# Annex 2 Establishing the correspondence between the qualifications level in the Irish National Framework of Qualifications and the level descriptors of EQF

### **ANNEX 2**

## National Qualifications Authority of Ireland

Referencing the Irish National Framework of Qualifications (NFQ) to the European Qualifications Framework for Lifelong Learning (EQF)

Establishing the correspondence between the qualifications levels in the Irish National Framework of Qualifications and the level descriptors of the EQF

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### 1. Introduction: the approach adopted

This paper reports on a 'referencing' exercise undertaken by the National Qualifications Authority of Ireland in the context of the implementation of the European Qualifications Framework for Lifelong Learning (EQF). The objective of this exercise was to establish the correspondence between the qualifications levels in the Irish National Framework of Qualifications (NFQ) and the level descriptors of the EQF, in fulfillment of criterion 2 of the EQF Advisory Group's criteria and procedures for referencing the qualifications levels of national systems to EQF. The approach adopted was to begin by making a general comparison between the two frameworks and the purposes for which they were designed - comparing the architecture of the two frameworks, the concepts of learning outcomes on which they are based and the way levels are defined. From this background comparison, a rationale was developed for analyzing the levels in the two frameworks on the basis of learning outcomes defined in terms of knowledge, skill and competence. The levels analysis built on work already undertaken to establish correspondences between NFQ levels and levels in other frameworks, notably the Framework for Qualifications of the European Higher Education Area. continuing with a direct comparison of the text in the NFQ level indicators and in the EQF level descriptors. The result of the exercise is an established correspondence between the NFQ and EQF levels.

### 2. General Comparison of NFQ and EQF

The National Framework of Qualifications (NFQ) was introduced in 2003 as the key element in a broad reform of the system of qualifications in Ireland, arising out of the 1999 Qualifications (Education and Training) Act. The Irish NFQ is a national framework of qualifications. It is the single structure in the Irish education and training system through which learning achievements are measured and related to one another; it defines the relationship between all education and training awards. The primary users of the NFQ are a defined set of 'awarding bodies' which, in turn, define the standards for awards which are then used by education and training providers in programme design.

The European Qualifications Framework (EQF) 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. EQF was introduced in a Recommendation which formally entered into force in April 2008.

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 in the Irish

system 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 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, the intended function of EQF more closely resembles that of other international structures such as the Common European Framework of Reference for Languages (CEFR): it sets out to provide a common reference rather than to define what sorts of qualifications there should be at any level.

### 3. The architecture of NFQ and EQF

Given the different purposes for which they were designed it is reasonable to expect that there should be differences in the way NFQ and EQF are constructed, and this is indeed the case. Nevertheless, they also display many common design features and the overall level of similarity contributes to the process of comparing the levels in the two frameworks.

The ten NFQ levels are defined by 'indicator' statements set out in terms of expected learning outcomes. At each NFQ level, using the level indicator statements as building blocks, generic 'award-type descriptors' are defined. EQF, as a meta-framework, does not define specific or generic awards. Its eight levels are defined by 'descriptors'.

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

- Both frameworks are comprehensive and integrated, designed to relate to awards for all learning, whether acquired through formal, non-formal or informal processes, or through general education, VET or higher education programmes.
- o In both frameworks, the statements that define the levels are completely neutral in terms of field(s) of learning.
- O 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 both frameworks, key words or phrases are introduced as 'threshold' or distinguishing factors in the description of learning outcomes at each level; these are illustrated for both NFQ and EQF at appendix 2.

Taking all of these similarities into account, it can be concluded that NFQ and EQF share core design criteria and this indicates that a direct comparison of the levels in the two frameworks is feasible.

# 4. The description of learning outcomes – knowledge, skill and competence

While there are fundamental differences between the NFQ and EQF in terms of their intended purposes, it is nevertheless evident that there are striking similarities in the way the two frameworks address the task of describing learning outcomes. Both sets of level descriptors seek to cover the full range of learning outcomes, avoid referring to learning mode or institutional setting and are neutral in relation to specific occupational relevance and to 'fields of learning'. Above all, there is a strong similarity in the way the two frameworks describe learning outcomes in three main 'strands': knowledge, skill and competence.

The definitions of knowledge, skill and competence in EQF are set out in Annex 1 of the EQF Recommendation: they are succinct and concise. The definitions of knowledge, skill and competence in NFQ, set out in the policies and criteria for the Framework<sup>1</sup>, are somewhat more expansive. The two sets of definitions are presented for comparison in a table in Appendix 1 and the comparison is analysed in the section below.

### Knowledge

Both frameworks' definitions of knowledge describe what is learned and also what learning processes are involved. NFQ refers to the 'cognitive representation of ideas, events or happenings', whereas EQF refers to the 'body of facts, principles, theories and practices that is related to a field of work or study'. The process of knowledge learning is described in NFQ as that 'which can comprise description, memory, understanding, thinking, analysis, synthesis, debate and research', and in EQF as 'the assimilation of information through learning'.

#### Skill

This aspect of learning outcomes is referred to as 'Skills' in EQF, where it is defined as 'the ability to apply knowledge and use know-how to complete tasks and solve problems'. NFQ refers to 'Know-how and Skill'. Skill is defined as 'the goal-directed performance of a task in interaction with the environment' and this concept is elaborated by the further definition of know-how as 'the procedural knowledge required to carry out a task'.

