QQI

Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

Technical Paper on the Qualifications System

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List of abbreviations

AHEAD	Association for Higher Education Access and Disability
AHELO	Assessment of Learning Outcomes in Higher Education (OECD project)
ALO	Actual LO
ATP	Access, transfer and progression
CALOHEE	CALOHEE Comparing Achievements of Learning Outcomes in Higher Education in Europe.
CAO	Central Applications Office for access to higher education in Ireland
CAS	QQI's Common Awards System
CEDEFOP	Cedefop supports development of European vocational education and training (VET) policies and contributes to their implementation.
CEFR	Common European Framework of Reference for Languages: Learning, teaching, assessment
COE	Council of Europe
CoP	Community of practice
CORU	Health & Social Care Professionals Regulator in Ireland
CPD	Continuing professional development
CSO	Central Statistics Office of Ireland
CVET	Continuing VET
DA	Delegated authority (from QQI) to make awards
DAB	Designated awarding bodies (including e.g. universities[1], institutes of technology[2] and technological universities)
DBEI	Department of Business, Enterprise and Innovation (Irish Government Dept.)
DES	Department of Education and Skills (Irish Government Dept.)
ECCE	Early Childhood Care and Education
ECTS	European Credit Transfer and Accumulation System

[1] Royal College of Surgeons in Ireland is a university.

[2] From 1 January 2020.

ECVET	European credit system for vocational education and training
EGFSN	The Expert Group on Future Skills Needs
EHEA	European Higher Education Area
ELC	Early Learning and Care
ELO	Expected LO
ENIC	European Network of National Information Centres on academic recognition and mobility
ENQA	European Association for Quality Assurance in Higher Education
EQAR	European Quality Assurance Register for Higher Education
EQAVET	European Quality Assurance in Vocational Education and Training
EQF	European Qualifications Framework
ESCO	European Skills, Competences, Qualifications and Occupations
ESRI	The Economic and Social Research Institute
ETB	Education and training board
ETBI	Education and Training Boards Ireland
EUROPASS	Provides a set of tools to make an individual's skills and qualifications clearly and easily understood in Europe
Eurydice	European network for supporting European cooperation in lifelong learning
FET	Further education and training
FETAC	Further Education and Training Awards Council, an antecedent of QQI
FQ-EHEA	More often this is abbreviated QF-EHEA. Framework for Qualifications in the European Higher Education Area (overarching framework)
HEA	Higher Education Authority
HEI	Higher education institution
HELS	Higher Education Links Scheme
HE	Higher education
HET	Higher education and training (means HE)
HETAC	Higher Education and Training Awards Council, an antecedent of QQI
ICTU	Irish Congress of Trade Unions

ILO	Intended LO
ILO	International Labour Organisation
IOT	Institute of technology
IRQ	Irish Register of Qualifications (launched in 2019)
ISCED	ISCED is the reference international classification for organising education programmes and related qualifications by levels and fields
ISCED2013-FOET	Field of education and training classification system
ISCO	International Standard Classification of Occupations—ILO
IUA	Irish Universities Association
IVET	Initial VET
LAB	Listed awarding body
LC	Leaving Certificate
LCA	Leaving Certificate Applied
LCVP	Leaving Certificate Vocational
LO	Learning outcome
MIMLO	Minimum intended module learning outcomes
MIPLO	Minimum intended programme learning outcomes
MIT	Massachusetts Institute of Technology
MOOC	Massive open online courses
NACE	European industrial activity classification (Rev. 2)
NARIC	National Academic Recognition Information Centre
NCVA	National Council for Vocational Awards
NFETL	National Forum for the Enhancement of Teaching and Learning
NFQ	National Framework of Qualifications
NQAI	National Qualifications Authority of Ireland, an antecedent of QQI
OECD	Organisation for Economic Co-operation and Development
OP	Occupational profile

PATD	Professional award-type descriptor
PLC	Post Leaving Certificate
PLSS	Programme, Learner, Support System (implemented by SOLAS and the ETBs)
PRD	Professional Recognition Directive (EU)
QA	Quality assurance
QAA	The Quality Assurance Agency for Higher Education (UK QA agency)
QBS	QQI Business Sstem (i.e. its information system)
QF-EHEA	This may refer to the Framework for Qualifications in the European Higher Education Area (overarching framework) or Qualifications Frameworks in the European Higher Education Area (those consistent with the QF-EHEA)
QQI	Quality and Qualifications Ireland
RIAI	Royal Institute of the Architects of Ireland
RPL	Recognition of prior learning
SCHE	Short cycle higher education
SEC	State Examinations Commission (of Ireland)
SLMRU	SOLAS Skills & Labour Market Research Unit
SOC2010	Standard Occupational Classification for the UK
SOLAS	State organisation with responsibility for funding, planning and co-ordinating FET in Ireland
TCD	University of Dublin, Trinity College
THEA	Technological Higher Education Association
The 2012 Act	Qualifications and Quality Assurance (Education and Training) Act 2012
The 2019 Act	Qualifications and Quality Assurance (Education and Training) (Amendment) Act 2019
Tuning Educational Structures in Europe	The Tuning project was a "pilot project by and for higher education institutions supported by the European Commission in the framework of the Socrates programme". See also, the Tuning Academy which is a 'project' that provides supports for designing and implementing programmes of higher education using the Tuning methodology.
UFIN	University Framework Implementation Network
USI	The Union of Students in Ireland
VET	Vocational education and training

'Qualifications are social constructs more than they are technical constructs; they are based on deeply rooted social relations and practices and political interests (Raffe 2009a). They are also complex entities, with multiple and changing functions (CEDEFOP, Coles et al. 2010). Their effectiveness depends on familiarity, reciprocity and, above all, trust (Young 2002, Young and Allais 2009) – all of which tend to develop in the context of practice, in relatively stable institutional contexts, over a period of time. The appropriate metaphor for the reform of qualifications is therefore organic, based on horticulture[3] rather than engineering.' (Raffe, 2013)

In most settings, the institutions that enable stakeholders to influence and interact also tend to be relatively stable, at least in terms of function. It is neither useful nor practical to view qualifications as objects separate from the system that enables them to be awarded and valued.

[...] A key challenge \for high-level policy is the delicate line between securing adequate 'permeability' and 'transparency' and promoting unduly restrictive alignment of different sectors and areas. This mainly covers the profound danger of an over-restrictive pursuit of 'system tidiness' for its own sake. (CEDEFOP, 2010, p. 16)

[3] Using this analogy, it's tempting to reflect on whether elements of our qualifications system behave like the invasive or infiltrating rhododendron ponticum that has been in the news at this time of year on account of its effect on the diversity of the flora in the southwest of Ireland.

Introduction

As the body responsible for:

- the **external quality assurance**[4] of **tertiary education;**
- the maintenance of the **National Framework of Qualifications** (NFQ);
- the maintenance of national policy and criteria for **access, transfer and progression** in relation to learners; and
- certification of further education and training qualifications in the NFQ.

QQI is in a good position to observe and facilitate discussion about the **qualifications system** especially as it relates to the **tertiary education system.**

With this Technical Paper and its associated Green Paper **(Green Paper on the Qualifications System)**, we aim to launch a discussion about:

(i) **tertiary qualifications** and the **qualifications system;**

(i) the **standards** that underpin those qualifications,

(i) the **communities of practice** that underpin those standards and

(i) the **learning pathways** that lead to qualifications, occupations and lifelong learning.

We are interested in qualifications, their purposes, the learning pathways that connect with them, and the complex distributed sub-systems comprising the qualification system that supports qualifications.

Virtually everyone in society has a role to play in the qualification system. The role may be as an employer; as a practitioner member of an occupational association, academic discipline, or cultural community; as a teacher, trainer, instructor, assessor, mentor or lecturer; as a member of a trade union; as a regulator; as a policy maker; as a researcher; as a learner; as a discerning user of qualifications or in some other capacity.

It is important that the views of stakeholders are sought and considered, for example when setting standards for educational and training qualifications and developing and implementing the associated programmes of education and training. This helps ensure that qualifications that are included[5] in the NFQ are recognised nationally and internationally and that they can help individuals advance in their chosen careers.

We invite people from all of the groups mentioned above to join with us in looking at qualifications-related matters from a whole system perspective rather than just from their own experience of the system.

Part 1 of this Technical Paper is an introduction that sets out the conceptual framework for the remainder of the paper.

Part 2 outlines selected features of the tertiary qualifications system.

Part 3 sets out for discussion a range of issues with commentary that includes some ideas for addressing them.

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[4] Black bold text indicates a term-of-art for the Green Paper that is defined in the glossary.

[5] Note that for simplicity we use the term include in the NFQ, anticipating legislation that has not yet commenced at the time of writing.

Part 1: Preliminaries

In this part we set out the scope and purpose of the Technical Paper and the conceptual framework used in the remainder of the paper. This includes key concepts and definitions that will help facilitate effective communication exchanges about qualifications matters.

1. Scope and purpose of the Technical Paper

1.1 Scope

We are interested in **tertiary**[6] educational qualifications and related matters. By **tertiary education** we mean further education and training (FET), higher education (HE) and related professional education and training[7].

We see the qualifications system more as a social system than a deterministic, rules-based one. Each user of a qualification has a role in the qualifications system and the complex adaptive system that emerges from their collected activities and those of their institutions and communities gives rise to the qualifications system.

The qualifications system is complex, and it may be tempting to look at the parts in isolation but that would miss the opportunity of seeing how well those parts work together.

In this paper we aim to present a model (abstractions) of the qualifications system that is sufficiently elaborate to help identify opportunities for improving it and sufficiently simple to make the system reasonably comprehensible.

As with our **Green Paper on Assessment of Learners and Learning** 2018, we distinguish between **macro-**, **meso-** and **micro**-level activity. QQI operates at the macro level for the most part but we are not alone at that level. Others include the Department of Education and Skills and the main development agencies operating in the tertiary context, namely The Higher Education Authority and SOLAS. Actors operating at the meso level include qualifications awarding bodies, professional bodies, **occupational**[8] regulators, employer representative groups, occupational **communities of practice**, large employers, and large educational institutions. Finally, **programmes of education and training,** small institutions and individuals, for example, operate at the micro level. While this stratification can be helpful it should not be seen as a rigid demarcation.

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[6] This interpretation of tertiary education is unusual but not unique in the international context. FET (as currently defined on the basis of NFQ levels and award-types) in Ireland includes both vocational education (leading to qualifications up to level 6 in the 10 level National Framework of Qualifications) and adult education to support greater social inclusion. Higher education includes education and training leading to qualifications at NFQ Levels 6-10 in the NFQ. NFQ Level 6 includes both FET and HE qualifications. Note: we debated whether to use the term '**tertiary education**' in this document mainly because of the risk of confusion it may cause abroad but concluded that the advantages outweigh the disadvantages. In certain circumstances using the term "HE and FET" risks promoting a dichotomy between the two that is more institutional than essential.
There is another (institutionally originated) dichotomy between education and training in the term FET. In HE the term 'training' is understood to be encompassed by the term 'education' as it should also be when we refer to **tertiary education.**

[7] Parts of this paper are also relevant to the English Language Education sector outside primary and secondary education, FET, and HET.

[8] We use the term occupation to mean a defined occupation or a defined activity that may be part of one or more occupations.

1.2 Purpose

QQI is issuing this Technical Paper to prompt discussion with stakeholders and *by* stakeholders. Through these discussions we hope to reach along with stakeholders a shared vision for the tertiary qualifications system and the ways it might be realised (its possible futures, as it were). A shared vision can help diverse autonomous entities to effect coherent mutually supporting change. We aim to identify and help co-create with stakeholders the **environments** needed to support and nurture the qualifications ecosystem and to help **influence** the realisation of that shared vision for the qualifications system. We do not believe that the qualification system can be left entirely for market forces to work things out nor do we believe that it can be centrally controlled—rather control is distributed.

As a society we need to

- ensure that frequently occurring **transitions** between different **educational institutions** or **programmes of education and training** (programmes) or between different **educational sub-systems** (e.g. secondary school system, FET system, HET system) or between the educational system and employment are free of unnecessary or unduly discriminating barriers (e.g. obstacles to access, transfer or progression to education or employment);
- ensure that learning pathways to qualifications are reasonably efficient for learners (shortest pathway practicable) and that all equivalent learning pathways are equitably recognised (this is especially important for transitions between different sub-systems);
- identify opportunities for the creation of new learning pathways and qualifications to enable the qualifications system to better serve society's needs;
- ensure the supply of qualifications can respond dynamically to meet changing needs and demands;
- ensure the quality and consistency of qualifications;
- develop the tools that are needed, in a digital world, by individuals to store and share qualifications and related information.

Much of the work on this will involve policy makers, regulators, funders, employers and providers.

By publishing this Technical Paper, we aim to engage stakeholders in discussions on a wide range of issues to help us all better understand

- the distributed and diverse systems for supporting, developing, maintaining, recognising and using educational and occupational standards for qualifications;
- the influence of qualifications on the learning pathways that
  - involve one or more educational qualifications (e.g. programmes of education and training); or
  - involve employment or work placement activity (e.g. apprenticeship);
- whether there are (and how to identify) opportunities for improving the existing infrastructure for supporting and regulating qualifications;
- whether there are (and how to identify) opportunities for improving the distribution of learning pathways considering the needs of society;
- the quality of, and the mediation of trust in, qualifications;

2. A pivotal time

It is an opportune time for this discussion for the following reasons:

- Ireland had bounced back relatively recently to virtually full employment after a period of high unemployment following the global financial crisis and now faces the challenge of dealing with the consequences of COVID-19, and we need to ensure skills requirements are supported by our national system.
- people are already talking about the accelerating pace of change: the 'fourth industrial revolution'.
- the most requested skill in Irish job vacancy advertisements is "adapt to change"[9].
- while the most recent (2018) national employer survey[10] found that overall satisfaction with higher and further education graduates was 86% and 84% respectively, there are opportunities for improvement (e.g. commercial awareness, entrepreneurship) and the workplace is rapidly changing.
- in further education and training (FET)[11]:
    - we have seen major structural changes in educational (ETBs) and regulatory (SOLAS) institutions in recent years;
    - there is a renewed interest in workplace learning and an increase in employment-oriented initial and continuing education;
    - the publication of a new five-year Further Education and Training Strategy (FET) 2020-2024;
- in higher education we have seen:
    - the institutes of technology acquire intrinsic awarding powers to make awards at NFQ Levels 1-9[12] on 1 January 2020, they will be referred to as **designated awarding bodies** (DAB) as are the Irish universities already;
    - the emergence of technological universities;
    - the planned reform[13] of the Higher Education Authority (HEA) Act 1971;
    - some indication of a possible saturation of the population's capacity to benefit from the traditional route to higher education qualifications.
- there is a renaissance of apprenticeships across the tertiary educational system (at NFQ Levels 5-10) and renewed interest more generally in workplace learning and increasing employment-oriented initial and continuing education.
- the learner population, especially in higher education, is playing a greater role in assisting with quality assurance of educational programmes (i.e. courses) and institutions.
- the rise in numbers of international students and new legislation has been enacted for the International Education Mark (IEM) to be implemented by QQI.
- there need to reflect on

[9] https://skillspanorama.cedefop.europa.eu/en/indicators/skills-online-vacancies

[10] https://hea.ie/2019/01/23/minister-launches-results-of-national-survey-2018/ (The National Employer Survey is a joint project undertaken by the Higher Education Authority, Quality and Qualifications Ireland and SOLAS.)

[11] We will sometimes drop the term training. However, the terms further/higher education should be understood to include both education and training.

[12] The 2019 Act renders them designated awarding bodies but limits them "to make awards, with the exception of doctoral degrees, to students where the college has satisfied itself that the students have acquired and demonstrated the appropriate standard of knowledge, skill or competence for awards that are included within the National Framework of Qualifications".

[13] https://www.education.ie/en/The-Education-System/Higher-Education/Legislative-Proposals-Reform-of-HEA-Act-1971.pdf

  - the suitability of the historically established distribution of learning pathways to qualifications;
  - how our system engages learners, employers, occupational associations and practitioners so that they can better understand, and contribute to the design of learning pathways and qualifications;
  - how our system facilitates the efficient and reliable recognition of non-formal and informal learning (Recognition of Prior Learning RPL).
  - the NFQ, after 15 years of implementation, and its influence on the qualifications system and how to ensure that it continues to be adequately supported and invested with meaning by its communities of practice[14].
- The advancing pan European qualifications and quality assurance agenda will continue to influence all aspects of the qualifications system both directly and indirectly.
- Brexit and Covid-19 will impact on Ireland's qualifications system to an extent that is not yet fully clear.

3. A conceptual model for qualifications systems

Here we define the terms that will crop up frequently in the remainder of the paper. We ask readers to bear with us and take the time to internalise the concepts.

Internationally, there are some inconsistencies in the definitions that people use. We will point out some of these. However, the aim is sufficient clarity for discussion and not mathematical precision.

3.1 What are qualifications and what are they for?

The term **qualification** is defined in the context of the European Qualifications Framework as:

> *"... the 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."*[15]

We consider the terms **qualification** and **award** to be synonymous and therefore interchangeable. Note that a **specific** qualification is:

- a determination by a specific competent body,
- about a specific individual,
- with reference to a specific standard.

Generally, it is also important to know **when** the above determination was made. This is because knowledge, skills and competence may atrophy or decay especially if unused. This is particularly important where qualifications are a part of the basis for licences to practise.

A modified definition of qualification would be:

> *"... the formal outcome of an assessment <u>at a specified time</u> and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards"* (modified version of the above)

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[14] We have commenced a process of re-referencing the NFQ to the **European Qualifications Framework.**

[15] https://www.eqf-support.eu/9.0.html (accessed 18/1/2019)

A specific qualification as defined above is distinct from a potential qualification that a person may aspire to gaining. A potential qualification will include specification of the standard and the competent body but not a specific individual or time. We will use the term qualification (or award) to mean a potential or an actual qualification. It will be clear from the context which is being addressed.

A qualification is the outcome of a process rather than a process itself. Often, a person will gain a qualification after having earned it through successful completion of a pre-planned **programme of education and training** (frequently abbreviated to **programme** in this paper). Some people gain qualifications not by following a pre-planned programme but through a process for the **recognition of prior learning** (**RPL**). In this context RPL can be thought of as being linked with a situation/individual-specific and retrospectively revealed programme of education and training.

A qualification is not a **programme**. However, it is not unusual to see qualifications used as proxies for programmes. For the purposes of this Technical Paper we are careful to differentiate qualifications from the associated programmes or RPL processes. We strongly urge others to do likewise. This is because they have significantly distinct functions. Moreover, different entities may be involved in the design of a programme and the specification of the qualification to which it is intended to lead[16].

