC plays a crucially important role in the operation of the NQF by making certain that the learning outcomes associated with the qualifications match the level descriptors in the NQF, thus ensuring that national qualifications are correctly referenced to the NQF.

Planning, management and oversight of the training network

As regards the quality assurance mechanisms for providers, the National Qualifications Agency plays a central role in promoting and regulating the VET supply for both young people and adults: i) manage the double certification training supply network; ii) promote oversight of the double certification training supply aimed at young people and adults; iii) manage the coordination with financing strategies for the qualification systems; iv) steer and supervise the information and guidance mechanisms for qualifications; v) research and innovate in the area of learning and teaching methodologies and support the development of pedagogical resources and vi) make available technical support to training providers for the award of qualifications.

Also of note are the roles played by the regional structures of the Ministry of Education and the Ministry of Labour and Social Solidarity in the analysis and pedagogical approval of the training courses for young people and adults offered by the various types of schools and other training providers. They use strict analysis and selection criteria, together with the guidelines for the training network drawn up by the NAQ, in their decision-making process.

Quality management in the New Opportunities Centres

Demanding quality assurance mechanisms are also in place for the lifelong learning system, particularly as regards the system for the recognition of informal and non formal learning (RVCC). Thus, the New Opportunities Centres follow, in order to support their management processes, a *Quality Charter for the New Opportunities Centres*. This charter is an instrument that includes requirements and clarifies action strategies and service levels, thus contributing to improving work outcomes, encouraging teamwork and making the operation financially more efficient.

The document identifies critical operational aspects and defines the underlying principles and guidelines to be followed by each New Opportunities Centre, irrespective of its institutional status or local setting. These are: i) the mission; ii) the guiding principles; iii) required working methods and iv) the stages/incidence of work. An integral part of this quality charter is the System of Reference Indicators for Quality Assurance in the New Opportunities Centres. This clearly stipulates the results to be achieved at each stage/incidence of a centre's work. The explicit statement on the incidence of the work carried out is used as a reference for the financing of the New Opportunities Centres, for oversight and monitoring of the national network as well as for the type of external assessment to be implemented, in terms of processes, results and impacts.

The table below exemplifies some of the indicators and reference standards used in NOC quality assurance. The full quality charter may be access at: http://www.drealg.min-edu.pt/upload/docs/anq_carta_qualidade.pdf

Table 11 - Some of the indicators and reference standards used in NOC quality assurance

Work stages/ incidence	Indicators	Quality reference standards	Source
A1. Reception of adults	A1. No. of enrolments in SIGO compared to the no. of adults enrolled in the New Opportunities Centre	A1. 100% of adults enrolled in SIGO on reception date	SIGO[10]
(…)			
	A3. Clarity and applicability of information given	A3. 70% of adults surveyed give positive responses (scale of 1 to 4)	Survey of adults
(…)			
D1. Recognition of competences	D1.1. Percentage of individual sessions vs. Total no. of sessions	D1.1. 25% to 50% of sessions are individual in basic and secondary level RVCC processes	SIGO

In terms of assessment, the model used in the NOC is based on the conjunction of three types of intervention:

- Onsite supervisory visits by specialist NAQ teams
- Self-assessment or internal assessment by the centre team[11] worked up from an organisational workflow used as an instrument for observing and analysing performance and, thus, driving a systematic process of internal reflection
- External assessment, by the NAQ, to identify the centre's operational strengths and weaknesses and deliver recommendations for improving performance.

The following figure shows an example of an organising model for self-assessment used in a New Opportunities Centre.

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[10] Information plataform for the integrated management of VET training supply

[11] A self-assessment report for a New Opportunities Centre may be accessed at: http://www.antoniosergio.pt/fichs/AACNO2010/Quadro_Resumo_Criterios.pdf

Figure nº. 6- Example of an organising model for self-assessment
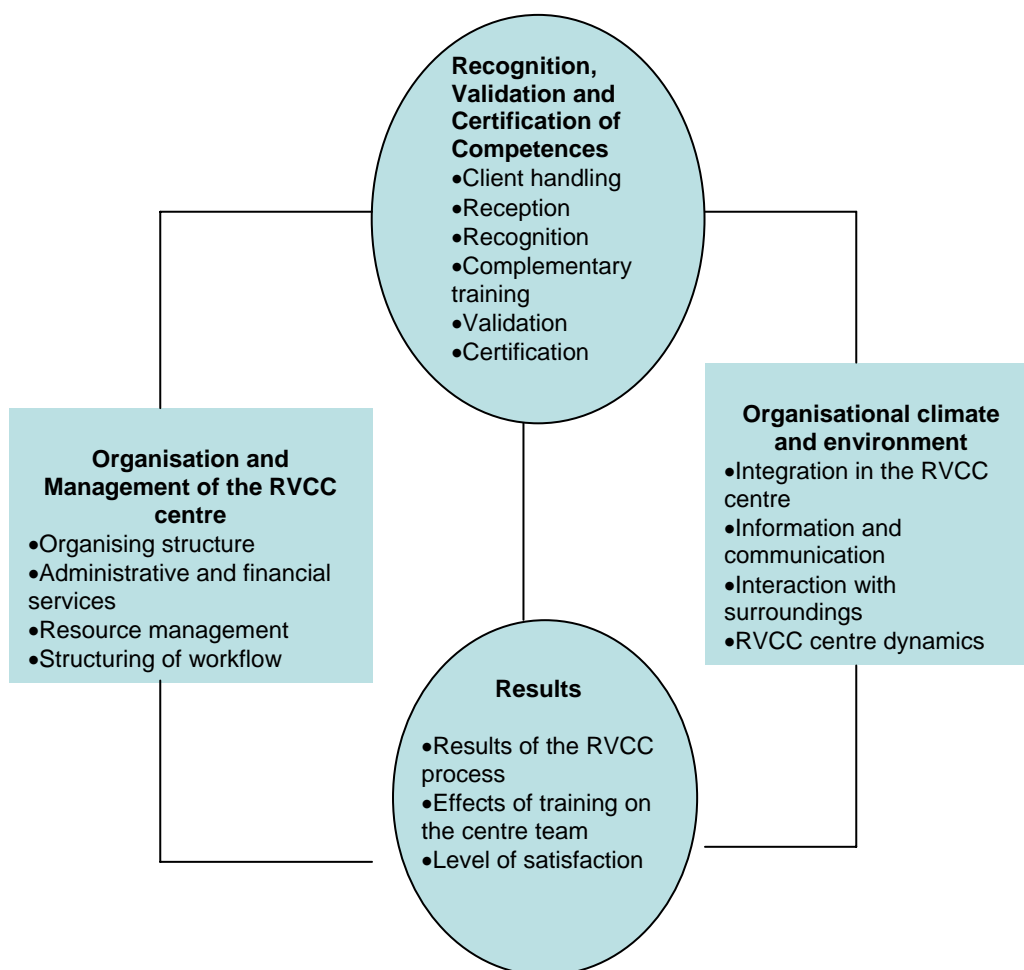
The Certification System for Training Providers

The certification system for training providers acts, like the other systems, as a quality assurance mechanism for the National Qualifications System in Portugal. The certification of training providers is a necessary requirement for the training developed by these entities to be certificated, in terms of the National Qualifications System, and for accessing public funds to finance training.