#### Competence

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Both frameworks refer to competence in terms of the application of knowledge, skill and other abilities. NFQ describes competence as 'the effective and creative demonstration and deployment of knowledge and skill in human situations', acknowledging also that competence 'draws on attitudes, emotions, values and sense of self-efficacy of the learner'. This definition is closely matched in EQF, in which 'competence' means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations'. Both definitions seek to describe the context in which competence is applied. NFQ describes the context as 'in human situations', which are further described as 'general social and civic ones, as well as specific occupational ones'. EQF refers to

Policies and Criteria for the Establishment of the National Framework of Qualifications, NQAI, 2003, (pp21-22)

'work or study situations'. The particular relevance of competence to further learning and development is acknowledged in both frameworks. NFQ asserts that 'competence also encompasses the extent to which the learner can acknowledge his/her limitations and plan to transcend these through further learning'. EQF relates competence to 'work or study situations and ... professional and personal development'.

From this analysis of the definitions of knowledge, skill and competence that underpin the construction of levels in NFQ and EQF, it is clear that there is a strong correspondence between the frameworks in the understandings of the meaning of learning outcomes on which they are based. Following on from this, it is evident that a meaningful comparison of the levels in the two frameworks can be based on knowledge, skill and competence as the primary comparative factors.

### 5. The description of learning outcomes - strands and substrands

Having established the correspondence between core understandings of learning outcomes in NFQ and EQF and the validity of comparing the levels in the two frameworks on the basis of knowledge, skill and competence as the key categorisation, it is nevertheless clear that there are differences in the way in which these three factors are deployed in the two frameworks. It is useful to examine these differences to ensure that they do not challenge the proposed comparison.

The Irish framework sets out statements defining the learning outcomes relevant to each of its ten levels in terms of eight factors: however, these eight 'sub-strands' were developed by elaborating a core set of three main strands identified in the founding legislation of the framework², which sets out the objective of establishing a "framework for the development, recognition and award of qualifications......based on standards of knowledge, skill or competence to be acquired by learners". It may be noted that the EQF level descriptors followed an opposite process of development: the original set of descriptors proposed for consultation among Member States was set out in six strands (knowledge, skill and four sub-strands describing aspects of personal and professional competence) and this was later refined to the three strands that now characterise EQF.

Although the NFQ level indicators are now set out in eight sub-strands, the original categorisation derived from the legislation is clearly evident, so that there are two sets of indicator statements each for 'knowledge' and 'knowhow and skill' and four that describe aspects of 'competence'. Two of the 'competence' sub-strands in the NFQ, 'competence (role)' and 'competence (context)' describe learning outcomes that are closely paralleled by the 'competence' descriptors in EQF, which provide twin statements at most levels (3-8) for 'autonomy' and 'responsibility': in other words, there are implied sub-strands within the 'competence' descriptors in EQF. The 'competence' factor in NFQ also includes a sub-strand of statements in relation to the level of 'insight' to be achieved and this is not explicitly

<sup>&</sup>lt;sup>2</sup> Qualifications (Education and Training) Act, 1999

reflected in the EQF descriptors at any level. The 'competence (learning to learn)' sub-strand in NFQ is seldom explicitly reflected in EQF, apart from the generic reference in the EQF competence strands to 'work or study' contexts.

This consideration of the 'strands' and 'substrands', in which the learning outcomes that characterise the levels in NFQ and EQF are laid out, demonstrates that the two frameworks share an underlying core structure of three stands that are essentially similar.

### 6. Basis for a levels comparison

Taking into account the varying purposes of NFQ and EQF, and also the similarities between the two frameworks in terms of their architecture, their understandings of learning outcomes and their expression of learning outcomes in terms of core categorisations of knowledge, skill and competence, there is a clear rationale for comparing the sets of levels in NFQ and EQF on the basis of the categorisations set out in the following table:

Table 1

Irish NFQ	EQF
Knowledge Sub-strands: 'Breadth' and 'Kind'	Knowledge
Know-how and skill Sub-strands: 'Range' and 'Selectivity'	Skills
Competence  Sub-strands: 'Context', 'Role', 'Learning to Learn' and 'Insight'	Competence

Table 1
Strands and sub-strands of knowledge, skill and competence in NFQ and EQF

### 7. Levels Correspondence

The approach adopted to identifying the correspondence between the NFQ qualifications levels and the EQF level descriptors is

- to begin by examining existing evidence from comparison exercises already undertaken
- to establish points at which strong correspondence is indicated
- to undertake a process of direct comparison of the text in the NFQ level indicators and in the EQF level descriptors, in order to
  - verify correspondences indicated by previous exercises
  - establish correspondences between other levels
- where additional evidence is required, other information about levels in either framework may be proposed.

### **Existing evidence**

In undertaking a comparison of the NFQ and EQF levels, the National Qualifications Authority of Ireland is building on the experience of examining the correspondences between the NFQ and several other Frameworks:

- In 2004 work began on comparing the NFQ with the national qualifications frameworks in the UK jurisdictions, resulting in the publication in 2005 (revised in 2009)<sup>3</sup> of a general alignment between the levels in the four frameworks involved.
- o In 2006, the Authority undertook a study to identify possible correspondences between the Common European Framework of Reference for Languages (CEFR) and NFQ. The paper resulting from this study⁴ was published on the website of the Authority in December 2007. The approach taken in the CEFR study was to make descriptor comparisons between CEFR and NFQ, and between CEFR and EQF; in the course of this study, it became clear that there were striking similarities in the emerging alignments between CEFR and the NFQ levels on the one hand and between CEFR and the EQF levels. It was noted at the time that these points of alignment could form the starting points for a more thorough investigation into the correspondence between the NFQ and EQF levels generally.
- Following the Bergen Ministerial meeting in 2005, the Authority undertook as a pilot project on the verification of the compatibility of the NFQ with the Bologna Framework and the outcomes of this investigation were published in 2006<sup>5</sup>