Qualifications are used, according to (CEDEFOP, 2010, p. 38), to:

- *Recognise personal growth and engagement in learning*
- *Prepare for further learning or training and/or develop knowledge/skills in a subject area*
- *Prepare for employment*
- *Confirm occupational (including activity) competence and/or licence to practise*
- *Updating and continuing professional development (CPD)*

To be more precise, qualifications are associated with these functions, sometimes through their underpinning programmes of education and training. For example, a qualification does not prepare a person for some endeavour but may signify that a person has been so prepared.

Our definition of qualification recognises the socially constructed elements of qualifications as well as the technical ones, provided that the key terms in the definition are understood inclusively.

The interpretations of the key terms

- *"assessment and validation",*
- *"competent body",*
- *"learning outcomes", and*
- *"given standards",*

are addressed in the following sub-sections of section 3.1 along with other concepts that will help us think about qualifications and the qualifications system.

3.1.1 What does "assessment and validation" mean?

Our adopted definition of "qualification" involved the term "assessment and validation of learning outcomes".

The meaning of assessment will be clear (but see our Green Paper on Assessment for a definition of, and detailed discussion about, assessment).

[16] For a detailed discussion of the different kinds of standards that apply to qualifications that are recognised/included within the NFQ, please refer to section 5 of the Green Paper on Assessment (pp. 36-45).

Validation of learning outcomes means

> *"Confirmation by a competent body that learning outcomes (knowledge, skills, competences) acquired by an individual in a formal, non-formal or informal setting have been assessed against predefined criteria and are compliant with the requirements of a validation standard[17]. Validation[18] typically leads to certification."*

A **certificate** is documented evidence, which may be in exclusively digital form, that a specific individual holds a specific qualification. Certification involves the issue of a certificate. In this paper, we refer to the bodies that issue such certificates as **awarding bodies.** Awarding bodies are normally **competent bodies** as defined in the next sub-section.

When we speak of a qualification being certified we mean the certification of its learning outcomes:

> *The process of issuing a certificate, diploma or title formally attesting that a set of learning outcomes (knowledge, knowhow, skills and/or competences) acquired by an individual have been assessed and validated by a competent body against a predefined standard.[19]*

A qualification is *typically* but not necessarily **certified**. Degrees, diplomas and certificates from a competent educational awarding body are examples of certified qualifications. The formal outcome of an assessment that a student has passed the first year of their university degree programme is a qualification to enter the second year but is normally uncertified if the student is progressing within the programme but may be certified should the student wish to transfer to another programme. The latter kind of certification may, for example, involve the issuing of a transcript that would include a statement of the stage reached by the individual along with their assessment results in the subjects studied and the subject credit weightings.

The use of the term **credential** is increasing in popularity (especially in the context of micro-credentials and in the digitisation[20] of certificates) but there isn't a standard definition. One possible definition is suggested by (Chakroun & Keevy, 2018). A credential is probably best thought of as being synonymous with a certificate. It is not clear that there is any significant distinction. We will occasionally refer to credentials, but we will frequently use the term certificate as it is more general and widely understood.

3.1.2 What is a "competent body"?

In this context a competent body is an entity, often referred to as an **awarding body**, that can credibly and legitimately make the determination referred to in the definition of a qualification in section 3.1.

Qualifications are determined by many and diverse kinds of entities (e.g. employers, educational awarding bodies, **providers**[21], professional awarding bodies, regulatory awarding bodies, and vendor awarding bodies).

Where a qualification is issued by a competent body, that body may rely on other entities (e.g. professional, regulatory or employer representative bodies) to support its determination and those other entities may also be competent bodies.

More specifically, there are cases, where a competent body will rely on a different entity to evaluate whether a specific individual *"has achieved learning outcomes to given standards"*. For example, QQI is a competent body to determine educational and training qualifications but relies on providers to assess candidates for its awards.

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[17] EQF definition. https://www.eqf-support.eu/9.0.html

[18] Our process for the validation of a programme of education and training is a completely different use of the term 'validation'.

[19] https://www.eqavet.eu/eu-quality-assurance/glossary/certification-of-learning-outcomes

[20] More recently the term digitalisation is often used instead of digitisation.

[21] Provider means provider of a programme of education and training. Some providers certify their own learners, but others rely on external awarding bodies for certification.

As competent bodies rarely operate in isolation, we need to understand how different kinds of competent bodies interact with one another and with other relevant individuals and groups and how these interactions help shape qualifications and the qualifications system.

3.1.3 What are "learning outcomes"?

In this subsection we outline our understanding of the term "learning outcomes" that appears in the definition of a qualification. And we stress that meanings of learning outcome *statements* are socially constructed even though the corresponding change in (learning outcomes for) an individual is rather constructed by that individual in response to their learning environment.

In its most idealised form, a learning outcome is a stable transformation of an individual. By stable we mean enduring in time though subject to eventual decay. Though we cannot exactly measure or infer this kind of idealised learning outcome, it is nevertheless a useful concept when we are considering *representations* of learning outcomes and methods for the assessment (always against a standard[22]) of learning.

Learning outcomes can take an *integral form*, relating to the learning outcome of a person's entire life history spanning all domains or a *differential form* relating to the change in learning owing to a discrete learning process in a specific domain (e.g. proficiency in a specific language).

A learning outcome *statement* is a representation of a learning outcome. Learning outcome statements are often expressed in terms of statements of knowledge, skill or competence.

The term learning outcome is frequently used by representations of standards (see 3.1.4) for qualifications. In this context it is sometimes just the representation of knowledge, skill and competence that is required, and the standard is otherwise indifferent about the process that resulted in the outcome.

Learning outcome statements may rely on uncommon understandings of specific terms by a specific **community of practice** (CoP) and may only be completely understood within a specific CoP. We explain the concept of a community of practice in section 3.1.5

All learning outcome statements aim to capture something of what has been learned by an individual or what we expect or intend that an individual will learn. They are imperfect representations of the idealised learning outcome as implied above. Learning outcome statements vary in their specificity, ranging from broad synopses to highly detailed lists. Being more specific is not necessarily always better and in some situations may limit the effectiveness of learning outcome statements in their semantic, regulatory or educational functions. It can often be useful to leave the details to the persons responsible for implementing the standard where they can be assumed to have the necessary competence. Generally, the level of detail required will depend on the specific purpose that the statement is intended to serve.

We find it useful to distinguish between statements of:

- **Expected learning outcomes** (for example the learning outcome statements in occupational standards)
- **Intended learning outcomes** (for example the learning outcomes that the designers of a programme of education and training intend that learners will achieve)
- **Achieved learning outcomes** (for example the learning outcomes achieved by a specific learner)

In summary, for our purposes learning outcomes statements are more or less specific statements that can be interpreted reliably by the relevant communities of practice to describe educational achievements, intentions or expectations for a well-defined purpose while leaving a suitable amount

[22] See (QQI, 2018).

of latitude for interpretation and innovation. Note again that while meanings of statements are socially constructed, an individual's learning state is not.

Not everyone distinguishes between "learning outcomes" and "statements of learning outcomes" the way we do here. Some define learning outcomes as *statements* of knowledge, skill or competence." For example, the EQF definition states that *"Learning Outcomes 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"*[23]. This EQF definition is somewhat restrictive because (1) it does not distinguish between the objective reality of the specific transformation of a specific individual and the text that aims to capture that transformation and (2) it does not explicitly recognise that different meanings may be attached to such statements by different users. Without the preceding understandings we suspect that we are more likely to fall into a behaviourist conceptualisation of learning outcomes and qualifications.

For further reading see the glossary to this Technical Paper and the EQF paper entitled "*Using Learning Outcomes*".[24]

3.1.4 What are "given standards" and what are they used for?

The term '**standard**', which featured in the qualification definition, can be defined as:

> *"a series of elements whose content is defined by concerned actors ...*[25]*"*[26]

This is quite general and emphasises the social support rather than the subject of the standard or its content. We are interested in standards for qualifications. More specifically, we are interested in standards for qualifications that express the knowledge, skill or competence required to gain a qualification (sometimes referred to as expected learning outcomes) and may include expectations concerning the programmes (formation) that lead(s) to a qualification.

All that we have said about learning outcome statements is inherited by standards that use them.

Standards can be tacit (as in we know it when we see it) but ideally, they should be documented. However, even documented standards are virtually always partly tacit.

Communities of practice can help establish and maintain standards. For example, a mixed group of concerned actors may initially come together with different perspectives on what needs to be included in a standard for a new qualification. Where such a heterogeneous group works together to become new community of practice (see section 3.1.5) the resulting engagement should result, among other things, in a shared vision and understanding of what the standard should be and how it should be represented.

In the context of this paper, concerned actors will generally include some of the following kinds of entities. These kinds of entities use educational qualifications or approve the educational programmes that lead to them.

- providers and their representative bodies
- political and social interests

[23] https://www.eqf-support.eu/9.0.html

[24] The EQF paper entitled "Using Learning Outcomes" is noteworthy in this context. The title may suggest that it is a technical document about writing learning outcomes, on the contrary it is about what they are and the different ways in which they are used, recognised and communicated and is well worth reading.

[25] A list of examples of different kinds of standards is provided in the glossary along with the unabridged version of this definition of standards.

[26] An EQF definition, please see the glossary for the full citation.

- employers
- regulators of institutions, professions or activities
- professionals/practitioners or their representative bodies
- learners, their representative bodies or their sponsors

3.1.5 What are communities of practice and why are they important?

Recall the quotation from David Raffe at the start of the paper that begins: "*Qualifications are social*[27] *constructs more than they are technical constructs...*".

We need a way of discussing the sociological aspects of qualifications and related matters. To understand qualifications and how they are used, we need to understand:

- the mechanisms (processes and actors) by which qualifications are established and maintained to meet a country's social and economic needs;
- how meanings are ascribed to specific qualifications, and related objects such as standards and qualifications frameworks[28], by specific groups[29];
- the mechanisms for specific groups to have confidence in the value of, or trust in, specific qualifications for specific purposes.

The concept of a community of practice (CoP) is useful to help discuss the socially constructed aspects of qualifications simply. It was introduced by Etienne Wenger (Wenger, 1998, pp. 72-85). We use it because it is intuitive and enables us to discuss some key aspects of the sociological nature of qualifications and the qualifications system (see section 3.2) at a suitably abstract level.

So, what are communities of practice?

> *They "are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly."*[30]

For Wenger a CoP[31] must involve (Wenger, 1998, p. 65):

- "*mutual engagement*",
- "*joint enterprise*" and
- "*a shared repertoire*".[32]

Communities of practice play important roles in the support of qualifications both currently and prospectively. There are opportunities for the emergence of many more CoPs than currently exist. Any attempt to change a **qualifications system** (addressed in detail in section 3.2) will need to acknowledge, involve, and influence communities of practice and, where they are missing, to create environments that favour their emergence.

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[27] Note that sociology is central to this discussion. By sociology we mean the *"the systematic study of the development, structure, interaction, and collective [behaviour] of organized groups of* human beings" https://www.merriam-webster.com/dictionary/sociology (19/03/2019)

[28] The *notion of 'shared meaning' is important in the context of National Qualifications Frameworks (NQFs), hard to establish, but undoubtedly linked to the trust and confidence essential to supporting qualifications or NQF. While the notion of an NQF as a symbolic device, propped up by text, written laws and rules, and legitimate only so long as the construct is accepted, supported and* invested with meaning by its community, may scare some, there is certainly some truth to the idea.

[29] This leads to the question about how divergent interpretations of shared standards (e.g. the NFQ) can be before this can be problematic.

[30] https://wenger-trayner.com/introduction-to-communities-of-practice/ (04/03/2019)

[31] The essence of the idea of a CoP seems compatible with Kuhn's idea of a 'scientific community' in "The Structure of Scientific Revolutions" (Kuhn, 1962). That work clearly recognises the importance of considering the social dimension: "As in political revolutions, so in paradigm choice – there is no standard higher than the assent of the relevant community."

[32] If you are unfamiliar with communities of practice it may be worthwhile to reflect a little on the italicised text in the two paragraphs and to imagine how it may apply in your contexts.

The definition of a CoP is general and any social group that meets the definition can be characterised as a community of practice. Professions[33] are particular examples of communities of practice. An example of a more heterogeneous community of practice may be the coalition of employers, providers, professional bodies, practitioner representatives, and regulators that may be involved in supporting an occupation-oriented qualification.

CoPs can contain embedded CoPs. When considering a specific qualification, the widest directly involved community of practice is likely to involve people from some, or all, of the following sectors:

- employers with an interest in the relevant occupation or activity
- providers of programmes of education and training leading to the qualification and to a lesser extent their feeder providers and providers of progression destination programmes of education and training
- professional/occupational associations
- regulators

Our earlier thinking on this topic is set out in (QQI, 2013) and more recently in (QQI, 2018).

3.1.6 What is the distinction between an educational qualification and a licence to practise?

The educational formation required to gain an **occupation-** (or activity[34]) oriented educational qualification can help to prepare or enable a person to practise in that occupation.

Such educational qualifications are significantly different from licences to practise even though there is overlap between the two.

An educational qualification results from an assessment of an individual at a specified time and is permanent even if the person ceases to meet the learning outcomes certified by it. An educational qualification, while it may be enough to attest to a person's fitness to practise at the time it was achieved, cannot attest to their continuing fitness to practise afterwards because the educational qualification holder or the occupational requirements may have changed significantly. Educational qualifications can only be withdrawn if improperly acquired e.g. through cheating, though they may lose their currency in the qualifications system if they have been superseded.

Licences to practise, on the other hand, are normally for a finite period and indicate that a person has current competence among other things. Such licences may be withdrawn, suspended or varied if the person's competence diminishes (e.g. because it atrophies or because it is no longer current on account of not being refreshed).

3.1.7 What do we mean by Recognition of Prior Learning (RPL)?

The following pair of definitions is taken from the Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning (2012/C 398/01).

> "**Recognition of prior learning means** the validation of learning outcomes, whether from formal education or non-formal or informal learning, acquired before requesting validation."

[33] There is an extensive literature on the sociology of professions (especially the prestige professions). We do not intend to delve into that literature at this point.

[34] When we refer to occupations or occupational, we mean either something like (i) a trade or a profession; or (ii) a narrower activity (e.g. handling F-gas) that may be involved in a range of occupations.

"**Validation of learning outcomes** means a process of confirmation by an authorised body that an individual has acquired learning outcomes measured against a relevant standard and consists of the following four distinct phases:

1. *identification* through dialogue of particular experiences of an individual;
2. *documentation* to make visible the individual's experiences;
3. a formal *assessment* of these experiences; and
4. *certification* of the results of the assessment which may lead to a partial or full qualification."

The Annex to that recommendation also includes useful definitions of formal, non-formal and informal learning. Essentially 'non-formal' learning refers to intentional learning achievements outside formal systems and 'informal' learning refers to non-planned learning achievements arising from any activity.

Note point 4 in the definition which states that RPL as defined here requires certification *of the results of the assessment* that may *or may not* lead to a qualification. Whereas the definitions we have adopted for *certification* and *qualification* imply that the former leads to the latter.

The **recognition of non-formal and informal learning** is a special case within RPL. It describes a process used to evaluate skills and knowledge acquired through life outside of formal education and training.

There are two classes of recognition:

*"**Formal recognition:** process of granting official status to learning outcomes knowledge, skills and competences either through:*

- *the validation of non-formal and informal learning;*
- *the granting of equivalence, credit units or waivers;*
- *the awarding of qualifications (certificates, diploma or titles) and/or*

***Social recognition:** acknowledgement of the value of knowledge, skills and/or competences by economic and social stakeholders."* (Cedefop, 2014)

The number of different scenarios in which RPL may arise is virtually infinite but if we ignore the situational detail we can identify the following scenario-types as examples:

A. Acquire a specific qualification (including exemptions and such like) that is the outcome of one or more specific programmes;

B. Acquire a qualification for which there is an NFQ award-type but no programme and no specific 'named award'.

3.2 What are qualifications systems and why are they important?

In this section we explain what we mean by a **qualifications system** and why it is important.

Consider how a country recognises the learning (knowledge, skills and competence) of the people within it. Consider how government entities, public utilities, education and training providers, employers, professional/practitioner bodies, regulators (of all kinds), trade unions and such like recognise learning for their various purposes. Consider how such entities and groups communicate their knowledge, skills and competence needs. Consider how individuals communicate their learning achievements to such groups and society more generally. Consider the supports for confidence (or trust) in qualifications. Consider how people compare qualifications. Consider how a country ensures that a suitable network of learning pathways exist to enable people to gain qualifications that are needed and trusted by society.

The country's qualifications system is where all this is accomplished. And, while people are normally conscious of the institutions involved, a country's qualifications system is so pervasive and distributed

that people can fail to notice it or just take it as a given and fail to appreciate that there is a system to be understood and perhaps improved. This is important, for example, because a flawed qualifications system can prevent a country or groups within it from actualising its or their potential.

Qualifications systems are distributed systems that are largely self-organising. That is not to say they can be left to evolve entirely based on unregulated market forces or that they cannot be influenced.

It is only by mapping and modelling a country's qualifications system that we can understand it and identify opportunities for improving it. Such modelling is likely to involve qualitative and quantitative elements.

Changing qualifications systems is a social project or an ecological one if we are to follow David Raffe's gardening metaphor. Changing qualifications systems can involve action at macro, meso and micro levels. Often the necessary macro-level activity will involve shaping environments and influencing actors rather than direct controls.

According to the OECD[35], a qualifications system includes

> *"all aspects of a country's activity that result in the recognition of learning. These systems include the means of developing and operationalising national or regional policy on qualifications, institutional arrangements, quality assurance processes, assessment and awarding processes, skills recognition and other mechanisms that link education and training to the labour market and civil society..."*[36]

The three key functions[37] of a qualifications system are, according to (Allen, 2006)[38]:

- *"social reproduction – supporting demarcations in knowledge and skills, promoting particular explicit/implicit values*
- *structuring pathways to employment and further learning, formalising progression routes and thus providing patterns of incentives for participation in education and training*
- *shaping learning through affecting the nature, structure and content of learning programs."*

The concepts that arise here of a qualification and, to a lesser extent, of a programme were addressed in section 3.1. The concepts of **paths** and **pathways** to qualifications, employment or further learning have not so far been detailed but are key to thinking about qualifications systems, and especially how qualifications are acquired and used. They are addressed in section 3.2.1.

At the European level there is a wide range of helpful tools for qualifications systems—it would be difficult to overstate how important this is especially for small countries like Ireland. Consider the European Qualifications Framework, the Framework for Qualifications in the European Higher Education Area (QF-EHEA), EQAVET, EQAR, ECTS, ECVET, ENIC-NARIC, ESCO, EUROPASS and such like.

National qualification frameworks are an increasingly popular infrastructural element within national qualifications systems. They can help facilitate communication between different actors by providing a common language, and they can also effect change.

Finally, please note that the qualifications system in its entirety is beyond the scope of this Technical Paper and we will often refer to the **tertiary qualifications system** to identify those aspects of the

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[35] OECD. (2007). Qualifications Systems: Bridges to Lifelong Learning. Paris: OECD Publishing.

[36] The sociological mechanisms while not explicit in this definition are taken by us as implied.

