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GUEST EDITORIAL

CREATING AN INFORMATION SUPPORT FOR PARTNERS IN EDUCATION, TRAINING AND INDUSTRY

Cătălin BABA

During the past 10 years, the world of education and training has witnessed an impressive upheaval of concepts, ideas, plans and stages shaped against the common goals launched by the Bologna and Copenhagen processes. One of them is creating a European Qualifications Framework (EQF) developed to support voluntary comparison and translation of qualifications at European, national and sectoral levels. If the EQF is to succeed it has to be based on *mutual trust*.

But in order to build trust, actors in the education and training market, as well as those in the labour market must have adequate information to enable them to make the best decisions. Thus, we believe this Journal to be good informative support for all those interested in knowing more on how theoreticians and practitioners build a European framework based on national and sectoral frameworks, in being familiar with the endeavours and progress made to reach common grounds for the European framework for Lifelong Learning and the overarching framework for qualifications in the EHEA.

It is easy to speak about the differences between the two frameworks: different starting points, the fact that the EQF covers a much broader range of qualifications (8 levels) than the Bologna framework (3 levels), that its scope is broader (qualifications referring to general as well as vocational education and training), a larger geographical coverage for the EHEA. It is more important to highlight the common points: both processes target a common structure (3 or 8 levels), closely related to quality assurance, based on a description of knowledge, skills and competences according to levels. Both frameworks are based on sound national frameworks, already developed and implemented by several European countries.

Taking into account both differences and common points it is clear that it makes sense to speak of 'verification of compatibility'/'self-certification' in the context of the Bologna framework, or of an adaptation or alignment process which can be 'verified' to the EQF context, 'referencing' or 'relating'.

Nevertheless, it is important that those interested in the contribution of education and training to the knowledge-based society should use the same language and terminology, should view the qualifications frameworks as a useful tool for improving higher education transparency, to promote mobility and ensure harmonization of university degree systems. It is crucial that universities understand and put into practice the core idea of the qualifications framework, namely shifting focus in the design of study programmes from disciplines to learning outcomes expressed in terms of knowledge, skills and competences.

I believe the European Journal for Qualifications (EJQ) will make an important contribution to raising awareness on the Bologna process, to understanding the various education systems which lead to building mutual trust, which is crucial to the common efforts for building the European qualifications framework and the national qualifications frameworks, to mutual recognition of university diplomas or studies. I am confident that the Journal will bring a significant contribution to achieving the objectives set by the Bologna Process in general and to the coherent and systematic implementation of the qualifications frameworks in particular.

On behalf of the Romanian Ministry of Education, Research, Youth and Sports and of the 'Building Bridges between EHEA and EQF' project team, I am delighted to invite you to join us in creating a Journal whose articles reflect our ideas, interests, objectives, and contribute to a meaningful exchange of knowledge and expertise.

I congratulate the Board of Editors and I hope the project partners will be successful in reaching their objectives.

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ROMANIAN QUALIFICATIONS FRAMEWORK FOR HIGHER EDUCATION – A COMPONENT OF THE EUROPEAN QUALIFICATIONS FRAMEWORK

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Abstract *– Investment in education means investment in the next generation and with it an investment in the source of future prosperity, future awareness and future possibilities for social development. Countries look to higher education as a means for bringing about positive change and for contributing to global action. Higher education has to help the new generation develop the abilities to learn throughout life. The growing and fast-changing fields of science and technology provide and will continue to challenge and to offer opportunities for improving the skills of the university graduates. Upgrading skills is not just a luxury for the highly qualified in high-tech jobs: it is a necessity for all. We are witnessing the emergence of a new world of work which requires new qualifications.*

Key words *– Qualification, cooperation, research, development outcomes, competence, autonomy and responsibility.*

I. The Context of the Romanian Qualifications Framework Development – European Perspective

In Europe, transparency of qualifications and mobility of qualified people have been much debated issues since the Treaty of Rome was signed. Many different proposals have been made in order to find a common reference framework. Despite the historic dimension of the debates to date, the aim of the construction seems to be the same: "bring about a better match between the supply and demand for skills, making it possible to transcend the particular situation of individual countries, to foster the movement of workers in a European labour market. The proposed European Qualifications Framework (EQF), the encouragement given to the different Member States to develop national systems and frameworks, is the most recent form of modernisation proposed to meet this concern" [1]. An important stage on the way to propose a common policy on qualifications matters was the Lisbon strategy approved by the European Council in March 2000. In order to become the most competitive and dynamic knowledge-based economy with more and better jobs and greater social cohesion, education and training were granted a vital mission: 'to adapt both to the demands of the knowledge society and to the need for an improved level and quality of employment.' [2].

Education and training systems must generate new skills to respond to the nature of the new jobs which are expected to be created, as well as to improve the adaptability and employability of adults already in the labour force. [3]

A solution to matching skills to labour market needs is that universities enhance their contribution by sharing knowledge with society and by reinforcing the dialogue with all stakeholders.

In order to support the Member States to enhance the efforts to modernise higher education, university management, and the Commission seems to be determined to produce studies and documents which could help national and European policy makers. We can quote here at least two of these:

- "Delivering on the modernisation agenda for universities: education, research and innovation" [2] which aims at reinforcing the societal roles of universities by linking the education, research and innovation with the Lifelong Learning programme.

"Universities have the potential to play a vital role in the Lisbon objective to equip Europe with the skills and competences necessary to succeed in a globalised, knowledge-based economy. In order to overcome persistent mismatches between graduate qualifications and the needs of the labour market, university programmes should be structured to enhance directly the employability of graduates and to offer broad support to the workforce more generally. Universities should offer innovative curricula, teaching methods and training/retraining programmes which include

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broader employment-related skills along with the more discipline specific skills."

- "New Skills for New Jobs - Anticipating and matching labour market and skills needs" [3], discussing future pathways to be taken in order to address the skills and labour market needs up to 2020 at European level.

"Across Europe, the shift to a low-carbon economy and the growing importance of the knowledge economy, in particular the diffusion of ICTs and nano-technologies, offer great potential for the creation of sustainable jobs. Globalisation, ageing populations, urbanisation and the evolution of social structures also accelerate the pace of change in labour market and skills requirements. The development of new skills and competencies to fully exploit the potential for recovery is a priority and a challenge for the EU and national public authorities, for education and training providers, companies, workers and students.(…) A substantial improvement in the Member States' and the Union's capacity to forecast, anticipate and match future skills and labour market needs is a precondition for the design of efficient employment, education and training policies and individual career choices."

A tool for accomplishing these aims is the European Qualification Framework. This is a common European reference framework which links countries' qualifications systems together, acting as a translation device to make qualifications more readable and understandable across different countries and systems in Europe. It has two principal aims: to promote citizens' mobility between countries and to facilitate their lifelong learning.

The EQF will relate different countries' national qualifications systems and frameworks together around a common European reference – its eight reference levels. The levels span the full scale of qualifications, from basic (Level 1, for example school leaving certificates) to advanced (Level 8, for example Doctorates) levels. As an instrument for the promotion of lifelong learning, the EQF encompasses all levels of qualifications acquired in general, vocational as well as academic education and training. Additionally, the framework addresses qualifications acquired in initial and continuing education and training.

In order to put in practice both the Lisbon strategy and the European Qualifications Framework, the Commission developed a set of tools: at the policy level, a wide debate was initiated on a document which became later the Recommendation of the European Parliament and of the Council on the establishment of the European Qualifications Framework for lifelong learning (23rd April 2008) and recommends that member states: "use the European Qualifications Framework as a reference tool to compare the qualification levels of the different qualifications systems and to promote both lifelong learning and equal opportunities in the knowledge-based society, as well as the further integration of the European labour market, while respecting the rich diversity of national education systems"; at the financial level, the Lifelong Learning programme 2007-2013 provides important financial support for European projects that contribute to the Lisbon objectives.

On the other hand and initially for a different purpose, the Council of Europe initiated a university movement which resulted in signing the Magna Charta Universitatum (Bologna, 1998) and moreover in establishing a European Higher Education Area. The Bologna process established the important steps of building the Overarching Framework for Qualifications in the European Higher Education Area, highlighted by several Ministers' declarations in Bergen (2005): "We adopt the overarching framework for qualifications in the EHEA, comprising three cycles, generic descriptors for each cycle based on learning outcomes and competences, and credit ranges in the first and second cycles. We commit ourselves to elaborating national frameworks for qualifications compatible with the overarching framework for qualifications in the EHEA by 2010, and to having started work on this by 2007"; in London (2007): "We note that some initial progress has been made towards the implementation of national qualifications frameworks, certified against the overarching Framework for Qualifications of the EHEA, by 2010. Recognizing that this is a challenging task, we ask the Council of Europe to support the sharing of experience in the elaboration of national qualifications frameworks"; in Leuven (2009): "With labour markets increasingly relying on higher skill levels and transversal competences, higher education should equip students with the advanced knowledge, skills and competences they need throughout their professional lives."

Education and training systems are not all at the same level in the different Member States. We can speak not only about different stages/phases but also about different models and speed of implementation. The main idea was to consider that all countries had a system of certification, however incomplete, imprecise or implicit, which could be related to the systems of education and training of which it was a part. The national qualifications systems are products that are situated in space and time and that are evolving in very different contexts.

Under this context, Romania develops the National Qualifications Framework for Higher Education (NQFHE), as a sole instrument to determine the qualifications structure and ensure national recognition as well as international comparability and compatibility of qualifications acquired within the higher education system. Through the NQFHE all learning outcomes acquired within the higher education system (Bachelor, Master's and Doctorate cycles) can be recognised, measured and related and coherence of certified qualifications and awards is ensured. NQFHE is compatible with the general qualifications framework in the European Higher Education Area and takes

into account the European Commission's documents on the establishment of the European Qualifications Framework for lifelong learning. The recognised qualifications are included in the National Qualifications Register for Higher Education (NQRHE).

The development of the National Qualifications Framework for Higher Education meets a need identified at European level regarding access, progress in the university career and students' and graduates' mobility as well as needs identified at national level in order to create a coherent structure for the organisation and classification of qualifications, to stimulate the openness of the university training system to the social and economic environment and to ensure the match between education and training demand and supply. Thus, the autonomy and social responsibility of each university are increased.

NQRHE is the instrument for optimising the university curricula, for ensuring readability and convergence of learning outcomes for all levels and types of programmes within the national qualifications system. NQRHE is a catalyst for the implementation of the Bologna process and an essential stage for the European and international recognition of diplomas and qualifications.

II NQFHE – Identity and Development

The identity of the National Qualifications Framework for Higher Education, as it was designed by the authors, is shaped by 7 components which create a unitary whole where each component builds upon the value and functions of the others (Fig.1).

1. The social-political, technological and cultural component

The NQFHE design and implementation involves links with the social development projects, meeting the requirements of the knowledge society, lifelong learning and labour market. In the development of the NQFHE there was a focus on ensuring compliance with the European and national policies on qualifications description.

The Romanian NQFHE was designed to allow not only the capacity to adjust to the dynamics of existing professions, but also to anticipate or predict new ones.

2. The conceptual-theoretical component includes the concepts and principles underlying the NQFHE design and implementation. They provide the theoretical basis for another component, namely the methodological-instrumental component.
3. The methodological-instrumental component includes the conceptual matrix, the tools used to analyze and describe qualifications.
4. The assessment component encompasses the system of assessment types and procedures used for higher education qualifications. The minimum performance standards provided to demonstrate each competence defining the respective qualification are of outmost interest.
5. The structural component

   The structural component, in line with the Bologna process, focuses on three of the eight levels of qualification, namely: Bachelor university studies, corresponding to EQF level 6, Master's university studies, corresponding to EQF level 7 and doctoral university studies, corresponding to EQF level 6.
6. The output component is illustrated by the types of qualifications and their correlations according to fields and to the three levels of qualification indicated above.
7. The certification component includes three categories of procedures:

- Development of relevant documents for validation of a university qualification by the university study programmes providers;
- Evaluation and accreditation procedures;
- Registration and updating procedures for the National Qualifications Register for Higher Education (NQRHE).

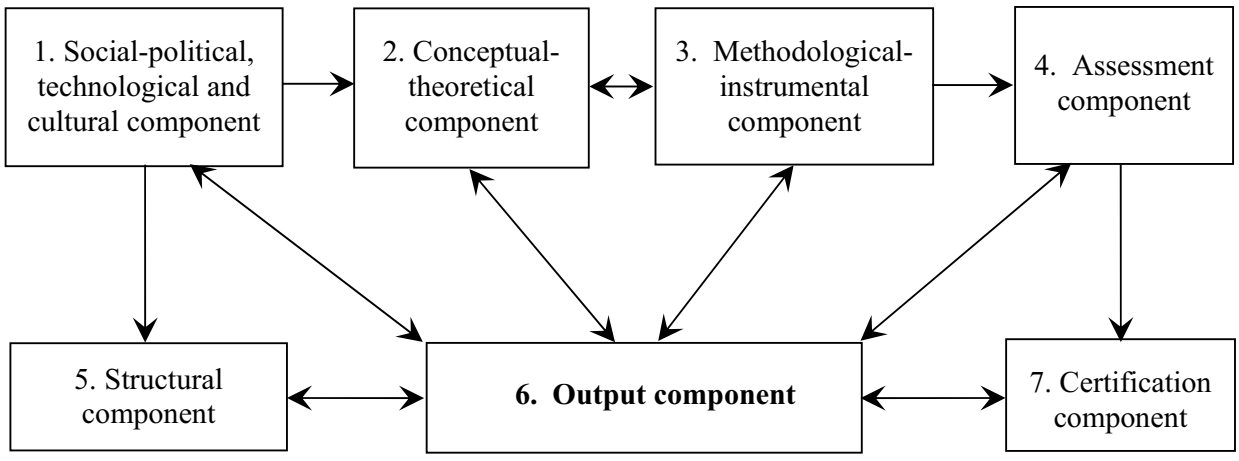

FIGURE 1
NQFHE components

NQRHE is developed by cooperation between the National Agency for Qualifications in Higher Education and Partnership with the Economic and Social Environment (ACPART), higher education institutions, employers, professional associations for example and it is a tool for the identification, registration, permanent consultation and updating of qualifications, degrees and awards issued by higher education institutions, ensuring national and international visibility and transparency.

Fig. 1 highlights the relationships between the seven components. Thus, one may notice the determiner position of components 1, 2, 3 and 4. The structural component (5) is a reference component, and the core position is held by the output component, while 7 (the certification component) aims at the social/national/international recognition of a qualification.

The output component holds a core position as the types of qualifications are developed, on the one hand, based on the social, political, technological and cultural component (1), on the conceptual-theoretical component (2), the methodological-instrumental component (3) and on the assessment component (4) and, on the other hand, on the qualification levels provided by the structural component (5): level 6-Bachelor, level 7-Master's and level 8-Doctorate.

I. Description of theoretical-conceptual component

The general reference framework provided to NQFHE by the conceptual-theoretical is substantiated by the following principles:

- Cooperation and consensus
- Research and development
- Focus on outcomes / competence, professional effectiveness and efficiency
- Autonomy and responsibility
- National and international cooperation and transparency
- Quality Assurance.

Principle 1: Cooperation and consensus

This principle involves cooperation with all categories of stakeholders and beneficiaries of NQFHE aimed at building and recognition of a national system of qualifications. Such system should be, on the one hand, adequate for the wide range of professions of the labour market and, on the other hand, flexible and open enough to assimilate and/or promote new qualifications. Consistent use of this principle leads to:

- Harmonisation of higher education qualifications with labour market requirements;
- Articulation of higher education qualifications with the other qualification levels;
- Better match between the quality of university study programmes and the competences required by the labour market.

Various organisations and bodies have contributed to the development of a national qualifications system in Romania, involving discussions, debates and negotiations: ACPART, Ministry of Education, Research and Innovation (MERI), higher education institutions, quality assurance agencies, Ministry of Labour, Family and Social Protection (MLFSP), National Adult Training Board (NATB), Sectoral committees, other social partners (employers' associations, trade unions, professional associations, students' associations), as well as other regulatory authorities.

The consistent application of this principle includes both the preparation phase of the Methodology and the concrete procedures stipulated by it. The Methodology has been designed by a broadly based group of experts, and before becoming official has been discussed thoroughly with a large number of stakeholders, including representatives of all Romanian institutions of higher education, of significant employers and of student organizations.

Following the debates, piloting stages and exercises involving definition of more than 20 qualifications, undertaken during 2005-2008, the main stakeholders reached consensus on three aspects:

- Determining the types of competences and where they derive from;
- Development of the concept matrix (Annex 1) and of the qualification description instruments (grids 1 and 2 presented at Annex 2.1 and 2.3).
- Further development of the NQFHE system and implementation of the NQFHE Methodology in Romania.

Principle 2: Research and development

In order to create a valid system, the starting point was to build it on sound scientific foundations, based on relevant research. This led to the development of an intensive process lasting for 3-4 years and involving analyses, investigation and surveys undertaken by inter-disciplinary teams of professors from various universities and employers' representatives. The research included diagnostic and forecast studies, marketing analyses, benchmarking studies fundamentals and practices adopted for the description of qualifications by other European and trans-European countries.

Thus, the research studies and surveys on NQFHE focused on professional roles, types of competences, management of professional competences, and career progress. NQFHE system is also based on the analysis of relevant theories and research outcomes in the fields of education sciences, psychology of learning, psychology of labour, with special reference to standards, curriculum design models, competence development and assessment systems and procedures. The final result of this research stage was several versions of a methodology on the description and analysis of qualifications. These versions were subject

to debates involving Romanian and foreign experts and were redefined following their evaluations.

Before reaching the current version, the NQFHE design and instruments had been thoroughly debated in all university centres, during meetings with university teaching staff, representatives of employers and students. The NQFHE development methodology was carefully tested, subject to a theoretical and professional evaluation, and it benefitted from systematic and productive feedback.

The choice of such development strategy proved beneficial, as it fostered:

- Raising awareness among higher education institutions;
- Cooperation and acceptance of the conceptual and methodological framework developed;
- Clarification of approaches on the assimilation of NQFHE Methodology and its implementation.

Principle 3: Focus on outcomes /competences. Professional effectiveness and efficiency

The NQFHE system adopted the principles of the new learning paradigm, shifting the focus from inputs to outputs and on learning outcomes. At the same time, NQFHE proposes a dynamic and specific relationship between learning outcomes and professional competences.

The benefits of this perspective were capitalised on in defining the professional standards, in curriculum development and in rethinking the professional performance assessment systems.

The EU principles on the 8 levels of learning outcomes were assimilated in the qualifications description.

The core of the qualification description system is the "competence". Thus, clarification of its significance is crucial for the national qualifications system development and quality. It is also relevant to ensure compatibility and equivalence of European qualifications frameworks.

But the literature in the field, including official papers, gives different meanings to the concept of "competence". Recently, a CEDEFOP Report (The Shift to Learning Outcomes-2009) highlighted the variations in the concept of "competence", according to the various social and cultural contexts and suggested the use of a less controversial and more comprehensive notion, namely "learning outcomes".

a) The concept of "competence"

One of the current and quite frequent interpretations of the concept of "competence" is illustrated by the following schema (fig. 2):

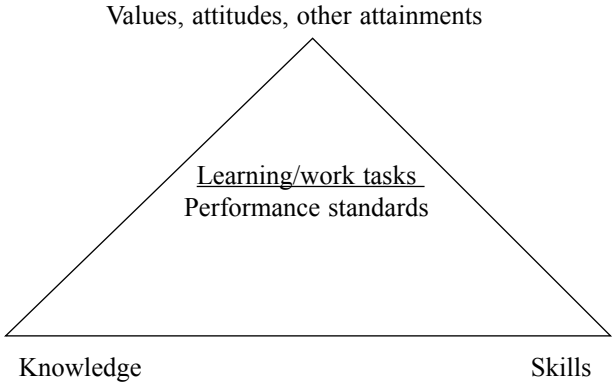

FIGURE 2
COMPETENCE IN TERMS OF LEARNING OUTCOMES

Based on this approach, "competence" means selection, combination and use of knowledge and skills, supported by attitudes and values, in order to solve successfully learning/work situations, according to a determined performance level.

From our viewpoint, the attitudes and values are less a structural component of competence and more of an axiological, motivational component.

Based on the model presented in Fig. 2 we may identify and analyse several approaches on competence (Annex 3).

For the NQFHE development purposes, competence is the proven capacity to select, combine and use adequately knowledge, skills and other attainments (values and attitudes), in order to solve successfully a certain category of learning and work situations, as well as for personal and professional development, effectively and efficiently.

Competences can be classified in two categories:

- Professional competences;
- Transversal competences.

By professional competence we understand the proven capacity to select, combine and use adequately knowledge, skills and other attainments (such as values and attitudes) which are specific to a professional activity in order to solve successfully problem situations related to the respective profession, effectively and efficiently.

Transversal competences are those capacities that transcend a certain field or study programme, having a transdisciplinary nature: teamwork skills, oral and written communication in mother tongue/foreign language, use of ICT, problem solving and decision making, recognition of and respect for diversity and multiculturality, learning autonomy, initiative and entrepreneurship, openness to lifelong learning, respecting and improving professional values and ethics for example.

The other key concepts used in the NQFHE definition are: qualification, learning outcomes, knowledge and skills.

b) The concept of "Qualification"

The qualification is the formal acknowledgement of the value of the individual learning outcomes for the labour market, as well as for the continuing education and training, by means of a study document (diploma, certificate or attestation) awarding the legal right to practice a profession/trade. According to the EU documents, "the qualification means a formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards." [5]

c) The concept of "learning outcomes"

Learning outcomes are the set of knowledge, skills, attitudes and values a person has acquired and is able to demonstrate after completion of the learning process during a certain educational cycle.

The definition used at European level is: „means statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competence.

Learning outcomes and their descriptors

The professional competences are the unitary and dynamic body of knowledge and skills.

d) The concept of "knowledge"

Knowledge means the result of assimilation of information, through learning. Knowledge is the body of facts, principles, theories and practices related to a certain field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual.

Knowledge, as cognitive dimension and structural element of the competence, is expressed in terms of the following descriptors:

- Knowledge, understanding and use of specific language;
- Explanation and interpretation.

e) The concept of "skills"

Skill means the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments.

Skills include certain types of operating structures, from dexterity to interpretation and problem-solving capacities.

Skills, as functional-actional dimension and structural element of the competence, are expressed in terms of the following descriptors:

- Application, transfer and problem solving;
- Critical and constructive reflection;
- Creativity and innovation.

Transversal competences are values and attitudes that transcend a certain study programme/field and are expressed in terms of the following descriptors:

- Autonomy and responsibility;
- Social interaction;
- Personal and professional development.