Of these three exercises in the comparison of frameworks, the Verification of Compatibility with the EHEA Framework is by far the most significant, as the report on the verification has been formally adopted by the relevant authorities and has been published (in November 2006). It is also the case that the EQF Referencing Criteria and Procedures set out explicitly a recommendation that EHEA referencing processes already completed should be taken into account:

<sup>4</sup> Towards the establishment of a relationship between the Common European Framework of Reference for Languages and the National Framework of Qualifications: <a href="http://www.ngai.ie/interdev\_efl.html">http://www.ngai.ie/interdev\_efl.html</a>

<sup>&</sup>lt;sup>3</sup> Qualifications can cross boundaries - a rough guide to comparing qualifications in the UK and Ireland: http://www.qualificationsrecognition.ie/recognition/pdfs/File,886,en.pdf

Verification of Compatibility of the Irish National Framework of Qualifications with the Framework for Qualifications of the European Higher Education Area (EHEA): <a href="http://www.nqai.ie/documents/verificationofcompatibility1.pdf">http://www.nqai.ie/documents/verificationofcompatibility1.pdf</a>

A country which has completed the referencing process within the context of the EHEA has the choice of not repeating it for the relevant levels of the EQF. Aiming for one national referencing process covering both the EQF and the EHEA would not only help to avoid double work but also – most importantly – avoid confusion among individuals and employers – the main users of qualifications (Section 2.3 – EQF and the European Higher Education Area).

### Verification of Compatibility with EHEA Framework

The Framework for Qualifications of the European Higher Education Area (EHEA) was developed by a working group established under the Bologna process and was adopted by European Ministers of higher education in Bergen in May 2005. It is commonly referred to as the 'Bologna Framework'. The EHEA Framework incorporates the concept of cycles; each cycle descriptor offers a generic statement of typical expectations of achievements and abilities associated with qualifications that represent the end of that cycle. The implementation of EHEA is to be achieved through a selfcertification process in which each participating country is to analyse the relationship between its own systems of qualifications in higher education and the EHEA cycle descriptors and verify the compatibility between them. Ireland was invited to undertake a pilot project of the self-certification process. The outcomes of this work are set out in the November 2006 report "Verification of Compatibility of the Irish National Framework of Qualifications with the Framework for Qualifications of the European Higher Education Area' (National Qualifications Authority of Ireland). The report concludes that:

- The Irish Higher Certificate is an intermediate qualification within the Bologna first cycle.
- The Irish Ordinary Bachelor Degree is compatible with the Bologna first cycle descriptor. However, holders of Irish Ordinary Bachelor Degrees and their equivalent former awards do not generally immediately access programmes leading to second cycle awards.
- The Irish Honours Bachelor Degree is compatible with completion of the Bologna first cycle.
- The Irish Higher Diploma is a qualification at the same level as completion of the first cycle, and is a qualification typically attained in a different field of learning than an initial first cycle award.
- The Irish Masters Degree is compatible with completion of the Bologna second cycle.
- The Irish Post-Graduate Diploma is an intermediate qualification within the Bologna second cycle.
- The Irish Doctoral Degree is compatible with completion of the Bologna third cycle.

The descriptors for 'award types' (Higher Certificate, Honours Bachelor Degree etc) which are referenced to the EHEA cycles in this report are closely aligned with the relevant NFQ level indicators – in most instances, precisely so. On this basis, a correspondence between NFQ levels and EHEA cycles can be indicated, with a further correspondence to EQF levels implied from the EQF/EHEA Framework compatibility note set out in the EQF Recommendation. These correspondences can be summarised as follows

Table 2

Irish NFQ levels	EHEA Cycles	EQF levels
10	Third cycle	8
9	Second cycle	7
8 / 7	First cycle	6
6	Short cycle	5

Table 2: Correspondences between NFQ, EHEA and EQF levels and cycles

It is clear from this table that two Irish NFQ levels (7 and 8) are indicated as corresponding to the EHEA first cycle and to EQF level 6. This matter is addressed in the Report on the Verification of Compatibility with the EHEA Framework:

It is of note that there is an apparent inconsistency or paradox in the treatment of both the Ordinary Bachelor Degree and the Honours Bachelor Degree as first cycle qualifications compatible with the Bologna first cycle descriptor. The compatibility of both with the Bologna first cycle descriptor has been demonstrated in terms of the comparisons of the learning outcomes. Notwithstanding this, these awards are included at two different levels in the Irish framework, with different descriptors, and the Ordinary Bachelor Degree does not typically give access to Masters Degree (second cycle) programmes at present in Ireland.

### Summarising existing evidence

The Verification of Compatibility of the NFQ with the EHEA Framework provides a clear indication of how levels 6-10 in the Irish NFQ align with the EHEA cycles. As the EQF Recommendation sets out the correspondence between the EHEA cycles and the EQF levels, the body of evidence from formal investigation already undertaken indicates that it is acceptable within the EQF Referencing Criteria and Procedures that qualifications at Irish NFQ levels 6-10 can be referenced to EQF levels 5-8, as illustrated in Table 2 above. Nevertheless, this alignment has been further verified through the process of text comparison as set out in section 8 below.