[37] In (CEDEFOP, 2010, p. 37) this was cited it as a "*good description of the way qualifications are expected to work*" and we agree.

[38] Adapting ideas from Oates et al.

qualifications system that are within the paper's scope. This is not to say that the tertiary qualifications system is a sub-system that can be understood in isolation but rather to focus on issues that have a tertiary bearing.

3.2.1 Pathways to qualifications, employment or further learning

In this section we will briefly explore the **pathways** metaphor in the context of qualifications systems. To begin, we observe that learning through engagement in a programme[39] or a sequence of programmes can be thought of as travelling along a pathway. **Recognition of Prior Learning (RPL)** processes can be thought of as retrospectively understood pathways that may lead directly to qualification/employment, or indirectly via a programme of education and training.

Qualifications can mark:

- starting points for pathways,
- waypoints on pathways,
- junctions between pathways or
- endpoints for pathways.

To concretise this, imagine the possible pathways from completion of primary school to earning a registered nurse qualification. One, for example, may involve general secondary level education including some science subjects followed by first cycle higher education in nursing and another may involve general secondary education, followed by further education in nursing studies followed by the same first cycle higher education in nursing.

Pathways are not just about RPL and programmes, we also need to consider the other factors that traversing a pathway depend on, for example, the socioeconomic status of the individual, the availability of resources (e.g. capacity of programmes or the availability of employment) and the level of competition for resources (e.g. from other individuals wishing to use the pathway).

It is tempting to speculate whether we may be able to develop a quantitative model based on the pathway metaphor[40]. This may strike the reader as overambitious, but modelling does not have to be all or nothing-even highly simplified models, built using the data we already have, may help improve our understanding of the functioning of the qualifications system and help suggest opportunities for its improvement.

We think it is self-evident that pathways can be optimised to some degree. The question is how do to that well. To answer the question, we (as a society) need to understand the status quo at system level, what we need to monitor, how to estimate the impact of potential changes that we think may enhance the system, and how best to influence the kind of change that will make the system work better for society. Developing this kind of understanding is challenging but some relevant work on understanding the status quo is already being done for example by SOLAS, HEA, CSO and ESRI. It depends partly on gathering and

[39] Qualifications and programmes of education and training are generally not completely individualised (i.e. not designed for specific individuals) in that learners normally enrol in cohorts at specified times on programmes with specified entry requirements and are required to achieve at least a specified standard (minimum intended programme learning outcomes) within a specified time to successfully complete the programme of education and training. However, they are often designed with a specific target learner group in mind. Because programmes of education and training are expensive to develop, maintain and implement there is a trade-off between the shortest length learning pathway to a specific qualification and the cost of the associated programmes.

[40] Suppose that any individual's learning can be approximately (to keep the model as simple as possible) represented by a state encodable as an array of numbers. Perhaps such a state can represent a point in a kind of state space. Perhaps a qualification in a specific discipline can be represented as a region or approximated as a point in a sub-space of the state space. Perhaps we can think of learning outcomes as transitions between states. And perhaps state transitions can be linked with the pathway metaphor.

combining high quality data about individual paths[41] from multiple sources.

Naturally we would like to have a **network of pathways** that would enable our country to realise its full potential. From the qualifications system perspective, it is important to appreciate that decisions made about establishing qualifications and their associated programmes can influence the distribution of the kind of pathways that we have been discussing.

3.2.2 Qualifications system actors

We have mentioned the various qualifications system actors and their interests several times. Here we add a little more detail.

We are interested in how qualifications, their standards and their associated programmes, RPL processes (for recognising learning pathways):

- have emerged,
- are defined,
- are developed,
- are communicated,
- are recognised and
- are used

by stakeholders (working individually and in groups e.g. CoPs) including the following

- employers and related entities (e.g. recruitment agencies, industry sector representative groups, occupational standards setting groups),
- occupational (including activity) regulators and related entities (e.g. policy makers),
- professional and academic practitioners, communities and associations and related entities (e.g. international scientific communities, professional bodies),
- cultural and societal communities and associations,
- educational funding, regulation and development agencies and related entities (e.g. ourselves, SOLAS, HEA, government departments, and such like),
- educational, economic and social science data collectors, analysts and researchers (e.g. CSO, Eurydice, OECD, ESRI, SOLAS, Revenue, EGFSN, HEA, DES, EU bodies such as CEDEFOP ...),
- providers of programmes of education and training and other kinds of educational institutions (including educational awarding bodies),
- learners, prospective learners and graduates (to simplify we will typically use the term learners to signify all three) and their stakeholders (e.g. parents, professional bodies and employers),

and how all of this relates to pathways to qualifications, employment or further learning.

3.2.3 Concluding remarks on qualifications systems

At this point we have set out the main conceptual underpinnings for the Technical Paper. Some of the concepts may be further elaborated where used in the remainder of the paper.

As an aside, it is interesting to draw parallels between the qualifications system and the monetary system. Reflecting on this, we may have seen some qualifications inflation (which is quite distinct from more frequently discussed grade inflation), but we have not yet faced systemwide crashes in confidence in qualifications of the kind that we have faced more than once in the monetary system. This may be because the qualifications system is more deeply embedded in the structure of society and qualifications

[41] Privacy is a factor that must be considered carefully here.

(we hope) are reasonably accurate reflections of what people have learned. But we should not be complacent.

We have discussed qualifications as means for the exchange of skills information and we have discussed the importance of trust. It should not be assumed that qualifications will be unquestioningly recognised nor that they are the only way of exchanging information about knowledge, skill or[42] competence. Formal qualifications are not necessarily sufficient to convince an employer that the holder has the specific skills required for a specific job. Indeed, some employers conduct elaborate independent assessments of candidates to satisfy themselves that candidates have the skills required.

We published "Qualifications Systems and Related Concepts – a QQI background paper" in May 2013[43]. It may be of interest. It provides some more detail on our early conceptual framework, especially in sections 1-4.

[42] This 'or' in this phrase is inclusive (meaning and or). We use either to highlight the exclusive or.

[43] https://www.qqi.ie//Publications/Pages/Qualifications%20Systems%20and%20related%20concepts.aspx

Part 2: Tertiary qualifications infrastructure

Part 2 outlines a selection of actors, institutions and infrastructure that relate to tertiary qualifications. This selection of infrastructure is not intended to be exhaustive. For example, we could have written about the guidance infrastructure that is available to individuals at all stages of their lives to help them navigate learning pathways to qualifications.

The main topics addressed are:

- QQI's roles in promoting effective practices within the qualifications system
- the National Framework of Qualifications (NFQ)
- awarding bodies whose qualifications are included in the NFQ
- standards for major tertiary awards led to by apprenticeships
- QQI awards standards applying to its awards and those of DA awarding bodies
- designated awarding body award standards
- qualifications that are not currently included in the NFQ
- professional qualifications
- Irish infrastructure for modelling supply, demand and need for skills/qualifications
- European infrastructure for qualifications systems
- incipient digital infrastructure for exchanging information about qualifications

1. QQI's roles in promoting effective practices within the qualifications system

QQI is a state agency operating under the aegis of the Department of Education and Skills. The Department of Education and Skills together with other government departments has overall responsibility for the qualifications system. We do not address that layer in this paper.

We are setting out the issues here as one of the state agencies mandated to support the qualifications system and as an awarding body. Our principal functions relating to the qualifications system include

- maintaining the National Framework of Qualifications (NFQ);
- functioning as a national awarding body (determining standards, validating programmes, making awards and delegating authority to make awards) mainly, but not only, for further education and training;
- providing external quality assurance for tertiary education institutions and English language schools;
- establishing policies and criteria for access, transfer and progression;
- awarding the International Education Mark;
- maintaining the Irish Register of Qualifications;
- and providing a qualifications recognition service;

In the performance of our functions we can avail of the following mandate (especially 9.—(2)(b) of *2012 Act (as amended))* that gives us a role in helping to influence the qualifications system as well as the education and training system.

> *9.— (2) The Authority in the performance of its functions shall—*
>
> *(a) inform itself of the education, training, skills and qualifications requirements of industry,*

agriculture, business, tourism, trade, the professions and the public service, including requirements as to the level of knowledge, skill or competence to be acquired by learners,
(b) promote practices in education and training which meet the requirements referred to in paragraph (a),
(c) inform itself of practices outside the State in respect of matters relevant to its functions,
(d) have regard to such policies of the Government relating to education and training as are notified in writing to the Authority, by the Minister,
(e) consult, as it considers appropriate, with providers, professional recognition bodies, staff and learner representatives, An tÚdarás um Ard-Oideachas, the National Council for Curriculum and Assessment, the State Examinations Commission, Solas and any other persons or bodies the Authority considers appropriate,
(f) conduct any reviews that it considers necessary and expedient for the performance of its functions, and
(g) publish reports of its reviews, evaluations and determinations as it considers appropriate.

Section 13 of the 2012 Act on cooperation with QQI as amended by the 2019 Act) and section 14 on Directions of QQI as to provision of information, help further support our roles. These sections apply to (*a*) relevant providers, (*b*) bodies authorised by law to make awards in the State, and (*c*) **professional recognition bodies**.

2. The NFQ and related infrastructure

The qualifications system depends, among other things, on agreement about standards for qualifications and, as we have indicated in Part 1 section 3, there can be layers upon layers of infrastructure that help support such agreement about standards.

That infrastructure includes the NFQ, and QQI's policy on access, transfer and progression. These apply to the whole the tertiary qualifications system.

The NFQ has been designed to facilitate

- communication about qualifications (for example on their comparability);
- the design and specification of specific qualifications;
- the design of programmes of education and training leading to qualifications;
- processes for the recognition of prior learning; and
- the design and specification of learning pathways.

2.1 The NFQ

The National Framework of Qualifications (NFQ) is a system of levels for qualifications. It assumes that the learning required for any educational qualification can be described in terms of **knowledge, skill or competence** and that these can be represented by statements of **expected learning outcomes**.

Ten NFQ levels are defined by the NFQ Grid of Level Indicators for each of three **strands** (knowledge, skill and competence) and eight **sub-strands**.

The NFQ also includes a range of **award-types**. There are five classes of qualifications that can be included in the NFQ: four original ones: Major, Minor, Special Purpose, and Supplemental and the more recently established Professional class.

Each award-type has an **award-type descriptor.** Descriptors have been determined for:

- major awards
- professional awards
- minor, special purpose and supplemental awards

The original major award-type descriptors for FET and HE are largely built using elements from the grid of level indicators. Some combine indicators from different columns (e.g. a Level 6 award-type may include a Level 7 indicator for knowledge kind).

The expected learning outcomes for award-type descriptors for the Junior Certificate and Leaving Certificate are a little different and the latter does not have an NFQ level, rather it is associated with two NFQ levels.

Award-type descriptors and level indicators involve the use of statements of **expected learning outcomes (ELO)** (as defined in section 3.1.3). However, ELO is not a term that was routinely used by the NFQ policy and criteria which refers once to the expected outcomes of learning but mostly it simply refers to learning outcomes. The policy is also ambiguous about the precise meaning of the indicators as noted in section 5 of the Green Paper on Assessment (pp. 36-45).

All the NFQ's original award-type descriptors were designed to be as general as possible (for example they are non-discipline specific and they do not distinguish between occupation-oriented qualifications and other kinds of qualifications).

The most recent NFQ development was the determination of a new 'professional' class of awards along with a set of **professional award-type descriptors (PATDs).** The professional award-type and its descriptors were developed to strengthen the capacity of the NFQ to resolve differences between levels of professional or occupation-oriented awards. The professional class implicitly introduced the concept that an award can have more than one class and type—e.g. a specific honours bachelor's degree award could be classed as both major and professional and would need to be consistent with the bachelor's degree award-type as well with as the professional award-type. The expected learning outcomes (ELOs) of the PATDs were designed to be consistent with the ELOs used in the corresponding column of the grid of level indicators.

The PATDs are the generalised standards for apprenticeship awards at NFQ Levels 5-9. The prospect of extending them to doctoral level is being considered.

The award-type descriptors are the most general expression of standards for qualifications that are included in the NFQ. NFQ award-type descriptors have the following features (NQAI, 2003):

- award-type descriptors describe general standards and mixes of knowledge, skill and competence associated with award-types
- award-type descriptors include level and volume—there may be more than one award-type at any given level in the Framework—the level of an award-type is not determined solely by the level of the highest learning contained therein
- award-type descriptors operate independently of specific fields of learning, but facilitate more detailed specification for named awards
- award-type descriptors may include articulation or progression characteristics
- award-type descriptors may include reference to assessment methods.

Some of these will be explored briefly in the following sub-sections.

Finally, the NFQ is referenced to the EQF and aligned with the QF-EHEA.

2.1.1 Linking awards with the NFQ (recognition within / inclusion in)

The concept of "recognition within the NFQ" originated in the 2012 Act, but QQI, the intended recognition authority, lacked the explicit legal powers necessary to recognise the awards of any but a limited number of bodies including QQI, the Irish universities, the Irish institutes of technology.

The Qualifications and Quality Assurance (Education and Training) (Amendment) Act 2019 addresses this. The term 'recognise within the framework' is now replaced by 'include within the framework' with explicit processes for inclusion.

The term 'include within the framework' gives pause for thought; it may suggest that each inclusion would incrementally change the framework by becoming part of it but it is an accepted term of art in this field.

2.1.2 Volume

Each NFQ award-type descriptor classifies the expected volume of learning as small, medium, large or variable. Volume relates to the quantity of learning. It is defined thus:

> *"Volume of standards of knowledge, skill and competence refers to the amount of knowledge, skill and competence at a particular level or levels: the more the amount of knowledge, skill and competence, the greater the volume. The volume measure does not necessarily specify the kind or mix of knowledge, skill and competence. The concept of volume does not primarily refer to the cumulative amount of education and training undertaken to reach a level, that is, to the inputs required to achieve a set of outcomes. Rather, it refers to outcomes and the standards of these. Various systems for measuring volume make use of notional learning time for the purposes of devising a common metric across different kinds of outcome but this is not the essential meaning of the concept of volume. The concept of volume is a key to the development of a system of credit accumulation and transfer. Not all award-types at a level necessarily have the same volume."*

2.1.3 Progression and transfer

Many NFQ award-type descriptors include statements on progression and transfer. For example, the Advanced Certificate entry is as follows:

> *"Progression to a programme leading to an Ordinary Bachelor Degree or to an Honours Bachelor Degree. Transfer to a programme leading to a Higher Certificate."*

2.1.4 Articulation

The facility to comment on articulation, which was part of the original NFQ design, is rarely used. Examples of its use include the Higher Diploma and Professional Award-type Descriptors.
This facility has been in place since the NFQ was first established and more use could be made of it.

2.1.5 Assessment

NFQ qualifications are expected to be awarded to people who have been assessed as having a certain standard of knowledge, skill and competence (see the next quotation below).

The original NFQ policies and criteria state:

> *"It is also important to note that not all forms of learning that contribute to enabling a learner to perform in context can feasibly or reliably be captured by the assessment methods available. While such learning is important, and may be part of the desired learning outcomes for a programme of*

> *education and training, it cannot be compared against standards and as such cannot form part of the award* ***standard[44]s for the inclusion of awards in the Framework.*** (NQAI, 2003, p. 21)
>
> *... The Framework will not presuppose a uniformity or harmonisation of assessment methodologies leading to all awards. The Framework will accommodate awards made on the basis of pass/fail outcomes, and awards made on the basis of graded outcomes."* (NQAI, 2003, p. 38)

Most NFQ award-type descriptors do not address assessment methods. The professional award-type descriptors address assessment in general terms.

2.1.6 Minor, special purpose and supplemental award classes

Minor, special purpose or supplemental awards tend to be more focussed than major awards.

The practice of issuing NFQ minor awards for small volumes of learning is widespread and deeply embedded in further education and training and it is not unusual in higher education in Ireland. Minor awards are intended to signify achievement of "part of the learning outcomes associated with a major award". They will be very familiar to many readers, but it is still useful to recall their original intention:

> *A minor award-type will provide recognition for learners who achieve a range of learning outcomes, without achieving the specific combination of learning outcomes required for a major award. The range of learning outcomes will have relevance in their own right. The minor award will also be a means of identifying the knowledge, skill or competence previously acquired by the learner.*
>
> *Minor award-types may not have been designed with a distinct purpose and, in this way, they may be distinguished from special purpose award-types. A minor award-type will be part of the learning outcomes associated with one or more major award-types at a given level in the Framework.*
>
> *The combination, number or volume of outcomes achieved may be variable. A minimum achievement in learning required for a minor award can be set. The nomenclature adopted for minor awards will clearly differentiate them from major awards. Minor awards may be combined with other learning outcomes towards the achievement of a major or special purpose award. Minor award-types may contribute towards the accumulation of credit for major award-types, subject to the policies and regulations governing the use of credit to be developed by the awarding bodies in the Framework.* (NQAI, 2003)

QQI's FET Common Awards System makes extensive use of minor awards (where they are also called components).

2.2 QQI policy and criteria for access, transfer and progression (ATP)

This section is about QQI policy and criteria for access, transfer and progression in relation to learners. Access, transfer and progression (ATP) is a broad topic with multiple perspectives and QQI's policy and criteria (addressed in this section) is focussed on providing high-level regulation. Providers are expected to establish detailed procedures for ATP, and these are subject to review by QQI. Much more could be said about access, transfer and progression if the scope were wider.

QQI has a statutory role to guide providers on establishing procedures for access, transfer and progression. The following extract from the 2012 Act elaborates:

> *56.— (1) The Authority shall, as soon as practicable after the establishment day, establish and publish, in such form and manner as it thinks appropriate (including on the internet), policies and criteria for access, transfer and progression in relation to learners.*

[44] An award standard is a statement of *the knowledge, skill or competence to be acquired, and where appropriate, demonstrated, by a learner before the specified award may be made.*

> *(2) Each relevant provider and linked provider shall, as soon as practicable after policies and criteria are established under subsection (1), in accordance with those policies and criteria, establish procedures for access, transfer and progression in relation to learners to be implemented by the provider concerned.*
>
> *(3) The procedures referred to in subsection (2) shall include procedures for credit accumulation, credit transfer and identification and formal assessment of the knowledge, skills or competence previously acquired by learners.*

Access, transfer and progression policy and criteria are concerned with lifelong learning pathways among other things. The current policy and criteria are essentially the ones that were originally developed when the NFQ was established.

2.2.1 Credit, access, transfer and progression

Credit is widely used in education and training in Ireland, in Europe (e.g. ECTS, ECVET) and beyond. In an educational context the term credit has multiple meanings. It can relate to the

A. quantity of learning (where it is used as a proxy for the NFQ's volume)
B. average effort expended to achieve a specified learning achievement, expressed in numbers of hours (or multiples of hours) of learner effort.
C. recognition of prior learning (gaining credit for a unit of a programme that has been completed successfully)
D. calculation of a grade (e.g. where a grade is a function of credit weighted marks)

Credit is linked with the effort required to undergo a change in learning rather than the effort from birth!