As a conclusion, we may say that each type of learning outcome has its autonomy, indicates distinct targets and specialised training processes, as well as specific assessment processes. The three types of learning outcomes share an inter-dependence relationship and, at the same time, highlight a hierarchy in the process of reaching these outcomes, namely: certain knowledge underpins skills and a certain body of knowledge and skills leads to the development of a competence (Annex 4).

Principle 4: Autonomy and responsibility

The principle of autonomy and responsibility should be related on the one hand to the qualification providers and, on the other hand, it should be understood as a dimension of the professional competence. According to the existing legal framework, the Romanian institutions of higher education enjoy substantial institutional, economic, and academic autonomy. The Methodology of the NQFHE explicitly states that "ACPART observes the legally recognised autonomy of institutions providing university qualifications and delegates to these institutions functions, roles and responsibilities in the process of NQFHE development".

From this perspective, NQFHE is an agreed model, as it:

- Proposes a unitary concept, a general thinking on the qualification description;
- Eliminates heterogeneous experiences;
- Involves and supports initiatives, experiences and expertise in setting the specific professional profiles of qualifications for a field or another. It is the university/faculty task to define specifically the competence structures which describe a qualification or another. Autonomy combines with the social and professional responsibility to quality assure the professional standards, the relevant curriculum and a relevant competence assessment system;
- Proposes the review of the qualifications nomenclature, namely the development of new professional qualifications; and,
- Has the role to provide reliable and updated information for employers, students, their families, other stakeholders.

Autonomy is correlated with accountability for the qualifications provided. The proposed methodology is a valid instrument to ensure both institutional autonomy and accountability.

What about the institutions providing qualifications which are not part of the NQFHE?

The national qualifications system protects itself and does not accredit the respective qualifications. Consequently, they are not recognised in the NQFHE.

Principle 5: National and international cooperation and transparency

The NQFHE was developed in cooperation with various institutions, universities from Romania and from the European Higher Education Area, with a wide range of direct beneficiaries: employers, students, other bodies or stakeholders.

The NQFHE development could not ignore good practices from other European countries which are recognised for their contribution to the development of qualifications description systems. Actually, NQFHE involved exploring many communication and cooperation channels with other institutions and organizations interested in the definition of professional qualifications in Romania and findings of studies undertaken by mixed teams of Romanian and foreign specialists, under several projects. Consequently, the NQFHE system is compatible with other qualifications description systems, is in line with the regulations of the EU bodies and, at the same time, it brings its own identity through its design and instruments.

The NQRHE is designed to provide to the Romanian Qualifications Framework maximum transparency and visibility. It will meet one of the major requirements of both employers and students, which is to display clearly the precise competences the graduates of higher education institutions will master when they complete their studies at Bachelor and/or Master level. Considering that the Romanian higher education graduates will have the opportunity to be active in the integrated UE labour market, the NQRHE will include descriptions of qualifications both in Romanian and in English.

By NQRHE, the interested stakeholders, as well as each higher education institution and/or faculty member will be able to easily access information about curricula and practices in other higher education institutions, to compare them with their own, and to decide upon possible improvements of their own practices. By means of this transparency, the NQRHE will become thus a major facilitator of change, helping the higher education institutions and providers to adjust their activities to the requirements of the changing world of the 21st century.

International Projects on Qualifications Framework and Lifelong Learning

In order to assist universities and business communities to put together their means and efforts for the common benefits, ACPART promotes several transversal projects funded by the European Commission through Lifelong Learning Programme, a single umbrella for education and training which enables individuals at all stages of their lives to pursue stimulating learning opportunities across Europe. These projects are:

- Developing key methodological units for the implementation of EQF by the means of NQFs – EQF by NQFs;
- Validating Learning for an Inclusive Society – InLearning;
- Building Bridges between EQF and EHEA – HEQ_ Bridges;
- EQF – adapted educational elements in a predictable framework of change – PREDICT.

The objectives of these projects are:

- To develop guidance tools to ensure transparency of processes and procedures related to the implementation of EQF by NQFs;
- The validation of informal and non-formal learning and develop a methodological framework (tool) to process such validation against the level descriptors of the EQF;
- To support the implementation and the development of EQF by developing and correlating national and sectoral qualifications frameworks and systems in relation to the EQF and strengthening the links with EHEA;
- To contribute to overcome the "standardisation-divide" in Europe by developing and piloting sector-oriented qualification approaches.

The partners in these projects are from Romania, Spain, France, Ireland, Italy, United Kingdom, the Netherlands, Malta, Austria, Estonia, Slovenia, Turkey, Portugal, and Germany.

Principle 6: Quality Assurance

NQFHE created its own operating and quality assurance mechanisms, defined standards, procedures and instruments for the description and validation of qualifications, and set mechanisms to evaluate, adjust and improve the NQFHE and NQRHE design, monitoring and updating.

NQRHE updating will be permanent and it will involve: definition of procedures and instruments for regular updating of qualifications, monitoring of training programmes and of qualifications evaluation and certification methods, setting mechanisms for correlation with other national qualifications frameworks, development of the methodology on introducing a new qualification in the NQRHE. NQRHE will be available on-line both in Romanian and in English, ensuring transparency and readability of the Romanian higher education for employers, professional associations, trade unions, employers associations, professors, students etc. The Register is public and it can be accessed at national, European and international levels.

II. Description of the Methodological-Instrumental Component

The NQFHE model is a reference framework developed for the analysis, description and interpretation of qualifications in higher education. It is compatible with the European Qualifications Framework, especially with the learning outcomes specified by the EQF for qualification levels 6, 7 and 8.

The structure and contents of the model capitalize on the descriptors of the Overarching Framework for Qualifications of the European Higher Education Area, as well as on the content of some models that have been already appreciated by European experts (the French, Irish, British models etc.).

At the same time, the NQFHE model has its own identity; it integrates categories and types of competences, qualification levels and specific descriptors while following consistently the conceptual basis presented above.

The essential elements of this model are the NQFHE Matrix (Annex 1) and two complementary instruments, namely: Grid 1 and Grid 2 (Annex 2.1, 2.3).

III.1. National Qualifications Framework for Higher Education Matrix

The NQFHE matrix includes: qualification levels, categories and types of competences, the generic descriptors of competences as well as the level descriptors for qualifications in higher education.

The level descriptors individualize the generic descriptors for each type of competence and for each qualification level: Bachelor, Master's, and Doctorate.

From a structural point of view, the NQFHE matrix integrates professional and transversal competences, each of the two categories of competences having its legitimacy and importance in practising a profession. They form a solidary couple that expresses the professional efficiency and effectiveness of a study programme graduate.

Professional competences are expressed in terms of knowledge and skills which cover comprehensively the professional dimension for any qualification.

In the matrix the transversal competences are structured as: role competences and personal and professional development competences. These take into account the social and group context of practising the profession, as well as the awareness of the continuing training need.

The generic descriptors introduced in the matrix expressing the professional and transversal competences indicate expected activities, outcomes and performance for each qualification level. They allow for the description of qualifications and, at the same time, formulate the necessary landmarks for the assessment of the competence level.

The matrix is an integrative approach of higher education qualifications and it provides two perspectives for the analysis of these qualifications: vertical and horizontal.

a) The vertical analysis indicates the progress in professional competences from the level of knowledge and understanding (generic descriptor 1), the primary level of a learning outcome, to the creativity and innovation level (generic descriptor 5), as well as the transversal competences (generic descriptors 6, 7 and 8). Thus, professional competences are analysed and described in light of the 5 generic descriptors (from 1 to 5), and transversal competences are analysed and described in light of generic descriptors 6, 7 and 8.
b) The horizontal analysis presents a generic descriptor against the three university cycles: Bachelor, Master's and Doctorate. In this case, the descriptors highlight the increase in competences and professional qualification level. One can notice that the model targets another type of progress, suggesting an increase in the added value for each type of competence with the progress from one university qualification level to another.

The vertical perspective emphasizes that a certain level of competence can be reached only if the subordinated levels have been achieved and consolidated.

The horizontal perspective demonstrates that each level of competence related to the three study cycles must integrate the previous levels. As a result, each level of a given competence has a relative autonomy, being conditioned by the previous levels, both horizontally and vertically.

III.2. Operational Instruments for Qualifications Analysis, Description and Evaluation

Two methodological instruments were developed in compliance with the structure of the NQFHE matrix: grid 1 and grid 2. They define the profile of qualifications in the respective field and ensure operational transition from the matrix to the design of education plans and discipline sheets.

Grid 1 (see Annex 2.1) fundamented on the NQFHE Matrix is an operational instrument for the analysis, description and evaluation of a qualification obtained through a Bachelor, Master's or Doctorate programme. It includes: the name of the study field/programme the qualification title and level, the level descriptors of professional and transversal competences, as well as the minimum performance standards.

Grid 1 is the support for identifying the possible occupations for the respective qualification, as well as the main professional and transversal competences. The

professional and transversal competences are in fact basic competences, compulsory for a qualification, and are individualized with respect to each level descriptor. Each higher education institution may add elements that are specific to its curriculum provision, filling in a similar form to the standard Grid 1 (Annex 2.2) which will describe three competences at the most, others than those indicated in Grid 1.

For the Bachelor level, Grid 1 will be developed both for the study programmes and for the study fields. In case of study programmes, professional competences included in Grid are those specific to the study programme, while in case of study fields, the professional competences are the general ones.

Competence assessment involves a set of minimum performance standards.

The assessment of transversal competence is mainly a qualitative one. Generally, it involves a holistic approach of the various social and group contexts for practising a profession as well as for the personal and professional development.

Grid 2 (see Annex 2.3) is fundamented on Grid 1 and it supports the identification of correlations between professional and transversal competences, contents areas, study disciplines and credits allocated. Thus, professional competences and their description by means of level descriptors as well as the transversal competences shall be taken from Grid 1.

The contents areas are the main curricular fields – the structure of theoretical and applicative knowledge, according to the study programme/field and the set of competences to be trained.

The disciplines will be determined based on the analysis and selection of contents areas, in compliance with the specific psycho-pedagogic and scientific development principles.

The credit points associated must be the result of an analysis of the workload and of the weight of that discipline in training and/or developing the basic competences of the qualification.

The conceptual-methodological model for describing qualifications in higher education involves the unitary and complementary use of the NQFHE matrix and of the two instruments, Grid 1 and Grid 2.

IV. DOCIS, the National Project for Implementation of NQF for HE

Using the opportunities provided by the European Social Fund to Romania, as new Member State, through the Sectoral Operational Programme for Human Resources Development 2007-2013, ACPART is implementing a project named Development of an operational system of qualifications in higher education in Romania – DOCIS, in partnership with a similar body from France, the National Commission for Qualifications, and two major Romanian universities.

Overall Objective:

- Restructuring and improving the higher education system by implementing the NQFHE and re-mapping the entire system according to the labour market requirements.

Specific Objectives:

- Development and implementation of the National Qualifications Framework for Higher Education – NQFHE and its alignment to existing instruments on the education and labour market;
- Development and implementation of the National Qualifications Register for Higher Education;
- Development of a labour market survey on qualifications demanded by the Romanian labour market and matching the universities provision with this demand.

V CONCLUSIONS

The development and compatibilness of national qualifications frameworks may ensure continuity of students' and graduates' training by means of a better vertical correlation of the study cycles in the same country or in different countries, as well as a better correlation of the initial training with lifelong learning.

NQF for HE is a partnership and interactive concept and can create the premises to improve the correlation between the new trends on the labour market and the present and future university provision.

NQF could support the whole higher education reform process and could make them more transparent and understandable for all stakeholders and the public.

EQF may be considered as a platform for discussion between the partner countries, as well as an opportunity to raise awareness on the national qualifications system. A tool for accomplishing this is the Lifelong Learning Programme, to which ACPART participates implementing projects with partners from 7 countries.

The NQFHE methodology and its related instruments are a complex, dynamic, flexible and open system. We may assume that this system might be further refined, based on theoretical analysis and on the outcomes achieved during the actual use of this system. Moreover, a revised version of the analysis matrix and of the qualifications description is under development, according to the comments presented at Annex 3.

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ANNEX I

			DOCTORATE		
			MASTER'S		
			BACHELOR		
Transversal competences	**Personal and professional development competences**	**8. Personal and professional development**	Awareness of the need for continuing training; efficient use of learning techniques and resources for personal and professional development	Self-control of the learning process, diagnosis of training needs, reflective analysis on own professional activity	Development of creativity-centred projects as the basis for self-accomplishment
	Role competences	**7. Social interaction**	Familiarisation with the teamwork-specific roles and activities and with task allocation for subordinated levels	Assuming management roles/functions for the activities within professional groups or institutions	Assuming responsibility and capacity to organise and lead the activities of professional groups, scientific research groups or institutions
		6. Autonomy and responsibility	Responsible performance of professional tasks in an autonomous manner, with qualified assistance	Undertaking complex professional tasks under autonomy and professional independence conditions	Innovative initiation and development of complex theoretical and practical projects
Professional competences	**Functional-actional dimension**	**5. Creativity and innovation**	Development of professional projects by using well-known principles and methods within the field	Development of professional and/or research projects using a wide range of qualitative and quantitative methods in an innovative manner	Design and undertake original research, based on advanced methods leading to the development of scientific and technological knowledge and/or of the research methodologies
		4. Critical and constructive reflection	Adequate use of standard assessment criteria and methods to appraise the quality, merits and limitations of processes, programmes, projects, concepts, methods and theories	Pertinent and appropriate use of assessment criteria and methods to formulate judgements and fundament constructive decisions	Critical-constructive assessment of projects and scientific research results, appraisal of the stage of theoretical and methodological knowledge; identification of knowledge and applicative priorities within the field
		3. Application, transfer and problem solving	Use of basic principles and methods for solving well defined problems/situations that are typical to the field, with qualified assistance	Integrated use of the conceptual and methodological apparatus in incompletely defined situations in order to solve new theoretical and practical problems	Selection and use of advanced principles, theories and methods of knowledge, transfer of methods from one field to another, interdisciplinary approaches to solve new and complex theoretical and practical problems
	Cognitive dimension	**2. Explanation and interpretation**	Use of basic knowledge to explain and interpret various types of concepts, situations, processes, projects etc. that are related to the field	Use of specialised knowledge in order to explain and interpret new situations, in wider contexts associated to the respective field	Use of advanced principles and methods to explain and interpret, from multiple perspectives, new and complex theoretical and practical situations/problems that are specific to the respective field
		1. Knowledge, understanding and use of specific language	Knowledge and understanding of basic concepts, theories and methods within the field and the specialisation area; their adequate use in professional communication	In-depth knowledge of a specialisation area and, within it, of the programme specific theoretical, methodological and practical developments; appropriate use of specific language in communication with different professional environments	Systematic, advanced knowledge of concepts, research methods, controversies and new hypothesis specific to the field; communication with specialists from related fields
Learning outcomes		**Generic descriptors**		**Level descriptors**	

ANNEX 2.1

Fundamental Field …… **Study Field** …… **Study Programme** ……

Grid 1 – *Description of study programme/field by means of professional and transversal competences*

Qualification Title …… Qualification Level ……	Possible Occupations

Professional competences * / **Level descriptors of structural elements of professional competences** **	C1	C2	C3	C4	C5	C6
1.	C1.1	C2.1	C3.1	C4.1	C5.1	C6.1
2.	C1.2	C2.2	C3.2	C4.1	C5.2	C6.2
3.	C1.3	C2.3	C3.3	C4.3	C5.3	C6.3
4.	C1.4	C2.4	C3.4	C4.4	C5.4	C6.4
5.	C1.5	C2.5	C3.5	C4.5	C5.5	C6.5
Minimum performance standards for competence assessment:						

Transversal competences level descriptors **	**Transversal competences**	**Minimum performance standards for competence assessment**
6.	CT1	
7.	CT2	
8.	CT3	

* Maximum 6 professional competences will be identified.
** The level descriptors indicated in the *Matrix* of the *National Qualifications Framework in Higher Education* (figure 3) shall be mentioned in the grid, according to the qualification level (Bachelor/Master's/Doctorate)

University..... **Faculty**
Fundamental Field …… **Study Field** …… **Study Programme**
……..

ANNEX 2.2

Grid 1 – *Specific elements of study programme/field description*

Qualification Title …… Qualification Level ……	Possible Occupations

Professional competences * / **Level descriptors of structural elements of professional competences** **	C7	C8
KNOWLEDGE		
1.	C7.1	C8.1
2.	C7.2	C8.2
SKILLS		
3.	C7.3	C8.3
4.	C7.4	C8.4
5.	C7.5	C8.5
Minimum performance standards for competence assessment:		

Transversal competences level descriptors **	**Transversal competences**	**Minimum performance standards for competence assessment**
6.	CT1	
7.	CT2	
8.	CT3	

* Maximum 3 competences will be identified.
** The level descriptors indicated in the *Matrix* of the *National Qualifications Framework in Higher Education* (figure 3) shall be mentioned in the grid, according to the qualification level (Bachelor/Master's/Doctorate)

ANNEX 2.3

University: ..... **Faculty.....** **Qualification.....** **Study level.....**

Fundamental field..... **Study field.....** **Study programme.....**

Grid 2. ***Determining the correlations between professional and transversal competences, contents areas, study disciplines and credits allocated***

Professional competences	Competences detailed by level descriptors	Contents areas	Study disciplines	Credits	
				By discipline*	By competence
C1			**D1**		
			D2		
			….		
C2			**D1**		
			D2		
			….		
C3			**D1**		
			D2		
			….		
C4			**D1**		
			D2		
			….		
C5			**D1**		
			D2		
			….		
			D1		
			D2		
			….		

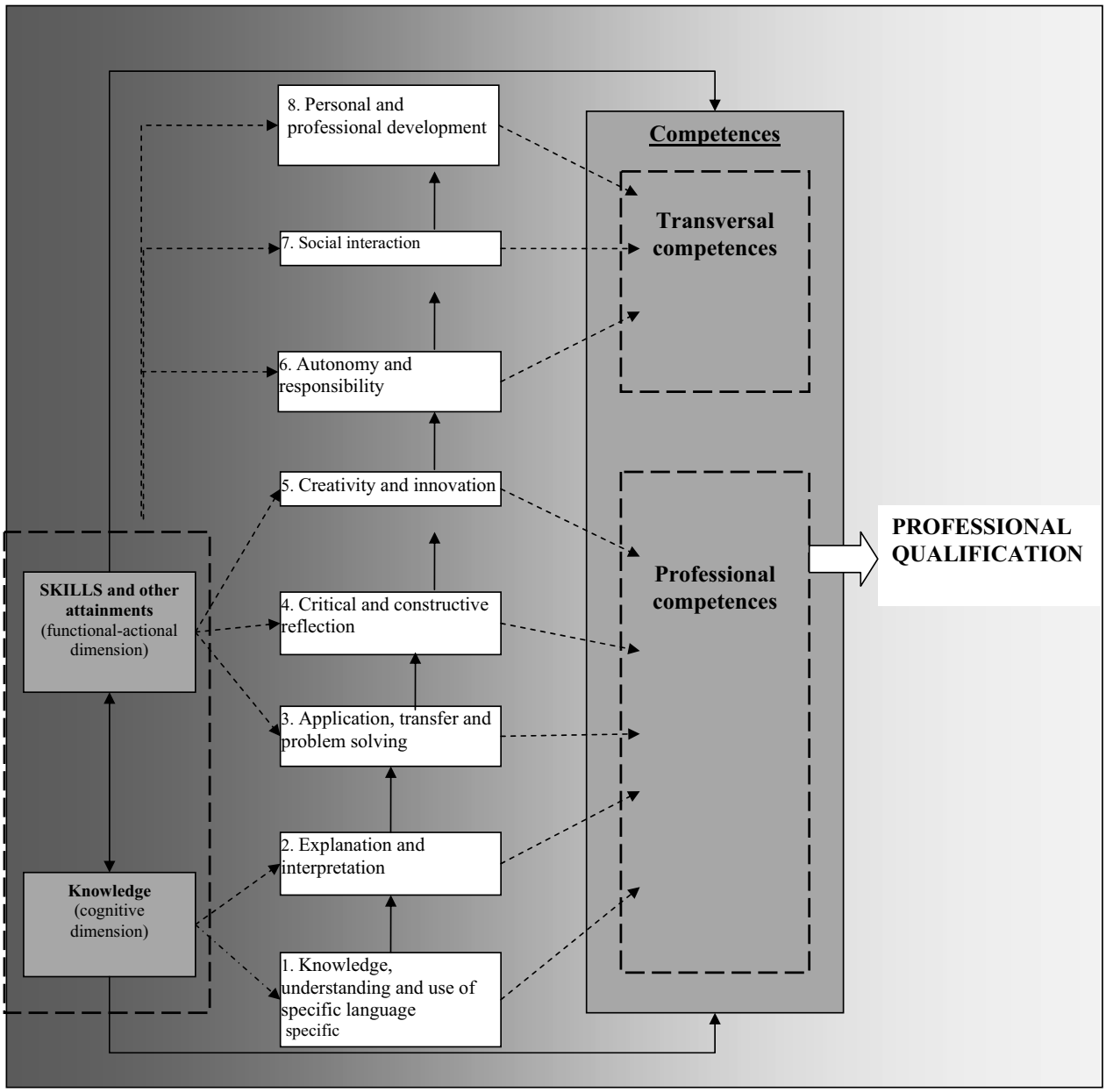
Transversal competences	Study disciplines	Credits	
		By discipline	By competence
CT1	**D1**		
	D2		
	….		
CT2	**D1**		
	D2		
	….		
CT3	**D1**		
	D2		
	….		

* Indicate the number of credits by which the respective discipline contributes to the development of competences, of the total number of credits allocated to the study discipline, according to the educational plan

ANNEX 3

Approaches	Learning outcomes	Comments
a) "To know" and "to do" in a specific field = competence;	**Knowledge and skills**	The attitudes-values component is missing
b) European Reference Framework on Key Competences EN-Brussels, 2008 (p.4)	**Knowledge, skills and attitudes**	This approach is compatible with Fig. 2 above. The knowledge, skills and competences are specific for a *determined type of competences.*
c) EQF	**Knowledge, skills and competences**	This interpretation *does not fully match the analysed scheme (Fig.2). 2 components (knowledge and skills) are maintained and a new type of learning outcome, namely the* ***"competence****" is introduced.* In this context we may say that: *"competence is defined in terms of autonomy and responsibility".*
d) ACPART model *(current version)*	**Professional competences*:** **- knowledge** (cognitive dimension); - **skills** (functional-actional dimension) **Transversal competences*:** - **role;** **- personal and professional development**. * Details on the generic descriptors of these types of competences are included in chapter: *Description of methodological-instrumental component*	The classification of learning outcomes is compatible with 2 of the triangle model (Fig.2), namely knowledge and skills, *but it does not include specific attitudes and values for each component.* The attitudes-values dimension is integrated in the role competences (autonomy and responsibility), which should be part of each competence. *The current system, recommended for the analysis of qualifications awarded by higher education institutions is based on such interpretation of competences.*
e) ACPART – *revised version*	**Knowledge,** **Skills, autonomy and responsibility**	On the one hand, this interpretation covers the classical scheme of competence (as responsibility and autonomy express essentially attitudes and values); on the other hand, the competence is defined in terms of autonomy and responsibility, according to the EU recommendations. *The last interpretation sets the theoretical basis for the second version of the qualification description matrix*. The authors consider the option of developing a second version of the methodological scheme for defining and organising the competences using the axis: **knowledge, capabilities, autonomy and responsibility.** Autonomy and responsibility are the framework/regime/environment where knowledge and skills are used/degree of independence and responsibility in using knowledge and skills.