# 8. Comparison of text in level indicators and descriptors

The most cursory examination of the statements describing levels in NFQ and in EQF suggests that that there is a close correspondence in the language used and in the concepts that underlie the descriptor statements. This general correlation has been found to be evident in practice in the study on the referencing of CEFR to NFQ, in the course of which a collateral referencing of CEFR to EQF was undertaken. Taking into account also the

results of the general comparison between NFQ and EQF set out in section 2 above, there are strong grounds for attempting to compare the NFQ and EQF levels through a detailed cross-referencing of the text in the statements that define the learning outcomes relevant to the levels in each framework. This process has been undertaken, with results that confirm the correspondence at certain levels indicated in the Verification of Compatibility with the EHEA Framework and that demonstrate correspondences between the remaining levels in NFQ and EQF.

In preparation for the referencing exercise, the EQF level descriptors and the NFQ level indicators were aligned in tables, in sets of statements for the factors of knowledge, skill and competence (see section 6 above). This enables cross-referencing of the statements in the two frameworks, level by level and factor by factor. The tables are set out in Appendix 1.

The process of aligning the NFQ and EQF levels began by taking the NFQ level 8 indicators and trying them against the statements defining EQF level 6, on the basis that the correspondence between these levels is identified as particularly strong in the EHEA study. Confirming the validity of the existing evidence for NFQ Level 8, the process continued by similarly examining NFQ level 9, Level 10 and then Level 7 and level 6. The alignment indicated by the Verification of Compatibility with EHEA was confirmed in relation to all levels, i.e. NFQ levels 6-10, as indicated in Table 2 above.

Looking at the other levels in NFQ, correspondences were attempted and confirmed in descending order between NFQ level 5 and EQF level 4, between NFQ level 4 and EQF level 3, and between NFQ level 3 and EQF level 2. Finally, the statements defining NFQ Levels 1 and 2 were found to correspond with EQF level 1.

# 9. NFQ and EQF level correspondences: comparative analysis of text in descriptor and indicator statements.

As explained in section 4 above, the Irish NFQ level indicators are more detailed than the EQF level descriptors. The three key factors or strands of 'knowledge, skill and competence' are elaborated in sub-strands in NFQ, so that there are generally more statements in the NFQ levels indicators than there are in the EQF descriptors. Nevertheless, the core factors of 'knowledge, skill and competence' offer a realistic basis for comparison of the learning outcomes associated with the levels in each framework.

### NFQ level 10 and EQF level 8

The statements that describe the knowledge outcomes required at NFQ level 10 refer to knowledge which is at the forefront of a field of learning, closely referencing the EQF level 8 description of knowledge at the most advanced frontier of a field of work or study. The NFQ refers to the creation and interpretation of new knowledge, which is reflected in the competence strand in EQF as commitment to the development of new ideas or processes.

Under 'know-how and skill', the NFQ refers to the principal skills, techniques, tools, practices and/or materials which are associated with a field of learning, whereas EQF refers to specialised skills and techniques. In EQF these skills are required to service innovation: the NFQ requires the development of new skills, techniques, tools, practices and/or materials. NFQ requires the ability to respond to abstract problems that expand and redefine existing procedural knowledge; EQF similarly expects the holder of a level 8 award to be able to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice.

The competence outcomes in both frameworks refer to significant autonomy and personal responsibility or authority. There are references in both frameworks to the research context of work or study. EQF requires the demonstration of innovation, paralleled in the NFQ requirement to lead and originate complex social processes and to reflect on social norms and relationships and lead action to change them.

There is clearly a strong correspondence between the NFQ indicator and the EQF descriptor at these levels in the two frameworks.

### NFQ level 9 and EQF level 7

There are close parallels in the description of knowledge outcomes for NFQ level 9 and EQF level 7, both of which refer explicitly to knowledge 'at the forefront of a field of learning' and to the need for 'critical awareness' of issues.

Similar parallels are found in the outcomes described under 'skill'. NFQ refers to specialised research or equivalent tools and techniques of enquiry, which relates closely to the EQF requirement for specialised problem-solving skills required in research. Both frameworks also indicate a need for pioneer activity in relation to skill: NFQ requires the holder of a Level 9 award to develop new skills, whereas for a level 7 EQF award there is a requirement to develop new knowledge and procedures.

Under 'competence', the ability to operate in complex contexts is referred to in both NFQ, a wide and often unpredictable variety of ...ill defined contexts, and EQF, work or study contexts that are complex (and) unpredictable. Further parallels are evident in the statements that refer to role. The holder of an NFQ award should be able to take responsibility for the work of individuals and groups and for continuing academic/professional development; EQF refers to the need to take responsibility for reviewing the strategic performance of teams and for contributing to professional knowledge and practice.

The correspondence between the NFQ indicator and the EQF descriptor at these levels in the two frameworks is very strong; in the case of the knowledge component of the learning outcomes, the correspondence is quite precise.

### NFQ level 8 and EQF level 6

The EQF descriptor for knowledge at level 6 refers to advanced knowledge of a field and a critical understanding of theories and principles. Both of these concepts are reflected in the NFQ indicators for level 8, which refer to detailed knowledge, some of it at the current boundaries of the field and to an understanding of the theory, concepts and methods pertaining to a field.

Under 'skill', both frameworks refer explicitly to 'advanced skills' and to the need to 'demonstrate mastery'. EQF refers to the need to demonstrate innovation, whereas NFQ requires the ability to modify advanced skills and tools. The ability to deploy skills in challenging situations is required at these levels in both frameworks: in NFQ, in relation to complex planning, design, technical and/or management functions and in EQF to solve complex and unpredictable problems.