Credit is often involved in aggregating assessment results for elements of a programme to produce an overall grade, for example calculating an overall grade using a credit weighted average of marks for the units that comprise the programme. Our recent Green Paper on Assessment provides a more in-depth treatment of assessment.

Credit also plays a role when developing or agreeing articulation, transfer or progression arrangements between programmes of different providers, perhaps in different sectors or even jurisdictions.

Credit is defined, along with credit transfer, in section 56 the 2012 Act (on procedures for access, transfer and progression in relation to learners) exclusively in respect of programmes and for that section only:

> *"credit" means an acknowledgement of an enrolled learner's completion of a programme or part of a programme of education and training to a particular standard;*
>
> *"credit transfer" means transferring credits awarded for studies undertaken as part of one programme of education and training to another programme.*

The more general definition in the glossary is consistent with this programme-centred one.

2.2.2 Credit-level and programme duration in higher education

The European Credit Transfer System (ECTS) is widely used in higher education. There is an ECTS Users' Guide which is updated from time to time (most recently in 2015). ECTS expects 25-30 hours of learner effort per credit. If there is any vestige of the older higher education practice of requiring 20-30 hours per credit (NQAI, 2006, p. 18), we expect this to be discontinued so that only one system with the tighter bound is in use across the higher education system.

The Principles and Operational Guidelines for the Implementation of a National Approach to Credit (NQAI, 2006) in Irish higher education requires that a major higher educational award programme must have at least 60 credits (one academic year) at the same level as the major. It also promotes models of programme design where the credit for the first year or two is associated with NFQ Level 6.

Table 1 Higher education credit model (NQAI, 2006) (first published in 2004)

Level 6	Higher Certificate	120 credits
Level 7	Ordinary Bachelor Degree	180 credits
Level 8	Honours Bachelor Degree	180-240 credits
Level 8	Higher Diploma	60 credits
Level 9	Masters Degree (Taught)	60-120 credits
Level 9	Postgraduate Diploma	60 credits

Recall that credit depends not only on the learning goal but on the prior learning that it is built upon. First cycle higher education programmes are typically designed to enrol people with a Leaving Certificate (or equivalent level of learning). The Leaving Certificate does not have an NFQ level but rather a lower and upper bound for the level, of 4 and 5 respectively). The Higher Education Links Scheme and various bilateral arrangements provide an alternative route to higher education from the FET sector.

2.2.3 Credit in FET

There is an FET credit system in place for programmes leading to NFQ FET awards. For example, one fulltime academic year in a FET post Leaving Certificate (PLC) programme involves 1200 hours of learner effort at levels 5 or 6 and one QQI FET credit unit involves ten notional hours of learner input.

There is no direct equivalent to the ECTS Users' Guide for the FET credit system. There is a European Credit and Transfer System for Vocational[45] Education and Training (ECVET) but, despite being in place for 10 years[46], it is not as developed or straightforward as ECTS. This long gestation may have to do with VET's greater diversity of practices, cultures and traditions.

QQI's Common Awards System regulates credit for major awards as follows:

Table 2 Common Awards System credit model47

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Certificate Credit Requirement[48]	20	30	60	90	120	120
Maximum Allocated to Component Awards	20	30	60	90	120	120
Minimum allocated to components	0	0	0	0	0	0

[45] Vocational education and training (VET) has multiple different interpretations depending on who is using it—we use the Eurostat definition in this paper. Note that VET can occur within tertiary educational institutions and / or without.

[46] Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of a European Credit System for Vocational Education and Training (ECVET) (Text with EEA relevance) OJ C 155, 8.7.2009, pp. 11–18

[47] https://www.qqi.ie/Publications/Publications/Policy%20for%20Determining%20Award%20Standards.pdf

[48] Assuming achievement of the preceding Framework level (in the field of learning concerned).

All awards specifications within QQI's Common Awards System prescribe FET credits. **Compound award** specifications also include rules on how that credit must be accumulated through the achievement of **component awards.**

Though they are outside the Common Awards System, credit allocations for an apprenticeship programme often reflect the CAS credit expectations for the major award-type that it leads to rather than the notional learner effort. For example, a four-year apprenticeship leading to an Advanced Certificate is associated with 240 FET credits.

The **Higher Education Links Scheme (HELS)** gives learners the opportunity to use their QQI Level 5 or 6 major award to apply, through the **Central Applications Office (CAO)**, for a place in the first year of a higher education programme.[49] The CAO scheme is based on points. Points are allocated on the basis of component/module grades, weighted by the component/module credit values. HELS derived CAP points are capped at 390 points. This contrasts with the maximum of 625 CAO points that can be achieved based on LC results.

2.3 Recognition and tertiary educational qualifications

Recognition is a term that means different things in different contexts:

A. Recognition within the NFQ (soon to be called inclusion within the NFQ);
B. Recognition of higher education qualifications within Europe (Lisbon Recognition Convention);
C. Advice on the best fitting award-type in the NFQ for a foreign qualification (see NARIC Ireland Foreign Qualifications);
D. Recognition of professional qualifications (see the EU webpage entitled Recognition of professional qualifications in practice);
E. Recognition of prior learning (including for educational access and progression purposes) (see Part 1 section 3.1.7).

As a member state of the European Union we benefit from substantial infrastructural support on B, C and D and arguably E which is supported by the conceptual framework provided by the 2012 Council Recommendation on the validation of non-formal and informal learning (2012/C 398/01) and by the EQF Recommendation (2017/C 189/03). ECTS and ECVET are considered as tools for recognition that may assist various forms of recognition.

2.3.1 Recognition conventions and recommendations

The Lisbon Recognition Convention[50] and the EU Council Recommendation '*on promoting automatic mutual recognition of higher education and upper secondary education and training qualifications and the outcomes of learning periods abroad*' (2018/C 444/01) apply. In the context of the qualifications system, these texts are relevant as they introduce the principle of 'no substantial difference' when assessing qualifications for access to HE and also remind us that whatever practice we adopt in Ireland for recognising domestic upper secondary level qualifications (including FET qualifications) for progression to HE, it will inform decisions taken by HE institutions in territories that have signed up to the LRC and or are located in EU Member States. (source, internal QQI)

[49] https://www.qqi.ie/Articles/Pages/Higher-Education-Links-Scheme-%28HELS%29.aspx

[50] Convention on the Recognition of Qualifications concerning Higher Education in the European Region (ETS No.165)

3. Tertiary awarding bodies whose qualifications are included in the NFQ

This section outlines the various kinds of awarding bodies that award qualifications that are included in the NFQ[51]. It focusses attention on their main features and their varying responsibilities for determining awards standards in the context of the NFQ. The awarding bodies covered here include:

- designated awarding bodies
- QQI as an awarding body
- delegated authority awarding bodies
- listed awarding bodies

3.1 Designated awarding bodies

These bodies include the universities, the technological universities and the institutes of technology (up to NFQ Level 9). On 1 January 2020, the Institutes of Technology (IOTs) became designated awarding bodies (sections 3(1)c and 16(b)(i)(a) of the *Qualifications and Quality Assurance (Education and Training) (Amendment) Act 2019*) in respect of awards made at NFQ Levels 1, 2, ..., 9. Notably this widened the scope of their awarding powers to include FET. Note that the same FET awarding power is not explicitly in place for technological universities because the Technological Universities Act 2018, for example, envisages them as entities that:

> *"9(1)(a) provide teaching and facilitate learning that—*
>
> (i) *is informed by research, and*
>
> (ii) *promotes excellence at all levels of higher education within the Framework."*[52]
>
> ...
>
> *9(1)(o) provide directly, or in collaboration with other providers of programmes of education and training, facilities for all levels of higher education within the Framework, including technological and professional education, and for research,*

DABs determine the **award standard** for each of their own awards subject to the National Framework of Qualifications. The requirement to comply with the NFQ is due mainly to sections 43(3) and 43(4) of the *Qualifications and Quality Assurance (Education and Training) Act 2012*[53]*:*

> *"43(3) Each body authorised by law to make awards in the State shall ensure, in so far as is reasonably practicable, that each award that it makes is recognised within the Framework.*
>
> *43(4) Each awarding body in the State shall, in respect of each award the body makes that is recognised within the Framework, ensure that a learner acquires the standard of knowledge, skill or competence associated with the level of that award within the Framework before an award is made."*

Sections 43(3)-(5) have been substituted by the following which will take effect when the relevant part of the 2019 Act is commenced.

> *"(3) Each designated awarding body and listed awarding body, shall, in respect of each award that the body makes that is an award included within the Framework:*

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[51] The arrangements for corresponding awards standards are addressed in detail from an assessment perspective in section 5 of our Green Paper on Assessment published in March 2018.

[52] Section 9 of the Technological Universities Act 2018.

[53] Note that amendments to these subsections have been proposed in the amendment bill published in August 2018: https://data.oireachtas.ie/ie/oireachtas/bill/2018/95/eng/initiated/b9518s.pdf

(a) take such steps (whether by way of co-operation or consultation with the Authority or otherwise) as will facilitate the performance by the Authority of its functions in so far as those functions relate to awards included within the Framework (referred to in paragraph (b) as 'relevant functions');

(b) provide to the Authority such information as the Authority may from time to time require for the performance by it of relevant functions.

(4) Each designated awarding body shall ensure, in so far as is reasonably practicable, that each award that it makes is an award that is included within the Framework.

(5) Each—

(a) designated awarding body,

(b) provider to whom the Authority has delegated authority to make awards, and

(c) body that makes an award under the Education Act 1998 that stands specified by the Minister to be an award that falls within this paragraph, shall cooperate with the Authority in the implementation of policies and criteria established under section 55E(1)(b).

(6) Each designated awarding body and each listed awarding body shall, in respect of each award the body makes that is an award included within the Framework, ensure that a learner acquires the standard of knowledge, skill or competence associated with the level of that award within the Framework before and when the award is made.

(7) Subsection (8) applies to each provider of a programme of education and training, being a programme that leads to an award that is an award included within the Framework.

(8) In respect of each such programme, its provider shall ensure that an enrolled learner acquires the standard of knowledge, skill or competence associated with the level of the award concerned within the Framework before the award is made.".

The NFQ's award-type descriptors in effect function as generalised awards standards for the corresponding awards of DABs.

3.2 QQI as an awarding body

QQI certifies qualifications (also referred to as making awards) for those who:

- complete a programme that QQI has validated; or
- complete a recognition of prior learning process that QQI has approved (normally through the approval of institutional access, transfer and progression procedures); or
- a combination of these.

QQI awards standards are designed to be consistent with the NFQ. We maintain a spectrum of award standards ranging from generic standards (essentially the NFQ award-type descriptors) to the detailed awards standards (awards specifications) that are part of the Common Awards System and used for many further education and training (FET) programmes.

QQI's *Policy for Determining Awards Standards (2014)* enables a wide variety of approaches to the determination of awards standards while providing for the maintenance of legacy systems for, and approaches to, awards standards.

QQI awards standards are not, however, the last word on standards for our named awards as the following extract from our *Policy for Determining Awards Standards* explains:

> *The de facto award standard for a particular named award as issued is the statement of minimum intended programme learning outcomes that is approved at validation of the corresponding programme of education and training. These de facto awards standards are maintained by providers. While QQI awards standards and corresponding awards specifications are more or less specific, the intended programme learning outcomes to be acquired, and where appropriate demonstrated, before a named award associated with a validated programme may be made, must always be specific and sufficiently detailed to communicate the award-holder's knowledge, skill and competence to a prospective employer or an educational institution for the purpose of helping the award-holder gain access to, transfer to or progress to, a particular programme of education and training.* (section 3.1.a, Validation and Awards Standards)

The first sentence here is especially significant. The point is that the standards that we determine before a programme is developed are standards for classes of **named awards** (normally at a specific NFQ level) whereas a specific named award to be made in respect of a specific programme and its standard is the set of **minimum intended programme learning outcomes** (MIPLOs) agreed at the validation of that programme and thereafter maintained by the provider subject to the conditions of validation. (See Appendix 3 for further details on MIPLOs and MIMLOs functioning as *de facto* standards.)

Because they can be interpreted like this, the awards standards that we determine can be more, or less, specific as we consider appropriate. The broadest possible awards standards that we can use are the **award-type descriptors** of the NFQ. We have adopted the full set of NFQ award-type descriptors as tertiary awards standards. These apply unless we have determined more specific awards standards.

Standards are also required for RPL processes. It is possible for a learner to seek an award through an RPL process without completing a validated programme and where no validated programme exists. QQI's current award related policies do not address this scenario explicitly.

We will return to the topic of our own awards standards later in this paper (Part 2 section 4) to provide further detail on them, and in Part 3 section 4, to identify key issues and set out for discussion some options for evolving our approaches to developing and maintaining awards standards.

3.3 Delegated authority (DA) awarding bodies

Providers with delegated authority to make awards (abbreviated by 'DA') **validate** their own programmes against our awards standards and have delegated authority to make their own awards. Our Procedures and criteria relating to delegation of authority provide further detail.

Currently, only the institutes of technology (IOTs) have delegated authority. An IOT may have DA for awards at NFQ Level 10 in one or more specified **discipline areas**. Some IOTs still rely on QQI validation or arrangements with other awarding bodies for doctoral awards offered in respect of research degree programmes or professional doctorates. Prior to their becoming DABs on 1 January 2020, all the institutes of technology (except DIT which was already a DAB) had DA to make HE awards at NFQ Levels 6-9.

Other types of institutions may receive delegated authority in the future, for example Teagasc and the ETBs can request DA. And, subject to ministerial regulations first being established, providers who are not explicitly listed (e.g. private sector providers) could request DA subject to meeting the conditions that would be specified in those ministerial regulations.

DA (or indeed designation as an awarding body) is best suited to organisations that can sustain the necessary overheads and have sufficient volumes of activity to maintain the necessary level of expertise.

Context aside, the main point to note here is that providers with delegated authority (DA) are differentiated from designated awarding bodies (DABs) in that they depend on QQI to set standards for their awards and to provide programme-level external quality assurance (where implemented this is light touch). Within the scope of their DA, they are like DABS, responsible for the validation (provider-managed QA process) of their own programmes where the *de facto* named awards standards are determined.

3.4 Listed awarding bodies

The *Qualifications and Quality Assurance (Education and Training) (Amendment) Act 2019* has introduced the innovation of a **listed awarding body** (**LAB**) that can have its awards included within the NFQ. At the time of writing, the relevant parts have not yet been commenced.

A listed awarding body need not be a provider, unlike a DAB or a DA awarding body.

We think it likely that this will, through section 48 of the 2012 Act (see next section), create demand for listing, driven at least by compliance motives, from the awarding bodies already making awards in respect of ETB programmes. Some professional bodies are also likely to wish to have their professional awards included within the NFQ. We can imagine other kinds of awarding bodies, both established and emerging, that may also be interested.

3.5 Awarding bodies, programmes and providers

Providers of programmes of education and training are also NFQ awarding bodies if they have DA, or they are DABs, or they are LABs (anticipating the future).

Many providers of programmes of *higher education* that lead to NFQ awards are awarding bodies (either designated or delegated). In contrast, at the time of writing (January 2020), there are no *providers* making further education and training awards that are included within NFQ.

Providers without awarding powers to make NFQ awards can enter into arrangements with awarding bodies whose awards are included in the NFQ. This may be with a DAB, or with QQI, or with a DA awarding body in respect of collaborative provision or, in the future, with a LAB.

Some providers are required to apply to QQI for validation of their programmes. In this context recall that QQI relies on providers to develop[54] and provide programmes and assess candidates for **its** awards.

3.6 NFQ major awards led to by apprenticeships

Any of the awarding bodies making NFQ awards can be involved in apprenticeship. From a qualification standards perspective, apprenticeship arrangements have some unique features that are noteworthy.

QQI, in consultation with stakeholders, has obliquely determined the overarching standards for major awards that mark successful completion of an apprenticeship through the NFQ Professional Award-type Descriptors (PATD) in conjunction with section 2.3.1(c) of our Topic-Specific Statutory Quality Assurance Guidelines for providers of Statutory Apprenticeship Programmes, which lists a set of assumptions about apprenticeship.

[54] QQI establishes and publishes programme validation policy and criteria that constrain the development of programmes leading to its awards and it evaluates whether proposed programmes meet those criteria but does not regard either activity as involving it in programme development. We regard validation as an external confirmatory quality assurance process.

> *The programme will lead to a professional award at an NFQ level, between Level 5 and Level 9 inclusive, that is aligned with the QQI Professional Award-Type Descriptor for that level and consistent with the approved Occupational Profile. QQI may issue a separate set of guidelines that will cover apprenticeship programmes developed at NFQ Level 10.*[55]

Apprenticeships in Ireland are regulated, and it is worth taking a little time to understand how they are established and who is involved because there is a growing number of them (at the time of writing there are over 50[56] with many more in development). The mechanisms by which the intended learning outcomes are developed are distinctive.

Apprenticeships' salient characteristics include:

- being industry-led;
- involving a substantial volume of work-based learning with apprentices being paid employees during their entire apprenticeship programme;
- lead to a major award in the NFQ.

Apprenticeships are partly regulated by the *Industrial Training Act 1967* (as designated industrial activities) and partly by the *Qualifications and Quality Assurance (Education and Training) Act 2012* (as regards their associated NFQ qualifications; access, transfer and progression arrangements; and the quality assurance of the education and training).

The 1967 Act applies to activities of industry, defined as:

> *""activity of industry" includes any activity of commerce or of a trade or occupation, and also includes any activity of a distinct branch of an industry, of commerce or of a trade or occupation, but does not include an activity of agriculture, horticulture or fishing which is an activity of primary production, or any activity of a professional occupation"*

An industrial activity (with certain explicit exclusions as noted earlier) may be designated by SOLAS under section 23 of the Industrial Training Act 1967 (No. 5 of 1967). The statutory instruments that designate activities are quite general. For example, the S.I. No. 409/2018—Industrial Training (Laboratory Industry) Order 2018 includes:

> *The following activities are hereby declared to be designated industrial activities for the purposes of the Industrial Training Act 1967(No. 5 of 1967):*
>
> *(a) the collection and recording of samples for scientific analysis;*
>
> *(b) the recording of results from scientific analysis;*
>
> *(c) the scientific analysis and/or testing of consumables and/or solutions used in a laboratory;*
>
> *(d) the preparation and testing of samples for scientific analysis;*
>
> *(e) the maintenance and/or calibration of equipment ordinarily used in a laboratory; and*
>
> *(f) all other activities which are ancillary to (a) to (e).*

At the time of writing, two apprenticeships fall under this SI. Each is further differentiated by an **occupational profile** (see also section 7.1.1)[57].

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[55] https://www.qqi.ie/Publications/Publications/Apprenticeship%20Programmes%20QAG%20Topic-Specific.pdf

[56] http://www.apprenticeship.ie/en/apprentice/Pages/ApprenticeInfo.aspx

[57] For example, the occupational profile for a Laboratory Technician available online; http://www.apprenticeship.ie/en/apprentice/Brochures/Biopharmachem/Lab%20Tech.pdf

4. Standards for QQI and DA awards

QQI awards standards apply to the awards we make ourselves and to those made by institutions with delegated authority.