ANNEX 4


8. Personal and professional development
Competences
Transversal competences
7. Social interaction
6. Autonomy and responsibility
5. Creativity and innovation
Professional competences
PROFESSIONAL QUALIFICATION
SKILLS and other attainments (functional-actional dimension)
4. Critical and constructive reflection
3. Application, transfer and problem solving
2. Explanation and interpretation
Knowledge (cognitive dimension)
1. Knowledge, understanding and use of specific language
specific

INSTITUTES OF TECHNOLOGY IN IRELAND: STRATEGIC POSITION, WORKFORCE EDUCATION AND SOCIETAL NEED

Richard THORN[1]

Foreword – EQF and EHEA structures are significant indicators of shifts in the function and forms of higher education and workforce education in Europe over the past century and a half. Any framework will not arriving on a tabula rasa: rather they will insinuate themselves into a patchwork of contexts, strategic policy positions, and philosophical positionalities. Understanding the particular 'patches' at the local level and how frameworks – whether national frameworks, lifelong learning frameworks or university frameworks – impact on those patches is important for the acceptability of meta frameworks and for their sustainability within the principle of subsidiarity. Individual nation states prize their uniqueness and historic identities. Likewise nation states manifest a reluctance to engage in disempowerment of local control over the very fundamental area of education policy even when informed by keen awareness of global pressures. Outlining the various traditions, policies and structures which produced a national education landscape is a useful exercise when considering the implications of the EQF and EHEA, especially in contexts where there has been a traditional divide between the classical university and other forms of post-compulsory education.
This paper by Richard Thorn, is an example of how local stakeholders may take a measured overview of how particular types of higher education providers perceive themselves in relation to the demands on them as educators, as 'partners' in workforce development, and as upholders of the third mission of the university.
Dr Anne MURPHY[2]

Key words – continuing professional learning, up-skilling, regional development

INTRODUCTION

The move from elite to mass to universal higher education throughout the developed world over the past forty years has been accompanied by the growth and development of higher education institutions and groups of institutions that are positioned so as to be associated with particular parts or elements of higher education. Specialist research institutions, distance learning universities, four year liberal arts colleges, technological universities and a plethora of other types of institutions, despite having very different missions and strategies, have in common their involvement with third, and increasingly fourth level, teaching and research. The drivers for this development have been many and varied and have included government policy, market imperatives and institutional ambition. The experience in Ireland of these international developments is no different to elsewhere.

This paper explores, from the perspective of one group of Institutions - the Institutes of Technology (IOTs) excluding the Dublin Institute of Technology (DIT) which is an autonomous awarding body as well as a provider - the relationship between the historic and current strategic position, adopted by and bestowed upon the sector, and the sector's involvement in workforce education.

STRATEGIC POSITION - 1970S TO 1990S

The success of the Irish economy during the 1990s and the early years of the 21st century can, arguably, trace its origins back to a series of government decisions taken in the 1960s. The most politically acclaimed of these was the decision to introduce free second level education. Perhaps the most economically significant though was the invitation by the Department of Education to the OECD to examine the arrangements for technician training in Ireland in the early 1960s. The main message from the report of the examiners was that economic advance required the development of technical manpower and that in any such development a place had to be found for technician education, regardless of whether local industry signalled a demand for it (White, 2001). Although the OECD's major report in 1965, *Investment in Education,* received much more publicity than the 1964 report on technician education, the latter report did not go unnoticed in the Department of Education.

A Steering Committee on Technical Education to advise the Minister for Education on technical education was established in 1966 and the report of this committee

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(Steering Committee on Technical Education, 1967) paved the way for the establishment of the Institutes of Technology (then known as Regional Technical Colleges). In the early 1970s Institutes of Technology were built in Athlone, Carlow, Cork, Dundalk, Galway, Letterkenny, Sligo and Waterford. These were followed in the late '80s and '90s by the further establishment of Institutes in Tallaght, Blanchardstown, Tralee, Dun Laoghaire and Limerick. Their establishment in the regions coincided with the publication of the Buchanan report which emphasised a regional dimension to economic development in Ireland thus allowing the new institutions to complement this economic strategy.

Initially, the IOTs were planned to bridge the gap between second and third level education by providing the final two years of technically orientated post-primary education, courses for junior and senior apprentices and technicians, and adult and continuing education. Although the provision of higher second level education continued in the Institutes during the early 1970s it did not grow and develop to the same extent as did the two year national certificate and one year add-on national diploma sub-degree programmes. In 1970/71 the figures for second and third level numbers were 278 and 194 respectively. By 1973/74 they were 526 and 1600 (White, 2001). Apprentice education, adult and continuing education and training provision were likewise quickly established. For example, part time education provision in the Institutes of Technology, and the Colleges that became the Dublin Institute of Technology, in 1978/79, was 24,308 while in the universities it was 2,788 (White, 2001).

Throughout the 1970s the IOTs continued to grow with full time enrolments rising to 10,000 by the early 1980s. Whilst most of this provision was at sub-degree level some degree programmes started to emerge in response to specific industrial and vocational needs. A good example of this development was the provision of environmental education and training in the Institute of Technology, Sligo in the late '70s and early '80s.

Following the Telesis Report in 1982 the emphasis on industrial development shifted from an explicit regional emphasis, as had been argued for in the earlier Buchanan report, to an explicit strategic industry approach. Despite the shift at national level, the IOTs through the 1980s and the early 1990s continued to grow (by 1995 there were approximately 30,000 students) and provide programmes of study directly relevant to the industrial needs of the regions in which they were located; the relationship between the tool and mould-making industry and the Institute of Technology in Sligo, and the furniture industry and Galway-Mayo Institute of Technology's campus in Letterfrack, are particularly good examples of this latter point.

If the Institutes needed a reminder of the role that the State expected them to play in higher education in Ireland it was provided in 1992 with the Regional Technical Colleges Act. The act provided an explicit expression of the mission of the Institutes that had hitherto been provided implicitly. In relation to the function of the Institutes the act was clear and unambiguous:

'The principal function of a college shall, subject to the provisions of this Act, be to provide vocational and technical education and training for the economic, technological, scientific, commercial, industrial, social and cultural development of the State with particular reference to the region served by the college...'

Although hindsight famously provides 'twenty-twenty vision' it is clear that the concord between economic and industrial policy with its emphasis on foreign direct investment, manufacturing industry and educational policy through the 1970s, '80s and early 1990s in respect of the Institutes of Technology served the State well.

A series of company collapses in the late 1990s, particularly in the more traditional sectors such as clothing and textile manufacturing, drew attention to the fact that Ireland's economic success had resulted in the State becoming uncompetitive in labour intensive, low value added sectors. For example, by the late 1990s labour rates in the tool-making industry were up to sixteen times higher in Ireland than in Taiwan and this traditional engineering sector struggled as a result. By the late 1990s it had become clear that a continuing emphasis on foreign and direct investment in manufacturing industry could not be the only approach to the continuing development of Ireland's economy. Instead of focusing on the manufacture of other people's ideas Ireland now had to move up the so-called value chain to become a knowledge economy, start developing ideas of its own and finding other, lower cost countries, to manufacture them.

Strategic Position - The Noughties

By 2001 admissions to the Institutes of Technology and the DIT accounted for almost 50% of the admissions to higher education. Full time student numbers in the sector were almost 40,000 and there was an increasing range of degree and post-graduate programmes relevant to the needs of the regions. Despite accusations of 'mission drift' by various commentators, a substantial proportion of the education provision continued to be at sub-degree level and the Institutes responded directly to national skills shortages with a range of block release, accelerated and flexibly delivered programmes. It is interesting to note that the graduation benchmarks for 2001 for OECD countries (OECD, 2003) showed Ireland with the second highest sub degree graduation rates in the OECD after Japan; a clear indication that education provision at sub-degree level was a very healthy component of the state's educational programme portfolio.

Whilst the legislative and founding principles, as noted above, were and have been clear, the Institutes, to further their position, expended a significant amount

of energy through the late 1990s and the early years of this decade arguing for clear and coherent Government policy in respect of higher education. The hope was that with a clear policy would come clarity on the part of the State of the expectations of, and for, the higher education providers. Foremost in the IOTs call for clear policy statements was a report prepared under the Chairpersonship of Professor Pat Fottrell (Council of Directors of Institutes of Technology, 2003) which argued that the IOTs occupied a unique position in higher education, positioned as they were to be able to deal with the issues of access, workforce education and training, a research agenda that emphasised the near to market characteristics of the sector and the need to move governance from the Department of Education and Science to the Higher Education Authority to allow greater freedom of action.

Whilst the State has not yet published a higher education policy paper (although at the time of writing a review of higher education is underway) several key reports and strategy statements have been generated over the last number of years which, cumulatively, explicitly and implicitly position the IOTs in the higher education landscape. Of these, the OECD *Review of Higher Education in Ireland* (OECD, 2004) the Enterprise Strategy Group's *Ahead of the Curve* (Forfás, 2004) the *Strategy for Science, Technology and Innovation* (Government of Ireland, 2006) and *Tomorrows Skills – Towards a National Skills Strategy* (Forfás, 2007) are perhaps most significant. We may accept that these documents enunciate government policy as they have either been generated by Government and/or been accepted by Government.

The OECD report, *inter alia,* positions the IOTs as one part of a binary divide and recommends the maintenance of that divide, emphasises the differing roles of the IOTs and the universities in respect of research with the IOTs concentrating on applied research in targeted areas of regional and national significance and emphasises the regional development role of the IOTs

The Enterprise Strategy Group Report, while not advocating, at least explicitly, differing roles for the IOTs and the universities lists a set of requirements for the higher education sector, and then proceeds to emphasise the need for universities and IOTs to have 'complementary' roles in the provision of education, and that 'it is important that this is recognised in policy formulation'.

The Strategy for Science, Technology and Innovation regularly notes the role of 'third level institutions' in the strategy. However, the section dealing with the importance of higher education in world class research makes no reference to IOTs but notes the role of 'universities' in supporting the development of fourth level and managing better the research and innovation environment to ensure the effective transfer of knowledge and technology. It is not until a discussion on the commercialisation of ideas and know-how that the IOTs are mentioned. In the first instance they appear in the context of their existing capacity to perform this task. In the second case it is in the context of regional innovation and '*…applied research and technology development directed at the challenges facing the company'.*

The most recent of the State-sponsored reports that positions the Institutes is the Expert Group on Future Skills needs report on future skills needs (Forfás, 2007). This report is clear in expectations of Institutes and their role in workforce education; *'The challenge for institutes of technology is to reach out to enterprise and provide flexible training options at these levels.'* (viz levels 6 and 7) and again *'In order to deliver the types of services demanded by consumers (both enterprises and individuals), universities and, in particular, institutes of technology (IoTs) will have to deliver flexible, market driven solutions. This will require these institutions to tap into market trends and to develop improved linkages with potential customers.'*

In summary, current government policy emphasises a binary higher education system with the IOTs playing regionally important developmental roles that are characterised by research that is applied and educational offerings that are clearly geared towards the needs of the economy and which are flexible delivered.

In addition to the circumscription of the role of the IOTs in the various policy documents referred to above the strategic positioning of the Institutes is, to a certain extent, also circumscribed by what the sector itself has said in recent years in various submissions and statements. These have included the Fottrell report (Council of Directors of Institutes of Technology, 2003) (noted above), a submission to Government for inclusion in the National Development Plan *From Rhetoric to Reality - Giving Life to the Knowledge Society Through Higher Technological Education* (Council of Directors of Institutes of Technology, undated) and the IOTs position paper on research *Framework for the Development of Research in the Institutes of Technology* (Institutes of Technology, Ireland, 2008).

However, perhaps the most significant rearticulation of the strategic position adopted by the Institutes is in the form of a 'mission statement agreed by the Presidents and Directors of the Institutes in 2007 and promulgated in the form of a one page statement of intent. This is shown in full below.

"Institutes of Technology, Ireland are centres of higher education committed to supporting the economic, social and cultural development of the people in the communities they serve. As public service organisations we simultaneously implement and inform public policy in relation to life-long and life-wide education.

Institutes of Technology, Ireland:

- Provide undergraduate and post-graduate programmes of study with a strong focus on the needs and requirements of the workplace and the individual;

- Promote equality of access and seamless transfer and progression to and through programmes of study;
- Recognise and give credit for prior learning achieved through study and in the work place and provide flexible and innovative industry and society-responsive programmes of study;
- Promote a research ethos aligned with the development of a national innovation system and the promotion of entrepreneurship that both meets the need of the individual and of society;
- Integrate research and teaching in order to share, apply, test and create knowledge;
- Develop learning communities working to challenging and clear standards of achievement and accountability;
- Graduates of the Institutes of Technology, Ireland are:
  - skilled in the application of discipline knowledge, principles and concepts,
  - reflective practitioners in the totality of their lives,
  - effective communicators,
  - life-long learners,
  - culturally and socially aware."

The statement is clear about the role the Institutes see for themselves and the emphasis on the needs of the workplace: flexible delivery, lifelong learning, recognition of prior and work based learning, and research that is integrated with teaching and aligned with the national innovation system.

It is clear that there is largely congruence between what the State sees as being the role of the Institutes of Technology and what the IOTs themselves see as being their role and the flexible delivery of workforce education is a key component of that role.

The Challenge of Workforce Education

The foregoing sections have demonstrated that the IOTs have positioned themselves and been positioned, to the forefront of workforce education at Levels 6 through 9 on the National Framework of Qualifications. That being the case, what is the scale of the challenge that confronts them in tackling this role? Three matters may be highlighted viz the number of people in the workforce needing upskilling: 1. the current high levels of unemployment, 2. the concomitant need for re, up and transskillling, and 3. the performance to date in this task within Ireland.

The Expert Group on Future Skills Needs report (on future skills needs) (Forfás, 2007) highlighted in considerable detail the scale of the skills challenge facing Ireland if it is to achieve its vision of becoming an internationally competitive knowledge economy. This analysis showed that the demand for graduates would exceed the supply entrants to higher education institutions and that 60% of the labour force in 2020 are currently in the labour force. Whilst Ireland compares reasonably favourably with other OECD countries in third level educational attainment of younger age cohorts; 42% of the 25 to 34 age cohort have attained tertiary education compared to an OECD average of 33% - only 17% of the 55 to 64 age cohort have done so compared with 19% for the OECD as a whole (OECD, 2008). Clearly, as the national skills strategy notes

"It is self evident that if one wants to influence the skills profile of the labour force in 2020, one needs to concentrate on the largest supply – that is, on those in the current labour force".

The report estimated that approximately 500,000 people would need to increase their qualifications level by one level on the NFQ by 2020 and that of this circa 170,000 would be in the higher education sector.

While, the current economic situation has resulted in a reduction in the quantum of upskilling required, more recent unpublished analyses of upskilling requirements by the Expert Group on Future Skills Needs shows that the skills areas previously identified are still relevant. The analysis of he skills requirements is underpinned by an analysis of the competitive pressures facing Ireland to which our underperformance in skills development in the workforce, as will be noted below, contributes. The economic analysis underpinning the Human Capital Investment Operational Programme (Government of Ireland, 2007) shows clearly that whilst our labour productivity appears to have improved significantly since the mid 1990s this hides the fact that much of the improvement is accounted for by the very high productivity in the multinational sector. When this effect is removed the analysis shows that we have relatively low levels of productivity within indigenous manufacturing and in the public sector. A further measure of interest is that of GNP (Gross National Product) per hour productivity, and here the figure remains below the US and the EU14.

If the foregoing indicates the scale of the challenge, what does the present performance tell us about the capacity of the state to meet the challenge? Unfortunately, the track record in workforce education in Ireland is not good and without a significant step change it is difficult to see the necessary quantum leap being taken.

The HEA's analysis of participation by adults in part-time education (HEA, 2008) shows that where part-time education is offered adults from the older age groups participate; 86 per cent of part-time undergraduate entrants were aged 23 and over and 60 per cent were aged over 30. However, less than 7 per cent of entrants to undergraduate programmes were part-time students. This suggests that if higher education institutions offer programmes on a part-time basis older adults may be likely to take up the offers. However, the problem is compounded by the fact that if you already have a third level qualification you are four times more likely to participate in continuing education than if you

do not (O'Connor, 2007). Thus, even if higher education institutions offer more programmes, unless a culture of lifelong learning is built within society, there is a limit to what is achievable.

Participation in continuing education programmes offered by educational institutions is only one way of assisting workforce education. Learning can and should take place both formally and informally within the workplace. The evidence for this source of learning shows that our efforts are no better than the EU average and well below benchmark countries such as Sweden and Finland. A Forfás report on in-employment education and training (Forfás, 2005) showed that prior to the Quarterly Household National Survey of 2003, 7% of those at work had received formal education in the 12 months prior to survey while 18% reported that they had received non-formal education or training, and 45% had participated in informal education in the previous twelve months. Overall, 50% of all those employed in 2003 had participated in formal, non-formal or informal education or training in the previous 12 months. When these figures were compared to the EU25 Ireland was marginally ahead of the average but well behind countries such as Austria, Slovenia, Luxembourg, Denmark, and Finland, where participation rates ranged between 80-90%.

An EU draft progress report on the implementation of the work programme on 'Delivering lifelong learning for knowledge, creativity and innovation' (Council of the European Union, 2008) shows that the situation in Ireland in more recent times is no better than in 2003. The report notes that in Ireland 7.5% of the working age population (25-64) participated in education and training in the four weeks prior to the survey in 2006 compared to an EU average of 9.6%. The leading countries, e.g. Sweden and Finland had participation rates of 32.1 and 23.1% respectively. Whilst the survey criteria for the two studies are different the failure to improve our position relative to other countries is noteworthy.

Ireland therefore has a double challenge – to significantly increase the skills levels of the Irish workforce and to do so against a backdrop of poor performance in this very task. What to do?

Scaling Up Workforce Education

A detailed international review of the critical success factors in delivering increases in lifelong learning in general and workforce education in particular is beyond the scope of this paper. However, current work being undertaken by Institutes of Technology, Ireland reveals some patterns that point towards increased activity. These include funding mechanisms (e.g. part time education in Sweden is free), societal 'buy in' (e.g. in the US as a result of the massive opening up of college education resulting from the 'GI Bill') and collaborative effort by higher education institutions (e.g. in Australia and Canada with ventures such as Open Universities Australia and BCCampus) all appearing to be significant, individually and collectively.

Funding

As recently as 2000, the response of the state to the need to improve participation rates in lifelong learning/ part time education was lukewarm, "*...concerning free access for all to part-time adult education options..., it is not considered feasible to introduce such an arrangement.*" and "*..., the number of adults in the population with low levels of education is simply too large for a general free access policy to be feasible*" (Government of Ireland, 2000). Given the current economic challenges, there seems little likelihood that Ireland will introduce a free part-time fees policy. However, at the time of writing a significant discussion is developing as to whether or not third level fees should be reintroduced. Irrespective of the merit or otherwise of bringing fees back the current situation whereby, with the exception of small scale funding available to companies to upskill workforces and the 2009 Labour Market Activation Fund that supported fee payments for about 2,500 students, part-time education is not funded is unsustainable; currently, full time students (i.e. those that study 60 ECTS credits per year) are eligible for fees remission and may, depending on financial circumstances, be eligible for a grant, while part time students (those studying 59 ECTS credits per year or less) have no entitlements. Whilst the reintroduction of fees for full time students might be considered a retrogressive step it would at least serve to level the playing field as far as part-time students are concerned. In the course of a debate on fees it is hoped that concepts such as tax credits for lifelong learning for employers and staff, vouchers, a universal entitlement for all to a Level 7 qualification, individual learning accounts, credit based funding for institutions and students will be considered.

Societal 'Buy-In'

During the course of a recent visit to New York the author was struck by the number of vending machines distributing free newssheets and advertorials for educational establishments. On one street corner alone 7 out of 9 such machines were for higher education institutions and the remaining two for newspapers. Whilst the track-record of the US in providing access to wide sections of the community to higher education has slowed in recent years there is no denying that the culture of self-improvement in the US is alive and well. A key driver of this culture has been the Servicemen's Readjustment Act (known colloquially as the GI Bill) which, when passed in 1944, provided a college education for 16 million returning US servicemen. In one university alone (North Carolina State) ex-servicemen made up 80% of the college population in the late 1940s. The Act, in its present form, is still

providing educational opportunities for US servicemen in places like Iraq using distance education learning technologies. In contrast, outside of large organisations and the public sector the spirit of on-going professional and personal development is not well developed or understood in Ireland. Indeed a widely held view is that an offer of continuing professional development in a foreign owned multinational is viewed as an honour whereas the same offer in an indigenous SME is met with the response 'Why? Am I doing something wrong?'

Developing a spirit of on-going personal and professional development across the whole of society is a difficult challenge and will not be achieved by a single initiative but through a combination of incentivisation, public exhortation, employer support and provider commitment. There is some evidence that the state is at last taking the issue seriously. The Department of Enterprise, Trade and Employment has established an implementation group to take the findings of the future skills needs study by the Expert Group on Future Skills Needs and find mechanisms to incentivise up-skilling. Likewise the national partners, in particular employers and unions, have placed up-skilling on the agendas of recent national partnership discussions. Crucially, the widespread adoption of the National Framework of Qualifications means that there is now a structure within which discussion of access, transfer and progression, knowledge, skills and competences, and certification can take place.

Collaborative Effort by The Higher Education Sector

So, if funding of third level activities is, at least, being considered and some of the elements needed to get societal buy-in are in place, or being developed, what of provider commitment to lifelong learning generally and flexible delivery of workforce education in particular?

With the exception of a small number of higher education institutions, both public and private, efforts to provide lifelong learning opportunities have largely been patchy and institution, rather than student or employer, led. Whilst the Institutes of Technology have long been associated with workforce education this has largely, with the exception of the DIT, been through the provision of full-time educational opportunities for school leavers rather than through flexible delivery modes.