The certification process, which was formerly associated with areas of the training cycle (such as the diagnosis of training needs, the planning of training or the development/implementation of training courses and activities), now involves the global recognition of the training entity, for the education and training areas in which this organisation works (Order no. 851/2010).

Certification by area implies that the training provider carries out specialised work in specific thematic areas. This requires specific technical evaluation of dimensions such as the suitability of the training

programmes and contents, the technical competences of the trainers and the minimum technical requirements for facilities and equipment.

To obtain certification, training providers must show that they comply with a set of conditions which determine the quality of their training provision service. In addition to meeting these prerequisites, which are understood as being the necessary legal conditions for then requesting certification, the structure and the technical and pedagogical practices of the organisation are also assessed to see if they comply with the minimum requirements set out in the Quality Assurance Reference for Certification (Order no. 851/2010).

The prerequisites involve checking dimensions like: the organisation is legally constituted and properly registered; it is entitled to carry out the work; its tax and social contributions situation is up-to-date; it is complying with its obligations as regards public funding, among others.

Quality Standard, which is composed of requirements and the respective verification sources and criteria used to evaluate these, is organised into three groups:
- Requirements for structure and internal organisation;
- Requirements for processes involved in developing training;
- Requirements for outcomes and ongoing improvements.

The structure and organisation requirements relate to human resources, facilities and equipment.
The requirements for the processes involved in developing training include planning practices and the management of the training activity and the design and development of training, operational rules, the organisation of technical/pedagogical documentation, the establishment of contracts and the handling of complaints.
The requirements for outcomes and ongoing improvements cover practices relating to the analysis of training results, post-training service and ongoing improvements.

The assessment of the practices of these organisations is carried out by the General Directorate for Employment and Labour Relations (Ministry of Labour and Social Solidarity), through a process of regular supervision involving external audits which focus on a number of critical aspects, such as: i) checking that compliance with certification requirements is maintained, ii) compliance with the duties of a certificated training entity, iii) adherence to the minimum conditions detailed on the quality assurance reference scale and that certificate is maintained and that the results of their training work are guaranteed.

The quality assurance reference standard (accreditation requirements for training entities) can be accessed at: http://acredita.dgert.mtss.gov.pt/

Training of trainers and teachers

Continuing training of teachers in the basic and secondary education is regulated by a specific legal framework[12]. The purpose of this training is to improve the quality of teaching and learning and stimulate the process of change at the level of schools and the educational landscape they are situated in. The training supply and the training entities providing it are also regulated through a specific accreditation system under the aegis of an independent external organisation, the Scientific and Pedagogical Council for Continuing Training[13]. This organisation, in addition to accrediting training entities, recognises and certifies the training courses in terms of their relevance and suitability for the process of updating and improving the technical, technological and pedagogical competences of teachers, in each of the education and training areas.

Initial and continuing training of trainers in Portugal is regulated by means of Regulatory Decree no. 66/94, of the 19th of November, with the changes introduced by Decree no. 214/ 2011 of the 30 of May. The Institute for Employment and Vocational Training (IEVT) is the competent entity responsible for approving trainer training courses and for the issuing of the Certificate for Pedagogical Competences for Trainers. The recognition of initial pedagogical training courses for trainers is based on a set of requirements relating to the training entity and others of a technical/pedagogical nature (methodological, duration, assessment system and other aspects). In the case of courses involving a component of distance learning, there are a number of additional requirements regarding technological and technical/pedagogical conditions.

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[12] Decree-Law no. 207/96, of the 2nd of November and later amendments.
[13] Site of the Scientific and Pedagogical Council for In-service Training: http://www.ccpfc.uminho.pt

3.6 Criterion 6

> The referencing process should include the express agreement of the competent authorities for quality assurance.

This referencing report has been agreed to by the competent authorities for quality assurance in the various operational areas (general education, professional education and training, higher education), namely:

- National Agency for Qualifications, I.P.(NAQ);
- General Directorate for Higher Education (GDHE);
- General Directorate for Curricular Innovation and Development (GDCID);
- General Directorate for Employment and Labour Relations (GDELR);
- Agency for the Accreditation and Assessment of Higher Education (A3HE).

3.7 Criterion 7

> The referencing process includes the participation of international experts.

3 international experts were invited to participate in the process of referencing the NQF to the EQF:

- Mike Coles, researcher from the United Kingdom who is an expert on qualifications systems around the world and has supported work on the European Qualification Framework since its conception.

- Joachim James Calleja, former Executive Director of the Malta Qualifications Council and responsible for the process of referencing Malta's NQF to the EQF. In addition to his experience in Malta, where the referencing process has already been completed, is the fact that Malta has also adopted the 8 EQF qualifications levels.

- Francisca Arbizu Echávarri, was director of the National Qualifications Institute in Spain (INCUAL) ad is currently a researcher. This expert's contribution is based on her experience of developing the Spanish National Qualifications Catalogue as well as her experience, as an international expert, in the process of referencing the qualification levels of the NQF in England and Northern Ireland (which integrates the UK referencing report) the EQF.

The main work of the international experts is to support the NAQ, as national coordinator, in the production of a referencing report that is clear, readable and coherent. This involves:

- Providing support in the clarification of referencing criteria and procedures, highlighting those points that needed to further explanation or concrete examples, in order to make the report more accessible to readers not familiar with the system.

- Participating in a reflective seminar on the NQF and the process of referencing to the EQF which followed a technical meeting with the national working group that is supervising the referencing process and in which the two national experts also participated.

- Producing two opinions, one on the working document and the other on the final report on the referencing process.

3.8 Criterion 8

> The competent national organisation or organisations certify the referencing of the national qualifications framework (or system) to the EQF. The competent national authorities, including the national coordinator, should publish a report that describes the referencing process and the underlying principles, dealing with each of the criteria separately.