While our overall approach to awards standards determination is unified we need, for the purposes of continuity in transition, to maintain differentiated legacy systems for awards in FET and HE.

Our Policy for Determining Awards Standards (especially section 3) outlines our approach succinctly. In this section we highlight some features of the implementation of the policy. In the next section we outline our approach to determining standards for our awards.

4.1 NFQ award-type descriptors as awards standards for QQI tertiary awards

QQI has adopted the NFQ award-type descriptors as generic awards standards. These are the most general QQI standards. They operate across the whole NFQ and exist for all award classes. Providers can apply to QQI for validation of a programme using one of these generic standards unless a more specific QQI award standard has already been determined.

In the absence of a pre-existing specific standard, the use of a generic standard can significantly reduce the time it takes to move from programme concept to enrolling learners on a validated programme. This is because it omits the QQI standards determination step. The current validation policy is sufficiently rigorous to prevent this approach leading to problematic interpretations of the generic standards. In a sense the validation process confirms the MIPLOs (developed as part of the programme) as suitable standards. However, it could, if not well managed, have a problematically decohering effect on the qualifications system. See Appendix 3 for further detail on validation and *de facto* standards.

There are generic standards for special purpose, supplemental and minor award-types. They derive from the major award type descriptor or level indicators at the relevant NFQ level but relax the requirement that all sub-strand expected learning outcomes must be met. They typically involve a lower volume of learning than the major award types at the same NFQ level.

4.2 QQI awards standards for further education and training awards

This section is about QQI FET awards and standards.

4.2.1 QQI FET Award Titles

QQI's named further education awards take the form [Award stem] in [specialisation]. A list of award stems for major awards is published in our *Policy and Criteria for Making Awards* (QQI, 2017) as follows:

- Advanced Certificate
- Level 5 Certificate
- Level 4 certificate
- Level 3 Certificate
- Level 2 Certificate
- Level 1 Certificate

4.2.2 QQI awards standards within the Common Awards System (CAS)

The Common Awards System (CAS) was established about ten years ago for FET awards standards. CAS comprises compound awards (major, special purpose and supplemental) and component awards (minor awards). The definitive policy statement of the CAS system is set out in considerable detail in the

QQI document *Policy for Determining Awards Standards*. Table 4 provides the numbers of CAS award specifications by NFQ level and award class. The bulk is at NFQ Levels 5 and 6.

Table 4 Analysis of CAS awards by class and NFQ level

Level	Major	Component	Special purpose	Supplemental
1	2	25	0	0
2	1	26	0	0
3	4	117	1	0
4	15	117	6	0
5	84	667	63	0
6	111	504	41	1
Total	217	1456	111	1

Compared with the HE standards, CAS award specifications are far more specific. This explains why there are so many of them (around 1800 at the time of writing).

4.2.3 Other kinds of FET awards standards

Any of the approaches to the determination of awards standards can be used in FET. QQI is not restricted to using CAS for new or revised standards.

Generic standards can be annotated to aid their interpretation in a specific discipline. For example, the recently published QQI awards standards for Early Learning and Care at NFQ Levels 5 and 6 took the form of annotations to the PATDs.

4.2.4 Origin of CAS award specifications

While a certain number of CAS awards specifications have been developed since the establishment of QQI, many CAS award specifications were developed prior to 2013 and many of those were the outcome of a migration process that applied to older standards including some NCVA (National Council for Vocational Awards) standards that predated FETAC.

4.3 QQI awards standards exclusively for higher education awards

This section is about QQI HE awards and standards.

4.3.1 QQI HE Award Titles

Named QQI higher education awards take the form [Award stem] in [specialisation]. A list of award stems is published in our *Policy and Criteria for Making Awards* (QQI, 2017). For example, at honours bachelor's degree level there are eight:

- Bachelor of Architecture (Honours)
- Bachelor of Arts (Honours)
- Bachelor of Business (Honours)

- Bachelor of Engineering (Honours)
- Bachelor of Science (Honours)
- Bachelor of Music (Honours)
- Honours Bachelor of Laws
- Bachelor of Education (Honours)

4.3.2 QQI HE Awards Standards

Currently there are several different kinds of QQI awards standards operating in higher education:

- the NFQ award-type descriptors (e.g. the honours bachelor's degree descriptor) functioning as generic awards standards;
- wide or medium breadth standards (these apply to award stems e.g. Awards Standards—Science);
- narrow breadth or occupation-specific standards (e.g. Awards Standards—Architecture);
- generic standards linked with implicit external standards (e.g. Honours Bachelor of Laws);
- generic standards that explicitly reference meeting external requirements (e.g. those of the Teaching Council).

Most of the QQI HE awards standards (other than the NFQ award-types) are expressed using a combination of both field-specific statements of expected learning outcomes and the NFQ level indicators. Different approaches have been taken to the style and depth of presentation of the field-specific statements of learning outcomes within HE awards standards. Different disciplines tend to find different ways of expressing standards more or less natural to them. Some emphasise knowledge, others skill, others competence.

Most of the higher education standards are much nearer the NFQ in their generality and overall presentation than a set of minimum intended programme and module learning outcomes (MIPLOs and MIMLOs) that may be produced for any specific programme of higher education leading to a named award. They tend, nonetheless, to be far more detailed than the NFQ indicators and can best be thought of as interpretations of the NFQ within a specified scope or discipline.

Broad standards are intended to complement each other where appropriate, for example a B.Sc. in business would be expected to refer to the science and business standards and satisfy both (i.e. treat business subjects as the scientific core).

The narrow or occupation-oriented standards have a similar format to the broad and medium ones but are to a greater or lesser extent narrower in scope. They focus on standards for awards that mark the successful completion of programmes in a narrow range of disciplines or programmes of educational formation designed to prepare a person for (probationary or full) professional practice. Profession-oriented educational qualifications are important because typically, a person will at least need to achieve an approved qualification before they can practise in a regulated or quasi-regulated profession.

QQI's higher education awards standards (set out in the forty-four documents listed in section 2 on page 104) are intended to guide rather than prescribe except where special validation conditions are specified (and these are used sparingly). The introductions to many standards state that:

> *When designing a programme, each learning outcome in the standard should be considered. Where departure from these is necessary, it should be justified in the context of the specific orientation of the programme and other facts pertaining to it.*

This text indicates that whether or not the learning outcome statements in the standards have a correspondence in the programme, they need to be considered and accounted for.

4.3.3 Origin of higher education awards standards

Most of the current stock of standards were developed by HETAC. The generic standards were first developed as part of the NFQ determinations in 2003, the discipline-specific standards started to follow in 2005. Few of these standards have been formally reviewed since being established.

The Professional Award-Type Descriptors (determined in 2011) were extended in 2014 and are used as the standards for apprenticeship qualifications among other things.

4.4 Minimum intended programme learning outcomes (MIPLOs) as standards

When QQI validates a programme, it is the MIPLOs approved as part of validation that provide the definitive **named award standard** for the award to which the validated programme leads. These are likely to be the most informative standards for stakeholders who wish to use/recognise that named award or enrol on the programme. MIPLOs must be interpreted in the context of the relevant programme and its MIMLOs. See also Appendix 3.

4.5. Current methods for QQI development and maintenance of awards standards

Standards development always involves a partnership approach. In developing standards, QQI always relies upon advisory groups comprising individuals with relevant expertise. Such individuals may, for example, be drawn from providers, employers, professional bodies/associations and regulators as appropriate in each situation. It is often useful to include a person from outside the state to bring a more external perspective. QQI's roles are to plan, coordinate and guide the review and development activities and to make formal (statutory) determinations of its awards standards. The development methodology is similar for both FET and HE. Sometimes an external project manager is engaged. Often the work is project managed directly by QQI staff.

Drafting a QQI award standard can be a time-consuming process. It can take several meetings to review or develop a single occupation-oriented standard. For example, we recently reviewed the ELC standards at NFQ Levels 5 and 6. The new ELC standards were determined at the major award level. The development of the recommendations required ten standards advisory group meetings in addition to several consultation meetings with the regulators and other stakeholders. The ELC process is an outlier but looking at the groups involved in development and review over the past few years (Table 5 in the Appendix), we can see that review and development typically require at least four meetings using the current approach and this baseline is independent of the volume of material involved.

5. Standards for DAB awards

Each designated awarding body sets their own awards standards and is required to ensure, in so far as is reasonably practicable, that each award that it makes is recognised within the Framework. We know relatively little about the processes involved and we will take this up in Part 3.

5.1 Supporting effective practice

The University Framework Implementation Network (UFIN) was jointly established by the National Qualifications Authority of Ireland (NQAI) and the Irish Universities Association (IUA) in 2007.

UFIN (with the support of the IUA and the NQAI) produced a document entitled "*University awards and the National Framework of Qualifications (NFQ): Issues around the Design of Programmes and the Use and Assessment of Learning Outcomes*" in December 2009. This is a useful compilation of material relating to

NFQ implementation and provides practical guidance on the use of the NFQ in programme design. Part 2 of the document is entitled "Discipline-specific learning outcomes: some case studies, reference points, issues and insights" and is especially relevant here.

More recently, the *National Forum for the Enhancement of Teaching and Learning in Higher Education*[58]*(the NFETL)* has been helping to identify and disseminate good practice in teaching and learning. Its mission statement sets out the scope of its activity:

> *As a national body, to lead the enhancement of teaching and learning in partnership with students, staff and leaders in Irish higher education to develop an inclusive, collaborative and innovative culture that maximises learning impact for the success of all students.*[59]

The NFETL's recently published strategy statement (Strategy 2019-2021 Leading Enhancement and Innovation in Teaching and Learning) identifies four priorities:

- the professional development of all who teach;
- teaching and learning in a digital world;
- teaching and learning enhancement within and across disciplines;
- student success.

The NFETL has an important role in helping to build capacity. Through its work in fostering collaboration and an ethos of shared learning, it has been instrumental in catalysing the emergence of communities of practice that transcend institutions.

5.2 Graduate attributes

Many universities publish graduate attribute statements. These vary in form. Some are generalised statements that aim to express something of the knowledge, skill, competence and attitudes at graduation.[60] Others are more general still, for example those of TCD[61].

5.3 PhD Standards

The IUA has published a common set of attributes for PhD graduates: *Irish Universities' PhD Graduate Skills Statement*[62]. This document references the NFQ doctoral indicators and expands upon them. It is a good example of how to build effectively upon the NFQ. The National Framework for Doctoral Education is also relevant.

6. Qualifications that are not currently included in the NFQ

Many important qualifications are not currently included in the NFQ. Some qualifications may not require inclusion in the NFQ in order to function effectively in the qualifications system. There is a prospect that others may be rendered more useful within the qualifications system by having an NFQ level and where the associated provision is quality assured in line with national norms.

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58 https://www.teachingandlearning.ie/

59 https://www.teachingandlearning.ie/about/

60 https://www.maynoothuniversity.ie/study-maynooth/maynooth-education/graduate-attributes
https://www.ul.ie/ctl/sites/default/files/graduateattributes_050918_hires.pdf

61 https://student-learning.tcd.ie/assessments/graduate-attributes/

62 https://www.iua.ie/publication/view/iua-graduate-skills-statement-brochure-2015/

In some cases, national policy or law may stimulate the demand for qualifications to be included, for example section 48 of the *Qualifications and Quality Assurance (Education and Training) Act 2012*[63] states:

> *"**48.—** (1) A provider referred to in section 44(9) may enter into an arrangement with an awarding body other than the Authority[64] to provide, organise or procure a programme of education and training where—*
>
> *(a) completion of the programme by an enrolled learner and the attainment by the learner of a specified standard of knowledge, skill or competence upon such completion entitles the learner to an award of the body, and*
>
> *(b) the award of the body is recognised within the Framework."*

Qualifications not currently included in the NFQ and the contexts for their awarding bodies include the following:

- Certain educational qualifications certified by bodies with education as their principal focus;
- Vendor-specific, vendor-certified qualifications e.g. information and communication technology vendor qualifications;
- Professional recognition body qualifications;
- Some more recently emerged qualification types e.g. Digital Badges[65] [66];
- Micro (bite-sized) credentials that are significantly smaller in volume that the smallest minor awards.
- Certain kinds of English Language qualifications.

Digital badges are an example of how micro-credentials can be issued. Micro-credentials are similar to minor awards (minor awards can be regarded as micro-credentials) but can be significantly smaller in volume and don't necessarily need to be part of a larger volume qualification though they can be aggregated and potentially used in RPL processes to gain exemptions from parts of, and advanced entry to, programmes leading to NFQ qualifications. They are especially useful to record the acquisition of specific skills needed by individuals e.g. for work.

English language education is within QQI's purview (quality and qualifications) but many of the qualifications involved, with the notable exception of foundation qualifications designed to prepare people for higher education, are currently outside the NFQ.

7. Professional qualifications and occupational standards

The term 'professional qualification' is loosely defined here to mean any qualification that is oriented toward a profession or occupation.

7.1 Professional qualifications and standards

There isn't a sharp divide between educational qualifications and professional/occupational qualifications and the associated standards. A specific qualification can be both an educational qualification and a professional qualification.

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[63] The extract and link are from the Revised Act (i.e. the consolidated version) on the Law Reform Commission website.

[64] QQI is the relevant authority.

[65] https://researchrepository.ucd.ie/handle/10197/9691

[66] https://about.unimelb.edu.au/teaching-and-learning/innovation-initiatives/pedagogy-and-curriculum-innovation/micro-credentialing (20/03/2019)

An initial professional/occupational qualification is one that signals that an individual has achieved the standard required to practise the profession/occupation as a full or probationary member of the relevant community of practice. Other kinds of professional qualification may reflect further professional development or specialisation.

Some activities as distinct from fulltime occupations require training to help ensure they are carried out according to expected standards. The standards of knowledge, skill or competence required of practitioners of such regulated activities fulfil the same role for activities as occupational standards do for fulltime occupations. We will use the term occupational standards for both though some make the following distinction:

An **occupational standard** stresses what a practitioner is expected to be able to do. It consists of

> "*statements of the activities and tasks related to a specific job and to its practice".*

Some draw a distinction between an occupational standard and an occupational profile.

An **occupational profile** (general definition) stresses what a prospective practitioner must learn. It is

> *"a description of the knowledge, skills, competences that a professional or worker must have to perform competently at the workplace."*[67]

Clearly, an occupational standard and the corresponding profile must be consistent with each other. An occupational standard can be written to serve simultaneously as an occupational profile. Where we refer to occupational standards in this Technical Paper, we assume they embed or imply the occupational profile.

Educational standards can occasionally serve as occupational profiles (e.g. our standards for Early Learning and Care qualifications at NFQ Levels 5 and 6).

An occupational standard is often linked with a community of practice centred on the occupation.

In some occupations the occupational standard is fully or partly prescribed by regulation. However, regulation is not a prerequisite for the establishment of an occupational standard.

In regulated occupations clarity about occupational standards is important so that, for example, professional recognition bodies can transparently recognise qualifications from other EU member states. Ideally, the regulators would determine or recognise occupational standards for this purpose. In some cases, regulators may simply require that an individual has a specific educational qualification or one of a specific class/type. In other cases, they may endorse a specific educational standard as indicative of the standard that must be met.

Occupational standards in Ireland, where they exist, are established, maintained and communicated in diverse ways. For example, they may be established by regulators (e.g. CORU) or professional bodies (e.g. RIAI). They may be set out in Irish or EU legislation. They may be embedded in the job-descriptions of major employers (e.g. the Health Service Executive).

Some regulators, rather than specifying an occupational standard, specify a looser constraint such having a relevant qualification at a specified NFQ level. For example, Child Care Act 1991 (Early Years Services) Regulations 2016:

> "**9.**— *(4) A registered provider shall ensure that, without prejudice to the generality of paragraph (2) and subject to paragraphs (5) and (6), each employee working directly with children attending the service holds at least a major award in Early Childhood Care and Education at Level 5 on the National Qualifications Framework or a qualification deemed by the Minister to be equivalent.*"

[67] https://www.euvetsupport.eu/index.php?id=127 (03/07/2019)

7.1.1 Occupational profiles for apprenticeships

As noted earlier, occupational *profiles* are required for all national apprenticeships. An occupational profile for an apprenticeship is defined as:

> *The occupational profile will propose the knowledge, skills and competencies which will be developed by an apprentice on completion of her/his apprenticeship. It will propose the duration of the apprenticeship and qualification level on the National Framework of Qualifications (between Level 5 to Level 10)*[68]. (Apprenticeship Handbook)

Occupational profiles (OP) are developed for each national apprenticeship by its consortium. The term consortium is defined as follows:

> *The consortium is the name given to the industry led group which develops an apprenticeship programme and oversees its roll out and ongoing relevance to the needs of industry. The consortium includes education and training providers.* (Apprenticeship Handbook)

The concept of the consortium is one of the more interesting aspects of the arrangements for apprenticeship from the qualifications system perspective. The consortium is an industry-led coalition of employers and training providers and other stakeholders. In areas where there are occupational associations and regulators one would expect them to be involved as well.

Another interesting aspect is that there is precisely one national apprenticeship programme per occupation. In theory this means that there is only one set of intended programme learning outcomes. This avoids the possibility of a spectrum of different versions of apprenticeship for any given occupation. Though we will have to wait and see whether the theory is realised in practice.

OPs are approved by the Apprenticeship Council. The process for the approval (but not the development) of occupational profiles is described in "Developing a National Apprenticeship—Handbook" (Apprenticeship Handbook).

The criteria for approval of an occupational profile are:

> *there is adequate industry support for the apprenticeship and*
> *that there is no excessive overlap (in general, no more than 50%) with an existing apprenticeship.*
> (Apprenticeship Handbook)

Existing profiles vary in the style and depth of communication of expected knowledge, skill and competence. They are approved after the development of the apprenticeship (programme of education and training) but before the programme is validated. Therefore, it cannot necessarily be assumed that the occupational profile's statements of expected *knowledge, skills and competences* are consistent with the indicative NFQ level of the apprenticeship programme.

7.1.2 EU Professional Recognition Directive

Directive[69] 2013/55/EU provides for the automatic recognition of a range of professional experience as follows:

> *The system of recognition of professional qualifications in the EU is governed by Directive 2005/36/EC, recently amended by Directive 2013/55/E[U]. The directive provides a modern EU system*

[68] https://europass.cedefop.europa.eu/
https://registrar.mit.e
du/transcripts-records/digital-diplomas

[69] https://enovation.ie/blockchain-changing-learning-development/
info/law/law-making-process/types-eu-law_en" https://ec.europa.eu/info/law/law-making-process/types-eu-law_en

of recognition of professional experience and promotes automatic recognition of professional experience across the EU.[70]

In Ireland the statutory instrument entitled European Union (Recognition of Professional Qualifications) Regulations 2017 transposes the professional recognition directives. **Competent authorities** have key roles in the regulations. Among other things, the definition and designation of competent authorities in the State is made explicit (section 5 of S.I. No. 8/2017) for regulated and unregulated professions and the functions of competent authorities are listed (section 6 of S.I. No. 8/2017). The SI includes a list of regulated professions and their competent authorities. The national coordinator in Ireland for professional recognition is an official of the Department of Education and Skills appointed to that role by the relevant Minister.