The challenging operating environment is referred to again in the description of the competence outcomes in both frameworks: in NFQ, as variable and unfamiliar learning contexts and in EQF as unpredictable work or study contexts. The role envisaged for the holder of a level 8 award in NFQ is characterised by advanced technical or professional activity; this is closely paralled by the EQF level 6 reference to managing complex technical or professional activities. The leadership and managerial aspect of this role is specified in NFQ as accepting accountability for all related decision making and in the requirement to lead multiple, complex and heterogeneous groups. Similarly, EQF refers to taking responsibility for decision-making and for managing the professional development of individuals and groups.

The correspondence between the NFQ indicator and the EQF descriptor at these levels in the two frameworks is very strong.

### NFQ level 7 and EQF level 6

The EQF requirement for advanced knowledge is paralleled by the NFQ requirement at level 7 for specialised knowledge. EQF also specifies a critical understanding of theories and principles, whereas NFQ refers to recognition of limitations of current knowledge and familiarity with sources of new knowledge and also to the integration of concepts. While these are not precise correspondences, the thrust of the NFQ indicator is broadly comparable to the level of knowledge described for EQF level 6.

The 'skill' outcomes for these levels in both frameworks are described as 'specialised'. EQF also refers to advanced skills, whereas NFQ is more specific in describing technical, creative or conceptual skills and tools. These skills are required to solve complex and unpredictable problems in EQF, and for planning, design, technical and/or supervisory functions in NFQ. As with the 'knowledge' outcomes, the statements for 'skills' in the two frameworks use different language to describe comparable concepts.

Under 'competence, EQF identifies the need to take responsibility for decision-making in unpredictable work or study contexts. In NFQ this is reflected in the requirement to take significant or supervisory responsibility

and to deploy skills in a range of functions in a wide variety of contexts. The ability to take responsibility is further elaborated in EQF in relation to managing professional development of individuals and groups. In NFQ, a similar requirement is expressed as accepting accountability for determining and achieving personal and/or group outcomes.

There is clearly a significant correspondence between the NFQ indicator and the EQF descriptor at these levels in the two frameworks: this correspondence is not based on precise matching of the language used, but on the overall interpretation of the concepts reflected in the statements for 'knowledge' 'skill' and 'competence' respectively. It may be observed that the correspondence between the EQF descriptor for level 6 and the NFQ indicator for level 7, while sufficient to suggest comparability between these levels, is not as strong as that between EQF level 6 and NFQ level 8. This relationship is in accord with the findings of the Verification of Compatibility with EHEA, that awards at both NFQ Levels 7 and 8 are compatible with the Bologna first cycle descriptor.

### NFQ level 6 and EQF level 5

Both frameworks rely on the terms 'specialised' and 'theoretical' to characterise the knowledge outcomes associated with these levels. The NFQ indicator elaborates the 'theoretical' aspect, referring to abstract thinking and significant underpinning theory.

The 'skill' outcomes set out in the two frameworks at these levels are remarkably similar. EQF refers to a comprehensive range of cognitive and practical skills, closely matched by comprehensive range of specialised skills and tools in the NFQ indicator. These skills are to be used to develop creative solutions to abstract problems in EQF, and in NFQ to formulate responses to well-defined abstract problems.

The 'competence' indicator for NFQ Level 6 is more detailed than the EQF descriptor for Level 5, but every aspect of the EQF descriptor can be matched to elements of the outcomes required in NFQ. EQF specifies the ability to exercise management and supervision, whereas NFQ describes the need to be able to exercise substantial personal autonomy and often take responsibility for the work of others. In EQF, these abilities are to be deployed in contexts of work or study activities where there is unpredictable change, and in NFQ in a range of varied and specific contexts involving creative and non-routine activities. The EQF requirement to be able to review and develop performance of self and others is reflected in several statements within the NFQ indicator, most succinctly in the requirements to take responsibility for the work of others and to evaluate own learning and to assist others in identifying learning needs.

There is clearly a strong correspondence between the NFQ indicator and the EQF descriptor at these levels in the two frameworks.

### NFQ level 5 and EQF level 4

The 'knowledge' outcomes in the two frameworks at these levels show close parallels. EQF refers to knowledge in broad contexts within a field, whereas NFQ refers to a broad range of knowledge. Both frameworks specify the need for a theoretical component in the 'knowledge' outcomes.

Strong similarities are also evident in the 'skill' outcomes. Where EFQ refers to a range of cognitive and practical skills, the parallel statement in NFQ is a broad range of specialised skills and tools. In EQF these skills are required to generate solutions to specific problems in a field; in NFQ they are to plan and develop investigative strategies and to determine solutions to varied unfamiliar problems.

Both frameworks base the 'competence' outcomes for these levels on the concepts of autonomy within guidelines and operating in varied situations. EQF refers to the need to exercise self-management within ... guidelines, which is matched by the NFQ requirement to exercise some initiative and independence in carrying out defined activities. EQF specifies the need to operate in contexts that are usually predictable, but are subject to change: NFQ refers to a range of varied and specific contexts. A supervisory element is also evident in both frameworks' outcomes: this is somewhat stronger in EQF, where it is expressed as supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities. A related statement in NFQ refers to taking responsibility for the nature and quality of outputs.

There is a significant general correspondence between the NFQ indicator and the EQF descriptor at these levels in the two frameworks.

### NFQ level 4 and EQF level 3

The EQF descriptor for 'knowledge' at level 3 refers to knowledge of facts, principles, processes and general concepts. The NFQ indicator at level 4 refers to a broad range of knowledge that is mainly concrete ... with some elements of abstraction or theory. The underlying concepts in these formulations are very similar.