This referencing report was drawn up by the National Qualifications Agency (the national coordinator) with the collaboration of a group of competent national authorities and includes the referencing to levels 1- 5 of the EQF. The self certification report for Higher Education Area is complementary of the present report (see Annex 1), and includes the referencing to levels 5-8 of the EQF

This report gives a detailed and comprehensive description of the referencing process, focusing on the methodology adopted and the various working stages. Each of the 10 criteria set by the Advisory Group was dealt with separately.

This report will be made public and will be accessible via the NAQ site (www.anq.gov.pt).

3.9 Criterion 9

The official platform for the EQF should maintain an updated list of the member states that have confirmed that they have completed the referencing process, including hyperlinks to completed reports.

The National Qualifications Agency, as national coordinator, will inform the European Commission when the referencing process is concluded and will publish the referencing report on the official EQF platform, with a hyperlink to the National Qualifications Agency.

3.10 Criterion 10

Following the referencing process, and within the deadlines stipulated in the recommendation, all new qualification certificates, diplomas and Europass documents issued by the competent authorities should clearly indicate, on the basis of their national qualifications systems, the appropriate European Qualifications Framework qualification to which the qualification corresponds.

Since the NQF came into force in October 2010, proposals have been put forward for an appropriate legal framework to allow the change/update of all certificates and diplomas associated with non-higher qualifications (1 to 5) to include reference to the new NQF qualification levels.

When the referencing process is complete, we will initiate the necessary procedures for introducing referencing to EQF levels for all certificates issued for NQF-related qualifications.

4. Conclusions

The Portuguese NQF is in force since October 2010 and has adopted the principles of the EQF, both in terms of organizing it into eight levels and of regarding the description of learning outcomes, which proved to be appropriate to our context and capable of accommodating all Portuguese national qualifications.

The Portuguese referencing to EQF has been developed since the end of 2009 and it included discussion with stakeholders and the participation of national and international experts. As a result of this participation, we can identify a set of key issues that have been discussed.

Issues arising from the discussion with stakeholders

From the discussion with stakeholders, there were some issues that, on the one hand, reinforce the importance of the referencing process and, on the other, challenge the future development of the qualifications design of education and training system and its integration into the NQF:

- The learning outcomes approach:
    - the NQF based in learning outcomes allows for positioning the qualifications taking into account the acquisition of competences instead of the content included in different education and training modalities;
    - The qualifications design based in learning outcomes gained momentum with the structuring of the NQF;
    - It is a challenge for the upgrading of the national qualifications catalogue but also for qualifications issued within general secondary education

- International comparison: the structure of the NQF allows comparing qualifications from different countries, enhancing mutual trust between member states;

- The inclusion of the NQF and EQF levels in the Diplomas and Certificates awarded for qualifications included in the NQF: allows for a major legibility and transparency of the national qualifications system; and it is seen one of the major added value of the referencing process;

- Information and Communication: there is still a need to disseminate the information concerning the referencing process to a wide spectrum of stakeholders, especially the labour market, where the NQF is not yet widely known at present;

- The positioning of qualifications in the NQF: it is an issue that is not directly related to the referencing process, but it concerns with the structure of the NQF, namely, the differentiation for the Level 3 and 4 has not been fully grasped by some stakeholders, requiring greater disclosure and discussion of the distinguishing characteristics between these two levels of qualification.

The contribution from national and international experts

The national and international experts also played a very important role in the improvement of the quality and legibility of the referencing report. The key issues arising from this participation were at two levels:
- Structure and content of the report: in order to achieve more legibility, better understanding of the Portuguese education and training system,
- Meeting of the 10 criteria - there were inputs about the information needed to consider the criteria met

Final remark

In this final referencing report we have tried to incorporate the comments and suggestions from the national and international experts, as well as from the other stakeholders involved in the referencing process, in order to have a report more robust, coherent and legible.

This report has been endorsed by the Portuguese Ministry of Education, Ministry of Labour and Social Solidarity and the Ministry of Science, Technology and Higher Education with the premise of being adjusted to the comments and suggestions of the Commission and the other Member States.

5. Appendix

Appendix 1 – Abbreviations

A3HE - Agency for the Accreditation and Assessment of Higher Education

AET - adult education and training

BLE – Bulletin of Labour and Employment

CAF - Common Assessment Framework

DTS - Diploma in Technological Specialisation

EQARF - European Quality Assurance Reference Framework

EQF - European Qualifications Framework for Lifelong Learning

GDCID - General Directorate for Curriculum Innovation and Development

GDELR - General Directorate for Employment and Labour Relations

GDHE - General Directorate for Higher Education

GIE - General Inspectorate for Education

IEVT - Institute for Employment and Vocational Training

ME - Ministry of Education

NAETA - National Agency for the Education and Training of Adults

NAQ - National Agency for Qualifications, I.P

NQC - National Qualifications Catalogue

NQF - National Qualifications Framework

PET - professional education and training path

RVCC - Recognition, Validation and Certification of Competences

SQC – Sectorial Councils for Qualification

STU - Short Training Units

TSC - Technological Specialisations Courses

VET – Vocational Education and Training

Appendix 2 – Key Legislations

Adult education and training courses and Modular Training, Order no. 230/2006, 7th March.

Apprenticeship Courses, Order no. 1497/2008, 19th December.

Basic Education System Act (Basic Law on the Education System), Law no. 49/2005, 30th August.

Basic Law on the Education System, Law no. 48/86, 14th October, amended by Law no. 115/97 of September 19 and Law no. 49/2005, August 30.

Education and training courses (Joint Decree no. 453/2004, 27 th July.

Framework for Higher Education Degrees and Diplomas, Decree-Law no. 74/2006, 24th March, amended by Decree-Law 107/2008, 25th June (requiring annual public report for each higher education institution), and Decree-Law 230/2009, 14th September.

Framework for the Evaluation of Higher Education, Law no. 38/2007, 16th August.

National Catalogue of Qualifications, Order no. 781/2009, 23rd July.

National Qualification System, Decree-Law no. 396/2007, 31st December.

National Qualifications Agency, Law no. 276-C/2007, 31st July.

National Qualifications Framework - Diplomas and Certificates, Order no. 978, 12 January.

National Qualifications Framework, Order No. 782/2009, 23rd July.

Preschool, Law no. 85/2009, 27th August.

Professional courses, Order no. 550-D/2004, 21st May.

Special secondary education courses for the arts cover the areas of the visual and audiovisual arts, Order no. 550-D/2004, 21st May).