S.I. No. 8/2017 is mainly about professions that are regulated in Ireland, but it designates the national co-ordinator as the competent authority for professions in the State that are not regulated.

The following definitions are noteworthy.

> ***"professional qualifications"*** *means qualifications attested by evidence of formal qualifications, an attestation of competence or professional experience;*
>
> ***"professional traineeship"*** *means, without prejudice to Article 46(4) of the Directive, a period of professional practice carried out under supervision provided it constitutes a condition for access to a regulated profession, and which can take place either during or after completion of an education leading to a diploma;*
>
> ***"regulated education and training"*** *means any training which is specifically geared to the pursuit of a given profession, and which comprises a course or courses complemented, where appropriate, by professional training, or probationary or professional practice, the structure and level of such training or practice being monitored or approved by the competent authority.* (section 3(1) of S.I. No. 8/2017)

QQI is not listed as a competent authority for any profession (nor should it be).

8. Infrastructure for modelling skills supply, demand and needs

8.1 National Skills Strategy and EGFSN

The National Skills Council[71] is an advisory, non-statutory body under the remit of the Department of Education and Skills. It includes representatives from senior levels in the public and private sector and it:

- oversees research;
- advises on prioritisation of identified skills needs and on how to secure delivery of identified needs;
- plays a key role in promoting and reporting on the delivery of responses by education and training providers to those priorities.

The terms of reference for the National Skills Council detail its functions.

A National Skills Strategy to 2025 has been published and it includes a detailed set of objectives, actions and indicators.

The Expert Group on Future Skills Needs (EGFSN) forecasts future skills needs and produces regular reports for the National Skills Council.

[70] https://ec.europa.eu/growth/single-market/services/free-movement-professionals_en

[71] https://www.regionalskills.ie/national-skills-council/

The National Skills Council also receives reports from the Skills and Labour Market Research Unit of SOLAS (SLMRU). The SLMRU provides reports for SOLAS and the EGFSN. It maintains a 'National Skills Database'. A Network of Regional Skills Fora has been created as part of the Government's National Skills Strategy. They are intended to offer

- *"a single contact point in each region to help employers connect with the range of services and supports available across the education and training system*
- *more robust labour market information and analysis of employer needs to inform programme development*
- *greater collaboration and utilisation of resources across the education and training system and enhancement of progression routes for learners*
- *a structure for employers to become more involved in promoting employment roles and opportunities for career progression in their sectors"*[72]

8.2 Skillnet

Skillnet Ireland is a state agency under the aegis of the Department of Education and Skills. It is "a national agency dedicated to the promotion and facilitation of workforce learning in Ireland"[73]. Currently it funds over 50 'industry representative' groups.

8.3 A New Skills Agenda for Europe[74]

The agenda includes "10 actions to make the right training, skills and support available to people in the EU."
Upskilling Pathways: New Opportunities for Adults
European Qualifications Framework
Digital Skills and Jobs Coalition
Blueprint for Sectoral Cooperation on Skills
EU Skills Profile Tool Kit for Third-Country Nationals
Vocational education and training (VET)
Key competences
Europass
Graduate tracking
Analysing and sharing of best practice on brain flows

8.4 Some statistical classification systems relevant to qualifications

The following classifications system are especially relevant:

- NACE[75] (Statistical Classification of Economic Activities in the European Community used, e.g., by the CSO)
- ISCED-F (Field of education classification used, e.g., by CSO, QQI, and HEA)
- SOC-2010 (Standard Occupational Classification, used, e.g., by CSO and SLMRU in respect of jobs/occupations),

[72] https://www.regionalskills.ie/regions/

[73] https://www.skillnetireland.ie/about/

[74] https://ec.europa.eu/social/main.jsp?catId=1223

[75] https://www.cso.ie/px/u/NACECoder/NACEItems/searchnace.asp

- ESCO (European Skills, Competences, Qualifications and Occupations)
- ISCO-2008 (International Standard Classification of Occupations)

The main occupational classification scheme used in Ireland is based on SOC-2010[76]. It includes about 900 occupations. SOC-2010 specifies[77] the job description; the educational entry requirements for the job; the key tasks; and related jobs. It is a four-digit classification system, a modified version of which is used in Ireland by the CSO, and SLMRU. There is a mapping between SOC-2010 and ISCO-2008.

The classifications scheme for European Skills, Competences, Qualifications and Occupations (ESCO[78]) is a work in progress. "ESCO is the multilingual classification of European Skills, Competences, Qualifications and Occupations."[79] It is outlined in the ESCO Handbook.[80] Access to ESCO resources is via an online portal[81]. ESCO includes about 3000 occupations[82]. ESCO occupation data include a description of the occupation, and a list of essential knowledge, skill and competence (it includes over 13,000 skills and competences). An example of the use of ESCO skills classification is the analysis of online vacancies by Cedefop's Skills Panorama[83]. ESCO may be a useful tool for making international comparisons. The ESCO qualifications pillar[84] resonates with the Irish Register of Qualifications. 8161 qualifications are included in the qualification section on the ESCO portal at the time of writing. ESCO is related to the International Labour Organisation's ISCO but (significantly) provides additional functionality e.g. on the classification of skills.

The SOC-2010 and ESCO are far more granular about occupations than the ISCED-F fields of education and training classification. Identifying the occupations targeted by an educational programme or qualification could potentially complement the ISCED-F classification. Similarly, using ESCO to identify skills may be a useful complement to ISCED-F classificationw when analysing the supply of skills.

8.5 FET-HE transitions reform

Following a national conference in 2011 to explore how best to improve the quality of the transition from second level to higher education, the Department of Education and Skills established a Transitions Reform Steering Group[85] to look at some of the issues that arise when students are transitioning between the two systems. The Group is chaired by the Secretary General of the Department and the establishment members were drawn from the National Council for Curriculum and Assessment (NCCA), the State Examinations Commission (SEC), the Irish Universities Association (IUA), the Technological Higher Education Association (THEA), the Higher Education Authority (HEA) and QQI. The group oversaw the development of the new Leaving Certificate grading scale and the revised common CAO points scale and the broadening of entry routes into higher education. The success of the Group and the presence of all the relevant stakeholders

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76 https://www.bls.gov/soc/2010/home.htm (there is now a more recent version: SOC 2018).

77 E.g. https://onsdigital.github.io/dp-classification-tools/standard-occupational-classification/data/SingleClass.html?soc=2124&from=212

78 https://ec.europa.eu/esco/portal/skill

79 https://ec.europa.eu/esco/portal (11/04/2019)

80 https://ec.europa.eu/social/main.jsp?catId=738&langId=en&pubId=8083&furtherPubs=yes

81 https://ec.europa.eu/esco/portal

82 For comparison of classifications schemes see: https://publications.iadb.org/publications/english/document/Occupations_Labor_Market_Classifications_Taxonomies_and_Ontologies_in_the_21st_Century_en_en.pdf

83 https://skillspanorama.cedefop.europa.eu/en/indicators/skills-online-vacancies

84 https://ec.europa.eu/esco/portal/qualification

85 Transitions Reform Steering Group. www.transition.ie/

permitted the more recent broadening of the Group's remit and membership to include SOLAS and its focus, also, on the important transition between further education and training (FET) and higher education. The NFETL has also been active in this space from a teaching and learning perspective[86].

8.6 Research and data resources

Data relevant to the functioning of the qualifications system is gathered, compiled or analysed by QQI, HEA, SOLAS/SLMRU/PLSS, EGFSN, CSO, ESRI, DES, CEDEFOP, OECD, Revenue, EUROSTAT and others.

The CSO can combine data from multiple sources linked by PPSN to study patterns in qualifications histories as well as educational progression and progression to employment. This is an important area where substantial progress has been made in recent years, for example in analysing transitions between further education and higher education.

8.7 Project Ireland 2040, Future Jobs Ireland, Global Ireland...

We note the following quotations:

> *"Project Ireland 2040 is the Government's long-term overarching strategy to make Ireland a better country for all of its people."*
>
> *"Future Jobs Ireland 2019, the first in a series of annual reports, which has been developed through extensive consultation with key stakeholders, establishes 26 ambitions under 5 pillars that will enhance the resilience of our economy and ensure we are well placed to exploit future economic opportunities."*

9. European infrastructure

We have already listed several European resources. Here we elaborate on a further selection.

9.1 European Qualifications Framework

The European Qualifications Framework is:

> *"A common European reference tool that serves as a translation device between different education and training systems and their levels. It aims to improve the transparency, comparability and portability of qualifications across Europe, promoting workers' and learners' mobility and facilitating their lifelong learning, as defined in the 2008/C 111/01 Recommendation of the European Parliament and the Council."*[87]

All member states' national qualifications frameworks are required to be referenced to the EQF and we are responsible for referencing the Irish NFQ to the EQF.

The EQF provides a useful starting point when comparing qualifications from different countries. However, if we were to include a foreign qualification in the NFQ (as distinct from providing recognition advice to others about it) we would need to look at much more than its level in the EQF. On the contrary,

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[86] The NFETL focussed much of its work during 2013-2015 on transitions from post-primary to higher education. One insight resulting from this activity was the need to shift focus from why students may not progress to or through higher education to understanding what helps students to progress and succeed. A national understanding of student success was developed in 2019, with institutions across the country now focussed on developing strategies for student success.

[87] https://ec.europa.eu/ploteus/faq

the *Qualifications and Quality Assurance (Education and Training) (Amendment) Act 2019* envisages an elaborate mechanism for inclusion. Nevertheless, the EQF is a useful tool. We need to keep it in mind when making any changes to the NFQ, including to its award-types.

9.2 QF-EHEA (Bologna Framework)

The Framework for Qualifications in the European Higher Education Area (QF-EHEA) is often referred to informally as the Bologna Framework. While the descriptors (originally the Dublin descriptors) are optimised for higher education, they are compatible with the relevant set of EQF levels. According to recital (21) in EQF Recommendation 2017[88]:

> *"The EQF is compatible with the qualifications framework for the European Higher Education Area and its cycle descriptors. The short cycle (that can be linked to or within the first cycle), the first, second and third cycles of the qualifications framework for the European Higher Education Area correspond to EQF levels 5-8 respectively."*

9.3 Common European Framework of Reference for Languages (CEFR[89])

The Council of Europe's (COE's) Common European Framework of Reference for Languages: Learning, teaching, assessment (CEFR) was, according to the COE website:

> *"designed to provide a transparent, coherent and comprehensive basis for the elaboration of language syllabuses and curriculum guidelines, the design of teaching and learning materials, and the assessment of foreign language proficiency. It is used in Europe but also in other continents."*[90]

CEFR includes a global six-point scale and many more detailed, illustrative scales covering different aspects of proficiency. The scales are only one aspect of CEFR.
There are no plans to attempt alignment of any of the CEFR scales[91] with the NFQ.

9.4 EU Key Competence Framework

> *"Key competences and basic skills are needed by all for personal fulfilment and development, employability, social inclusion and active citizenship."*[92]

The most recent recommendation of the Council of the EU on key competences is available here.

9.5 Tuning Academy

Subject benchmarks[93] have been developed for many different mainstream higher education subjects by various groups using the Tuning[94] methodology. The benchmark documents vary in format and depth and may address outcomes for each of the Bologna cycles as well as curriculum and assessment matters.

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88 https://op.europa.eu/en/publication-detail/-/publication/ceead970-518f-11e7-a5ca-01aa75ed71a1/language-en

89 https://www.coe.int/en/web/portfolio/principles-and-guidelines-and-cefr

90 https://www.coe.int/en/web/common-european-framework-reference-languages/home (20/03/2019)

91 https://www.coe.int/en/web/portfolio/overview-of-cefr-related-scales

92 https://ec.europa.eu/education/policies/school/key-competences-and-basic-skills_en

93 http://www.unideusto.org/tuningeu/subject-areas.html

94 http://tuningacademy.org/

9.6 Measuring and Comparing Achievements of Learning Outcomes in Higher Education in Europe (CALOHEE)[95]

This is an EU funded feasibility study designed to provide frameworks to help tackle questions such as:

> *"Do students enrolled in higher education around Europe develop the competences they need? Are study programmes delivering their promises? Can we learn to compare student's achievements in different countries in a meaningful way?"*[96]

The CALOHEE launch objectives in 2016 were to:

> *"1. enhance the work done in the setting of Tuning by offering updated descriptors / indicators to define the quality of Higher Education Programmes, based on a merger of the two European qualifications frameworks, the Bologna Process Qualifications Framework for the European Higher Education Area (QF for the EHEA) and the European Qualifications Framework for Lifelong Learning (EQF for LLL);*
>
> *2. offer frameworks / instruments that make possible / facilitate transnational comparison and measurement of the outcomes of a learning process, and thus contribute to the notion of evidence-based education."*[97]

The CALOHEE project considered 5 subjects (civil engineering, teacher education, history, nursing and physics). The CALOHEE outputs so far have been documents setting out 'Qualifications Reference Frameworks' and 'Assessment Reference Frameworks'.

The CALOHEE **Qualifications Reference Frameworks** (QRF) present subject indicators that are aligned to EQF Levels 6 and 7. In some respects, they are not unlike QQI's subject-specific higher education standards.

The Assessment Reference Frameworks[98] provide more details on the QRF indicators and for some subjects they comment on teaching, learning and assessment approaches.

Ultimately, CALOHEE will develop tests for learners based on the Assessment Reference Frameworks. We have yet to see details of that phase.

10. UK Resources

Ireland's qualifications system and education system have long been influenced by the UK especially in higher education. The linkages stem from shared educational heritage and significant mobility of academic staff and students between Ireland and the UK especially in higher education. These linkages have been beneficial.

The emergence of qualifications frameworks provided a basis for expressing some of the similarities—through the alignment of the five qualifications frameworks e.g. the document entitled "Qualifications can cross boundaries—A rough guide to comparing qualifications in the UK and Ireland" [99]. These

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[95] https://www.calohee.eu/

[96] https://www.calohee.eu/why-calohee-2/

[97] https://www.calohee.eu/wp-content/uploads/2018/10/WP-2-Del.-4.1-Assessment-Reference-Frameworks-for-Civil-Engineering-Teacher-Education-History-Nursing-and-Physics-READER.pdf (p1)

[98] https://www.calohee.eu/wp-content/uploads/2018/10/WP-2-Del.-4.1-Assessment-Reference-Frameworks-for-Civil-Engineering-Teacher-Education-History-Nursing-and-Physics-READER.pdf

[99] https://qhelp.qqi.ie/learners/qualifications-recognition-advice/comparing-qualifications-in-the-uk-and-ireland/QualificationsCan_Cross_Boundaries.pdf

alignments are consequences of (rather than causes of) the linkages that exist between the Irish system and the system in the UK.

QQI participates with a range of other entities in the UK and Ireland Qualifications Frameworks and Policy Group:

> *"This group provides a unique opportunity for regulators, quality assurance bodies, and government to come together to share information and intelligence on the maintenance of the national qualifications frameworks, and related policy developments.*
>
> *In the context of the ongoing divergence of approaches to qualifications and frameworks across the UK and Ireland, such a forum will play a vital role in ensuring common understanding of these approaches and supporting coordination and collaboration in relation to topics and issues of mutual interest."*[100]

10.1.1 QAA Subject Benchmark Statements

QAA (the Quality Assurance Agency in the UK) publishes Subject Benchmark Statements. They are described by QAA as follows[101]:

> *"Subject Benchmark Statements describe the nature of study and the academic standards expected of graduates in specific subject areas. They show what graduates might reasonably be expected to know, do and understand at the end of their studies.*
>
> *Subject Benchmark Statements are written by subject specialists and we facilitate this process. They are used as reference points in the design, delivery and review of academic programmes. They provide general guidance but are not intended to represent a national curriculum or to prescribe set approaches. Instead, they allow for flexibility and innovation.*
>
> *Subject Benchmark Statements are available for bachelor's degrees with honours, master's degrees, and professional qualifications in Scotland. Statements for health professions are now out of date but available on request."*

There are around sixty benchmark statements for honours bachelor's degrees. These are thought to be influential in Ireland. There are plans to review them. They are currently available online with open access.

10.1.2 Recent initiatives to protect the value of UK degrees

As in Ireland some in the UK have expressed concern about grade inflation and standards of higher education qualifications.

Led by the UK Standing Committee for Quality Assessment (UKSCQA)[102], the higher education sector representative organisations along with the QAA have produced several new documents aimed at protecting the value of UK degrees[103].

One of these, published in October 2019 by the QAA (QAA, 2019), includes new honours bachelor's degree classification descriptors[104].

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[100] Extract from "*Remit, terms of reference and composition of the UK and Ireland Qualifications Frameworks and Policy Group*" 2018.

[101] https://www.qaa.ac.uk/quality-code/subject-benchmark-statements (9/04/2017)

[102] https://ukscqa.org.uk/what-we-do/degree-standards/

[103] https://www.qaa.ac.uk/news-events/news/higher-education-sector-announces-new-initiatives-to-protect-value-of-uk-degrees

[104] https://www.qaa.ac.uk/docs/qaa/quality-code/annex-d-outcome-classification-descriptions-for-fheq-level-6-and-fqheis-level-10-degrees.pdf?sfvrsn=824c981_10

10.1.3 UK National Occupational Standards

UK National Occupational Standards are noteworthy for reference purposes. From September 2016 responsibility for the management of National Occupational Standards (NOS) transferred to the Devolved Administrations. Skills Development Scotland was given responsibility for maintaining the database. An example of a recent NOS is "Install air conditioning and heat pump systems".
There are almost 23,000 NOSs in about 800 suites. Suites are groupings based on sector e.g. Refrigeration and Air Conditioning is the sector in the example above.

11. UN and OECD

The OECD and UNESCO provide numerous useful resources relevant to education and training policy. For example, the OECD's Qualifications Systems: Bridges to Lifelong Learning (OECD, 2007); The Role of National Qualifications Systems in Promoting Lifelong Learning and the UNESCO work on world reference levels for learning outcomes and The Global Inventory of Regional and National Qualifications Frameworks among many others are relevant here. We have already mentioned the International Labour Organisation (a UN agency) in the context of ISCO-2008 and its recent publication Lifelong Learning: Concepts, Issues and Actions is another example.

12. Incipient digital infrastructure for exchanging information about qualifications

12.1 Irish Register of Qualifications

The Irish Register of Qualifications (IRQ) was launched in a low-key way in mid-2019 and will (at least) provide a centralised repository for synoptic information about qualifications[105] that are included in the NFQ and their associated programmes.