Under 'skill, both frameworks refer in almost identical terms to a 'range of cognitive and practical skills'. Similar uses are proposed for these skills: in EQF these are to solve problems by selecting and applying basic methods, tools, materials and information, a purpose paralleled in the NFQ indicator as select from a range of procedures and apply known solutions to a variety of predictable problems.

The 'competence' component of the EQF descriptor refers to the need to take responsibility for completion of tasks in work or study; the matching statement in the NFQ indicator is somewhat more demanding: act with considerable amount of responsibility and autonomy. The EQF descriptor also mentions the need to adapt own behaviour to circumstances in solving problems; several statements in the NFQ indicator address aspects of this outcome, requiring the learner to learn to take responsibility for own

learning and to assume partial responsibility for consistency of selfunderstanding and behaviour.

There is a strong correspondence between the NFQ indicator and the EQF descriptor at these levels in the two frameworks.

### NFQ level 3 and EQF level 2

The EQF descriptor for Level 2 refers to basic factual knowledge of a field, which is reflected in the NFQ indicator as knowledge moderately broad in range and mainly concrete in reference.

Under 'skills', EQF refers to basic cognitive and practical skills, matched in NFQ by a limited range of practical and cognitive skills and tools. In the EQF descriptor, these skills are to be deployed to carry out tasks and to solve routine problems using simple rules and tools. Similarly, in NFQ, using the skills for this level involves the ability to select from a limited range of varied procedures and apply known solutions to a limited range of predictable problems.

The 'competence' outcomes for this level in EQF are set out succinctly as work or study under supervision with some autonomy; this is matched closely in the NFQ requirement to act under direction with limited autonomy, augmented by the requirement to be able to learn within a managed environment.

There is clearly a close correspondence between the NFQ indicator and the EQF descriptor at these levels in the two frameworks.

### NFQ level 2 and EQF level 1

The EQF descriptor's reference to basic general knowledge at this level is matched in NFQ references to knowledge that is narrow in range, concrete in reference and basic in comprehension.

Both frameworks refer to 'basic skills', to be used to perform simple tasks (in EQF) and routine tasks (in NFQ).

Under 'competence', both frameworks refer explicitly to operating in a 'structured context', under direct supervision in EQF and in a range of roles under direction in NFQ, which also refers to the ability to learn ...in a well-structured and supervised environment.

There is a strong correspondence between the NFQ indicator and the EQF descriptor at these levels in the two frameworks, particularly in relation to 'knowledge' and 'skill' outcomes. The 'competence' outcomes in NFQ refer to a slightly more complex operational range than in the EQF equivalent.

### NFQ level 1 and EQF level 1

The EQF refers to basic general knowledge in the descriptor for Level 1, which corresponds with the NFQ reference to elementary knowledge, demonstrable by recognition or recall.

The keyword 'basic' is used to describe the skill component in both frameworks. Skills are to be used to carry out basic tasks (EQF) and in NFQ to carry out directed activity and to perform processes that are repetitive and predictable.

The two frameworks refer to 'competence' outcomes in similar terms; in EQF, the ability to work or study under direct supervision in a structured context, and in NFQ the ability to act in closely defined and highly structured contexts.

There is a strong correspondence between the NFQ indicator and the EQF descriptor at these levels in the two frameworks.

### 10. Conclusions

The objective of this exercise was to establish the correspondence between the qualifications levels in the Irish National Framework of Qualifications and the level descriptors of the European Qualifications Framework. This task was undertaken in a staged process. It began by making a general comparison between the two frameworks and the purposes for which they were designed; by comparing the architecture of the two frameworks, the concepts of learning outcomes on which they are based and the way levels are defined. This background comparison provided a rationale for analyzing the levels in the two frameworks on the basis of the categorization of learning outcomes in terms of knowledge, skill and competence. The levels analysis built on work already undertaken to establish correspondences between NFQ levels and levels in other frameworks, notably the Framework for Qualifications of the European Higher Education Area, continuing with a direct comparison of the text in the NFQ level indicators and in the EQF level descriptors.

Drawing together the conclusions of the comparative analysis of the indicators and descriptors for levels in NQF and EQF, and taking into account the correspondences already established in earlier comparison exercises, an alignment can be proposed between the levels in the two frameworks as set out in Table 3 below. Most EQF levels are seen to correspond with single levels in NFQ. The exceptions are EQF level 6, which corresponds with NFQ levels 7 and 8; and EQF level 1 which corresponds with NFQ levels 1 and 2. The alignment of NFQ levels 7 and 8 to one EQF level confirms the referencing of awards at both of these levels to the Bologna First Cycle, as established in the 'Verification of Compatibility of the Irish National Framework of Qualifications with the Framework for Qualifications of the European Higher Education Area'.

Table 3

Irish NFQ	EQF
10	8
9	7
8	6
7	6
6	5
5	4
4	3
3	2
2	1
1	1

Table 3: Correspondences between Irish NFQ and EQF levels

## **Appendices**

- 1. Tabular comparison of NFQ level indicators and EQF level descriptors
- 2. Comparison of thresholds between levels in NFQ level indicators and in EQF level descriptors

# Appendix 1

Comparison of Irish NFQ level indicators and EQF level descriptors.