With the rearticulation of the 'mission' noted above has come an acceptance on the part of the Institutes that flexible delivery of workforce education is a response to a societal need that is appropriate at this point in their growth and development. This commitment has found expression in a very significant project that, over four years from 2008 to 2012, will significantly increase the capacity of Institutes to deliver flexible learning opportunities and will develop a 'brand' to highlight institutional offerings in this area. Funding for the project is being provided by the Institutes themselves and the HEA's Strategic Innovation Fund. As this paper is being prepared the project has worked with the Institutes, with the DIT and the universities to develop operational plans to help build capacity, and has launched a portal specifically for part-time learners who wish to re-skill, up-skill or tran-skill. BlueBrick.ie allows prospective learners to search for, and compare, courses under a variety of headings and to apply online. Additionally, an international benchmarking exercise has been completed that allows the Institutes to see which collaborative systems work best and why and thus inform the 'rules of engagement'.

Conclusions

This paper has offered a retrospective analysis of the strategic position of the IOTs from their foundation in the early 1970s to the present. That position has, in part, been bestowed upon them by State policy and partly developed through their own analysis of mission, opportunities and societal needs. The paper has shown how the Institutes translated the strategic position they adopted into a specific action in the area of workforce education.

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THE ROLE OF THE LEVEL DESCRIPTORS IN REFERENCING THE NQF TO THE EQF: MALTA AS A CASE STUDY

Doris MANGION[1]

Abstract *– The objective of this paper is to give an overview of the developments in the education sector at European and national level with a particular focus on Malta's national context leading to and following the referencing process. It shows how the Malta Qualifications Council as the National Co-ordination Point of the EQF synergises education and training through the involvement of stakeholders in all aspects of the Malta Qualifications Framework (MQF). Through stakeholders' involvement the principle of best fit is applied to the level descriptors, the Malta Qualifications Framework and the referencing process. Although each indicator of the referencing process has its due importance this paper concentrates on the level descriptors. These are standards that define difficulty and progression in a lifelong learning context through different learning pathways and assessment methods and contribute to the link between qualifications and employment.*

Key words *– European Qualifications Framework (EQF), level descriptors, learning outcomes, Malta Qualifications Framework (MQF), referencing process, stakeholders.*

INTRODUCTION

Following the Lisbon Strategy developments in education at European and national levels gained momentum as education was considered the key factor contributing to the knowledge-based economy of the future. Education was geared to meet the challenges characterised by globalisation and therefore channelled towards more standardisation, greater co-operation and mutual trust. This does not imply that the Lisbon Targets are being fully met. The Report on the Progress towards the Lisbon Objectives in Education and Training: Indicators and Benchmarks 2009, highlights that out of five identified benchmarks, four have not been met one of which had deteriorated results. The only benchmark which was met was that of the increase in the number of graduates in specialised higher education in the areas of Maths, Science and Technology.[1]

This article focuses on the European tools to facilitate mobility of learners, workers and capital particularly on the European Qualifications Framework (EQF). The EQF is a set of level descriptors which distinguish between eight levels.[2] The scope of this article is to outline the developments leading to the EQF and to the NQF's gradual relationship with each other through the EQF and to discuss the role of the level descriptors in this process.

The Bologna Process which now has 47 signatories dates from 1999 and as its new name European Higher Education Area (EHEA) following the Budapest/Vienna 2010 Ministerial conference implies it focuses on the harmonisation of Higher Education (HE). It aims at consolidating what the Bologna Process has achieved so far, namely: curriculum reform, quality assurance, qualifications frameworks, recognition, mobility and social cohesion.[3] Mobility of students in higher education increased by more than 50% since 2000. [4] One of the factors that contributed to this increase is the introduction of the European Credit Transfer System (ECTS) so that credits would have the same value throughout Europe. This cross-institutional co-operation which gives qualifications a clear value and promotes credit accumulation and transfer encourages the mobility of students and workers. Other results arising from this process include the European Standards and Guidelines which is a quality assurance policy for universities composed of internal and external mechanisms.[5] The Dublin Descriptors define the level of difficulty of the three cycles of the Bologna Process, the first one being the undergraduate degree, the second the post-graduate degree and the third the doctoral degree. These descriptors are the basis of the Qualifications Framework for the European Higher Education Area (QF-EHEA).[6]

In 2002, the Copenhagen Declaration initiated the process of European co-operation in Vocational Education and Training (VET) which is now commonly

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known as the Copenhagen Process.[7] A credit system for VET was similarly introduced in 2009 and VET institutions are encouraged to implement the ECVET-based credit system by 2012. In 2009 the European Quality Assurance Reference Framework (EQARF) was also launched and aims at achieving quality in VET across all aspects of the quality cycle: policy; implementation; evaluation and review.[8]

Other European instruments to promote transparency of qualifications and thus enhancing mobility in education and employment include the introduction of the Europass CV and the Europass Certificate and Diploma Supplements.[9] Such standardisation and harmonisation establishes a common understanding that brings about efficiency and facilitates the tasks of the users such as students, education and training institutions and employers.

The innovative feature of the EQF is that it is a framework for Lifelong Learning which integrates all forms of learning: formal, informal and non-formal. Unlike the Bologna and the Copenhagen processes the EQF includes all learning pathways and equal value is given to the general education and VET as well as to academic and vocational higher education.

The EQF aims at:

- bridging the gap between VET and HE;
- promoting permeability vertically and horizontally;
- facilitating access and progression;
- valuing all formal, informal and non-formal learning;
- synergising the education and the needs of industry through the use of learning outcomes; and
- bridging the gap between the qualifications systems of European countries and beyond through the referencing process.

European Ministers of Education made a political commitment to reach two targets set by the European Commission and which concern the EQF. By 2010 all Member States should produce a report which relates National Qualifications to the EQF. Malta was the second Member State after Ireland to present a Report for Further Consultation to the European Commission and the EQF Advisory Group. Such a referencing report is a manual for education and training providers interested in referencing their qualifications to the National Qualifications Framework to enable them to reach the second target. By 2012 all information related to qualifications including adverts, prospectus, transcripts, Certificates and Diploma Supplements should include a statement declaring the value of the award or qualification translated in NQF and EQF.

The national context

The referencing process cannot be considered in a vacuum as what has been agreed at Ministerial and European levels should be supported by national policies, reform and commitment. Thus a Referencing Report needs to put the international reader into the national context by describing the national education system, policies that foster the development in the education sector and contribute towards reform. Education is one of the identified sectors in which the Maltese Government aims at achieving excellence by 2015 as per the Vision 2015 policy and the National Reform Programme.

Developments in the education system necessitated a new institutional setup to manage reform. Responsibility for compulsory education is shared between the Directorate for Quality and Standards in Education (DQSE) and the Directorate for Educational Services (DES). The Directorate for Lifelong Learning is responsible for adult learning as well as learning complimentary to compulsory education such as artistic qualifications. The Malta Qualifications Council (MQC) was established in 2005 by legal notice 347 and one of its primary objectives is to develop and maintain the Malta Qualifications Framework (MQF). MQC evolved when in August 2008 incorporated the Malta Qualifications Recognition Information Centre (MQRIC), a member of the NARIC-ENIC network which is primarily responsible for verifying whether institutions and programmes are accredited and establish the EQF/MQF level. The National Commission for Higher Education (NCHE) is responsible for promoting more and better higher education for students. The role of all these institutions is to establish a quality education which is student-centred.

The first draft of the Maltese level descriptors can be traced back to Legal Notice 347 of 2005 which established the Malta Qualifications Council. These eight level descriptors developed to reflect the outcomes of the consultation process before and after the launching of the MQF in June 2007.[10] The MQF has eight levels and includes qualifications for every level to act as benchmarks of a particular level of difficulty.

MQC is responsible for the exit points of qualifications in the MQF as the entry requirements are at the discretion of the education and training providers. Although there is a general agreement by all stakeholders on the benefits of the EQF due to the added-value from which they benefit particularly a wider market base, higher quality and standards, more mobility opportunities for learners and workers, the issue that the entry point must be determined by them was crucial and emphasised.

The MQF highlights that qualifications achieved through the general education route have the same parity of esteem as those achieved through VET. Similarly the MQF makes it clear that there is only one higher education area in Malta which includes both academic and vocational qualifications. The MQF has a regulatory function as MQC ensures that standards and principles corresponding to those established by the EU are met and thus ensuring qualifications are based on quality. A

new legal framework is being designed which will give more competences to MQC including quality assurance, the accreditation of institutions and programmes as well as the validation of informal and non-formal learning. The development of the MQF is the result of the active contributions and commitment of stakeholders.

Stakeholders' involvement

Stakeholders including social partners have been involved in the design, development and now in the implementation of the MQF to ensure ownership of the process. Representatives of key stakeholders including the University of Malta; the Malta College of Arts, Science and Technology (MCAST); the Employment and Training Corporation (ETC); the General Retailers and Traders Union (GRTU), the Malta Employers' Association (MEA); and representatives of Ministries of Education and Employment and that of Finance chaired by an independent chairman make up the governing board of MQC with policy and decision making powers. However, this does not mean that consultation with stakeholders is limited to board level only.

Since MQC's establishment stakeholders were consulted on a number of issues related to the MQF and they shaped a number of policy documents, the MQF and its descriptors, the referencing process. Consultation took place through one-to-one meetings, seminars and conferences. The policy documents which were formally launched during conferences and seminars leading to and following the launching of the MQF are about NQFs,[11] VET,[12]quality assurance [13] and the validation of informal and non-formal learning.[14] A group of individual experts in each one of the key competences designed the learning outcomes of each key competence at MQF Levels 1 to 3.[15]

Stakeholders directly contribute to projects co-funded by the European Commission such as sectoral projects in which MQC was/is a partner or was/is leading. These include:

- the ETSE Project which was about the education and training of security personnel;
- the EQF-Frame which was about aligning tourism qualifications offered in the countries of the project partnership with the EQF;
- the VQTS project which was about electrical and electronics engineering qualifications;
- the HEQ-Bridges project which deals with qualifications in air transport and mechatronics;
- the FIRST project which aims at referencing financial services qualifications to the EQF;
- the EQF Golf project which seeks to align golf qualification to the EQF;
- the EQF Spread project which has the objective of relating qualifications in catering to the EQF;
- the NQF Inclusive which has the objective of recognising the learning outcomes of people with disability; and
- the INLearning project which seeks to validate informal and non-formal learning in seven sectors. Occupational standards are being shaped by sectoral representatives so that they can be used for the assessment of those persons participating in the validation piloting. Malta chose printing and agribusiness. Following the new legal framework Sector Skills Councils will be represented by experts in the sector so that they will be able to validate informal and non-formal learning.

All the above projects have a common objective, namely using the EQF as a translation device by using a common language across the sector in a network of European partner countries. Sectoral stakeholders contribute through their specialised expertise in the sector and through this direct involvement they benefit from a peer learning experience about how their counterparts in other European countries resolve common issues. Moreover, they benefit from a first-hand experience of working with the EQF and the MQF which further compliments their familiarisation of what they have known through MQC's communication strategy including events.

Other local projects which are also shaped by stakeholders' contributions include:

- the Skills + ESF project which shall design the occupational standards in nine identified sectors to be used for the validation of informal and non-formal learning as well as the basis of a review of qualifications so that these address the needs of industry;
- the VQPack ESF project which shall produce information packs including competence matrices of VET qualifications to make VET more attractive particularly to students but also to adult learners.

Public and private education and training providers and social partners are approaching MQC for a level rating exercise so that their qualifications will respect the European Commission's deadline that by 2012 all new Certificates, transcripts and marketing of qualifications and awards will be referenced to the MQF and the EQF and show the official statement. It is encouraging that they are valuing level rating as a priority leading towards the quality assurance of their qualifications.

The referencing process

The objective of the referencing process is to use the EQF as a translation device that links the National Qualifications Frameworks (NQFs) of all European Member States and of other countries not necessarily having EU membership status or not necessarily geographically located within Europe.

The EQF Advisory Group established a set of criteria as guidelines for Member States to reference their NQF to the EQF. These ten criteria include the seven criteria established by the Bologna Process for

the alignment of higher education qualifications to the Qualifications Framework of the European Higher Education Area. For this particular reason MQC decided that the referencing report should refer the MQF to both European Frameworks to enhance clarity of concepts and to convey the message that both frameworks support each other.

Member States should satisfy all criteria and following consultation at a national level the report is discussed at European level by the members of the EQF Advisory Group and representatives of the European Commission and recommendations are implemented accordingly. A fundamental factor that makes or breaks the referencing process is mutual trust at national and European level. This explains why this dialogue at both levels is crucial.

Although both sets of "European" criteria do not explicitly make reference to stakeholders' involvement it is implicit in the fact that for the referencing process to be truly best fit it must respect the national scenario. The involvement of stakeholders ensured that political, social and economical aspects were taken into consideration during the MQF's development and its referencing to the European Frameworks.

TABLE 1

The EQF and the QF-EHEA criteria

EQF Criteria summarised	*QF-EHEA criteria summarised*
1. Legal competence governing the referencing process	1. Legal competence governing the national framework for HE qualifications
2. Demonstrable link between qualifications and level descriptors	2. Demonstrable link between qualifications and cycle descriptors
3. Learning Outcomes, validation of informal and non-formal learning and credit system	3. Learning Outcomes, ECTS or compatible credits
4. Transparency	4. Transparency
5. National quality assurance system	5. National quality assurance system
6. The referencing process should be endorsed by quality assurance institutions	6. The referencing process should be reflected in the Diploma Supplement
7. The referencing process to be reviewed by international experts	7. The key players in the national framework are determined and published
8. The official endorsement and publication of the Referencing Report	
9. The EQF platform to maintain the Referencing Report register	
10. The referencing process should be visible on all certificates, diplomas and degrees.	

Besides the obligatory international experts and consultation within and outside MQC's governing board MQC involved national independent experts with expertise in higher education, VET, employment and policy. The international experts were chosen on the basis of their experience in qualifications frameworks and in the referencing process. The reviews of the first draft of the referencing report by the national and international experts are found just before the conclusion. This satisfies one of the referencing indicators, namely transparency. The published draft shows that recommendations were implemented.

The referencing reports of all Member States must demonstrate how the set of criteria established by the EQF Advisory Group is being addressed at national level. Thus, showing the process of reform towards achieving the two Commission targets namely the 2010 target of referencing the national qualifications to the EQF and the 2012 target the transparency of qualifications indicating the level of NQF and the EQF.

TABLE 2:

Malta's 10 overarching principles

Malta's overarching principles summarised
1. The 8-level MQF is characterised by the parity of esteem between VET and HE and general education and VET across all levels.
2. A credit system that values learning across the MQF where 1 credit is composed of 25 hours of total learning
3. Qualifications achieved from pre-school to adult education must be learning outcomes-based.
4. Learning outcomes must be assessed.
5. Achievement in key competences is a pre-requisite for further and HE.
6. The School Leaving Certificate which includes a record of all formal, non-formal and informal education is the official record of compulsory education.
7. MQF Levels 2 and 3 are represented by official Certificates detailing the knowledge, skills and competences acquired during formal learning and including (if applicable) other forms of informal and non-formal learning.
8. MQF Level 4 is represented by a Diploma which may either be a VET Diploma and a Matriculation Certificate; Level 5 by an Undergraduate Certificate and Diploma and a VET Higher Diploma and Foundation Degree.
9. There is one area of Higher Education representing academic and research degrees as well as Vocational and Professional Degrees and Continuous Professional Development (CPDs).
10. All official documents carrying an MQF/EQF or QF-EHEA referencing shall be determined following a stated agreement (protocol) between the training/education public or private provider and the authorised quality assurance agency.

Most of the above principles with the exception of credit and assessment are established in legal notice 347 of 2005 which introduced the first draft of the level descriptors and gave MQC the legal competence to develop and maintain the MQF. The underlying factor of

all principles is the generic descriptors defining the level of difficulty for each level. Qualifications must satisfy these principles before being level rated to the MQF.

The role of the level descriptors

The level descriptors describe degrees of complexity in terms of learning outcomes irrespective of the size of the qualification, whether a full qualification or an award of a number of ECTS credits. The referencing process necessitates a clear link between the levels of the NQF and those of the EQF. All reviewers of the Maltese report confirm that the Report demonstrates a clear link between the both sets of level descriptors. This is achieved by an examination of the coherent progression from one level to another. Learning outcomes represented in the EQF paradigm include knowledge, skills and competences.

For the sake of comparability Malta's Referencing Report includes the level descriptors of the EQF side by side to those of the MQF. However, at the bottom the MQF summarises the knowledge, skills and competences and distinguishes between four aspects of skills, namely: applying knowledge and understanding; communication, judgemental and learning skills.

The language of both frameworks that has the same meaning is highlighted to indicate the clear link. The level descriptors of the MQF are more detailed yet they do not demand more commitment from the learner. They are the result of the consultation process, the interaction of the world of work represented by social partners and the world of education represented by students and education and training providers.[16] The descriptors reflect the national tradition and a balance between theoretical and hands on elements of learning. Social partners contribute to this balance by the provision of apprenticeship in the dual VET system, dialogue on the design and review of demand-driven qualifications. As neutral reference points they have a generic nature so that the same set of descriptors can be applied to all learning forms. Each level descriptor was tested against qualifications benchmarked in the MQF and which reflect Malta's overarching principles. During consultation the level descriptors were assessed in terms of whether they reflect the labour market context.

The level descriptors are used for the writing of learning outcomes in order to design and assess qualifications. The level descriptors are helpful to all education and training providers and to social partners in particular as they can relate industry-driven qualifications or awards to the MQF levels as described in the level descriptors. Three examples of learning outcomes of study units at MQF Level 2 and MQF Level 4 in VET and of MQF Level 6 in HE are available in Malta's referencing report as guidelines for those who find it difficult to translate the course description to the language of the EQF.

MQC distinguishes between two level rating procedures: the qualifications that are awarded by a foreign awarding body and offered in Malta and the home-grown qualifications. Qualifications awarded by a foreign awarding body are tested in terms of accreditation of the institution and programme by the regulatory body of the country of origin and verify the EQF and therefore the MQF level. For home-grown qualifications MQC evaluates the level of difficulty and the language of the learning outcomes based on the MQF level descriptors and then an external evaluator generally the designated authority or sectoral board confirm or otherwise the content of the qualification. Before a protocol is designed between both parties a quality assurance policy must be submitted by the education and training provider to MQC. Such policy must conform with MQC's Quality Assurance Policy and the EQARF if it is a VET qualification and with ESG in the case of higher education qualifications.

Education is experiencing a process of harmonisation as every Member State uses the national level descriptors which demonstrate the link to the EQF and learning outcomes have become the basis of qualifications. The education systems are moving towards each other, using a common language thus enhancing clear understanding and promoting co-operation.

Defining progression

Progression is evident in the level of complexity, the degree of supervision needed and therefore the responsibility and autonomy. There is an element of continuity, coherence and progression from one level of difficulty to the following which is facilitated by a numbering system.[17] The summarised learning outcomes are illustrated in a table which shows the progression from one level to another in each domain of the learning outcomes namely: the knowledge and understanding; the applying knowledge and understanding; communication skills; judgemental skills; learning skills and autonomy and responsibility.

MQF/EQF Level 1

The level descriptor for MQF and EQF Level 1 qualification shows that the learner is expected to have basic learning outcomes. The term basic is defined as elementary [18] yet fundamental and which serves as a starting point.[19] One should possess basic knowledge from one's immediate environment or from basic textbooks, and apply this knowledge to complete a limited range of simple routine tasks and to follow instructions. Both communication and key competences at this level are also basic. The tasks are accomplished following step by step guidance, and therefore one will not have full responsibility for one's actions. The responsibility will be shared with the person guiding the tasks.

MQF/EQF Level 2

The Level 2 descriptors of both Frameworks show that there is a gradual but not insignificant increase in the level of difficulty. The learner is expected to have a good knowledge rather than a basic general knowledge. One is introduced to new judgmental skills such as evaluation, selection and interpretation of information. Then this factual information is used to demonstrate a range of complex skills, including a more advanced level of communication skills and key competences. Unlike the learner in MQF level 1 the learner is able to work in an unfamiliar environment and the tasks are not simple and repetitive. The element of pro-activity is introduced at this level. The fact that the learner is expected to carry out well-defined tasks introduces a very limited degree of specialisation. Therefore he/she is supervised and monitored in the whole process but not given the direction and degree of supervision as needed in level 1. This is where a limited amount of autonomy is given to the learner, who is responsible for completing well-defined tasks. However, the learner is not responsible for the quality assurance aspects of the tasks he/she is assigned to. This would be the responsibility of the person with a supervisory role and who has a higher level of competence.

MQF/EQF Level 3

Although levels 1 and 2 are also associated with the completion of compulsory education, full MQF Level 3 certification gives access to further education; therefore the key competences have a higher level of difficulty when compared to the previous levels. The key competences at this level must have the same parity of esteem as six Secondary Education Certificate (SEC) passes grades 1 to 5. Therefore this level introduces problem solving skills, the systematic carrying out of procedures and the demonstration of learning outcomes following personal initiative. The learner is able to understand complicated instructions and carry out a range of tasks which require a range of developed skills. At this level the learner is able to communicate information which is more complex than the previous level. Whereas in the previous level pro-activity was supervised, it is now manifested out of own initiative and requires the learner to be responsive to problems which need urgent action. Some tasks are now carried with responsibility and autonomy.

MQF/EQF Level 4

Level 4 is characterised by an advanced level of key competences which gives access to the short cycle of the first Bologna cycle, if one follows the academic route, which has the same parity of esteem as a national diploma. Theoretical knowledge at this MQF level has become broad, and the learner is expected to analyse the knowledge and come up with principles and the application of procedures in broad contexts. Selection, evaluation and analysis are all in broad contexts and not limited to specific contexts as in the previous level. Progression to this level is distinguished by expertise in and application of a range of technical or academic skills, the introduction of qualitative and quantitative concepts of work, and the changing role of the learner to that of a supervisor. Whereas in the previous level he/she was autonomous and responsible for a limited number of one's actions, this level introduces responsibility for a wide range of competences of self and others, and the provision of solutions. The learner is responsible for carrying out his/her tasks effectively, monitors the work of others and implements quality assurance mechanisms.

MQF/EQF Level 5

This level's higher level of difficulty is characterised by the assumption of a learner's completion of this short cycle of the first Bologna cycle of the QF/EHEA.[20] MQF Level 5 introduces aspects such as further learning and basic research, personal academic development, judgements on social and ethical issues, personal social responsibility, and the effective and efficient management of projects and colleagues. The MQF Level 5 descriptors emphasise the demonstration of technical and practical knowledge which shows that like all the descriptors for the other levels describes VET achievements too. It takes into consideration communicating with people from different backgrounds. They also highlight the present level of achievement and the self-assessment of prospects for career progression through access to higher education. There is a developed degree of autonomy and responsibility, and whereas in the previous level the learner had a supervisory role, now the role shifted to include aspects of management which can be the result of a number of years of experience. This involves team building and training, and mastering of unpredictable problems.