When fully implemented it will provide a much-needed informational infrastructure to help, for example, identify opportunities for learning and recognition of prior learning (RPL). As its features develop it has the potential to help analysts better understand the supply of skills obtained through programmes of education and training and RPL.

The Register is referred to in section 79 of the *Qualifications and Quality Assurance (Education and Training) Act 2012*. Upon commencement of section 33(1) of the Act of 2019 section 79 will read:

> *"79.—*
>
> (a) awards that are awards included within the Framework,
>
> *(b) programmes of education and training which lead to awards that are awards included within the Framework, other than post-primary schooling leading to the sitting of the Junior Certificate or Leaving Certificate examination or any examination prescribed under section 50 (2) of the Education Act 1998 , and*
>
> *(c) any other programmes the Authority thinks appropriate."*

The register will be established on a phased basis. In the first instance it included QQI awards and ultimately it will include all awards that are **included** in the NFQ and their associated programmes.

[105] Meaning a register of named awards (qualification titles) in the NFQ that people can attain as distinct from a listing of the actual qualifications held by specific individuals.

Among other things the register should provide a reliable platform for providing trustworthy information about qualification titles and the programmes (courses) that lead to them. In due course it may help stakeholders better understand and navigate learning pathways to qualifications.

The information in the IRQ will be curated by QQI in collaboration with providers, awarding bodies and other entities involved.

One immediate benefit of the IRQ will be that it will enable stakeholders to identify any anomalous qualifications characteristics that might lead to confusion (e.g. in how similar awards are entitled).

In the longer term one might envisage the IRQ usefully linking with other platforms (including those relating to the NFQ and Quality Assurance).

12.2 Digital platforms for qualifications

Changing the way certified qualifications are presented by qualification holders to other users such as employers, professional bodies, educational institutions and such like, from exchanging bundles of printed paper to using a digital platform can enable the presentation of richer, better integrated, easier to authenticate and more engaging information to people who need to be confident in and understand those qualifications (e.g. employers, educational access personnel, and other credential evaluators). If the reader is in any doubt about the potential for change here they might reflect that the first webpage was published less than 30 years ago.

The activity of Europass[106] on the development of a new online Europass platform (for launch by early 2020) is relevant, especially its work on a framework[107] for digitally signed credentials.

Micro-credentials can certify the kind of bite size learning outcomes that are often in demand in the workplace. They are well suited to continuing professional development. For example, the NFETL offers 25-hour[108] short professional development courses leading to digital badges[109].

Blockchain technology (a distributed cryptographic database) is considered by some to be a potentially paradigm shifting technology for distributing the mediation of trust in qualifications. Platforms based on blockchain technology can distribute the work of establishing trust in transactions. Individuals involved in a transaction don't need to trust each other just the blockchain. Such platforms are being explored in Ireland for the exchange of information about qualifications. Proponents of this technology maintain that it can be more efficient to use a decentralised, distributed, transaction ledger than to create a centralised entity to accomplish the same objective. It is not mainstream yet though there are niches e.g. MIT Digital Diploma[110].

We as an organisation don't yet know enough about these emerging platforms or the prospective changes that this technology may bring about.

[106] https://europass.cedefop.europa.eu/

[107] https://joinup.ec.europa.eu/solution/european-digital-credentials-infrastructure-data-model/release/020

[108] The short courses were designed with the support of the NFETL by collaborating colleagues across the Irish higher education sector and their 25-hour duration reflects the understanding gained that learning opportunities of shorter duration often do not have the desired lasting effect on learning and practice.

[109] https://www.teachingandlearning.ie/our-priorities/professional-development/open-access-professional-development-courses/

[110] https://registrar.mit.edu/transcripts-records/digital-diplomas

Part 3: Qualifications system: issues for discussion

In this part we present a range of issues for discussion along with commentary that includes some ideas for addressing them.

The main focus is on identifying opportunities for the enhancement of the qualifications system. Ideally, we would also enumerate its many and diverse strengths but that would lengthen an already long document.

We have used the term 'Issue for discussion' to label the issues that we think warrant discussion, and 'Comment' to label sections containing our commentary on the issue. The issues and commentary are not intended to limit the discussion; rather they are offered as a basis for starting a structured discussion with stakeholders.

Discussing and where necessary addressing the issues identified in this paper will require action at all levels by a range of stakeholders working together. The QQI *Green Paper on Assessment of Learners and Learning* 2018, has distinguished between **macro-**, **meso-** and **micro**-level scopes of activity and the same classification will be useful here. For example:

MACRO	MESO	MICRO
Examples here include QQI, which operates for the most part at this level, and the Departments of Education and Skills, Business Enterprise and Innovation, and Employment Affairs and Social Protection; other entities such as the Higher Education Authority and SOLAS, the National Skills Council, the Expert Group on Future Skills Needs, IBEC, ICTU, ISME, and such like and initiatives such as Future Jobs Ireland. Infrastructure at this level includes: *Cumasú—Empowering Through Learning* (DES Statement of Strategy 2019-2021), NFQ, QQI Policies and criteria for access, transfer and progression in relation to learners; the National Skills Strategy; This list is not exhaustive!	Examples here include, qualifications awarding bodies (including QQI), professional recognition bodies, occupational[111] regulators, employer sectoral representative groups, trade unions, occupational communities of practice, large employers, and large educational institutions	Examples here include programmes of education, training and small providers

It is important to keep in mind that change requires activity at all of these levels and not only at the macro level.

[111] We use the term occupation to mean a defined occupation or a defined activity that may be part of one or more occupations.

1. Qualifications system

1.1.1 ISSUE FOR DISCUSSION: Understanding the distributed control systems that operate in the qualifications system

The terms regulation and control can have distasteful connotations, but that may be due to their being associated with micromanagement, centralised 'command and control' approaches or deterministic/ mechanistic chains of rigid control. Nevertheless, quality assurance and improvement and the maintenance of educational standards is all about control but understood more subtly than in the preceding sentence.

Education and training processes and qualifications standards depend on multiple autonomous actors at the macro, meso and micro levels who are involved in the establishment of policies, processes, protocols, standards, criteria, conventions, agreements, and such like. The qualifications system emerges from this distributed activity. Different actors have different scopes and zones of control ranging from the micro to the macro. For any one of these actors their control is limited rather than absolute. The overall result of this distributed activity is emergent control.

The NFQ, for example, has a macro-level influence over the tertiary education system, it was developed through a consultative process and benefits the qualifications system by providing a relatively loose set of broad standards for qualification types (award types). At the meso level, awarding bodies, for example, use the NFQ to set more specific standards for their educational awards; professional bodies, regulators and employers may reference it when framing occupational or competence standards and so on. At the micro level programme developers will use the relevant NFQ award-type descriptor(s), the awarding body's qualifications standards (where specified) and programme approval policies and criteria, and any professional or regulatory body criteria to guide the development of the programme and its intended learning outcomes. This example involves just one thread. There are multiple intersecting threads like this affecting qualifications and their recognition and uses. The threads form a web of control that brings coherence, stability and order to the qualifications system to enable it to function.

We need to better understand how this distributed control works and to explore whether there are opportunities for improvement.

2. The NFQ and related system level infrastructure

The NFQ has been remarkably successful but there are opportunities for improving it as we shall discuss in the following sub-sections. It has provided a powerful abstraction for stimulating interest in educational progression leading to qualifications. It provides a language that can help us compare qualifications nationally and internationally. It focusses on outcomes of learning and prompts us to frame questions about the comparability of qualifications that can challenge the status quo where necessary. Nevertheless, there are, and will continue to be, ways to improve it and, just as important, to improve how well it and its limitations are understood by all the people who use it.

This section focusses on opportunities for improvement of the NFQ and related system-level tools and other infrastructure.

2.1 The National Framework of Qualifications (NFQ)

In this sub-section, we present a selection of issues relating to the NFQ policy, criteria and determinations (e.g. award-type descriptors).

2.1.1 ISSUE FOR DISCUSSION: The N FQ policy and criteria date back to 2003

The NFQ policies and criteria were established in 2003 and have not been updated since then.

In the meantime, the approach to interpreting and implementing the framework has evolved significantly. At this stage there are some important open questions about the NFQ that need to be resolved. For example, there are questions about the meaning of the NFQ indicators as standards and the availability of tools for including qualifications in the NFQ, and these were set out in detail recently in our Green Paper on Assessment[112].

The meaning of *volume* in the NFQ is less important but still interesting. As defined, the NFQ concept of volume distinguishes itself from credit somewhat equivocally. No theory for the measurement of volume has been proposed. Perhaps provocatively to some, one could think of it as information gain (in the sense of Shannon's information theory[113]) or learning but this still does not provide a practical way of measuring it for complex outcomes, such as becoming a plumber or a solicitor.

2.1.2 ISSUE FOR DISCUSSION: NFQ users tend to overemphasise NFQ level relative to disciplinary breadth

The highest NFQ level of a person's qualifications doesn't present the complete picture as it does not communicate the disciplinary breadth of their achievements. The NFQ fan emphasises the overall level of a person's knowledge, skill and competence. The fan diagram or the associated ladder metaphor do not make the breadth of learning explicit. So, for example, a person who has both a mechanical engineering degree and a medical degree will have a pair of qualifications at the same NFQ level. If the qualifications are gained sequentially, the process leading to the latter one will involve taking a few steps back in the NFQ to reach the foundation level for building new competence. The additional learning in the latter stage does not involve a change in the highest NFQ level achieved.

We need to find ways of making it clear to people that a succession of learning achievements or qualifications need not necessarily follow a monotonically increasing progression through the NFQ levels—i.e. the NFQ is more a lattice (recognising that a person can be at different NFQ levels in different disciplines) than a ladder (where the disciplinary dimensions are supressed). People should not be surprised if their learning paths into new disciplines bring them back to lower NFQ levels to lay the necessary foundations.

2.1.3 ISSUE FOR DISCUSSION: The NFQ is not optimised for the recognition of language proficiency qualifications

The NFQ grid of level indicators is not designed to provide meaningful indicators for constructing foreign language proficiency scales and yet language proficiency is part of many qualifications that are included within the NFQ and it is important for any country to have a way of describing its foreign language proficiency needs in any particular language and in various circumstances.

The Common European Framework of Reference for Languages (CEFR) proficiency scales can be cited in NFQ-based standards but they are not currently part of the NFQ in a formal sense.

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[112] https://www.qqi.ie/Downloads/Green%20Paper%20Assessment%20of%20Learners%20and%20Learning%20March%202018.pdf

[113] C. E. Shannon "A Mathematical Theory of Communication". Bell System Technical Journal. 27 (3): 379–423, 1948

2.1.4 COMMENT: Should the adoption of CEFR be formalised and guidance be provided on its use in qualifications?

It may be useful to formalise in some way the adoption of the Common European Framework of Reference for Languages (CEFR) and guide on its use, for example in providing supplementary information on foreign language proficiency in diploma and certificate supplements. In the past QQI contemplated the possibility of incorporating CEFR into an expanded NFQ[114]. At this stage there are no plans to do so.

The CEFR is certainly a useful complement to the NFQ and can be used to help communicate foreign language competence standards consistently. Guidance may be required to enable institutions use it to full effect.

We don't think that the CEFR scales are compatible with the *current* NFQ's (ten by eight) grid of level indicators. By this we mean that the language competence requirements for a qualification at any specific NFQ level would not uniquely define a CEFR level. This is hardly surprising because the two frameworks have different purposes and bases.

There may be a benefit to making CEFR part of a new expanded NFQ. For example, it may be possible to include the CEFR scales as a new dimension, forming part of a new expanded NFQ. A consequence of making CEFR part of an evolved NFQ is that it would then link it with the provisions of the *Qualifications and Quality Assurance (Education and Training) Act 2012*. It is not clear whether the benefit would justify the additional regulatory burden.

Indeed, this may be legally problematic owing to the way in which the NFQ is described in legislation—essentially it requires awards in the NFQ to have an NFQ level. This is because the 2012 Act envisages the NFQ as a system

> *of levels of awards based on standards of knowledge, skill or competence to be acquired by a learner to entitle the learner to an award at a particular level within the Framework,* (43(2)(b)(ii))

However, there may be a way of interpreting the legislation that would allow CEFR levels to operate in parallel with current NFQ levels, but this needs to be considered carefully.

While there may be advantages to assimilating the CEFR scales into an expanded NFQ, whether or not it becomes part of an NFQ the CEFR scales (and associated dimensional indicators) can and should be used when specifying foreign language proficiency standards.

2.1.5 ISSUE FOR DISCUSSION: The NFQ may not be providing its users with sufficient tools for them to use it consistently

The NFQ has evolved relatively little since its initial establishment in 2003 which could be due to its continuing fitness for purpose as a stable system of generalised standards, its enduring broad symbolic value independent of the detail[115] or a reluctance to cause unforeseen harm by disturbing it.

The NFQ currently comprises a set of policies and criteria, a grid of level indicators, and a range of award-type descriptors. The NFQ's current complement of generalised award-type descriptors may not be as supportive as they might be for all purposes. This was one of the factors that prompted the development

[114] QQI assembled a working group to look at this question. The report on its final meeting is being drafted and we expect its final conclusions in 2020.

[115] Perhaps functioning more as a system of symbols for time-dependent socially constructed understandings of qualifications levels than a regulatory instrument that constrains standards within well-defined boundaries.

of the NFQ's Professional Award-Type Descriptors in 2011. There may be scope for further expansion. Apart from the professional award-type descriptors, all other NFQ award-type descriptors are maximally general and take their expected learning outcomes from the grid of level indicators often (but not always) at the NFQ level of the award-type.

2.1.6 COMMENT: What is the level of interest in and feasibility of expanding the range of NFQ award-type descriptors and tools?

There is scope for:

- exploring whether additional NFQ award-type descriptors may be warranted. One motivation for doing this would be to provide tailored indicators for specific kinds of awards.
- developing (or encouraging the development of) new tools to assist in the use of the NFQ by standards developers and curriculum developers.
- encouraging the formation of communities of practice with a focus on using the NFQ. The University Framework Implementation Network which was active from 2007-2011 is an example of what can usefully be done.

2.1.7 ISSUE FOR DISCUSSION: There are mixed views about the comparability of the two major award-types at NFQ Level 6

The Advanced Certificate and Higher Certificate award-types were determined by the National Qualifications Authority of Ireland (NQAI) under section 10 of the *Qualifications (Education and Training) Act 1999* in 2003 along with many other NFQ award-types. Under section 10 of the 1999 Act, the NQAI could determine which programmes and awards were FET and which were HET.

The Determinations for the Outline National Framework of Qualifications (2003, pp. 11-12) state that

> *"Advanced Certificate is the title of the further education and training award-type at level 6, and Higher Certificate is the title of the higher education and training award-type at that level.*
>
> *Awards at Levels 7 to 10 will be made by the Higher Education and Training Awards Council (HETAC), the Dublin Institute of Technology and the universities. At Level 6, the Advanced Certificate award will be made by the Further Education and Training Awards Council (FETAC), and the Higher Certificate award will be made by the Higher Education and Training Awards Council and the Dublin Institute of Technology.*
>
> *...*
>
> *At Level 5 and below, the Further Education and Training Awards Council will make awards.*
>
> *...*
>
> *The differentiation [between FET and HET] at Level 6 will relate to the major award-type descriptor for each respective Council's award.*
>
> *The differentiation of award-types will relate to standards of knowledge, skill and competence. These standards will be set through the descriptors for the award-types. The key differentiating factor between the two is the emphasis that each places on particular learning outcomes in the descriptors.*
>
> *The Authority has decided that the effectiveness of the differentiation should be reviewed within three years."*

The NFQ architecture and the differentiation between FET and HE and the construction of award-types had regard to existing programmes, patterns of provision and institutions. The differentiation at Level

6 was along a natural cleavage plane in these regards. The Advanced Certificate and Higher Certificate award-type descriptors are different though the overall NFQ level is the same for both.

The learning outcome indicators[116] included in the **Advanced Certificate** award-type descriptor contain a mixture of NFQ sub-strand level indicators drawn from NFQ Levels 5, 6 and 7. This award-type is frequently used for the terminal qualification following a four-year craft apprenticeship. It is also frequently used within the Post-Leaving-Certificate (PLC) sub-sector of the further education sector, where programmes leading to the Advanced Certificate are often accessed by people with a PLC Level 5 Certificate. Significantly fewer Advanced Certificates than Level 5 Certificates are awarded in the PLC sector. The durations of the PLC (in ETBs) and apprenticeship pathways to the Advanced Certificate are two academic years (PLC)[117] and two to four years (apprenticeship) respectively. In further education one academic year is expected to involve 1200 notional hours of learner effort (i.e. 120 FET credits).

The learning outcome indicators included in the **Higher Certificate** award-type descriptor again contain a mixture of NFQ level indicators drawn from Levels 5, 6 and 7 but the mixture is different from the Advanced Certificate award-type. In the initial years of the NFQ, the Higher Certificate was a popular qualification for roles like Engineering Technician. It replaced the National Certificate award (previously awarded by HETAC and the NCEA). Nowadays, there are fewer dedicated Higher Certificate programmes. Higher Certificates are frequently available now as exit awards for those who successfully complete the first two years of a programme designed principally to lead to an honours bachelor's degree (such HC programmes are referred to as 4-1-1[118] type). The European Higher Education Area[119] has recognised the importance of short cycle post-secondary qualifications and the Higher Certificate is such a qualification. The duration of the higher education pathway to the Higher Certificate is two academic years (post Leaving Certificate). In higher education one academic year (60 ECTS[120]) is expected to involve 1500-1800 notional hours of learner effort.

So how then does the Advanced Certificate compare with the Higher Certificate? It is better to ask how the AC and HC compare as implemented. Although we can see the difference between the AC and HC award-type descriptors, we don't know for sure whether these are reflected in the programmes that people must complete to gain these qualifications. Some hold the view that because the Advanced Certificate PLC programmes require a single academic year, they are comparable to the first year of a higher certificate programme—but the PLC route to an Advanced Certificate is often in fact two academic years post Leaving Certificate: a Level 5 Certificate is achieved in the first year and an Advanced Certificate in the second. We need to look at the post Leaving Certificate pathways to the Advanced Certificate and the Higher Certificate to determine the comparability of these qualifications as implemented. To resolve this matter, one would have to study representative samples of programmes from FET and HE providers.

We anticipate spreads in AC and HC standards as implemented. Any spreads may depend on multiple factors, for example field of education. This variability complicates the analysis and resolving the question will, therefore, require a suitable statistical model.

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[116] These can be considered 'expected learning outcomes' when the award-type is used as an award standard.

[117] A Level 5 Certificate is achieved in Year 1 and the Advanced Certificate in Year 2.

[118] Four minus one minus one.

[119] http://www.ehea.info/page-three-cycle-system

[120] ECTS means European Credit Transfer and Accumulation System

To exemplify the issues that can arise, consider the formation for Dental Nursing which is a reasonably well-understood occupation. Programmes have been provided by at least one FET provider as well as several higher education institutions. Were HE and FET institutions restricted to using the existing HE or FET award-types respectively, this would be likely to confuse prospective students and employers.