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
A systematic acquisition and understanding of a substantial body of knowledge which is at the forefront of a field of learning  The creation and interpretation of new knowledge, through original research, or other advanced scholarship, of a quality to satisfy review by peers	10K	8K	knowledge at the most advanced frontier of a field of work or study and at the interface between fields
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  Respond to abstract problems that expand and redefine existing procedural knowledge	10S	8K	the most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice
Exercise personal responsibility and largely autonomous initiative in complex and unpredictable situations, in professional or equivalent contexts  Communicate results of research and innovation to peers; engage in critical dialogue; lead and originate complex social processes  Learn to critique the broader implications of applying knowledge to particular contexts  Scrutinise and reflect on social norms and relationships and lead action to change them	10C	8C	demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research.

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
A systematic understanding of knowledge, at, or informed by, the forefront of a field of learning	9K	7K	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
A critical awareness of current problems and/or new insights, generally informed by the forefront of a field of learning			critical awareness of knowledge issues in a field and at the interface between different fields
Demonstrate a range of standard and specialised research or equivalent tools and techniques of enquiry  Select from complex and advanced skills across a field of learning; develop new skills to a high level, including novel and emerging techniques	98	<b>7</b> S	specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields
Act in a wide and often unpredictable variety of professional levels and ill defined contexts	9C	7C	manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches
Take significant responsibility for the work of individuals and groups; lead and initiate activity			take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Learn to self-evaluate and take responsibility for continuing academic/professional development			
Scrutinise and reflect on social norms and relationships and act to change them			

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
An understanding of the theory, concepts and methods pertaining to a field (or fields) of learning	8K	6K	advanced knowledge of a field of work or study, involving a critical understanding of theories and principles
Detailed knowledge and understanding in one or more specialised areas, some of it at the current boundaries of the field(s)			
Demonstrate mastery of a complex and specialised area of skills and tools; use and modify advanced skills and tools to conduct closely guided research, professional or advanced technical activity	8S	6S	advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study
Exercise appropriate judgement in a number of complex planning, design, technical and/or management functions related to products, services, operations or processes, including resourcing			
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	8C	6C	manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts
Act effectively under guidance in a peer relationship with qualified practitioners; lead multiple, complex and heterogeneous groups			take responsibility for managing professional development of individuals and groups
Learn to act in variable and unfamiliar learning contexts; learn to manage learning tasks independently, professionally and ethically			
Express a comprehensive, internalised, personal world view manifesting solidarity with others			

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Specialised knowledge across a variety of areas  Recognition of limitations of current knowledge and familiarity with sources of new knowledge; integration of concepts across a variety of areas	7K	6K	advanced knowledge of a field of work or study, involving a critical understanding of theories and principles
Demonstrate specialised technical, creative or conceptual skills and tools across an area of study  Exercise appropriate judgement in planning, design, technical and/or supervisory functions related to products, services, operations or processes	7S	6S	advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study
Utilise diagnostic and creative skills in a range of functions in a wide variety of contexts  Accept accountability for determining and achieving personal and/or group outcomes; take significant or supervisory responsibility for the work of others in defined areas of work  Take initiative to identify and address learning needs and interact	7C	6C	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
effectively in a learning group  Express an internalised, personal world view, manifesting solidarity with others			

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Specialised knowledge of a broad area  Some theoretical concepts and abstract thinking, with significant underpinning theory	6K	5K	comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge
Demonstrate comprehensive range of specialised skills and tools  Formulate responses to well-defined abstract problems	6S	5S	a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems
Act in a range of varied and specific contexts involving creative and non-routine activities: transfer and apply theoretical concepts and/or technical or creative skills to a range of contexts	6C	5C	exercise management and supervision in contexts of work or study activities where there is unpredictable change review and develop performance of self and others
Exercise substantial personal autonomy and often take responsibility for the work of others and/or for the allocation of resources; form, and function within, multiple, complex and heterogeneous groups			
Learn to evaluate own learning and identify needs within a structured learning environment; assist others in identifying learning needs			
Express an internalised, personal world view, reflecting engagement with others			

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Broad range of knowledge  Some theoretical concepts and abstract thinking, with significant depth in some areas	5K	4K	factual and theoretical knowledge in broad contexts within a field of work or study
Demonstrate a broad range of specialised skills and tools  Evaluate and use information to plan and develop investigative strategies and to determine solutions to varied unfamiliar problems	5S	48	a range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study
Act in a range of varied and specific contexts, taking responsibility for the nature and quality of outputs; identify and apply skill and knowledge to a wide variety of contexts  Exercise some initiative and independence in carrying out defined activities; join and function within multiple, complex and heterogeneous groups	5C	4C	exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Learn to take responsibility for own learning within a managed environment  Assume full responsibility for consistency of self- understanding and behaviour			

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Broad range of knowledge  Mainly concrete in reference and with some elements of abstraction or theory	4K	3K	knowledge of facts, principles, processes and general concepts, in a field of work or study.
Demonstrate a moderate range of practical and cognitive skills and tools  Select from a range of procedures and apply known solutions to a variety of predictable problems	4S	3S	a range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information
Act in familiar and unfamiliar contexts  Act with considerable amount of responsibility and autonomy  Learn to take responsibility for own learning within a supervised environment  Assume partial responsibility for consistency of self- understanding and behaviour	4C	3C	take responsibility for completion of tasks in work or study  adapt own behaviour to circumstances in solving problems

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Knowledge moderately broad in range  Mainly concrete in reference and with some comprehension of relationship between knowledge elements	3K	2K	basic factual knowledge of a field of work or study
Demonstrate a limited range of practical and cognitive skills and tools  Select from a limited range of varied procedures and apply known solutions to a limited range of predictable problems	3S	2S	basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools
Act within a limited range of contexts  Act under direction with limited autonomy; function within familiar, homogeneous groups  Learn to learn within a managed environment  Assume limited responsibility for consistency of self- understanding and behaviour	3C	2C	work or study under supervision with some autonomy