MQF/EQF Level 6

Full Level 6 certification of the MQF means completion of the first cycle of the Bologna process, formally known as the first degree. Unlike all the previous levels this level is characterised by specialisation in a particular area of study. Specialisation in a given discipline is subject specific competence and generic non-specific competences include the key competences which contribute to the specialisation in a field of study.[21] This specialisation entails innovation and consistent professional development. Communication takes another dimension at this level, that of sharing expertise with specialist and non-specialist audiences. Even the personal

social responsibility is directed towards the area of specialisation. Whereas learning and study in level 5 were carried out with some autonomy, the learning skills at this level are developed such that learning, study and working can be done with a high degree of autonomy and responsibility. In a work context, autonomy and responsibility is also demonstrated through decision making in terms of the administration of resources, the co-ordination of multiple complex factors, creativity and innovation. The learner assesses the situation and acts with responsibility for self, others and the organisation.

MQF/EQF Level 7

Knowledge at Level 7 of the MQF may be specialised or multi-disciplinary as defined by the level descriptors of the QF/EHEA associated with this level. A characteristic feature of this level is that it introduces original research which has an impact on the need for knowledge, the skills to get the knowledge, evaluate and analyse the competences to produce original writing with responsibility and autonomy. The individual has developed a mastery of the knowledge and skills and is capable of adapting to new technological, economical and social challenges. Communication and problem solving skills are also shaped by the degree of specialisation, by original research and experience. The judgmental response at this level is done through critical evaluation and with limited and incomplete information. Whereas the learner at level 6 could choose to specialise in one of more fields of study, professional expertise at this level requires specialisation in a single area of study only. Compared to the responsibilities of the previous level which are restricted to the management of projects and people, the individual at level 7 has more and wider responsibilities. These include responsibilities coming from the impact of the production of original research, for one's operations within society and the organisation, and for adapting to the changing needs of the work or study environment.

MQF/EQF Level 8

Progression to level 8 is characterised by an advanced level of expertise in the area of specialisation and knowledge is focussed on the area of specialisation and does not include multi-disciplinary knowledge. Whereas in level 7 an individual demonstrates capability to adapt to the changing needs of the environment, at level 8 an individual reaches a level characterised by leadership and innovation in mastering research in work and study contexts. Thus level 8 is distinguished by a higher degree of expertise and authority in a specialised field, which brings with it the responsibility for a number of projects related to the field. An individual with a doctorate or a more advanced qualification has the social responsibility to keep abreast with the technological, social and cultural challenges and to provide forecast and innovative ideas for future developments. This can only be achieved through continuous professional development at this level.

Conclusion

Malta's front cover of the referencing report clearly states that the report is for further consultation and dialogue has to be kept ongoing due to the dynamic nature of qualifications, the EQF's review in the coming years and the implementation of the MQF. MQC's task is to keep up with its communication strategy which will be supported by the European Commission through the EQF portal and the possibility of a grant for National Co-ordination Points (NCPs).

Malta is expecting a new legal framework which shall give MQC new competences including the validation of informal and non-formal learning and the setting up of new Sectors Skills Councils; the accreditation of institutions and programmes; and the quality assurance of qualifications other than that of compulsory education. The latter will be a system of checks and balances that promotes national and international mutual thrust. The level descriptors may be linguistically perfect and so may be the learning outcomes of any particular course provided by any education and training provider, a quality assurance mechanism of monitoring and enforcement will implement the quality assurance policy and safeguard the interests of learners, employers, society and the economy.

One of the achievements at European and national level is that the European tools are promoting the use of a common language which enhances transparency, networking, mobility, quality and European integration. Through the use of the level descriptors for all forms of learning including the validation of informal and non-formal learning, education is enhancing a more inclusive society as all learning is valued irrespective of the setting from which it is acquired.

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a) 12.5% of the adult population should participate in Lifelong Learning;
b) A reduction in the percentage of early school leavers which should not exceed 10%
c) Increase in the number of young people completing upper secondary education, should be at least 85%.

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METHODOLOGICAL APPROACH OF THE DIPLOMAS IN TERMS LEARNING OUTCOMES IN THE PURPOSE OF DIRECTING THE LIFELONG LEARNING PUBLIC AT THE TIME OF THE RECOVERY OF STUDIES OR THE ACCREDITATION OF PRIOR AND EXPERIENTIAL LEARNING

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Abstract *– Nowadays, companies face strong and recurring problems of development of qualifications. Whether it is to accompany the transformation of trades and skills as well as individual strategies of professional paths, lifelong learning requires a greater legibility of degrees. A set of recommendations were made at the European and the national level aiming at improving the relationship between learning and employment. From a reading in terms of disciplinary contents, we move to an approach of learning outcomes. This is done with the aim of making easier not only the professional integration and the mobility, but also the resumption of studies. Establishing the accreditation of prior and experiential learning (APEL) in France as a new way of qualification comes within this approach.*

Key words *– Qualification – skills – learning outcomes – APEL*

Introduction

In a world where activities and jobs are being called into question by the economic globalization and the bursting of a deep economic crisis of a model of accumulation and growth, companies are facing significant problems concerning the development of skills. Facing those upheavals, the answer to emerging needs falls within the lifelong learning domain. For any professional path, the return to training will appear as an essential means to overcome various forms of risks.

In this context, and with these needs, at a European or a national level, there is a set of recommendations and of transformations aimed at clarifying the relationship between learning and employment. Thus, European states became committed to implementing, according to a principle of subsidiarity, professional national qualifications framework (NQF) for 2010, and to using the professional European Qualifications Framework (EQF) as a reference grid. This meta-framework prescribes a qualifications presentation in terms of learning outcomes using three prescriptions (knowledge, skills and abilities).

In France, establishing a new way of qualification imposes as well a change in the presentation of the degree courses. The accreditation of prior and experiential learning (APEL) assures the setting of a relationship between formal, informal and non-formal knowledge and learning aaccumulated throughout a professional life with expected learning outcomes at the end of a qualifying degree course. From a reading in terms of input (disciplinary contents), we move to an approach in terms of output (competence aimed at exit); the latter being expressed in the form of learning outcomes.

This article will aim at showing the design of diplomas presentation cards allowing the lifelong learning public to move and position themselves in relation to a personal project. These cards which are based on an analysis of training described in terms of competence leading to correlations with various trades that are often opportunities for each.

The presentation of the training in terms of learning outcomes together with a tool developed for APEL open up various uses. First, it can serve students in initial training in their approach of career advice, in their search for a training course or in their professional integration. Then, it can serve developing projects of international mobility. These cards can also be used to serve a working population with the view of professional mobility but also professional circles in their needs to decipher university training.

This paper is based in part on the work developed within the scope of the Pole of Research and Higher Education “UNIVERSUD” that groups together the university of Evry Val d’Essonne, of Paris 11 and of Versailles Saint Quentin en Yvelines.

I- The contemporary problems of the relationship between learning and employment

The relationship between learning and employment in a long temporality comes in a dual relationship. On the one hand, qualifying training should allow a long

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lasting integration in employment and every training then, leads to a set of prior knowledge; on the other hand, a professional experience is characterized by a set of prior knowledge accumulated throughout all this period, and that we may need to acknowledge when the person returns to training. In order that these two relationships are settled the best way possible, it is necessary to find a common measure for prior knowledge, whether this is the result of formal, non formal or even informal training [1]. According to CEDEFOP, we can distinguish between these three modes of training in the context of their implementation, their aimed objectives and their degree of organization. However, all this learning relies on the realization of different activities. The common reference required concerning these activities, whether achieved in training, a professional course or under an overall experience of a person, can only be the concept of "competence". The concept of competences defined as the combination of knowledge, of skills and of behavioral abilities that allow people to achieve a goal in a given context, with a certain level of success.

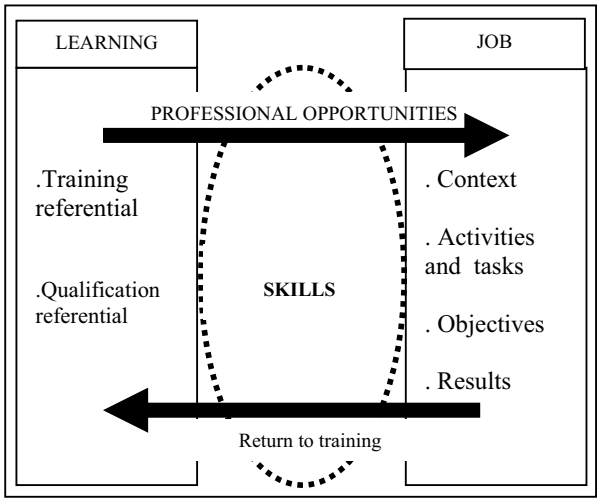

FIGURE I:
Relationship between learning and employment

A phenomenon of profound questioning of activities was observed in contemporary societies. First, economic globalization with its stressed forms of competitive production conditions and social patterns, lead companies to adopt an organization and a location model of their activities (international division of productive processes) that cause the closure and the relocation of many productive sites. At the same time, the contemporary crisis of growth and accumulation models leads to the need for building a new mode of development generating new or transformed activities. At last, the accelerated renewal of knowledge produces new approaches and new technologies materialized through innovation flows, generating a process of creative destruction in economic activities and in the business fabric.

Activities transformation repeatedly disrupts jobs and the skills. On the one hand, there are contrasting developments in job offers; leading to inadequacies with the demand. On the other hand, relative shortages in certain sectors are juxtaposed with a relative surplus of applicants in other types of jobs and sectors.

Qualifications (each being defined by the whole of the competences to be mastered in order to carry on missions), activities and tasks in relation to an occupation are also affected by this situation. One can observe that certain qualifications simply add new skills while others are transformed on the whole in their approach to work, or that new qualifications appear (as is the case of reflection on "green" jobs following the (Grenelle de l'Environnement (environmental protection)).

These transformations produce a problematic context consisting of difficulties for certain people to fit into, to build their courses, of professional trajectories breaking off, or even to social exclusion. This social situation opens on a reflection led by various social and political actors about the rights and the means, bearing secured career paths. In this perspective, emphasis is placed above all on the right to have access to lifelong learning and to the accreditation of prior and experiential learning (the law of social modernization, national and international agreements).

Consequently, whether it concerns the loss of employment (with the need to work on rehabilitation, to find redeployments), or to accompany the associated trades and competences transformation (in connection with changes and repositioning activities), and also concerning individual strategies of rehabilitation or the construction of his professional career, the actual implementation of the recognition of prior knowledge and appropriate training answers about the legibility of the training is based upon improving the legibility of the relationship between "learning and employment".

II. The construction of a reciprocal legibility

The construction of a reciprocal legibility in the relation between learning and employment is an issue on which many reflections have already been carried out, both at the European and the national levels.

As far as the formalization of the learning outcomes at the European level is concerned, various work and approaches are available. Thus, under the "Bologna Process", learning outcomes have been placed at the centre of the proceedings, in the context of comparing diplomas. These learning outcomes related to a specific level (Bachelor or Master), are described in terms of European requirements thanks to a set of descriptors; Dublin descriptors [2]. These descriptors should allow to show prior knowledge and to compare them.

We can consider as a second contribution, the work of the Tuning project [3], which had aimed to provide innovative tools based on the description of studies cycles, workloads of the students, learning outcomes and skills acquired at the end of training (Bachelor and

Master). They allowed through the analysis of nine disciplines (business management, education sciences, geology, history, mathematics, physics and chemistry), to specify general and specific skills to a discipline as well as to show, thanks to questionnaires and a survey, their importance with regard to employers and universities.

At least, we can rely on three descriptors; knowledge, skills, competences of the European Qualifications Framework (EQF). These are used to build a reference grid in order to make relations between the different degrees of the European states with the view of mobility and of a lifelong learning [4].

In France, the setting up by the law of social modernization of January 7, 2002 (N°2002 73) of the National Committee of the Professional Qualification (CNPC) under the authority of the Minister responsible for vocational training has helped to move forward as to the issue of the legibility of training [5], particularly, by the construction of the national directory of professional qualifications and of qualification presentation cards.

Likewise, the work conducted under the accreditation of prior and experiential learning, has helped relate exploring a collection of formal, non formal and informal knowledge with learning outcomes aimed by a diploma, defining what evidence should be brought and how could the demonstration of effectiveness of prior experience be carried out.

After all this work, it is possible to establish connections between these different approaches of learning outcomes. Thus, the work done in the PRES group "UNIVERSUD" to arrive to a description methodology of the learning outcomes, as well as a presentation card of appropriate diplomas to the accreditation of prior experience, highlights the possible connections between these approaches and their interest to distinguish discriminating elements between two degree levels.

In this way, the table below draws a comparison between the Bachelor level and the Master level using descriptors of the European Qualification Framework and the Dublin descriptors [6].

This comparison makes appear in a simplified way that the main elements discriminating between the Bachelor and Master levels are:

TABLE I:

Points of convergence: European Qualifications Framework (EQF) / *The Framework for Qualifications of EHEA « Dublin Descriptors »*

Knowledge (theoretical or factual) (*) = the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study.
BACHELOR LEVEL * Advanced knowledge, involving a critical understanding of theories and principles *(including certain aspects which will be clarified by the knowledge of the advanced headways of their domain of studies)* In a field of work or study (*built within a secondary general education system).*
MASTER LEVEL * Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research * Critical awareness of knowledge issues in a field and at the interface between different fields
Skills (**) = Ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).
BACHELOR LEVEL * Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study ** Have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;* **Can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences;* ** Have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.*
MASTER LEVEL * Specialised skills - In order to solve problems in research and/or innovation, *in new or unknown environments, in wider (or multidisciplinary) contexts related to their domain of studies* - in order to develop new knowledge and procedures and to integrate knowledge from different fields *(to give evidence of originality by developing and\or by applying ideas, often in a context of research (in the wide sense - editor's note).* * Have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements; * Can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously; ** Have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.*

Competence (***)
= The proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy.
BACHELOR LEVEL * manage complex technical or professional activitiesor projects, taking responsibility for decisionmaking in unpredictable work or study contexts. * take responsibility for managing professional development of individuals and groups.
MASTER LEVEL * 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.

- as regards knowledge :

* nature (B: « advanced » / M : « highly specialised (…) », « as the basis for original thinking and/or research»),
* Application field (B : « In a field of work or study built on a general education context» / M « In a field of work or study and at the interface between different fields»),
* critical reflection associated (B : Knowledge « involving a critical understanding of theories and principles» / M « critical awareness of knowledge»).

- as regards skills and competences, relative to:

° **the resolution of problems**:

*Nature of the problems (B : « complex and unpredictable» / M : « in research and/or innovation», « in order to develop new knowledge and procedures and to integrate knowledge from different fields »),

*fields recovering the problems (B : « in a specialised field of work or study» / M : « in new or unknown environments, in wider or multidisciplinary) contexts related to their domain of studies »).

° **the research and the data processing:**

* nature of the activities carried out: (B : «to gather and interpret relevant data to inform judgements and elaborate arguments» / M : « to integrate knowledge and handle complexity, and formulate judgements»),
* nature of the concerned information (B : « relevant data »/ M : « incomplete or limited information»),
* critical reflection (judgements and arguments, B : « that include reflection on relevant social, scientific or ethical issues» / M « that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements»).

° **The communication :**

* Nature of the communicated information (B : « information, ideas, problems and solutions (including one's own arguments) » / M « their conclusions, and the knowledge and rationale underpinning these»),

° **The « management » (of projects, of activities, of structures):**

* nature of « what is managed » (L : « manage complex technical or professional activities or projects, taking responsibility for decisionmaking in unpredictable work or study contexts» / M : « manage and transform work or study contexts that are complex, unpredictable »),
* strategic dimension of this "management" (M : « manage gérer (..) require new strategic approaches »)

° **To take one's responsibility:**

* Field of activity, in particular on strategic planning (B : « for managing professional development of individuals and groups.» / M « for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams»).

As a consequence, we must choose the formulation of the learning outcomes so that the difference between Bachelor and Master be clear. In addition, the formulation may be made accurate by a detailed presentation of the skills fixing an expected level.

In the view of presenting learning outcomes in a more precise way, the work of the TUNING project group brings an essential contribution. They help to distinguish several sets of skills, allowing thus to specify transversal learning outcomes for every diploma of a certain level, then, the specific results to a diploma, this by stating the general and professional skills, peculiar to a field and to a level.

This identification learning outcomes work aimed by a diploma, must also be put into relation with the trade referential of opportunities training in the way they were established by the fields of activities, when they exist.

III. The presentation of diplomas in learning outcomes and its use in terms of legibility under the lifelong learning

Considering that all the previous work and the experience accumulated by universities in the implementation of APEL, the work achieved by the PRES "UNIVERSUD" working group for the construction of an information, an orientation and a positioning device that helps applicants to accredit their prior experience, ended in the necessity of presenting a diploma with several enter keys. The plurality of the enter keys is required because of the diversity of the public concerned and their information and training cultural profits.

A presentation card has been structured for this purpose with the following fields:

- Title of the diploma
- NSF code (fields and specialty groups – list of training) [7]

- ROME code (trades and jobs operational directories) [8]
- Academic level presentation (Bachelor.Master. Doctorat) with reference to the Dublin descriptors and the European qualifications framework (EQF levels).
- Learning outcomes presentation aimed at exit: general skills (transverse with every diploma of the same university qualification) general skills specific to the diploma (general skills peculiar to the field of the diploma), activities and professional skills (in connection with trades referentials of the diploma opportunities).

TABLE II:
Synthetic form of the card

Title of the diploma				
Place of the training				
NSF code				
ROME code				
Academic level presentation (B,M or other)				
Aimed learning outcomes	Niveaux [9]			
	N	A	M	E
General and transversal skills				
General skills specific to the diploma				
Activities and professional skills				

Moreover, we can find these presentation cards in different columns of the national directory sheets of the professional qualification [10].

For the skills formulation (action verb, context, applications or results – aimed objectives), the priority to the legibility led to a typology (general skills specific to professional skills) avoiding more abstract concepts (generic skills, systemic skills…). It was also retained that to make the interpretation of results easier, a formulation in terms of activities could be appropriate. At last, the introduction of levels may allow, on common skills, to distinguish on the one hand, the results by level of diploma (degree of depth, control and ability to convey…) and on the other hand, to settle an assessment element in relation to job sheets or to trades referentials [11].

In this way, the presentation card represents the heart of an information system adapted to the lifelong learning public.

The presentation cards may also be used to build a device of information, orientation by the position of one's prior experience in relation to the learning outcomes aimed by the diploma [12]. This positioning tool allows as well to build a thorough reflection on the relations between knowledge, skills and behaviour as well as the structure in teaching units.

These cards can inform students for the initial training, the trainees of the continuing training on the project of returning to studies, applicants for

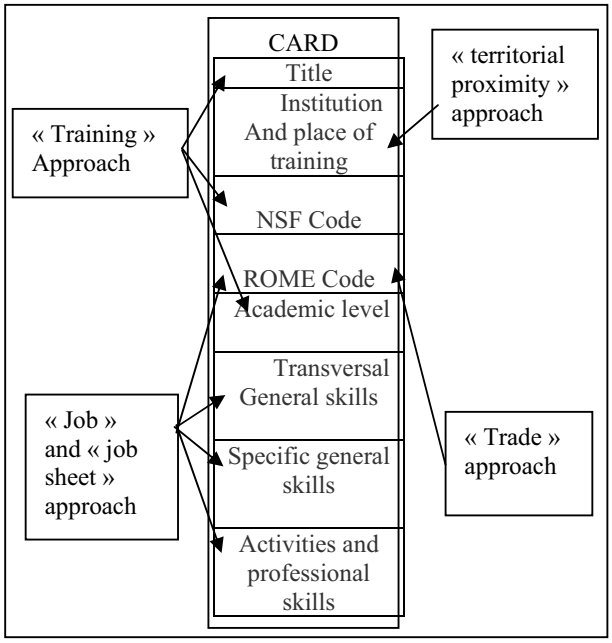

FIGURE 2:
The plurality of reading enter keys

an accreditation of prior experience, employers on recruiting projects, universities or higher education institutions on a mobility project, training prescriptors for an advice to salaried employers, job-seekers, that is to say, a whole set of actors readily available within the framework to securing the professional path.

Conclusion

The academic world, by the quality of its training and its diplomas, can help in the permanent adaptation of the relationship between learning and employment. Academic training bring garantor general skills for the securing of the professional paths over a long period, but also professional skills ensuring that a person becomes immediately operational on a job.

Based on learning outcomes, the relationship between learning and employment consists of a possibility of a qualifications dynamic adaptation.

The cultural revolution consisting at presenting a diploma in terms of learning outcomes must allow to deepen the reflection on a pedagogy focused on learning activities in relation with assessment activities allowing to qualify the aimed results.

This evolution is essential in a world where the recurring questioning of activities and jobs assume that we can offer to every person rights and answers for the permanent adaptation of his skills in the perspective of securing his own professional path.

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"**Formal, non-formal, informal learning?"**
Formal learning: learning that occurs in an organised and

structured environment (in an education or training institution or on-the-job) and is explicitly designated as learning (in terms of objectives, time or resources). Formal learning is intentional from the learner's point of view. It typically leads to validation and certification.
Non-formal learning: learning which is embedded in planned activities not explicitly designated as learning (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner's point of view. Non-formal learning is sometimes described as semi-structured learning.
Informal learning: learning resulting from daily activities related to work, family or leisure. It is not organised or structured in terms of objectives, time or learning support. Informal learning is in most cases unintentional from the learner's perspective. Informal learning is also referred to as experiential or incidental/random learning".