Technological specialisation courses (TSC), Decree-Law no. 88/2006, 23rd May.

The National System for the Recognition, Validation and Certification of Competences, Order no. 370/2008, 21st May.

The science and humanities courses, Order no. 1322/2007, 4th October.

The Special Basic Education Courses for the Arts, in the areas of music, Gregorian chant and dance, Order no. 691/2009, 25th June.

The training programme in basic competences, Order no. 1100/2010, 22nd October.

Appendix 3 – Summary: "Understanding the NQF – user support guide"

The NQF level descriptors describe the characteristics of learning and those of the context in which this learning takes place. Using these, it is possible to place the learning outcomes associated with the qualification at a given qualification level. However, the more detailed the level descriptors, the less clear would be the criteria for positioning and classifying the national qualification in terms of the NQF levels when:

- Referencing new qualifications, i.e. in incorporating the new qualifications in the NQF;
- Checking the match of existing qualifications to the NQF levels, i.e. in analysing the expected outcomes of existing qualifications in terms of NQF descriptors. This analysis may imply a repositioning of qualifications already in the system or the adjusting of the expected outcomes from these qualifications, depending on the desired qualification level.

Given the objectives of the NQF and with a view to broadening is functionalities, particularly as regards its application to national and sector qualifications by operators in the training and education system, it was decided that a support instrument for using the NQF should be produced in the form of the "Understanding the NQF – *User support guide*".

The guide includes the definition of a set of premises for the reading of the NQF level descriptors as well as a more detailed and specific explanation of the concepts behind the descriptors associated with the characteristics of the national qualifications incorporated in each one if the education and training subsystems. The man objectives of the guide are:

- To make the NQF descriptors more explicit and readable, clarifying the criteria used to classify a national qualification at a given level;
- To make the NQF easier to use for operators in the education and training system.

# 1. The premises behind reading the NQF

- UNDERSTANDING THE LEVEL DESCRIPTORS

    - ❖ Descriptors constitute general or abstract descriptions of learning outcomes and used to establish links between the NQF and national/sectoral/organisational qualifications;

    - ❖ Each of the levels is described using a scale of generic indicators that characterise the expected result for each level in particular, in terms of knowledge, skills and attitudes;

    - ❖ The level descriptors express the expected results as regards what the individual should know and be able to do upon completion of a given qualification level, defined in terms of knowledge, skills and attitudes;

    - ❖ The level descriptors are linked to learning outcomes and not to learning process (duration, type of institution, etc.) or method of assessment;

    - ❖ The level descriptors are not prescriptions but helpful guides; they are therefore established as a reference to aid the development and positioning of qualifications in relation to each of the levels, and should not be used as learning outcomes within each qualification in particular;

    - ❖ Bearing in mind the above assumption, the level descriptors must not be analysed in isolation, but understood as learning outcomes that integrate knowledge, skills and attitudes;

    - ❖ The descriptors formulations are intentionally generic to allow their application to the different education and training paths (formal, non-formal and informal);

    - ❖ Likewise, in order to allow them to be applied to the different education and training paths, the descriptors contain elements relating not only to the school/academic context but also to the work context.

- HORIZONTAL AND VERTICAL READING OF DESCRIPTORS

The NQF level descriptors can be read horizontally and/or vertically.

The **vertical progression** between levels can be expressed in several ways:

- ❖ By a progressive increase in the complexity, depth and breadth of learning outcomes;
- ❖ By the characteristics of the context in which they can be applied;
- ❖ By the increase in autonomy, responsibility and critical thinking;
- ❖ By the progressive introduction of new learning outcomes at higher levels.

Level	Knowledge	Skills	Attitudes
①			
②			
③			
④			
⑤			
⑥			
⑦			
⑧			

VERTICAL READING

HORIZONTAL READING
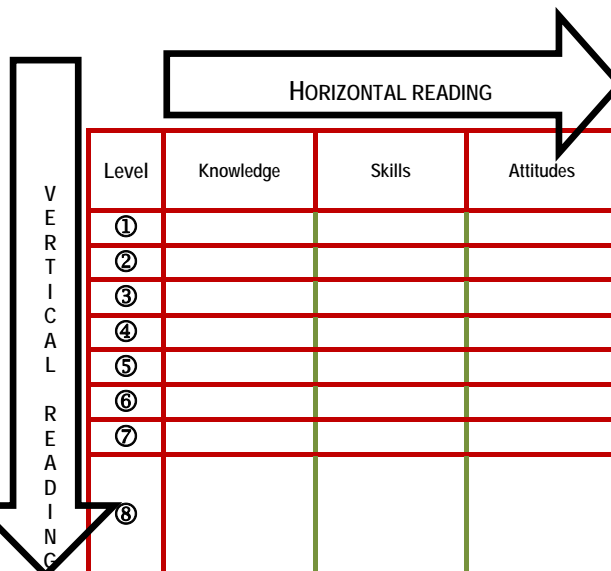
The **horizontal reading** of level descriptors should be understood in an overall manner, and not one by one. This assumption arises in so far as learning outcomes constitute the result of the mobilisation and combination of knowledge, skills and attitudes and of the variables applicable to them.

- CONTINUUM DEVELOPMENT: PROGRESSION AND ACCUMULATION

  - o The descriptors present a gradation/progression of knowledge, skills and attitudes that runs from the lowest level of qualification (level 1) to the highest level of qualification (level 8);
  - o This progression further assumes that each subsequent level integrates the learning outcomes of the previous level in a logic of accumulation;
  - o Despite this progressive and accumulative nature, this does not mean that in a given domain characterised as having, for example, basic knowledge, there is no knowledge of a different degree of specialisation or scope. In reality it is the case that, in that domain and at that level, knowledge is essentially basic.

- CONTINUITY/ DISCONTINUITY OF OUTCOMES
  - o Not all learning outcomes are different from one qualification level to another. For example, those aspects related to context may remain the same at more than one level. Likewise, in terms of attitudes, at qualification levels 1 to 3 individuals are not expected to be able to take responsibility for others.

2. Explanation of the level descriptors

The explanation of the NQF level descriptors implied a more finely tuned description of the domains used – knowledge, skills and attitudes.

In this sense, all the domains are subdivided into two subcategories, and the variable "context" was treated as a domain transverse to all the descriptors, but decisive for the overall reading/configuration of learning outcomes at each qualification level.