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Knowledge that is narrow in range	2K	1K	basic general knowledge
Concrete in reference and basic in comprehension			
Demonstrate limited range of basic practical skills, including the use of relevant tools	2S	1S	basic skills required to carry out simple tasks
Perform a sequence of routine tasks given clear direction			
Act in a limited range of predictable and structured contexts	2C	1C	work or study under direct supervision in a structured context
Act in a range of roles under direction			
Learn to learn in a disciplined manner in a well-structured and supervised environment			
Demonstrate awareness of independent role for self			

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Elementary knowledge	1K	1K	basic general knowledge
Demonstrable by recognition or recall			
Demonstrate basic practical skills, and carry out directed activity using basic tools	1S	1S	basic skills required to carry out simple tasks
Perform processes that are repetitive and predictable			
Act in closely defined and highly structured contexts	1C	1C	work or study under direct supervision in a structured context
Act in a limited range of roles			
Learn to sequence learning tasks; learn to access and use a range of learning resources			
Begin to demonstrate awareness of independent role for self			

Appendix 2					
Comparison of th	nresholds between l	evels in Irish NF0	ર level indicators a	nd EQF level des	criptors.

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Substantial knowledge at the forefront of a field of learning and the the creation and interpretation of new knowledge	10K	8K	frontier knowledge
Apply the principal skills, techniques, tools and practices of a field to respond to abstract problems that expand and redefine existing procedural knowledge	10S	8K	application of the highest-level skills to ground-breaking activities
Exercise autonomous initiative to lead and originate complex social processes	10C	8C	authoritative and pioneering professional or academic role

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
A systematic understanding of knowledge at the forefront of a field of learning and a critical awareness of current problems and/or new insights	9K	7K	highly specialised knowledge and original thinking command of the issues in a field
Apply a range of research or equivalent tools and techniques of enquiry to develop new skills to a high level, including novel and emerging techniques	9S	7S	application of professional and research skills in innovative activities
Lead and initiate activity to bring about change in a wide and often unpredictable variety of ill-defined contexts, taking significant responsibility for the work of individuals and groups	9C	7C	transformational role in unpredictable contexts strategic responsibility

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Detailed knowledge and understanding of the theory, concepts and methods pertaining to a field, some of it at the current boundaries of the field	8K	6K	advanced knowledge with critical understanding
Deploy mastery of a complex and specialised area of advanced skills and tools to perform complex planning, design, technical and/or management functions and to conduct closely guided research, professional or advanced technical activity	8S	6S	mastery and innovation in the application of advanced skills
accept accountability for all related decision making in conducting research or other advanced technical or professional activity	8C	6C	responsibility for decision-making in complex activities

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
specialised knowledge across a variety of areas, including the integration of concepts, the recognition of the limitations of current knowledge and familiarity with sources of new knowledge	7K	6K	advanced knowledge with critical understanding
Demonstrate appropriate judgement in the use of specialised technical, creative or conceptual skills and tools in planning, design, technical and/or supervisory functions	7S	6S	mastery and innovation in the application of skills
take significant or supervisory responsibility and accept accountability for the use of diagnostic and creative skills in a range of functions in a wide variety of contexts	7C	6C	responsibility for decision-making in complex activities

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
specialised knowledge of a broad area, with significant underpinning theory	6K	5K	comprehensive knowledge in a specialist field
use a comprehensive range of specialised skills and tools to formulate responses to well-defined abstract problems	6S	5S	creative application of expertise
exercise substantial personal autonomy and take responsibility for the work and development of others in a range of varied and specific contexts involving creative and non-routine activities  transfer and apply theoretical concepts and/or technical or creative skills to a range of contexts	6C	5C	management in unpredictable contexts performance development

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Broad range of knowledge with some theoretical concepts	5K	4K	broad factual and theoretical knowledge
Use a broad range of specialised skills and tools to plan and develop investigative strategies and to respond to varied unfamiliar problems	5S	4S	expertise in specialised skills
Exercise some initiative and independence in carrying out defined activities in a wide range of varied and specific contexts, taking responsibility for outputs	5C	4C	coping with change supervision in routine contexts

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Broad range of knowledge, with some elements of abstraction	4K	3K	broad range of knowledge
Select from a moderate range of skills, tools and procedures and apply known solutions to a variety of predictable problems	4S	3S	autonomous application of a range of skills
Act in familiar and unfamiliar contexts with considerable responsibility and autonomy	4C	3C	self-management

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Knowledge moderately broad, with some comprehension of relationship between knowledge elements	3K	2K	field-specific knowledge
Use a limited range of skills and tools to select and apply known solutions to a limited range of predictable problems	3S	2S	application of skills to basic problem-solving
Act with limited autonomy	3C	2C	operating with some autonomy

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
Knowledge that is narrow, concrete and basic	2K	1K	basic knowledge
use of relevant tools to perform routine tasks given clear direction	2S	1S	basic skills
act in structured contexts, under direction	2C	1C	operating under supervision

Irish NFQ indicators	NFQ level	EQF level	EQF descriptors
elementary knowledge	1K	1K	basic knowledge
use basic, practical skills to perform repetitive and predictable tasks	1S	1S	basic skills
act in highly structured contexts in a limited range of roles	1C	1C	operating under supervision