[2] "Dublin Descriptors" report from Joint Quality Initiative informal group. "Dublin descriptors" for Bachelor and Master levels : http://www.eua.be/fileadmin/user_upload/files/EUA1_documents/dublin_descriptors.pdf

[3] For more information : http://tuning.unideusto.org/tuningeu/images/stories/template/General_Brochure_final_version.pdf http://www.relint.deusto.es/tuningProject/index.htm

[4] http://ec.europa.eu/dgs/education_culture/publ/pdf/eqf/broch_en.pdf

[5] The National Committee of the Professional Qualification (CNCP) comprises 43 members: ministerial representatives, regional representatives, social partners, representatives of consular chambers, and qualified people. It has the role of:
- listing the offer of vocational qualifications (National Qualifications Register),
- taking care of the adaptation of diplomas and professional titles, to put forth recommendations to the attention of the institutions delivering professional qualifications or certificates,
- indicating possible links between the qualifications,
- working out a new list of qualification levels .
Under the authority of its president, the CNCP is supporting by the work of a specialized committee, a permanent secretariat and a network of regional representatives. It contributes to the international works on the transparency of qualifications. http://www.cncp.gouv.fr

[6] Nicole QUETIN Synthesis Card (EQF/Dublin Descriptors)

[7] List of training (http://www.centre-inffo.fr/Nomenclature-des-specialites-de.html)

[8] ROME: Operational directory of trades and jobs. This database is describing the professions and the occupations existing in France and free accessible on the 'Pole emploi' (French Labour Agency) website. This directory treats 10 000 jobs and occupations through 466 index cards. The search can be made from the name of job, from the professional category among 22 which are listed, and from the five digit code ROME corresponding to the required occupation. ROME is today the only one complete referential of occupations available on the public Employment assistance body and whose originality is based on its integration in the labour market, its operational character and the consideration of the professional mobility. ROME informs also about the main and specific names of a job, returns towards similar occupation. The third version of ROME, developed in 2007 integrates new domains and the evolutions in the competence of already listed jobs http://www2.pole-emploi.fr/espacecandidat/romeligne/RliIndex.do

[9] N = Notions, A= Application, M= Maîtrise, E= expertise

[10] http://www.cncp.gouv.fr/grandpublic/presentationRNCP

[11] See the « European e-Competence Framework »

http://www.ecompetences.eu/

[12] Article UNISO 2009 Alain NICOLAS, Nicole QUETIN (Part III)

THE EQF RECOMMENDATION REFERENCING IN FRANCE

Anne-Marie CHARRAUD[1]

Abstract – *The French experience shows that the EQF was a good tool to make a political and strategical reflection about national qualification systems for a country. Before making referencing it is very important to understand what kind of qualifications have a real currency in a national societal environment and for what stakeholders. Different systems of values could be integrated in the same framework.When the consultation about EQF raised, it was a real opportunity to explore new dimensions in order to imagine some change. This permits to set up a specific permanent workshop where representatives of the CNCP's members follow the EQF consultation. The results provide two proposals: a common methodology for referencing from the 5 levels grid towards the 8 European ones and a scheme to change the old grid towards a new one.*

AN HISTORICAL APPROACH BASED ON THE TRANSPARENCY CONCEPTS

The French approach about EQF Recommendation was in fact already drafted due to the use of the "Transparency" concept applied to the French context.

A short glance to the landscape about "qualification", before 2002, could be designed as a puzzle. To get information about the "qualification" offer needed to visit a lot of different web site or repettories to have a complete overview. It could be compared to the European situation with the puzzle represented by 27 different qualification references overarching the EU countries.

The 2002 French Law about VET and non formal and informal learnong outcomes validation and reconition (in French: Validation des acquis de l'expérience" or VAE) used the transparency approach developed in the Copenhagen process to provide legibility to the French qualification offer through the creation of the Coimmission Nationale des Certifications Professionnelles (CNCP) and a Repertory of those qualifications: Répertoire National des Certifications Professionnelles (RNCP. Such innovation had an important impact on two main aspects:

- it permitted to filter through a specific and official data base what qualifications could be considered as quality assurance based, with a level recognised by the State and social partners
- it made changing the designing process of qualifications, presented through learning outcomes evaluated, described through knowledge, skills and competence. Such issue supposes to define how learning outcomes listed were discovered and may be used by the labour market – what is new for many of the qualification designers in 2002 because they used to describe qualifications in terms of programmes and training curricula.

Such innovation in the French context was a good preamble to the EQF Recommendation when it took place in 2008.

The application of the transparency concept was considerably helped by the use of the Europass tools. When the RNCP was created in 2003 it was directly inspired from the Europass certificate supplement format. The actual descriptions presented in the CNCP's data base is available through a French format and the European one. Some items are added in the first one and the order of the different boxes to be filled is not exactly the same. A new step is nowadays in progress with the translation; in English, German and Spanish, of the some qualifications descriptions chosen for their frequent use for individuals mobility[1].

So when the national consultations took place in 2005 about an EQF settlement, national institutions and social partners designed naturally the RNCP as the National Qualifications Framework which can support the referencing to EQF. But if this decision could indicate what qualifications could be, thus providing mutual trust inside and outside France, referencing to the 8 levels grid was from the very beginning a real problem for the CNCP stakeholders.

This problem could be explained because the content of the 24 boxes crossing the levels and the descriptors seemed for them not sufficient and convenient to permit a real application. Another reason may be stressed here concerns the difficulty to make a coherent referencing from the 5 French levels which may be related for some qualifications to the duration of curriculum necessary to get it and in another case relevant to a labour positioning in an enterprise organisation.

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[1] Anne-Marie Charraud, CNCP General Secretary

In the same time, the CNCP was involved already, since 2004, in a reflection making changing this 5 levels grid which was built and used since 1969, without successful concrete issue. So when the consultation about EQF started, it was a real opportunity to explore new dimensions in order to imagine some change. This permitted to set up a specific permanent workshop where representatives of the CNCP's members follow the EQF consultation, then the Leonardo project EQFnet testing, coordinated by the CNCP general secretary. What is important to mention also concerns the contribution of the main statistics institution to be sure that EQF and the new French grid issued from EQF reflection will be really used by statisticians. Till the end of June 2009 discussion took place about the way to make referencing to EQF and in the same time the approach permit to change our levels grid. The results of this long reflection provide two proposals :

- a common methodology for referencing from the 5 levels grid towards the 8 European ones.
- a scheme to change the old grid towards a new one which can follow two possible orientations : one which can be an application of the EQF grid on the French context (commenting the content of the 24 boxes of the grid), the other which consists to create another grid and make afterwards a link with the EQF one.

Changing the French levels grid is a political decision under the prime Minister decision which is in progress. Indirectly those last 5 years of audit, meeting etc… permit to stress the necessity to modify the focus of the classification. In 1969, it provided prospective for training plans for national policies. Levels followed the structure of the education system and can be easily linked to ISCED. During 40 years the use of levels and so of the signal of qualifications moved a lot. They were first the indicator of the goal to reach for individuals for their whole life and now they are closer to boundaries to overtake through various tracks.

The results of the different workshops about a new French grid and referencing to EQF were presented to the Prime Minister and Statistics Council with a common approach which can be represented through scheme 1.

The reflection about EQF made the consciousness that qualifications related to level 1 or 2 of the European grid do not exist in the French approach. But this position may be re-read with the descriptors analysis. Already some ministries which competent bodies to deliver awards think about some change and look at the distribution of the French level V in two.

Conclusion and perspective

The French experience shows that EQF was a good tool to make a political and strategic reflection about national qualification systems for a country. Before making referencing it is very important to understand what kind of qualifications have a real currency in the national societal environment and for what stakeholders. Different systems of values could be integrated in a same framework. They all have to be respected in a parity of esteem consideration. On the other hand, mutual trust supposes that quality indicators must be clearly expressed for the qualifications users. One of those indicators is legibility of the qualification contents in terms of learning outcomes. If it does not exist, it is impossible to have a pertinent and credible referencing to EQF. But such issue is very difficult to obtain though great progress was already provided. This is an important challenge agreed and expected by all the stakeholders included the qualification designers. That means also that focus must be done on the objectives of training and curricula (learning results) instead of their pedagogical structure and input content. It is a long way to reach this goal but it will be also for trainers and qualification designers a rich source and a valorisation of their competencies and functions, which is particulary important to reinforce nowadays.

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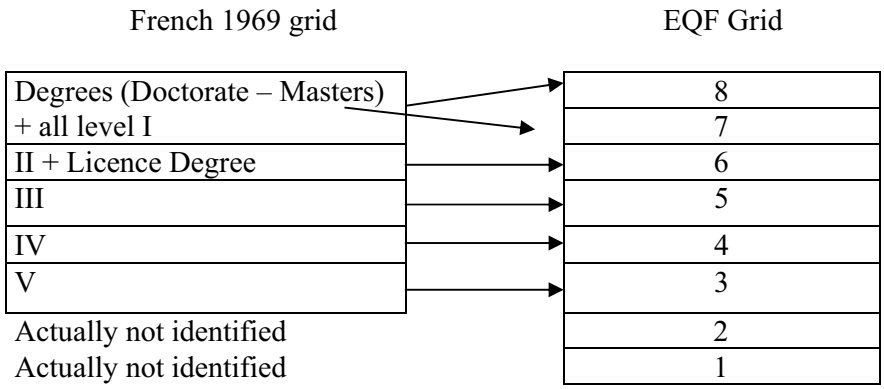

SCHEME 1

THE COMPETENCES FRAMEWORK: CREATION, DESCRIPTION, VALIDATION PROCESS, SHARING AND HARMONISING RESOURCES

Francis ROGARD[1]

Abstract – *The professionalisation of university studies needs pedagogic contents which follow the demands of the labour market and a pedagogic approach based on the realization of projects and the participation in enterprises through internships. This approach also implies a large participation of professionals within a pedagogic team. Even though these elements have been present for a long time in professional training, whether bachelor or master level, its perception has not improved in the professional world. In order to assure its recognition and therefore the visibility of the results acquired through professional integration and job mobility, a new stage has been implemented in higher education, namely, the accreditation process.*

Key words *– professionalisation, competences framework, learning outcomes, qualification*

THE QUALIFICATION, A NEW STAGE IN PROFESSIONALISATION

Qualifications, as opposed to previous "diplomas", imply the integration of the competences that describe them, the creation of a common framework as well as a description specifying the competences it aims to achieve and the means of assessment. As qualifications must have a value outside the accrediting centre, the accrediting team cannot only be formed by members of the academic world. The connection between the qualifications framework and the professional framework implies the need to integrate an independent inter-university and inter-professional authority, that is to say, a steering committee which must approve and develop the competences referential according to any technological and competences updates, and it must especially control the quality of accrediting institutions.

COMPETENCES FRAMEWORK: THE FRENCH IT AND INTERNET CERTIFICATE AS EXAMPLE

This new professionalisation / qualification process must be taken into account since its stages of creation, implementation and evaluation. It needs the collaboration of experts in the field of professional integration. The process of professionalisation affects training and qualifications structures. It increases the number of people that take part in it and needs a specific organization. The plan presented in this document refers to the work carried out by the French Ministry for Higher Education concerning the French IT and Internet Certificate (C2i), level 1 (Bachelor degree) and professional level 2 (Masters degree). These national and international certificates accredit the digital competences complying with the recommendations of the European Commission. As opposed to private certificates, they accredit the good use of resources found in the commercial sector as well as free software. Two elements must be established when creating a certificate: a referential for competences as well as for assessment. This referential is created in two stages: first, a selection of the competences areas; secondly, a list of the competences to be accredited. The main question in this process is "how can we validate competences?" The C2i certificate for "engineering occupations" (C2i2mi) will be used as reference, certificate which is under my responsibility.

The areas included in version 2.2 of the C2i referential are:

D1 Law-related issues and problems in a professional situation
D2 The security of information and information systems
D3 Control of information systems
D4 Digital and collaborative engineering environment
D5 Control of information

It can be noticed, that unlike other referential frameworks, there is no distinction between general areas and technological areas. No area is seen as more "theoretical" than others, which will have a consequent result in terms of validation, since the "natural" trend is to assess the theoretical part through a multiple choice questionnaire. Every referential is a compromise, and personally I regret that a specific area related to

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attitudes is not included. The competences related to "behaviour" could be evaluated as part of the area A4. In every area, the competences to be validated are enumerated, for example in the area A1:

D1 - Law-related issues and problems in a professional situation

D1.1 Mastering the legal and ethical context of the inter- and intra-business code relating to the right use of ICTs in the workplace.

D1.2 Applying legislation on the protection of digital works and databases and knowing the criminal and civil penalties.

D1.3 Taking note of legal precedents in respect of cybersurveillance of employees.

D1.4 Implementing, advisedly, the legal obligations of the French data protection authority and knowing the risks taken in case of non-compliance.

D1.5 Assessing the legal value of a digital document.

This first work enables the establishment of a first version of the referential. The evolution between version 1 and this version 2.2 corresponds to the elimination of areas, the rewriting of areas and competences as well as the repositioning of competences according to the "right" area.

The referential has principally evolved since its experimental stage thanks to the application by centres with experimental training and the participation of professional sectors.

Guideline framework

The main problem of international qualifications is the harmonisation of accrediting tests. It must include all the competences of the referential and provide information about the assessment.

For example, in the case of the competence D 1.1:

D 1.1 Mastering the legal and ethical context of the inter- and intra-company code relating to the proper use of ICTs in the workplace.

1) Explanation of the competence D1.1:

- Understanding the need of a code and the importance of its update

The code should be known by all users, and in case of non-existence the internal policies and procedures should be taken into account.

On the one hand, it must be stated that the key aspect is not creating a code, but knowing its content and what could be included in it: implementation areas, rules, sanctions applied, and types of sanction applications.

On the other hand, the developing features of ITCs should be considered. Thus, the code will not only be followed to the letter, but also in its philosophy. According to this principle, learners must be aware of framework updates and it is their obligation to identify any update.

The concept of an inter-company code, with a deontological value, should also be taken into consideration, so that students become aware of its existence.

- Knowing the legal value and the consequences and penalties derived from non-fulfilment

A code can have an ethical value (describing good practices) and / or juridical (describing the penalties applied). The importance lies in distinguishing these two aspects and knowing the penalties that could derive from them.

Likewise, it should be pointed out that in order to have a legal value, the code should be approved by employees' representatives, or legitimate representatives of the people it refers to.

Applying and assuring the application of the code

Engineers must identify the responsibilities held by the company's personnel (executives, managers, employees with or without delegation of authority).

They must be able to apply the code and assure its application by other employees under their responsibility.

It should be noticed that the efficiency of the code as well as its legal value depends on its good diffusion and explanation. Engineers must be able to explain it in front of their team. In addition, depending on their position within the company, they could be the reference point when raising awareness within its hierarchy.

2) Assessment/training guidelines

- Writing a report during their internship in a company.

When dealing with an official framework, some questions should be kept in mind: is it coherent? What is the impact on the job carried out? What was the approach taken in front of those constraints? Why is it necessary? How could it be improved? What was the reaction of other employees as regards its application? What was the elaboration and implementation process?

On the contrary, when dealing with a non-official framework, some of the questions would be: who is responsible for the use of Internet and its network? Why is it advisable to have a framework or raise other managers' awareness on the subject?

- Writing a multiple choice questionnaire (used for learning or self-assessment)

It aims to highlight the appropriate questions to reflect on. It offers a context and the possibility to justify each answer. The questionnaire presented in http://www.educnet.education.fr/services/accompagnement/securite/fichiers/chartesusage/File could be used as an example. Institutions could use it in order to explain the code when welcoming new users.

- Using case studies related to the code

In this case, role-play situations could be used.

- Comparing common practices related to ITCs with the referential

In this case, other reference documents could be used to complete the study of these topics.

3) Reference documents

- Internship evaluation guideline

It includes an evaluation of the legal aspects and the mastery of information and is published in http://www.educnet.education.fr/services/accompagnement/securite/fichiers/chartesusage/File.

- List of legal websites
- Handbooks

Creating these guidelines is a long-term task which is deemed necessary for accrediting institutions in order to accredit studies in an independent manner.

ORGANISATIONAL STRUCTURE

The creation of a referential for competences needs the participation of two different groups during the creation and testing stages. On one hand, a steering committee formed by representatives of training and professional accrediting institutions which will be in charge of making political decisions, approving the proposal of the group of experts and creating official documents. On the other hand, an "open" group of experts from the educational and professional sectors that works for the accreditation included in the referential and the engineering framework and proposes a general process to test it and implement it.

TESTING AND IMPLEMENTATION STAGES

Qualification tasks need a testing and implementation stage. During the testing stage, near 10-15 steering training centres enable the validation of documents by target audiences, namely students, students in engineering schools and learners in continuing training. Setting up a qualification in some centres enables to specify the conditions for generalisation. This generalisation is related to communication, the selection of institutions and harmonisation practices. The resources that allow this generalisation and its monitoring process are the network designed by accrediting institutions, national communication resources and a database of accreditation tasks. During the second stage, the steering committee and the group of experts make "political" decisions, monitor and test the correctness of the actions taken by the accrediting institutions and develop accreditation contents and resources.

VALIDATION OF COMPETENCES

The main difference between delivering "diplomas" and accrediting qualifications and competences is the validation process associated with qualifications. There is no final exam; qualifications imply a continuing assessment through different tasks proposed to students. The main aspects are:

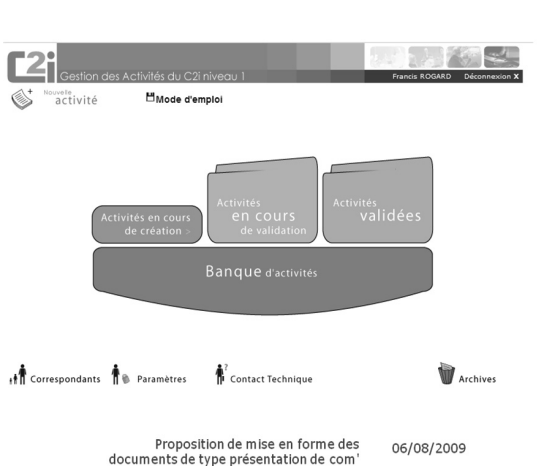
- The accrediting institution must propose exercises to validate every competence.
- All competences must be evaluated.
- The assessment of a competence is binary (yes/no)
- There is no compensation among areas.
- There is no jury in every accrediting institution that accredits area by area. Learners will accredit their studies if they accredit all the competences required.

The main difficulty lies in harmonising results among qualifying institutions. The guideline associated to the referential is a first step but a database of tasks will also be used. This database will enable the comparison of tasks proposed and will help creating new tasks. Every new accrediting institution will be able to find examples that will facilitate setting up accreditations.

Every institution is responsible for their certified training. However, qualifications are a collective responsibility held by certifying institutions and the steering committee. Two reports are created every year as results of national conferences.

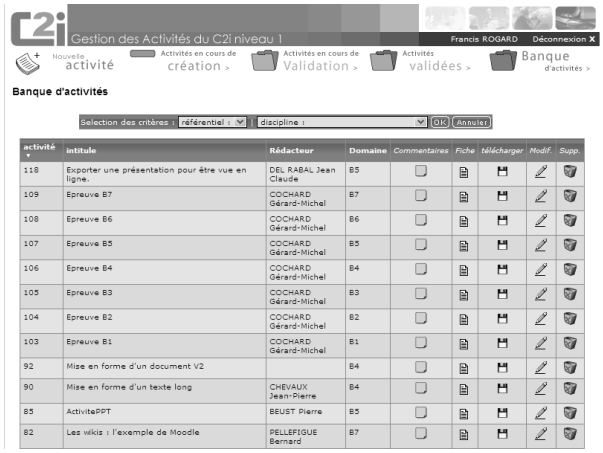
QUALIFYING RESOURCES

In relation with this proposal, different resources that facilitate its implementation, its pedagogical follow-up and its curriculum evaluation will be presented.



Task management website

The tasks proposed by participants will be evaluated by two experts and included in the database of approved tasks.



A website including qualifications descriptions according to the competence framework

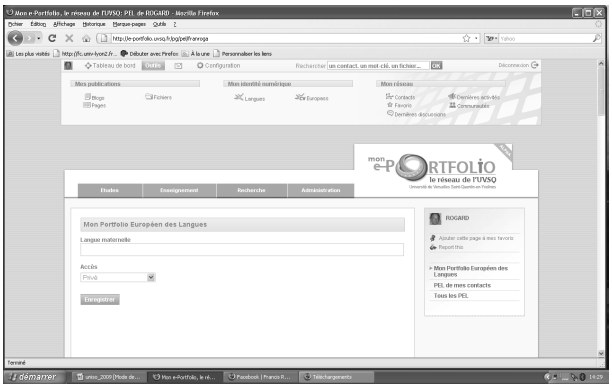
This website, resulting from a European project, includes the competences framework, descriptions of jobs and qualifications and case studies of different activities. The user will be able to search according to a competence, a job or a qualification and check different kinds of assessment tasks.

The responsible of the curriculum may describe any qualification according to the competences framework and propose validating tasks in relation to the different areas described as competences.

The e-portfolio

Continuing assessment, accrediting according to competences areas, the need to evaluate all contents and especially the continuing training context requires a tool that enables the submission and follow-up of the tasks carried out by learners and certifying institutions.

The e-portfolio aims to fulfil this need. The e-portfolio presented below refers to an open process, such as a social network using as example websites such as Facebook. Learners use a blog that work as a network to validate their knowledge, to have other "friend" learners as well as resources for professional integration. In addition, the network may include alumni and companies.



It gathers all university participants and it also allows access to any new "friend".

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DIVERSITY AND COMPARABILITY IN THE IMPLEMENTATION OF NATIONAL QUALIFICATIONS FRAMEWORKS FOR HIGHER EDUCATION

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Abstract – *The European legal and institutional context for building national qualifications frameworks in higher education is briefly assessed in order to point to the two European meta-references: the Overarching Framework of Qualifications for Higher Education and the European Qualifications Framework for Lifelong Learning. Despite many similarities, the two European tools show also some differences in the way they integrate levels and descriptors of competences, continuing education and training, and recognition of prior learning. As the implementation process is scrutinized, the latest SWOT analysis is brought in the spotlight in order to better understand the comparative analysis of the national qualifications frameworks for higher education of Malta, Romania and Ireland. The end remarks indicate that despite the convergence intents of European and national institutions, there is a significant amount of information not only on the compatibility/convergence side of the process but also on the reverse aspect – the diversity/divergence in approaching qualifications issues in each higher education system.*

Key words: *Academic / university qualification, learning outcome, competence, higher education level / cycle, national qualifications framework*

1. Building National Qualifications Frameworks for Higher Education: the European Context

The development of a National Qualifications Framework for the higher education system of a country (NQFHE) is part of the general process of continuing active adaptation of the study offer of higher education institutions to the needs and expectations of the society at large, of the labour market, in this particular case.

NQFHE development goes hand in hand with other priorities of a higher education system: the continuing enhancement of quality assurance in universities, the improvement of dialogue and interaction among universities and the main stakeholders of their host region/country, the self certification of the compatibility of the NQFHE with the two reference tools at continental level: (1) the overarching Qualifications Framework in the European Higher Education Area (EQFHE)[4] adopted in 2005 by European Ministers of Education on the proposal of the Bologna Working Group on Qualifications Frameworks and (2) The European Qualifications Framework for Lifelong Learning (EQF) published in 2008 by the European Commission[5]. The success of the design and implementation measures might be measured, among others, in terms of graduate employability.

As higher education increased in terms of number of intakes and of diversification, the employability of the graduates becomes a topic of frequent debate. The discussion focuses either on the personal satisfaction of a university diploma holder or on social efficacy of higher education institutions[6].