As far as **Knowledge** is concerned, this is subdivided into two sub-domains:

- **Depth of knowledge** – in this category, depth of knowledge is considered to increase progressively from the lowest to the highest level: at qualification level 1 the individual is expected to be able to demonstrate basic knowledge of facts and concepts (emphasis on declarative knowledge); and at the highest level, to be able to demonstrate possession of in-depth knowledge at the forefront of a specialised area of work or study and also at the interface between different areas. Depth of knowledge is understood to increase, the greater the complexity and variety of objects of knowledge;
- **Understanding and Critical Thinking**– this is considered, at a simpler level, to be interpretation of information and application in the context and, at the highest, critical awareness of knowledge-related issues in the field and at the interface with other fields.

Figure no. 1 - Graphic matrix of gradation of the Kɴᴏᴡʟᴇᴅɢᴇ domain
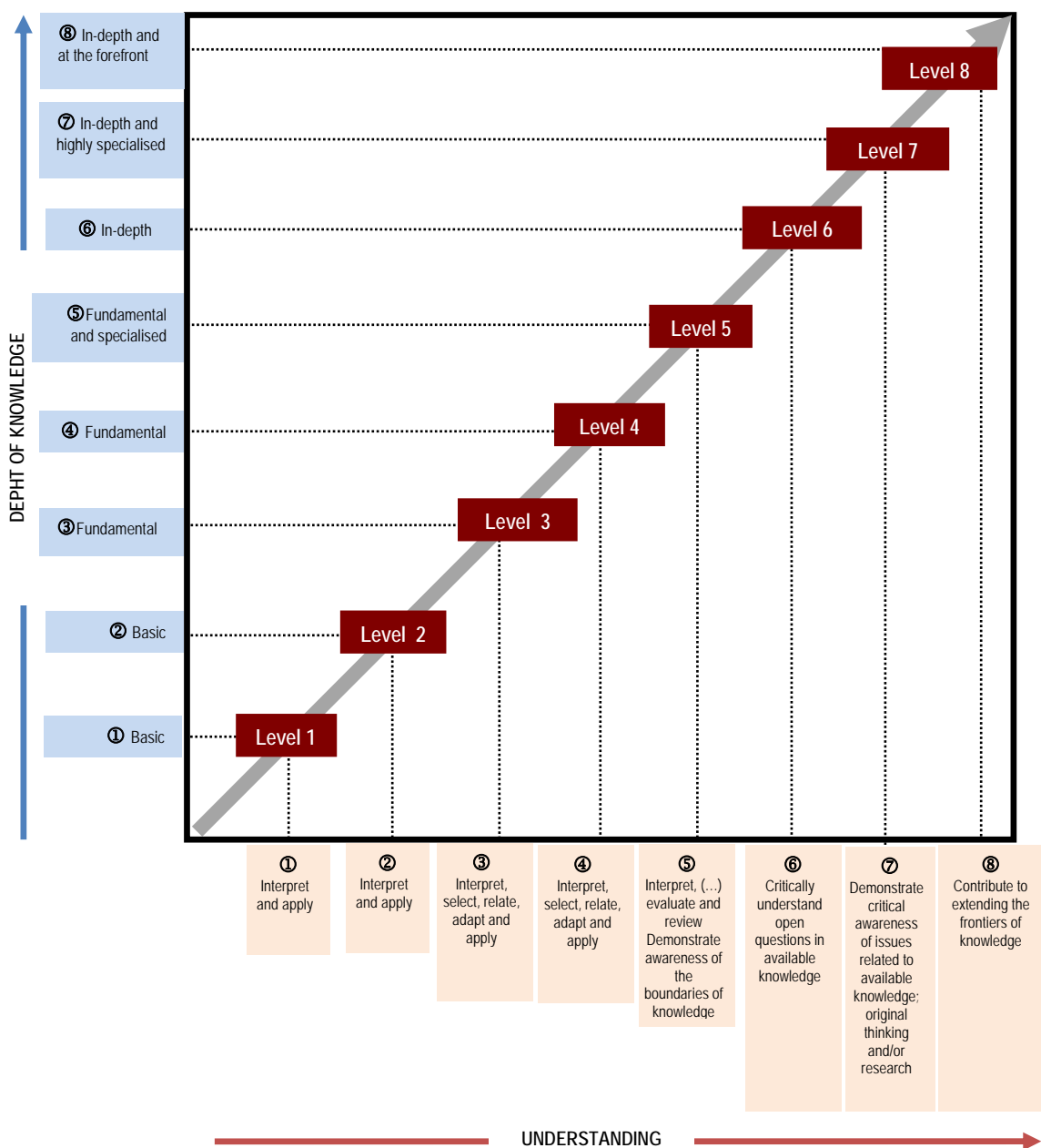
As regards **Skills,** this domain is subdivided into two sub-domains, with the following characteristics:

- **Depth and Breadth** – this subcategory envisages a progressive broadening and specialisation of the range of cognitive and practical skills, from a range of restricted breadth and basic depth at qualification level 1, to an advanced range of skills at the forefront of a field of work or study at the highest level of qualification;
- **Purpose** – within this sub-domain it is considered that at the lowest level the individual should be capable of performing tasks and solving simple problems by interpreting basic information (tasks of execution), and at a higher level of qualification it is expected to be able of research and innovation to solve critical problems and perform highly complex tasks or to redefine existing knowledge and professional practices (research and development tasks, innovation).

**Figure no. 2** - Graphic matrix of gradation of the Skills domain
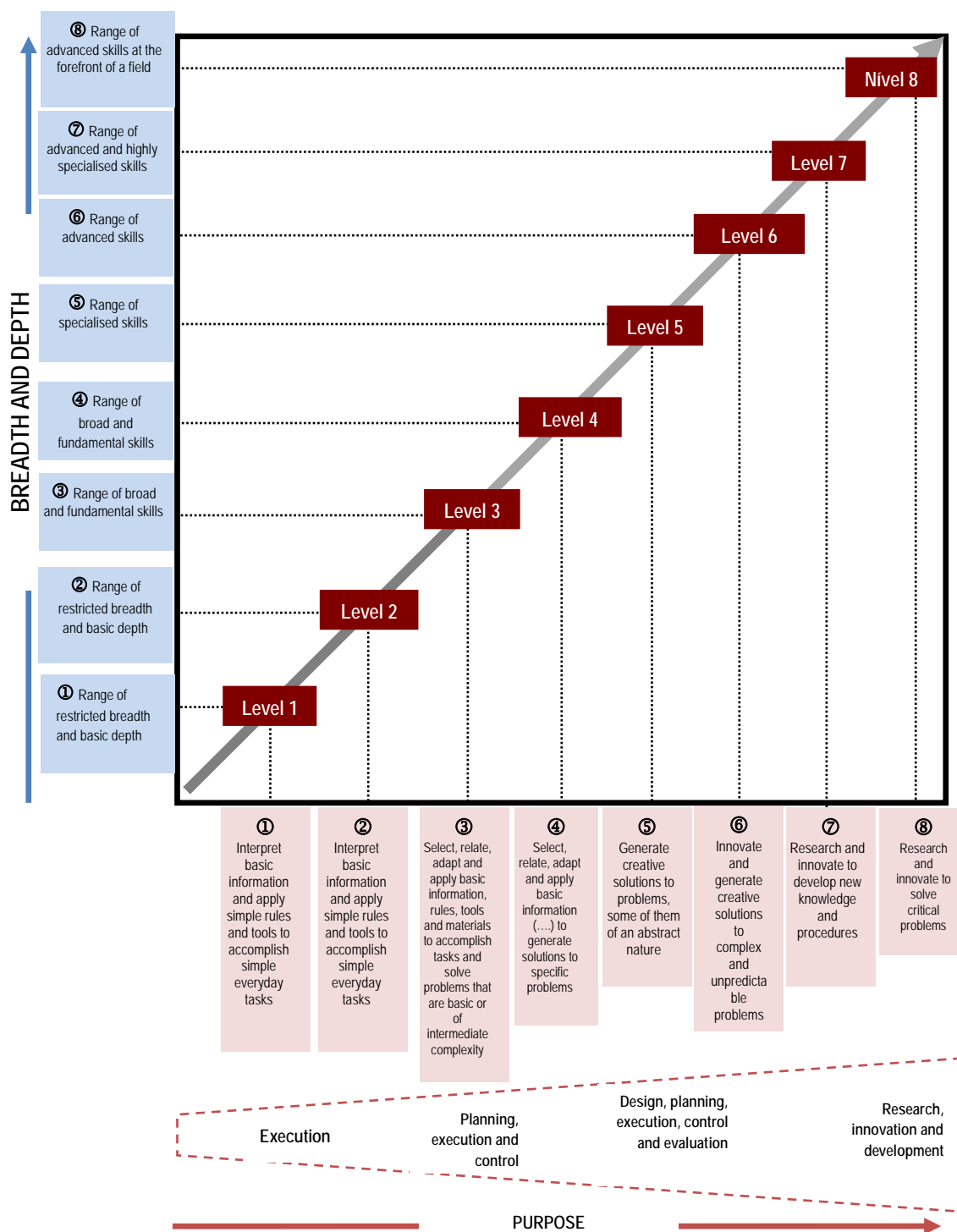
Note: *in accordance with decree 782/2009, skills are always **cognitive** and **practical***

The domain **Attitudes** is subdivided into two sub-domains, with the following characteristics:

- **Responsibility** – this sub-domain includes both responsibility for one's own work and responsibility for others. In the case of responsibility for one's own work, a gradation was adopted from work under instructions with shared responsibility (level 1) to work taking responsibility and with a sustained commitment to the development of new ideas and new processes at the forefront of a field of work or study (level 8). As for the level of responsibility for others, there is considered to be a progression from no responsibility (level 1) to responsibility for others, demonstrating authority, innovation and scientific and professional integrity (level 8);

- **Autonomy** – this sub-domain is structured from no autonomy/ a low degree of autonomy (level 1/level 2) to maximum autonomy, understood as a sliding scale from (-) to (+).

Figure no. 3 - Graphic matrix of gradation of the ATTITUDES domain
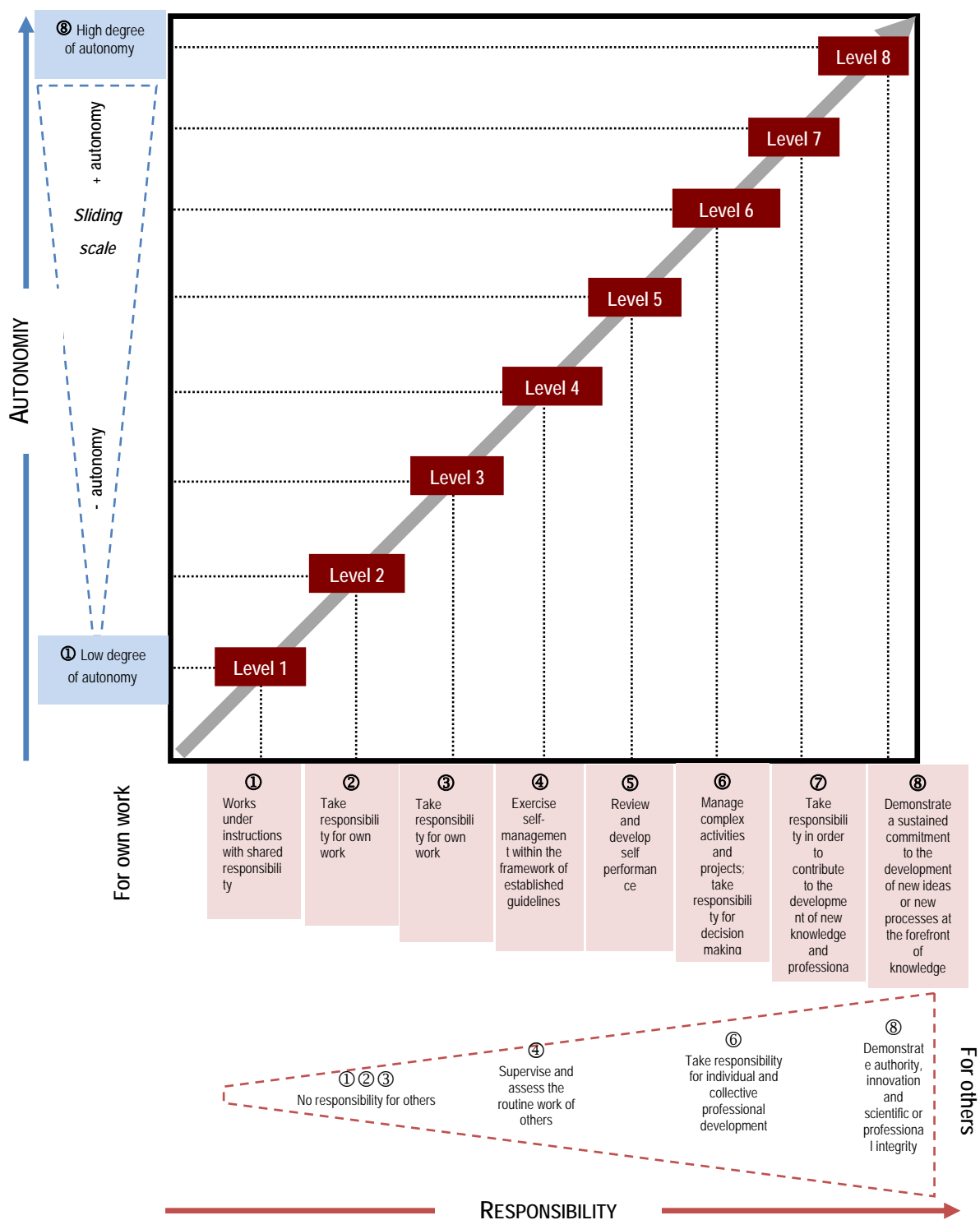
It was also considered a sub-domain transversal to the various descriptors – context. This is characterised on the basis of the following variables:

- **Context of Application** – ranging from everyday activities, at a lower level, to a specialised field of work or study and the interface between different areas, at a higher level;
- **Predictability and Complexity** - developing gradually from a stable structured context at level 1, to an unpredictable and highly complex context at qualification level 8.

Figure no. 4 - Graphic matrix of gradation of the transverse CONTEXT sub-domain
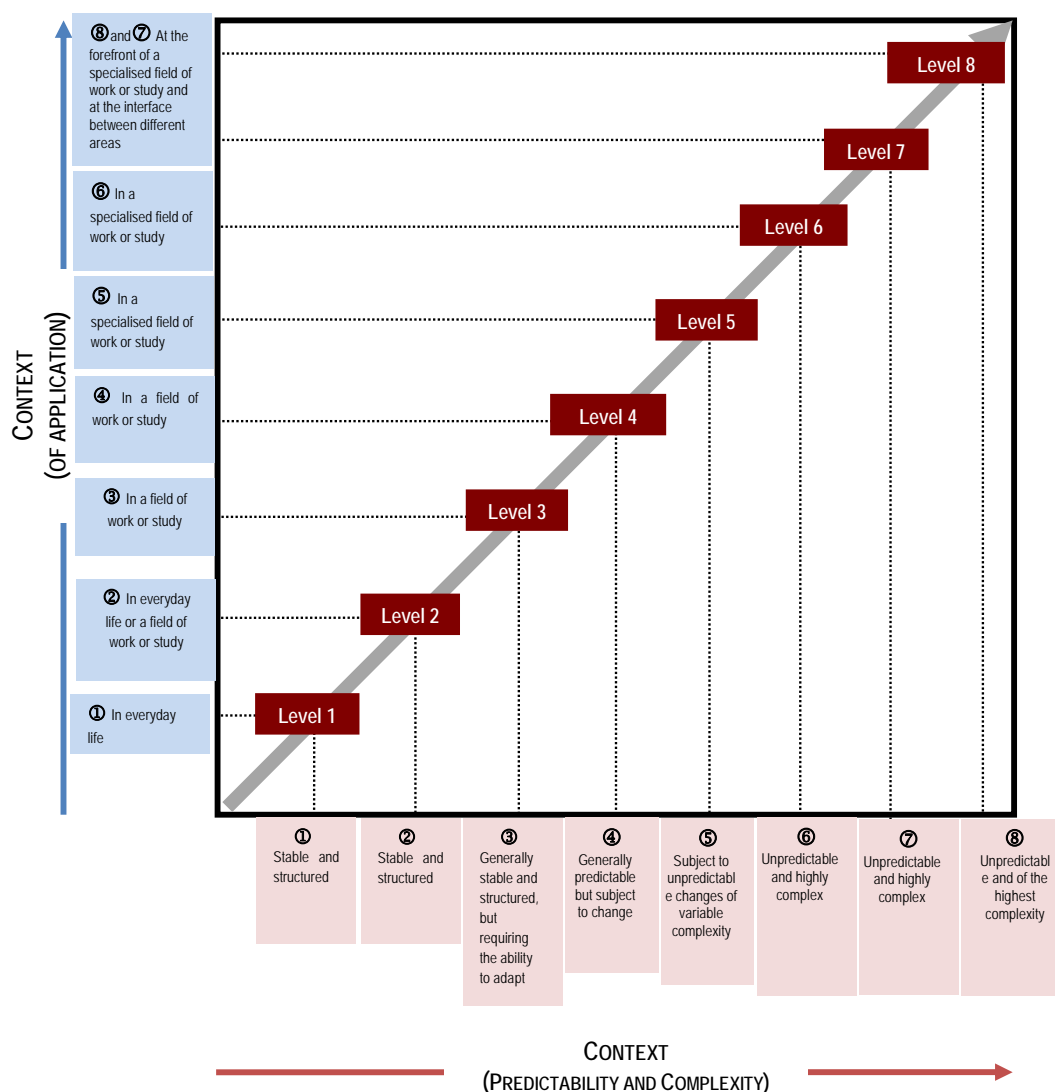
In table 1 the information is organised by descriptor and by level, allowing a more global and inclusive reading of the more specific characteristics of the learning outcomes associated with each qualification level.

Table no. 1 – Interpretation of descriptors, by qualification levels

Qualification levels	DOMAINS AND SUB-DOMAINS							TRANSVERSE SUBDOMAIN	
	KNOWLEDGE		SKILLS		ATTITUDES			CONTEXT	
					Responsibility				
	Depth	Understanding and critical thinking	Breadth and Depth	Purpose	Self work	Others	Autonomy	Of application	Predictability and complexity
①	Basic knowledge of general concepts and facts	Interpretation of information and application in everyday life	Range of restricted breadth and basic depth	Interpret basic information and apply simple rules and tools to accomplish simple everyday tasks and problems (execution)	Works under instruction with shared responsibility	No responsibility for others	Low degree of autonomy in the execution of tasks	Everyday life	Stable and structured
②	Basic knowledge of facts and general concepts in a field of work or study	Interpretation of information and application in the context	Range of restricted breadth and basic depth	Interpret basic information and apply simple rules and tools to accomplish simple everyday tasks and problems (execution)	Take responsibility for accomplish own tasks			Everyday life or in a field of work or study	Stable and structured