Employability has been defined as "*the ability to gain initial meaningful employment, or to become self-employed, to maintain employment, and to be able to move around within the labour market*".[7]

In this context, the mission of higher education institutions is two-fold:

On one hand, in giving students those academic qualifications – defined as knowledge, skills and

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3 Iuliana Trască, Expert, ACPART

4 *A Framework for Qualifications in the European Higher Education Area*. Bologna Working Group on Qualifications Frameworks. Published by the Danish Ministry of Science, Technology and Innovation, Copenhagen, February 2005.

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7 Bologna Follow Up Group (2009): *Report of the Working Group on Employability***.** Draft prepared to ministers in charge with higher education for the Leuven and Louvain-La-Neuve Ministerial Conference, April 2009.

competences – which are expected and requested by the employers in the very moment of hiring a university graduate;

On the other hand, in offering graduates the opportunity to keep, renew, complete or improve the level of initial qualification by designing and delivering lifelong learning programmes throughout their professional career.

The progress of humankind towards the knowledge society is strengthening the dependence of the economy and institutional infrastructure on highly qualified specialists. The awareness of the special role played by higher education institutions[8] was triggered during the last decade by the Jacques Delors *Report to UNESCO* (1996), the *Bologna Declaration* (1999) and the *Lisbon Strategy* (2000).

In the *Triennial Report* on progress made in quality assurance in higher education from the Lisbon Strategy perspective, the European Commission has called for a more dynamic university management in European higher education institutions, for modernized curricula, adapted to labour market expectations. In this document released in September 2009, The European Commission states that the quality assurance standards should encompass the priorities of contemporary higher education, such as *employability of graduates*, quality of student services, in general, with a special focus on *career/employment guidance* for students and alumni.[9]

The ever changing workplace requirements under the impact of the new information and communication technologies and of the international openness of the labour market have a common denominator: low skilled labour force is more and more replaced by high skilled personnel, which shows more propensities towards complementary qualification and/or supra-qualification or interdisciplinary further education.

A 2008 OECD report on tertiary education reveals that unemployment rate of high skilled active persons is well below the unemployment rate for the rest of the active population. In 2006, the average unemployment rate of the personnel belonging to the age group 25 to 64 and having a higher education diploma was of only 3.6% in the OECD member states.[10]

The current data and facts concerning unemployment in the context of the economic and financial crisis which affected and still affects most of the countries around the world confirm also the fact that a low educated workforce faces a higher risk of unemployment than highly skilled personnel. The professional flexibility of the personnel possessing a tertiary education qualification is by far higher than of the low skilled employees. All these empirical findings contribute to raising concerns to maintain and even to improve the employability of the higher education graduates. These concerns originate in two aspects observed in the current labour market:

- The three cycle higher education promoted by the Bologna Process (Bachelor, Masters and Doctoral Studies) has significantly diversified the range of diplomas awarded by higher education institutions, but most of the employers still do not have a clear understanding of the differences among the various diplomas awarded in current higher education.
- The quality of higher education is discussed by the labour market having as a starting point, not the prestige of the teaching staff or the research performance of the institution, but the willingness of universities to share the responsibility for the employability of their graduates and to take active measures to support them.

Surveys conducted among graduates and their employers at the end of 2007 and at the beginning of 2008 in countries participating in the Bologna Process were revealing the following characteristics concerning the diversification of diplomas awarded in higher education:[11]

- The growth during the past 10 to 20 years of the number of university graduates produced an apparent over-supply at least in some of the specialization segments of the labour market for high qualified personnel;
- The employability of graduates at the Bachelor level (the 3 years Bologna study programs with 180 accumulated ECTS) is a particular problem as many employers don't know or don't accept this level of qualification;
- Work experience is highly valued by many employers, but internships or other ways of acquiring the expected skills in a six semesters study period are still not properly solved by most of the higher education institutions across Europe;
- Some employers think that universities are not doing enough to prepare graduates for the real world of work. Meanwhile, many traditional universities are still questioning whether employability of graduates should be a part of their mission.
- In many countries, there is poor dialogue between universities and representatives of the employers and of the professional bodies concerning the (re)engineering of curricula aiming at better

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[8] See also: *Tertiary Education for the Knowledge Society.* OECD, Paris, 2008, vol. 2, Chapter 9: "*Strengthening ties with the labour market*".

[9] *Report on Progress in Quality Assurance in Higher Education.* Report from the Commission to the Council the European Parliament, the European Economic and Social Committee of the Regions. Brussels, 21.09.2009, p. 2.

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[11] www.bologna2009benelux.org/actionlines/employability_survey.htm

answering the needs in the labour market. Recent student initiatives[12] and university networks' concerns[13] tend to focus on the need for change in the design and implementation of new curricula with a significantly larger content flexibility in the educational offer of universities. They represent the active response (the adaptation) of higher education to the changing needs of actors in the labour market.

Until recent years, most of the European universities did not focus on the requirements, needs or expectations of the employers of their graduates. The learning outcomes were in most of the cases "*guaranteed from the internal academic performance perspective*" based on the prestige of the members of the university staff, on the competitiveness of the university research outputs, on the performances of the equipment at work in labs and libraries, on good financing of the institution. At a given moment student opinion was also taken into consideration. What was still lacking from the quality assurance management of universities was the "*external reference*", the opinion of the actors in the labour market which employ most of the graduates: the utility of the acquired academic qualification confronted with the labour market needs in the very moment of hiring the respective graduates.

The "*Dublin descriptors*" were circulated Europe-wide starting with October 2004. They define an academic qualification which could be reached at the moment of graduating a study programme in terms of level of knowledge, professional skills and abilities as well as role attitudes which are recognized in the labour market as needs assessed for getting a job.

Under inter-university competition pressure, some of the higher education institutions moved towards introducing in their Mission Statement the concern for preparing the graduates to enter the current labour market. One has to accept that some of the more conservative universities are still questioning whether employability of graduates should be a part of their mission. In other words, these universities refuse to recognize the need to link the academic qualifications qualitatively guaranteed by the institution with the expectations expressed by the employers.

Of course, the ideals of the academic education have not to be given up; but at the same time, the pragmatic part of the issue cannot be simply ignored. One of the basic aims of getting a university education is to obtain a better social position and improved social visibility. These expectations of the graduates are closely linked to the satisfaction in the real life, including the job position in the labour market and the personal satisfaction of the diploma holders. A university graduate speaks about its personal satisfaction or personal fulfilment only when he or she has a good job or after becoming a successful self-employed person.

The inter-university debate concerning the mission assumed by higher education led to a link between quality assurance of higher education and definition of the learning outcomes as quality references or content standards. These learning outcomes are described as knowledge, professional skills and abilities as well as role attitudes required in the labour market.

It was at the London Ministerial meeting in 2007 when this linkage has been agreed as a strategic movement aiming at improving the visibility of higher education as an active factor of promoting the Lisbon Agenda. This change in attitude of universities towards the needs of the labour market is far from being accomplished. The idea to link higher education to labour market and employers needs is inspired by the existing good practice in some of the European universities or university networks, as well as the experience in the regulated professions where the first attempts to describe academic qualifications in specific terms of the labour market were marked.

As mentioned above, there are two guiding European documents which are supporting national authorities in designing appropriate methodology for an easy readable description of each and every academic qualification.

The overarching European framework for qualifications of the European Higher Education Area (EHEA) is a meta-reference, which *"stipulates the outline and boundary of national frameworks, and is a device, which helps to provide clearer understanding of how the various qualifications made within the EHEA are related to each other and articulate with each other. It expresses how qualifications systems of the various states in the area are related to each other… It offers a common set of cycles and levels, with descriptors for those cycles… The framework for qualifications of the EHEA does not replace national frameworks. It augments them by providing a series of reference points whereby they can demonstrate their mutual compatibility".*[14] International transparency of the learning outcomes, international recognition of qualifications and international mobility of learners and graduates are the three main purposes aimed when developing a national qualifications framework complying with the principles and standard descriptors of the overarching framework for qualifications of the European Higher Education Area.

The Leuven and Louvain-la-Neuve 2009 Conference Communiqué underpins the consent of European Ministers responsible for Higher Education

[12] *„Bologna with student eyes"*, European Student Union, Brussels, 2007.

[13] See the conclusions of the report developed under the auspices of the European University Association *„Trends V"* Brussels, 2007. See also the study of the European Centre for the Development of Vocational Training – CEDEFOP (2008): *„Future skill needs in Europe: medium term forecast"*.

[14] *A Framework for Qualifications in the European Higher Education Area*. Copenhagen, February 2005, pp. 57-58.

to have implemented the national qualifications frameworks by 2012 and to have prepared for self-certification against the overarching Qualifications Framework for the EHEA. Ministers recognize that this objective requires continued coordination at the level of EHEA with the other reference – the European Qualifications Framework for Lifelong Learning.[15]

The creation of a common reference framework serving as a translation device between different qualifications systems and their levels is the objective of the European Qualifications Framework for Lifelong Learning. It promotes *"both lifelong learning and equal opportunities in the knowledge-based society, as well as the further integration of the European labour market, while respecting the rich diversity of national education systems"*.[16]

By 2012, all new qualification certificates diplomas and "Europass" documents issued by the competent national authorities contain a clear reference to the appropriate EQF level. At that moment, *"The EQF will relate different countries' national qualifications systems and frameworks together around a common European reference – its eight reference levels. The levels span the full scale of qualifications, from basic (Level 1, for example school leaving certificates) to advanced (Level 8, for example Doctorates) levels. As an instrument for the promotion of lifelong learning, the EQF encompasses all levels of qualifications acquired in general, vocational as well as academic education and training. Additionally, the framework addresses qualifications acquired in initial and continuing education and training.*

The eight reference levels are described in terms of learning outcomes. The EQF recognizes that Europe's education and training systems are so diverse that a shift to learning outcomes is necessary to make comparison and cooperation between countries and institutions possible.

In the EQF a learning outcome is defined as a statement of what a learner knows, understands and is able to do on completion of a learning process. The EQF therefore emphasizes the results of learning rather than focusing on inputs such as length of study. Learning outcomes are specified in three categories – as knowledge, skills and competence. This signals that qualifications – in different combinations – capture a broad scope of learning outcomes, including theoretical knowledge, practical and technical skills, and social competences where the ability to work with others will be crucial".[17]

Under these auspices, all the European states have to revise the existing national legal framework in order to develop transparent, easy applicable bridges to the two meta-reference tools.

2. General SWOT Analysis of the Implementation Process

Based on the national reports of partner countries and the SWOT analysis undertaken by the Council of Europe with national representatives for QFs from the Bologna countries, we developed a new SWOT analysis on the development on NQFs in France, Germany, Ireland, Malta, Romania, Slovenia and Spain.

SWOT analysis :

STRENGTHS

- The process is visible for the public;
- Universities started being aware of the importance of a national qualifications framework;
- Based on the local specific needs;
- Join HEI and political will to develop QF;
- The concern of national authorities to link the 2 overarching frameworks.
- General information on QF is available on the web;
- Students/graduates agree on the National Qualifications Framework as an instrument to match the universities provision with the labour market needs.
- The partner countries use the many opportunities from the European Commission to finance the implementation on NQFs

WEAKNESSES

- Discontinuity of political will;
- Question of terminology, semantics and translation of terms:
  - the understanding of learning outcomes is poor;
  - definitions of competences; relations between knowledge, skills, attitudes are still largely unclear;
- Where to put some learning outcomes in terms of level is problematic;
- The Bologna Process is not well known;
- The relation between degrees issued through « old » and « new » systems is difficult;
- The relations of HEI and VET are difficult;
- The advantages and reasons for labour market are not clear;
- The involvement of employers is poor;
- The methodology how to develop QF is still not coherent.

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[15] See article 12 in the *Communiqué of the Conference of European Ministers responsible for Higher Education*, Leuven and Louvain-la-Neuve, 28-29 April 2009.

[16] *Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning*. Official Journal of the European Union C 111, 06.05.2008, p. 3.

[17] *The European Qualifications Framework for Lifelong Learning (EQF)*. European Commission, DG Education and Culture, Brussels, 2008, p.3.

- It is not the same terminology used in EQF and Directives on Equivalence.

OPORTUNITIES

- The society is aware of the importance of QF developments;
- The NQF is part and link of the whole reform process of Higher Education;
- To facilitate the recognition process within the EHEA;
- The network and the international support in the developments;
- The link with the 2 overarching frameworks;
- To increase international mobility;
- To contribute to internationalization of HE;
- It makes all higher education systems more transparent;
- Support for international institutions;
- Facilitate lifelong learning, including after graduation of a Bachelor or Master's programme
- Enables curricula modernization and restructuring the study provision, based on society needs/ demands.

THREATS

- Society is tired of the constant reforms;
- Interdependency to neighbouring countries;
- The transition to a knowledge based society is not accepted by the whole society;
- Too based on formal Qualifications systems which were not based on learning outcomes;
- Low involvement of employers; unclear expectations from their side;
- Too many stakeholders can create conflict of interests;
- The process to be perceived as a pure bureaucratic one;
- The large number of certifications can make the whole understanding of the system more difficult and less transparent;
- The risk of a considerable fragmentation of skills and competences in the field of qualifications.

From the above SWOT analysis we can draw some conclusions:

- The developments of NQF are socio-culturally marked; the general situation in a given country influences the NQF.
- EQF may be considered as a platform for discussion between the partner countries, as well as an opportunity to make the national qualifications system known.
- At national level, the efficiency and effectiveness in implementing the EQF are influenced by various factors: country size (advantage for small countries) and specific local needs.
- There is interest and concern to achieve a lasting link with the 2 overarching frameworks.
- The labour market demand in terms of competences may not always be anticipated; there are cases when some employers prefer graduates with basic competences while others, on the contrary, require high specialisation levels.
- NQFs make the whole reform process more transparent and understandable for all stakeholders and the public and create opportunities for new study programmes, more adequate to society needs.

3. Comparative Analysis of three case-studies: Ireland, Malta and Romania

Partners to the project developed a comparative analysis of the learning outcomes and the descriptors used by the NQFs, EQF and the OFQ for EHEA. The learning outcomes and the descriptors used for NQFs in Ireland, Malta and Romania in compliance with their respective national methodologies are in line with the OFQ of EHEA and with the EQF as we can see in the following tables.

The Irish National Framework of Qualifications is different from the other two mentioned above as it is a ten level framework which embrace all levels of learning. Levels 6/7 to 10 relate to higher education. The IFQ is a system based on standards of knowledge, skills and competence (learning outcomes), which incorporates awards made for all kinds of learning wherever it is gained. As well as this 10 level structure, the IFQ includes award-types of different classes. An award-type is a class of named awards (i.e., Advanced Certificate, Honours Bachelor Degree) sharing common features and level. They reflect a mix of standards of knowledge, skill and competence which is independent of any specific field of learning. Amongst these are the large or 'major' awards. Major awards are the principal class of awards made at each level and capture a typical range of learning achievements at the level. Sixteen major award-types have been established for the Irish Framework (Figure 1). Qualifications are also awarded for smaller learning achievements.

Both NFQ and EQF are "qualifications frameworks", structures designed to enable users to compare aspects of learning. Both frameworks share core concepts: they are based on the approach of identifying learning outcomes, described in terms of knowledge, skill and competence. There are, however, fundamental differences in the purposes for which these frameworks were designed. NFQ is primarily a definitive structure and qualifications are related directly to the NFQ levels. EQF, by contrast and despite its title, is a "meta-framework" rather than a true "qualifications framework in the national or sectoral context. As such, it is intended to function as an interchange or translation device enabling qualifications systems in different countries to relate their various systems to a set of common reference points. In some ways EQF resembles a national qualifications system: it is

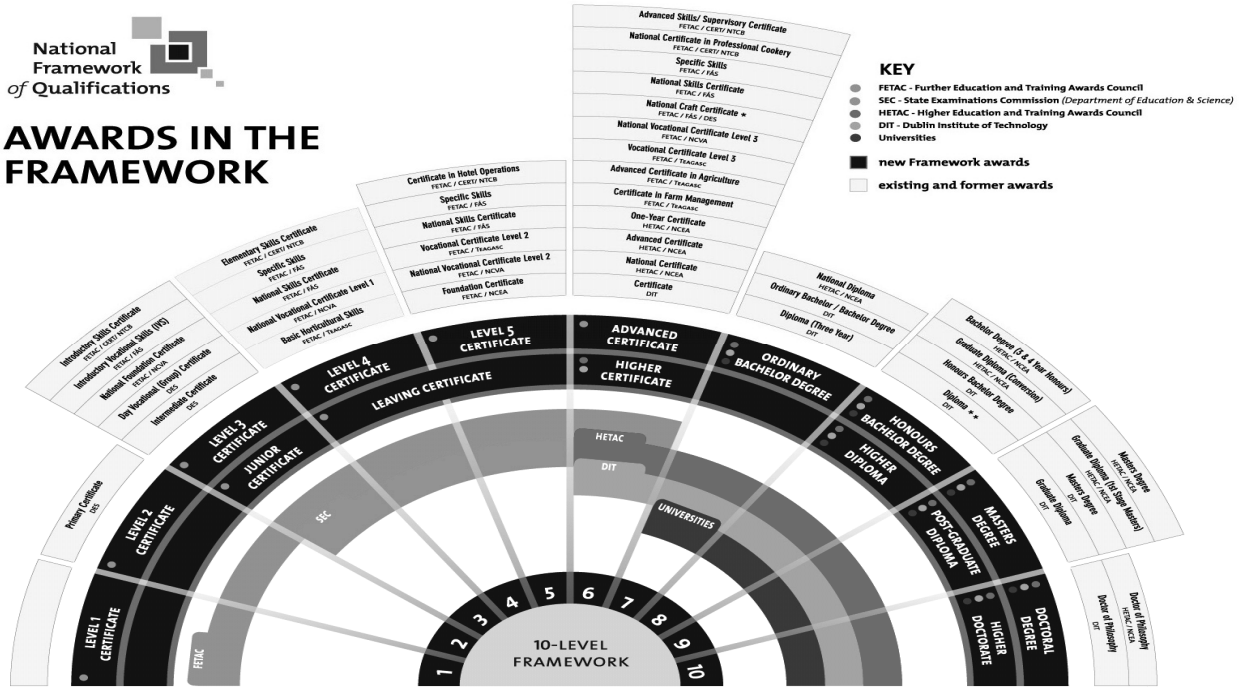

FIGURE 1

focused on qualifications (i.e. on the outcomes of learning) rather than on the learning process; its descriptors refer to outcomes across the full span of knowledge, skill and competence and are field-neutral. In other ways, EQF sets out to provide a common reference rather than to define what sorts of qualifications there should be at any level.

When we consider the way the levels in the three frameworks were designed, many similarities emerge:

- All of three frameworks are comprehensive and integrated, designed to relate to awards for all learning.
- In all of frameworks, the statements that define the levels are completely neutral in terms of field(s) of learning.
- Both the NFQ level indicators and the EQF level descriptors are designed to be read across all strands of learning outcomes, and aspects of each strand are sometimes elaborated or clarified in other strands; also, in both frameworks the outcomes for a given level build on and subsume the outcomes of the levels beneath.
- In all of three frameworks, key words or phrases are introduced as "threshold" or distinguishing factors in the description of learning outcomes at each level.[18]

The fact that the methodologies used by the three countries allow for a direct comparison based on the descriptors proposed by the European frameworks is an important starting point in turning the NQFs in real tools to ensure transparency of national systems of education, to strengthen mutual trust and to foster mobility of students and graduates. This coherence is also very useful for the recognition and validation of competences and qualifications.

The following tables describe the three National Frameworks of Qualifications based on standards of knowledge, skills and competence (learning outcomes) and match to the EQF and Dublin descriptors.