Qualification levels	DOMAINS AND SUB-DOMAINS								
	KNOWLEDGE		SKILLS		ATTITUDES			TRANSVERSE SUBDOMAIN	
	Depth	Understanding and critical thinking	Breadth and Depth	Purpose	Responsibility		Autonomy	CONTEXT	
					Self work	Others		Of application	Predictability
③	Fundamental knowledge of facts, general concepts and principles	Interpret, select, relate and adapt information and apply in context	Range of broad and fundamental skills	Select, relate, adapt and apply basic information, rules, methods, tools and materials to accomplish simple everyday tasks and problems or tasks and problems of intermediate complexity (planning, execution and control tasks)	Take responsibility for carrying out own tasks	No responsibility for others	On a sliding scale from less to more	In a field of work or study	Generally stable and structured, but requiring the ability to adapt
④	Fundamental knowledge of facts, concepts and principles	Interpret, select, relate and adapt information and apply in context	Range of broad and fundamental skills	Generate solutions to specific problems to accomplish specific tasks and solve specific problems (design, planning, execution and control, taking some responsibility for evaluation and improvement tasks)	Exercise self-management within the framework of established guidelines	Supervise the routine work of others, taking some responsibility for evaluation and improvement of activities		In a field of work or study	Generally predictable but subject to change
⑤	Fundamental and specialised knowledge of facts, concepts and principles	Interpret, select, relate and adapt information and apply in context; Demonstrate awareness of the boundaries of knowledge	Range of specialised skills	Generate creative solutions to accomplish specific tasks and solve specific problems, some of an abstract nature, and requiring tailored solutions (design, planning, execution and control, evaluation and improvement tasks)	Review and develop self performance	Manage and supervise the individual performance of others		In a specialised field of work or study	Subject to unpredictable changes of variable complexity
⑥	In-depth knowledge of facts, concepts and principles in a specialised field of work or study	Demonstrate a critical understanding of the theories and principles underlying available knowledge	Range of advanced skills	Generate creative solutions and innovate to solve complex and unpredictable problems (design, planning,	Manage complex technical or professional activities or	Take responsibility for individual and collective professional development		In a specialised field of work or study	Unpredictable and highly complex

Qualification levels	DOMAINS AND SUB-DOMAINS							TRANSVERSE SUBDOMAIN	
	KNOWLEDGE		SKILLS		ATTITUDES				
	Depth	Understanding and critical thinking	Breadth and Depth	Purpose	Responsibility		Autonomy	CONTEXT	
					Self work	Others		Of application	Predictability
				execution and control, evaluation and innovation)	projects; take responsibility for decision-making				
⑦	In-depth and highly specialised knowledge, some of which is at the forefront of knowledge, in a particular field of work or study and at the interface between different fields	Demonstrate a critical awareness of knowledge issues in the field and at the interface with other fields; original thinking and/or research	Range of advanced and highly specialised skills	Research and innovate to develop new knowledge and new procedures with a view to performing tasks and solving complex and unpredictable problems (research and development, innovation)	Take responsibility for contributing to the development of new knowledge and professional practices	Review the strategic performance of teams (strategic management)		In a particular field of work or study and at the interface between different fields (multidisciplinary)	Unpredictable and highly complex
⑧	In-depth knowledge, at the forefront of a field of work or study. Critical and original use of knowledge, allowing to extend the frontiers of knowledge	Demonstrate a critical awareness of knowledge issues in the field and at the interface with other fields; original thinking and/or research	Range of advanced skills at the forefront of a field	Research and innovate to solve critical problems and accomplish highly complex tasks or to define existing knowledge and professional practices (research and development, innovation)	Demonstrate a sustained commitment to the development of new ideas or new processes at the forefront of a field	Demonstrate authority, innovation and scientific and professional integrity	Maximum autonomy (+)	In a particular field of work or study and at the interface between different fields (multidisciplinary) at the forefront	Unpredictable and of the highest complexity

THE FRAMEWORK FOR HIGHER EDUCATION QUALIFICATIONS IN PORTUGAL

MINISTRY OF SCIENCE, TECHNOLOGY AND HIGHER EDUCATION (MCTES) – DIRECTORATE-GENERAL FOR HIGHER EDUCATION (DGES)

June, 2011

THE FRAMEWORK FOR HIGHER EDUCATION QUALIFICATIONS IN PORTUGAL

Foreword

The referencing of the Framework for Higher Education Qualifications in Portugal (FHEQ-Portugal) forms part of the referencing of the overarching National Qualifications Framework (NQF) to the European Qualifications Framework (EQF). The Framework of Qualifications for the European Higher Education Area (FHEQ-EHEA) was nevertheless developed in the context of the Bologna Process even before the EQF was adopted by the European Union. Furthermore, the Ministerial Order n. º 782/2009, 23 July, that approved the NQF and established the National Agency for Qualification (ANQ) as the national point of coordination for the referencing process to the EQF, states that the ANQ works in coordination with the Directorate-General for Higher Education (DGES) regarding levels 5 to 8 of the NQF.

As one of the signatory nations of the Bologna Framework, Portugal committed itself to align its FHEQ-Portugal with the overarching FHEQ-EHEA.

Signatories undertook to self-certify that alignment by meeting the criteria and procedures laid down by the Working Group on Qualifications Framework Report.

Since one of the procedures that should be followed by countries in preparing the self-certification report was that the process shall involve international experts, the Portuguese Ministry of Science, Technology and Higher Education (MCTES) set up a committee of independent international experts.

In December 2010, after considerable progress in the implementation of FHEQ-Portugal had been made, the DGES invited the Committee to undertake a final evaluation visit, which included meetings with a range of relevant stakeholders.

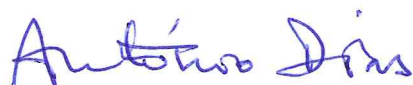The visit was supported by a background document prepared by MCTES.

The outcome of the whole process is a final report on The Framework for Higher Education Qualifications in Portugal. This report consists of two parts. Part I, prepared by the international Committee, analyses the documentary evidence and stakeholder representations regarding the framework against each of the criteria for self-certification. Part II, prepared by MCTES, describes the initiation and

development of FHEQ-Portugal and gives a succinct picture of qualification descriptors.

In June 2011 the report, as the result of the process of referencing the National Qualifications Framework for Higher Education to the European Qualifications Framework for Higher Education was certified by the Secretary of State for Science, Technology and Higher Education, thus completing the self-certification process. The final report also includes that certification document.

This report has been published by DGES and sent to the secretariat of the ENIC/NARIC networks and the Higher Education stakeholders. The comprehensive report on the referencing of the Portuguese qualifications system as a whole to be published by ANQ shall incorporate this one.

The Director-General for Higher Education

Prof. Doutor António Morão Dias