[18] http://www.nqai.ie/documents/EQFReferencingAnnex2finalJune2009.pdf

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regarding the compatibility of the Malta Qualifications Framework (MQF) with the EQF, Dublin descriptors and QF for EHEA

TABLE 1
LEVEL DESCRIPTORS FOR LEVEL 6

Level Learning Outcomes	Level 6 EQF	Level 6 MQF Generic descriptors	Level descriptors		Dublin descriptors	1st cycle QF/EHEA EQF
Knowledge	Advanced knowledge of a field of work or study involving a critical understanding of theories and principles;	**1. Knowledge, understanding and use of specific language**	Understands knowledge that builds upon advanced general education and typically includes some aspects that will be informed by knowledge of the forefront of their field of study and uses detailed theoretical and practical knowledge which is at the forefront of a field of study and involves critical understanding of theories and principles;	**Professional competences**	• have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;	• [is] supported by advanced text books [with] some aspects informed by knowledge at the forefront of their field of study. • [through] devising and sustaining arguments.
		2. Explanation and interpretation	Communicates ideas, problems and solutions to both specialist and non-specialist audiences using a range of techniques involving qualitative and quantitative information to sustain arguments;			

Skills	Advanced skills demonstrating mastery and innovation required to solve complex and unpredictable problems in a specialized field of work or study;	**3. Application, transfer and problem solving**	devises and sustains arguments to solve problems;		• can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study; • have the ability to gather and interpret relevant and data(usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;	• [of] information, ideas, problems and solutions • involves gathering and interpreting relevant data
		4. Critical and constructive reflection	has the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;			
		5. Creativity and innovation	demonstrates innovative theoretical and practical responses to work or study contexts;			
Competences	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.	**6. Autonomy and responsibility**	Is responsible for the management of creative and innovative projects and the team's performance;	**Transversal competences**	• can communicate information, ideas, problems and solutions to both specialist and nonspecialist audiences; • have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.	• have developed those skills needed to study further with a high level of autonomy
		7. Social interaction	Makes professional judgements on social and ethical issues within the area of specialisation, masters problem solving skills and evaluates the management of projects and people;			
		8. Personal and professional development	Assesses own learning and can specialise in one or more key competences for further learning;			

TABLE 2
LEVEL DESCRIPTORS FOR LEVEL 7

Level Learning Outcomes	Level 7 EQF	Level 7 MQF			Dublin descriptors	2nd cycle QF/EHEA EQF
		Generic descriptors	Level descriptors			
Knowledge	Highly specialised some of which is at the forefront of knowledge in a field of work or study as the basis for original thinking and/or research; Critical awareness of knowledge issues in a field and at the interface between different fields;	**1.Knowledge, understanding and use of specific language**	has comprehensive knowledge and understanding that is founded upon and extends and/or enhances that knowledge typically associated with Bachelor's level; and uses specialised or multi-disciplinary theoretical and practical knowledge some of which is at the forefront of a field of study. This knowledge forms the basis of originality in developing and/or applying ideas;	**Professional competences**	• have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with first cycle, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context;	• provides a basis or opportunity for originality in developing or applying ideas often in a research context • through problem solving abilities [applied] in new unfamiliar environments within broader [or multidisciplinary] context.
		2. Explanation and interpretation	communicates with specialist and non-specialist audiences clearly and unambiguously conclusions and knowledge which may be the outcome of original research, self-study or experience;			

Skills	Specialized problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields;	**3.Application, transfer and problem solving**	performs critical evaluations and analysis with incomplete or limited information to solve problems in new or unfamiliar environments, and to produce original research;		• can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study; • have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;	•[of] their conclusions and the underpinning knowledge and rationale (restricted scope) to specialist and non-specialist audiences (monologue) • [demonstrates] the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete data
		4. Critical and constructive reflection	demonstrates specialised or multi-disciplinary knowledge that include reflecting on social and ethical responsibilities linked to the application of one's knowledge and judgements;			
		5. Creativity and innovation	develops new skills in response to emerging knowledge and techniques and demonstrates leadership skills and innovation in complex and unpredictable work and study contexts;			
Competences	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.	**6.Autonomy and responsibility**	is accountable and responsible for the original research within a personal social responsibility and/or business context, for one's operations and for adapting the management of people and projects reflecting the dynamic nature of the environment in which one operates;	**Transversal competences**	• can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously; • have the learning skills to allow them to continue to study in a manner that may be largely selfdirected or autonomous.	• study in a manner that may be largely self directed or autonomous
		7.Social interaction	manages people and projects and demonstrates the ability to respond to the fast changing business environment;			
		8. Personal and professional development	makes assessments of personal continuous professional development, takes initiative to undertake self-directed study and may proceed to further specialisation;			

Level Learning Outcomes	Level 8 EQF	Level 8 MQF Generic descriptors	Level descriptors		Dublin descriptors	3rd cycle QF/EHEA EQF
Knowledge	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields;	**1. Knowledge, understanding and use of specific language**	has a systematic understanding of a highly specialised field of study which builds upon a specialised or multi-disciplinary knowledge and understanding; and extends or redefines existing knowledge and/or professional practice;		•have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;	• [includes] a systematic understanding of their field of study and mastery of the methods of research associated with that field. • [is demonstrated by the] ability to conceive, design, implement and adapt substantial process of research with scholarly integrity.
		2. Explanation and interpretation	communicates expertise to a wide audience including peers and the general public using different methods including national and international publications, and participates in specialist fora;			
Skills	The ability to apply the most advanced and specialized skills and techniques including synthesis and evaluation to solve critical	**3.Application, transfer and problem solving**	demonstrates expertise in critical evaluations and analysis with incomplete or limited information to solve problems in new or unfamiliar environments, and to produce original research;	**Professional competences**	• have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity; • have made a contribution through	• [is in the context of] a contribution that extends the frontier of knowledge by developing a substantial body of work some of which merits national or international refereed publication
		4. Critical and constructive reflection	demonstrates authority in a specialised field of work or study and makes judgements involving a multitude of interacting factors;			

TABLE 3
LEVEL DESCRIPTORS FOR LEVEL 8

Level Learning Outcomes	Level 8 EQF	Level 8 MQF			Dublin descriptors	3rd cycle QF/EHEA EQF
		Generic descriptors	Level descriptors			
Knowledge	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields;	**1. Knowledge, understanding and use of specific language**	has a systematic understanding of a highly specialised field of study which builds upon a specialised or multi-disciplinary knowledge and understanding; and extends or redefines existing knowledge and/or professional practice;	**Professional competences**	•have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;	• [includes] a systematic understanding of their field of study and mastery of the methods of research associated with that field. • [is demonstrated by the] ability to conceive, design, implement and adapt substantial process of research with scholarly integrity.
		2. Explanation and interpretation	communicates expertise to a wide audience including peers and the general public using different methods including national and international publications, and participates in specialist fora;			
Skills	The ability to apply the most advanced and specialized skills and techniques including synthesis and evaluation to solve critical	**3.Application, transfer and problem solving**	demonstrates expertise in critical evaluations and analysis with incomplete or limited information to solve problems in new or unfamiliar environments, and to produce original research;		• have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity; • have made a contribution through	• [is in the context of] a contribution that extends the frontier of knowledge by developing a substantial body of work some of which merits national or international refereed publication
		4. Critical and constructive reflection	demonstrates authority in a specialised field of work or study and makes judgements involving a multitude of interacting factors;			

	problems in research and/or innovation and to extend and redefine existing knowledge or professional practice;	**5. Creativity and innovation**	demonstrates mastery in skills such as the selection and analysis of research, writing, design, development and sustainability of the argument manifested in innovative scholarly research;		original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication;	• with their peers, the larger scholarly community and with society in general (dialogue) about their areas of expertise (broad scope)
Competences	Competence at the forefront in work or study including research contexts demonstrating substantial authority, innovation, autonomy, scholarly or professional integrity and sustained commitment to the development of new ideas or processes.	**6. Autonomy and responsibility**	is responsible for the leadership of a number of specialised projects and an authority in a specialised field of work or study;	**Transversal competences**	• can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise; • are capable of critical analysis, evaluation and synthesis of new and complex ideas; • can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.	• expected to be able to promote, within academic and professional contexts technological, social or cultural advancement
		7. Social interaction	responds to technological, social and cultural issues and addresses the needs of a knowledge-based society;			
		8. Personal and professional development	has a sustained commitment to generate new ideas and innovative projects related to technological, cultural and social development;			

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regarding the compatibility of the Romanian Qualifications Framework (RQF) with the EQF, Dublin descriptors and QF for EHEA

TABLE 1
LEVEL DESCRIPTORS FOR LEVEL 6

Level Learning Outcomes	Level 6 EQF	Level 6 RQF			Dublin descriptors	1st cycle QF/EHEA EQF
		Generic descriptors	Level descriptors			
Knowledge	Advanced knowledge of a field of work or study involving a critical understanding of theories and principles;	**1. Knowledge, understanding and use of specific language**	Knowledge and understanding of basic concepts, theories and methods within the field and the specialisation area; their adequate use in professional communication.	**Professional competences**	• have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;	• [is] supported by advanced text books [with] some aspects informed by knowledge at the forefront of their field of study. • [through] devising and sustaining arguments.
		2. Explanation and interpretation	Use of basic knowledge to explain and interpret various types of concepts, situations, processes, projects etc. that are related to the field.			
Skills	Advanced skills demonstrating mastery and innovation required to solve complex and	**3. Application, transfer and problem solving**	Use of basic principles and methods for solving well defined problems/situations that are typical to the field, with qualified assistance.		• can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically	• [of] information, ideas, problems and solutions • involves gathering and interpreting relevant data

	unpredictable problems in a specialized field of work or study;	**4. Critical and constructive reflection**	Adequate use of standard assessment criteria and methods to appraise the quality, merits and limitations of processes, programmes, projects, concepts, methods and theories.		demonstrated through devising and sustaining arguments and solving problems within their field of study; • have the ability to gather and interpret relevant and data(usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;	
		5. Creativity and innovation	Development of professional projects by using well- known principles and methods within the field.			
Competences	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.	**6. Autonomy and responsibility**	Responsible performance of professional tasks in an autonomous manner, with qualified assistance.	**Transversal competences**	• can communicate information, ideas, problems and solutions to both specialist and nonspecialist audiences; • have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.	• have developed those skills needed to study further with a high level of autonomy
		7. Social interaction	Familiarisation with the teamwork-specific roles and activities and with task allocation for subordinated levels.			
		8. Personal and professional development	Awareness of the need for continuing training; efficient use of learning techniques and resources for personal and professional development.			

TABLE 2
LEVEL DESCRIPTORS FOR LEVEL 7

Level Learning Outcomes	Level 7 EQF	Level 7 RQF			Dublin descriptors	2nd cycle QF/EHEA EQF
		Generic descriptors	Level descriptors			
Knowledge	Highly specialised some of which is at the forefront of knowledge in a field of work or study as the basis for original thinking and/or research; Critical awareness of knowledge issues in a field and at the interface between different fields;	**1.Knowledge, understanding and use of specific language**	In-depth knowledge of a specialisation area and, within it, of the programme specific theoretical, methodological and practical developments; appropriate use of specific language in communication with different professional environments.	**Professional competences**	• have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with first cycle, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context;	• provides a basis or opportunity for originality in developing or applying ideas often in a research context • through problem solving abilities [applied] in new unfamiliar environments within broader [or multidisciplinary] context.
		2. Explanation and interpretation	Use of specialised knowledge in order to explain and interpret new situations, in wider contexts associated to the respective field.			

Skills	Specialized problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields;	**3.Application, transfer and problem solving**	Integrated use of the conceptual and methodological apparatus in incompletely defined situations in order to solve new theoretical and practical problems.		• can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study; • have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;	•[of] their conclusions and the underpinning knowledge and rationale (restricted scope) to specialist and non- specialist audiences (monologue) • [demonstrates] the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete data
		4. Critical and constructive reflection	Pertinent and appropriate use of assessment criteria and methods to formulate judgements and fundament constructive decisions.			
		5. Creativity and innovation	Development of professional and/or research projects using a wide range of qualitative and quantitative methods in an innovative manner.			
Competences	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.	**6.Autonomy and responsibility**	Undertaking complex professional tasks under autonomy and professional independence conditions.	**Transversal competencees**	• can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously; • have the learning skills to allow them to continue to study in a manner that may be largely selfdirected or autonomous**.**	• study in a manner that may be largely self directed or autonomous
		7.Social interaction	Assuming management roles/functions for the activities within professional groups or institutions.			
		8. Personal and professional development	Self-control of the learning process, diagnosis of training needs, reflective analysis on own professional activity.			

TABLE 3
LEVEL DESCRIPTORS FOR LEVEL 8

Level Learning Outcomes	Level 8 EQF	Level 8 RQF			Dublin descriptors	3rd cycle QF/EHEA EQF
		Generic descriptors	Level descriptors			
Knowledge	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields;	**1. Knowledge, understanding and use of specific language**	Systematic, advanced knowledge of concepts, research methods, controversies and new hypothesis specific to the field; communication with specialists from related fields.	**Professional competences**	•have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;	• [includes] a systematic understanding of their field of study and mastery of the methods of research associated with that field. • [is demonstrated by the] ability to conceive, design, implement and adapt substantial process of research with scholarly integrity.
		2. Explanation and interpretation	Use of advanced principles and methods to explain and interpret, from multiple perspectives, new and complex theoretical and practical situations/problems that are specific to the respective field.			
Skills	The ability to apply the most advanced and specialized skills and techniques including synthesis and evaluation to solve critical problems in research and/or innovation and to extend and	**3.Application, transfer and problem solving**	Selection and use of advanced principles, theories and methods of knowledge, transfer of methods from one field to another, interdisciplinary approaches to solve new and complex theoretical and practical problems.		• have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity; • have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of	• [is in the context of] a contribution that extends the frontier of knowledge by developing a substantial body of work some of which merits national or international refereed publication • with their peers, the larger scholarly community and with society in general (dialogue) about their
		4. Critical and constructive reflection	Critical-constructive assessment of projects and scientific research results, appraisal of the stage of theoretical and methodological knowledge; identification of knowledge and applicative priorities within the field.			

	redefine existing knowledge or professional practice;	**5. Creativity and innovation**	Design and undertake original research, based on advanced methods leading to the development of scientific and technological knowledge and/or of the research methodologies.		which merits national or international refereed publication;	areas of expertise (broad scope)
Competences	Competence at the forefront in work or study including research contexts demonstrating substantial authority, innovation, autonomy, scholarly or professional integrity and sustained commitment to the development of new ideas or processes.	**6. Autonomy and responsibility**	Innovative initiation and development of complex theoretical and practical projects.	**Transversal competences**	• can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise; • are capable of critical analysis, evaluation and synthesis of new and complex ideas; • can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.	• expected to be able to promote, within academic and professional contexts technological, social or cultural advancement
		7. Social interaction	Assuming responsibility and capacity to organise and lead the activities of professional groups, scientific research groups or institutions.			
		8. Personal and professional development	Development of creativity-centred projects as the basis for self- accomplishment.			

National Report
regarding the compatibility of the Irish Qualifications Framework (RQF) with the EQF, Dublin descriptors and QF for EHEA

TABLE 1
LEVEL DESCRIPTORS FOR LEVEL 5

Level Learning Outcomes	Level 5 EQF	Level 6 IQF			Dublin descriptors	3rd cycle QF/EHEA EQF
		Generic descriptors	Level descriptors			
Knowledge	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	1. **Knowledge** ***Breadth***	Specialised Knowledge in a broad area		• have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;	• [is] supported by advanced text books [with] some aspects informed by knowledge at the forefront of their field of study. • [through] devising and sustaining arguments.
		2. Knowledge ***Kind***	Some theoretical concepts and abstract thinking, with significant underpinning theory			

Skills	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	**3. Know-how and Skill** ***Range***	Demonstrate comprehensive range of specialize skills and tools		• can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study; • have the ability to gather and interpret relevant and data(usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;	• [of] information, ideas, problems and solutions • involves gathering and interpreting relevant data
		4. Know-how and Skill ***Selectivity***	Formulate responses to well defined abstract problems			
Competences	Exercise management and supervision in contexts of work or study activities where there is unpredictable change review and develop performance of self and others	**5. Competence** ***Context***	Act in a range of varied and specific contexts involving creative and non routine activities; transfer and/or technical or creative skills to a range of contexts		• can communicate information, ideas, problems and solutions to both specialist and nonspecialist audiences; • have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.	• have developed those skills needed to study further with a high level of autonomy
		6. Competence ***Role***	Exercise substantial personal autonomy and often take responsibility for the work of others and/or for allocation of resources; form, and function within multiple complex and heterogeneous groups			
		7. Competence ***Learning to Learn***	Learn to evaluate own learning and identify needs within a structured learning environment; assist others in identifying learning needs			
		8. Competence ***Insight***	Express an internalized, personal world view, reflecting engagement with others			

TABLE 2
LEVEL DESCRIPTORS FOR LEVEL 6

Level Learning Outcomes	Level 6 EQF	Level 7-8 IQF Generic descriptors	Level 7IQF Level descriptors	Level 8 IQF Level descriptors	Dublin descriptors	1st cycle QF/EHEA EQF
Knowledge	Advanced knowledge of a field of work or study involving a critical understanding of theories and principles;	**Knowledge** *Breadth*	Specialised knowledge across a variety of areas	An understanding of theory, concepts and methods pertaining to a field (or fields) of learning	• have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study;	• [is] supported by advanced text books [with] some aspects informed by knowledge at the forefront of their field of study. • [through] devising and sustaining arguments.
		Knowledge *Kind*	Recognition of limitations of current knowledge and familiarity with sources of new knowledge; integration of concepts across a variety of areas	Detailed knowledge and understanding in one or more specialized areas, some of it at the current boundaries of the filed(s)		
Skills	Advanced skills demonstrating mastery and innovation required to solve complex and unpredictable problems in a specialized field of work or study;	**Know-how and Skill** *Range*	Demonstrate specialized technical, creative or conceptual skills and tools across an area of study	Demonstrate mastery of a complex and specialized area of study kills and tools; use and modify advanced skills and tools to conduct closely guided research, professional or advanced technical activity	• can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within	• [of] information, ideas, problems and solutions • involves gathering and interpreting relevant data

		Know-how and Skill *Selectivity*	Exercise appropriate judgement in planning, design, technical and/or supervisory functions related to products, services, operations or processes	Exercise appropriate judgement in a number of complex planning, design, technical and/or management functions related to products, services operations or processes, including resourcing		their field of study; • have the ability to gather and interpret relevant and data(usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;	
Competences	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.	**Competence** *Context*	Utilise diagnostic and creative skills in a range of functions in a wide variety of contexts	Use advanced skills to conduct research, or advanced technical or professional activity, accepting accountability for all related decision making; transfer and apply diagnostic and creative skills in a range of contexts		• can communicate information, ideas, problems and solutions to both specialist and nonspecialist audiences; • have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.	• have developed those skills needed to study further with a high level of autonomy
		Competence *Role*	Accept accountability for determining and achieving personal and/or group outcomes; take significant or	Act effectively under guidance in a peer relationship with qualified practitioners; lead multiple, complex			

			supervisory responsibility for the work of others in defined areas of work	and heterogeneous groups			
		Competence *Learning to Learn*	Take initiative to identify and address learning needs and interact effectively in a learning group	Learn to act in variable and unfamiliar learning contexts; learn to manage learning tasks independently, professionally and ethically			
		Competence *Insight*	Express an internalized, personal world view, manifesting solidarity with others	Express a comprehensive, internalized personal worldview, manifesting solidarity with others			

TABLE 3
LEVEL DESCRIPTORS FOR LEVEL 7

Level Learning Outcomes	Level 7 EQF	Level 9 IQF			Dublin descriptors	2nd cycle QF/EHEA EQF
		Generic descriptors	Level descriptors			
Knowledge	Highly specialised some of which is at the forefront of knowledge in a field of work or study as the basis for original thinking and/or research; Critical awareness of knowledge issues in a field and at the interface between different fields;	1. **Knowledge** ***Breadth***	A systematic understanding of knowledge, at, or informed by, the forefront of a field of learning		• have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with first cycle, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context;	• provides a basis or opportunity for originality in developing or applying ideas often in a research context • through problem solving abilities [applied] in new unfamiliar environments within broader [or multidisciplinary] context.
		2. Knowledge ***Kind***	A critical awareness of current problems and/or new insights, generally informed by the forefront of a field of learning			

Skills	Specialized problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields;	**3. Know-how and Skill** ***Range***	Demonstrate a range of standard and specialized research or equivalent tools and techniques of enquiry		• can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study; • have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;	•[of] their conclusions and the underpinning knowledge and rationale (restricted scope) to specialist and non- specialist audiences (monologue) • [demonstrates] the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete data
		4. Know-how and Skill ***Selectivity***	Select from complex and advanced skills across a field of learning; develop new skills to a high level, including novel and emerging techniques			
Competences	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.	**5. Competence** ***Context***	Act in a wide and often unpredictable variety of professional levels and ill-defined contexts		• can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously; • have the learning skills to allow them to continue to study in a manner that may be largely selfdirected or autonomous.	• study in a manner that may be largely self directed or autonomous
		6. Competence ***Role***	Take significant responsibility for the work of individuals and groups; lead and initiate activity			
		7. Competence ***Learning to Learn***	Learn to self-evaluate and take responsibility for continuing academic/professional development			
		8. Competence ***Insight***	Scrutinise and reflect on social norms and relationships and act to change them			

TABLE 4
LEVEL DESCRIPTORS FOR LEVEL 8

Level Learning Outcomes	Level 8 EQF	Level 10 IQF			Dublin descriptors	3rd cycle QF/EHEA EQF
		Generic descriptors	**Level descriptors**			
Knowledge	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields;	1. **Knowledge** ***Breadth***	A systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of a field of learning		•have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field;	• [includes] a systematic understanding of their field of study and mastery of the methods of research associated with that field. • [is demonstrated by the] ability to conceive, design, implement and adapt substantial process of research with scholarly integrity.
		2. Knowledge ***Kind***	The creation and interpretation of new knowledge, through original research, or other advanced scholarship, of a quality to satisfy review by peers			
Skills	The ability to apply the most advanced and specialized skills and techniques including synthesis and evaluation to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice;	**3. Know-how and Skill** ***Range***	Demonstrate a significant range of the principal skills, techniques, tools, practices and/or materials which are associated with a field of learning; develop new skills, techniques, tools, practices and/or materials		• have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity; • have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of	• [is in the context of] a contribution that extends the frontier of knowledge by developing a substantial body of work some of which merits national or international refereed publication • with their peers, the larger scholarly community and with society in general (dialogue) about their
		4. Know-how and Skill ***Selectivity***	Respond to abstract problems that expand and redefine existing procedural knowledge			

					which merits national or international refereed publication;	areas of expertise (broad scope)
Competences	Competence at the forefront in work or study including research contexts demonstrating substantial authority, innovation, autonomy, scholarly or professional integrity and sustained commitment to the development of new ideas or processes.	**5. Competence** ***Context***	Exercise personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent contexts		• can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise; • are capable of critical analysis, evaluation and synthesis of new and complex ideas; • can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.	• expected to be able to promote, within academic and professional contexts technological, social or cultural advancement
		6. Competence ***Role***	Communicate results of research and innovation to peers; engage in critical dialogue; lead and originate complex social processes			
		7. Competence ***Learning to Learn***	Learn to critique the broader implications of applying knowledge to particular contexts			
		8. Competence ***Insight***	Scrutinise and reflect on social norms and relationships and lead action to change them			

5. Some Concluding Remarks on the Compatibility and Diversity of the NQFs for HE in an International Perspective

● According to the Stocktaking Report of the Bologna Process 2009, partner countries were allocated the following scores against criteria for the development of national qualifications frameworks:

- France 4
- Germany 5
- Ireland 5
- Malta 5
- Romania 4
- Slovenia 1
- Spain 2

● Progress has been made in the design and implementation of NQFs in Malta and Romania since the Stocktaking 2009. The methodologies of the two countries are in line with the EQF and OFQ for EHEA, as indicated by the National Reports presented in chapter 3.

● The analysis of national reports does not indicate significant progress in Slovenia and Spain since the Stocktaking 2009.

● A very good result of EQF is the dialogue between Bologna countries on the harmonisation of qualifications and the undeniable accomplishment of a much more clear understanding of the national higher education systems. The EQF is intensifying the international cooperation.

● It is certain that the EQF and the NQFs represent an important link between the Bologna Process action lines and a tool with a regulatory effect.

● The QF is a very important tool for shifting the focus on the qualifications and the content of study programmes offered by universities and also for improving the dialogue between universities and enterprises.

● Most universities understood the role of the learning outcomes approach in developing modern and useful study programmes for the students of a global knowledge society. These universities practice a new governance of study programmes and competencies.

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PREPARATION OF PAPERS IN TWO COLUMNS FORMAT FOR THE EUROPEAN JOURNAL OF QUALIFICATIONS FRAMEWORKS

John SMITH[1], Daniel DEAN[2], Michelle BROWN[3]

Abstract *— All full papers must include an Abstract. The Abstract and Key words text should be 10 pt. Times New Roman italic, full justified and contained without one paragraph. Begin the Abstract with the word Abstract - in Times New Roman italic Bold text, only the word Abstract should be bold. Do not indent. Use a long dash after the words "Abstract" and "Index Terms". Do not cite references in the abstract. The abstract should be maximum 15 rows. The abstract has to be in English.*

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10	Table number	ROMAN NUMERALS
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9	Figure and Table Captions	SMALL CAPS
9	Reference list	
10	Abstract and Key words	Bold
12	Section Titles	Italics
10	Main Text and Equations	SMALL CAPS, BOLD
10	Subheadings	
12	Authors' names	Bold
14	Title	Italics UPPERCASE, Bold

FIGURE. 1
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ACKNOWLEDGEMENT

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