Much has changed since 2003 and it is now time to revisit the suitability of the NFQ major award-types at Level 6.

It is also reasonable to question whether the notion in "*Principles and Operational Guidelines for the Implementation of a National Approach to Credit in Irish Higher Education and Training*" that seems to imply that all of the first two years of a higher education programme can be at level 6 accurately reflects the NFQ level of the learning achieved during the first year considering that the Leaving Certificate is placed at NFQ Levels 4/5. It is likely that this understanding is a consequence of the fact that NFQ Level 5 had been identified as exclusively for FET qualifications and, therefore, HETAC and the institutes of technology could not make higher education awards at that NFQ level. The learning outcome basis for indicating that the first year is at NFQ Level 6 is unclear to say the least.

2.1.8 COMMENT: Should the major award-types at NFQ Level 6 and possibly at Levels 5 and 7 be reviewed?

Briefly, one essential question is how an FET programme leading to a (major) L5 certificate followed by one leading to an Advanced Certificate award at L6 in a cognate area compares with a HE programme in the same cognate area leading to a Higher Certificate, looking at entry standards and routes, programme content, assessment strategy and sample tasks, volume of learning and L6 learning outcomes.

The hypothesis to test is that the two PLC years taken together are broadly equivalent to the two years of a Higher Certificate programme and that it is not necessary to maintain two different award-types to distinguish the major awards at level 6.

This hypothesis could be false, true in certain circumstances or true in general. We suspect it may be true in certain circumstances.

The idea is to get some empirical data from a representative sample of programmes to inform an objective discussion about L6 provision and progression (and from our point of view NFQ integrity) in the context of a tertiary education system.

If the hypothesis were true, we would need to discuss the implications with stakeholders, and it may be worth considering the possibility of having a single general-purpose major award-type at NFQ Level 6 (let us call them L6 degrees for the sake of argument). If that were done, FET and HE would no longer be distinguished by NFQ award-type at level 6 and the putative L6 degree would be available to FET and HE institutions. In other words, FET and HE would be seen as overlapping at NFQ Level 6.

SOLAS and the HEA have agreed to contribute with QQI to funding an *Evaluation of the comparability of the Advanced Certificate and Higher Certificate qualifications*. This work commenced in March 2020. The findings may help inform further discussions on the NFQ award-types at L6.

2.1.9 ISSUE FOR DISCUSSION: There may be a need for more than one doctoral award-type descriptor

The NFQ's doctoral award-type descriptor is very general. This is both a strength and a weakness. Its strength is that it can encompass a wide range of doctorates including professional doctorates and

practice-led doctorates. Its weakness is that it does not provide any specific guidance on expectations for different kinds of doctoral qualifications.

It may be useful to consider whether new or additional doctoral award-type descriptors (perhaps including one for professional class doctorates) are required.

2.1.10 COMMENT: Is there a need for a green paper on doctoral descriptors?

We plan to publish a green paper on issues and options concerning doctoral descriptors. This paper might usefully explore whether it would be useful to supplement the doctoral level indicators with more focussed award-type descriptors for PhD awards and for professional doctorate awards.

2.1.11 ISSUE FOR DISCUSSION: Would it be useful to project the EU key competence framework onto NFQ Levels 5-8?

As noted, there have been questions about some graduates' key competences. It may be useful to reach a national consensus on the relevant expectations and make these explicit in the form of guidelines (on the interpretation of the NFQ).

2.1.12 ISSUE FOR DISCUSSION: Opening the NFQ to new awarding bodies will require adaptation

The anticipated opening of the NFQ to new awarding bodies (Listed Awarding Bodies) will be a positive and necessary development. It will obviously require the establishment of new policies, criteria and procedures for listing. But that is not the only adaptation required.

Existing arrangements that section 44(9) providers without DA have with awarding bodies to have awards made (especially in the further education system) will need to be reviewed to ensure that they are consistent with this opening up of the qualifications system.

One practical issue, for example, is how unit-based awards of other awarding bodies can be combined with unit-based QQI awards in the context of the Common Awards System (CAS). This is a technical problem that will be solved but it will likely require significant changes to how CAS is conceptualised and used.

2.1.13 COMMENT: How can the information held in the IRQ be enhanced?

The IRQ will provide equal visibility for all programmes and awards linked to the NFQ.

In due course the IRQ could be expanded to provide rich data on programme and awards that will be useful for learners, employers and researchers. These data may include information about access, and transfer to the programme, the workload and end-to-end duration, intended programme learning outcomes, applicable occupational standards, professional accreditation, applicable SOC2010 or ESCO codes, academic validation arrangements and status.

2.1.14 COMMENT: Would it be useful to establish a Qualifications System Advisory Group?

It may be useful for QQI to establish a Qualifications System Advisory Group. The Advisory Group would be a broad-based representative structure to support the development, promotion and evaluation of the qualifications system. It would aim to provide a national platform for knowledge exchange on matters relating to the qualifications system. Such matters may include the NFQ, qualifications standards, awarding/certification, occupational standards, provision of programmes of education and training, access, transfer and progression, learning pathways, RPL, quality and confidence in qualifications and recognition of qualifications nationally and internationally.

2.2 Access, transfer and progression (ATP) policy and criteria and credit systems

In this sub-section, we set out issues and options relating to (i) our ATP policy and criteria and (ii) the national credit systems.

2.2.1 ISSUE FOR DISCUSSION: The ATP policy and criteria date back to 2003

The NQAI established and published "*Policy and Criteria for Access, Transfer and Progression in Relation to Learners for Providers of Further and Higher Education and Training*" in 2003. In 2015, QQI re-published the key elements of it as "*QQI Policy Restatement: Policy and Criteria for Access, Transfer and Progression in Relation to Learners for Providers of Further and Higher Education and Training*".

Much has changed since the ATP policy and criteria were established in 2003. For example, we have better data on progression, better understanding of progression issues and opportunities and a considerably different educational landscape.

2.2.2 ISSUE FOR DISCUSSION: Reviews of the implementation of ATP procedures

QQI is required to review the implementation by each relevant provider and each linked provider of their ATP procedures at least every seven years. This is normally done as part of an institutional quality review (Cinnte) and therefore the review of ATP procedures must compete with many other tasks for reviewers' attention. There is an opportunity for QQI to use dedicated ATP reviews to better identify both strengths and opportunities for enhancement.

2.2.3 COMMENT: Might the implementation of ATP procedures and their impact on transitions be a suitable topic for a systemwide thematic review?

Some aspects of the effectiveness of ATP procedures arguably need to be reviewed in the context of their impact on overall system performance and not only at institutional level.

If it is considered unlikely that the sectors or their institutions either can or will act to optimise the national systems for access, transfer and progression, then external accountability is important, and we may need to place greater emphasis on ATP reviews, especially in relation to pathways involving transitions between educational sectors.

2.2.4 ISSUE FOR DISCUSSION: The debate about transitions between FET and HE may need to be broadened to include the gradual redistribution of pathways involving post compulsory education (secondary education and tertiary education)

Certain learning pathways undoubtedly have more prestige than others. This becomes a problem if it deflects people from creating or following less prestigious learning pathways that may be more suitable for significant proportions of the population.

In Ireland there seems to be a widespread view that the preferred pathway is to acquire a good Leaving Certificate, win a place on a high points course at a top-ranking university and earn at least an honours bachelor's degree. Other pathways are viewed as second or subsequent choice options. This frequently preferred pathway will suit people with a certain kind of academic aptitude, motivation and the necessary financial resources, but many people may do better on different kinds of pathways. New pathways could be created that would enable people to progress from the junior cycle to an honours bachelor's degree via a more vocationally oriented path that would help create interest in higher education.

The Leaving Certificate programme is probably still the foundation for most undergraduate higher education, but should it be so dominant? The Leaving Certificate (LC) is the route that most higher

education undergraduates have taken prior to entry, and higher education programme content and access mechanisms are largely optimised for the LC. This is perfectly understandable, nevertheless it makes it difficult to provide equitable higher education access to those programmes (perhaps with exemptions from parts of them) for persons who have a further education qualification possibly in addition to the Leaving Certificate. This issue is one that probably requires a system level perspective to consider.

The dominance of a single kind of pathway may be efficient but is it robust and do we really know what effect it has had on actual standards being achieved by higher education graduates?

We need ways of analysing the adequacy of the distribution of pathways and prospective pathways that transcend institutions. How, for example, can we determine whether our country would be better served if fewer people took the standard route to honours bachelor's degrees and more people took a route that involved initial vocational education either post Leaving Certificate or post junior cycle?

Debates about access to higher education from FET are often about access to existing HE programmes that have been principally designed for students entering with a Leaving Certificate or equivalent from existing FET programmes and while this is important it is not the only access issue.

One of the more challenging issues in designing pathways is dealing with allocating places where the supply of able candidates exceeds the availability of places. For candidates entering with the Leaving Certificate this can be addressed reasonably well by the CAO. In order to function effectively the current CAO approach requires high confidence in the consistency and reliability of assessment results on which points are based.

2.2.5 ISSUE FOR DISCUSSION: Access, transfer and progression around the FET-HE overlap zone

The HE/FET boundary (and the overlap in terms of NFQ levels) reflects the typical demarcation of institutional roles that existed in 2003 when the NFQ was developed. Even then, some FET colleges were involved in higher education and this remains the case. The hard boundary between FET and HE is more an administrative imposition than an educational requirement.

On either side of that boundary, institutions tend to develop programmes independently of each other. There are few examples of jointly optimised articulated FET and HE programmes around NFQ Level 6. Joint optimisation requires that FET and HE providers collaborate in the development of each other's programmes. Unfortunately, this is more the exception than the norm. Collaboration between FET and HE developers at the design stage would allow progression to be built-in so that FET and HE programmes articulate gracefully and people with a FET qualification gain full credit for their prior learning if they progress onto a programme (e.g. to an add-on programme or with advanced entry) leading to the paired HE qualification. Competition can and often is healthy but not in all situations and not if it wastes public money or if it results in artificial obstacles to progression.

We need to better understand how the FET/HE boundary is working and the associated provision and qualifications in the overlap region (e.g. PLC and Higher Certificate programmes). We note that significant progress has recently been made in understanding transitions from FET to HE (Transitions Reform Sub-Group report on FET-HE progression). See also section 7.1.1.

2.2.6 COMMENT: Would it be useful to promote the creation of new learning pathways involving new kinds of transitions?

It may be useful to try to influence the creation of opportunities for FET and HE institutions to work together to create new *jointly optimised* pathways. Relatively few higher education programmes are

designed *specifically* to *build on* further education programmes. This is understandable to some extent owing to the diversity of FET programmes and awards—many just don't have the scale to warrant HEIs designing bespoke add-ons. However, there are some subjects where that scale could be realised, for example Early Learning and Care.

The preceding paragraph should not be interpreted to imply that there are few progression opportunities between FET and HE. On the contrary, the Transitions Sub-Group has found that there are extensive links and progression between FET PLC and HEIs. There is a substantial flow of learners from FET into the *technological* higher education sector—around 25% of the technological sector intake is from FET—though the flow into the university sector is much lower[121].

There has been a clear policy to increase senior cycle completion. Most people are channelled towards the Leaving Certificate after the junior cycle, but it may be time to reconsider whether some rebalancing is necessary and whether some post junior cycle individuals might be better served by **initial vocational education** (IVET) programmes that include essential general education and can, for example, articulate with add-on higher programmes of higher education. These programmes could be purely FET or a combination of FET and senior cycle elements. What matters is that they provide a genuinely alternative approach (to the senior cycle). The quality and standard of the formation overall along with the authenticity of the vocational formation are also key.

Change like this can be introduced gradually even if it ultimately leads to major reconfigurations.

We hope that by encouraging the actors involved to work together to create a more permeable and transparent education and qualifications system that people will be able to judge the quality of programmes based on their demonstrable intrinsic value and not be unduly influenced by the labels (e.g. college of further education, institute of technology, university, technological university) attached to the provider.

We also note that much evidence has been gathered by the NFETL, in partnership with the FET sector and the Union of Students in Ireland, on students' experiences of transitions from FET to higher education[122], in addition to the experiences of those students who do not complete their programmes of study in higher education[123].

In summary, while it is great that Ireland has made so much progress in improving the educational profile of its population, and HE has played a huge role in that, now may be a good time to reflect on whether the current balance is optimal, whether our educational qualifications ecosystem is suitably diverse and whether existing LC-alternative pathways are comparably simple to understand and navigate. It may be time to start thinking about giving people more choice after junior cycle and having new IVET pathways that integrate general and vocational education in a completely different way to the Leaving Certificate and interface to HE add-on programmes to provide new pathways to HE qualifications. These new IVET alternatives could be developed one at a time—and in time could reshape the educational landscape making it more diverse.

[121] Data on FET-HE progression have been calculated by the Transitions Sub-Group.

[122] https://www.teachingandlearning.ie/publication/transition-from-further-education-and-training-to-higher-education/

[123] https://www.teachingandlearning.ie/publication/reaching-out-why-students-leave/

2.2.7 ISSUE FOR DISCUSSION: There is a difference between annual learner workload expectations in FET and HE

One of the complications associated with articulating FET and HE programmes is the difference in expectations between FET and HE for the notional annual learner workload.

In FET a fulltime academic year nominally involves 1200 hours of learning effort—though we have anecdotal evidence that some PLC programmes allow learners to take one or two extra subjects which would bring the number up to a maximum of 1500 hours. In higher education it is nominally 1500-1800 hours but, in the past, it would have been 1200-1800 hours.

To put this in perspective 1200, 1500, and 1800 hours correspond to 25.6, 32 and 38.4 hours respectively per week over 47 weeks. 1800 hours effort is comparable to a fulltime job over a full calendar year.

2.2.8 COMMENT: Would it be useful to have more clearly aligned FET and HE credit systems at levels 5 and 6?

It may be beneficial to have more clearly aligned credit systems in FET and HE at levels 5 and 6. Currently one fulltime academic year in FE involves 1200 hours and in HE involves 1500-1800 hours—the latter is constrained by ECTS.

It may be useful to consider increasing the minimum expected workload in FET at NFQ Levels 5 and 6 to 1500 hours and adopt ECTS principles for the estimation of learner effort in FET programmes leading to awards at these levels. Naturally, consideration of any prospective changes would need to take account of the implications for the international recognition of Irish qualifications at EQF Level 5.

2.2.9 ISSUE FOR DISCUSSION: The National Approach to Credit in Higher Education requires updating

The *National Approach to Credit in Higher Education* requires updating to reflect the changes that have occurred in the fifteen years or so since it was developed.

There may also be a need for more national guidance on the use of ECTS so that it is implemented reasonably consistently.

As previously mentioned, the *Principles and Operational Guidelines for the Implementation of a National Approach to Credit in Irish Higher Education and Training* (NQAI, 2006) require that a major higher educational award programme must have at least 60 credits (one academic year) at the same level as the major. However, for the Higher Certificate it seems to promote the notion that there must be 120 credits at NFQ Level 6 (because at the time they were developed there could be no higher education credit at NFQ Level 5 which had been set as being exclusively FET). The accuracy of that is questionable because one suspects that the first-year stage of a Higher Certificate programme could be nearer NFQ Level 5 than Level 6.

Another matter that may require updating is that the approach indicates that one credit involves 20-30 hours notional learning effort whereas ETCS envisages 25-30 hours.

2.3 Recognition of prior learning (RPL)

We defined RPL and related terms in section 3.1.7 in Part 1.

2.3.1 ISSUE FOR DISCUSSION: Do we need a national strategy for RPL?

In its Green Paper on the Recognition of Prior Learning in 2013 QQI wrote:

> *"There is a need for a coherent co-ordinated national strategy and direction with regard to RPL, including interdepartmentally across government departments and agencies. While RPL may be*

an efficient means of developing and recognising human capital and promoting social inclusion, it costs money to implement. QQI has a role in facilitating and promoting RPL but it is only one actor among many."

Almost seven years later there is no *co-ordinated national strategy and direction*.

2.3.2 COMMENT: Do we still need a co-ordinated national strategy and direction for RPL?

There is a need for initiatives and infrastructure at macro and meso levels that can help contribute to a better *environment* for RPL and *influence* effective practice. Some of this is in place but more could be established as we shall suggest below. The question of who pays for RPL is another matter.

Existing macro-level initiatives include the NFQ and the *Policy and Criteria for Access, Transfer and Progression in Relation to Learners for Providers of Further and Higher Education and Training.* Both need updating and that may be an opportunity to enhance both from an RPL perspective.

At the meso level, for example, the RPL Practitioners' Network is an active community of practice that helps disseminate examples of effective RPL practice that can encourage and inspire others. Similarly, the NFETL has published an Insight on RPL in higher education[124], funded a research project scoping RPL practice in Irish higher education[125] and an enhancement project related to RPL across three institutions[126], and more recently it has worked with CIT in the development of a professional development short course focussed on RPL[127].

Finally, RPL arrangements are an integral part of the qualifications system and RPL is stronger when the other parts of the system are functioning effectively, well documented and well understood. Therefore, much of what we have to say about the qualifications system in this paper is also relevant to supporting RPL (e.g. the use of learning outcomes). In the following sub-sections, we shall identify several RPL-specific issues that we think warrant discussion.

2.3.3 ISSUE FOR DISCUSSION: Guidance on RPL for learners[128]

One of the challenges in mainstreaming RPL is the identification of, and provision of guidance for, learners who might benefit from it. We can define two broad scenarios.

The first scenario (let's call it Type A) is where a learner wishes to access a specific qualification that is led to by one or more specific programmes. They may wish to enter at the start of the programme, or at an intermediate stage (advanced entry with exemptions), or present directly as candidates for the relevant award. If they have achieved the competence to warrant this through non-formal or informal learning but lack the formal qualifications that testify to that, they should expect to be able to avail of an RPL process. Once a learner has found a programme, the programme provider will be the primary source of guidance about their programme-specific RPL process. There are lots of different ways the Type A scenario can arise.

Secondly, a Type B scenario is where a learner desires a qualification for which there is an NFQ

[124] https://www.teachingandlearning.ie/publication/recognition-of-prior-learning-in-irish-higher-education/

[125] https://www.teachingandlearning.ie/publication/a-current-overview-of-recognition-of-prior-learning-rpl-in-irish-higher-education/

[126] https://www.teachingandlearning.ie/project/recognition-of-prior-learning-rpl-eportfolio-roadshow/

[127] https://opencourses.teachingandlearning.ie/open_course/recognition-of-prior-learning/

[128] We will use the term 'learner' to refer to a person wishing to avail of an RPL process.

award-type but no programme; no 'named award'; and (clearly) no provider's programme specific RPL statement. A learner in this situation cannot assume that any specific provider would be willing or able to establish a bespoke process and qualification. Where such a process can be established, it is not always clear how it would be quality assured. At the higher and lower levels of the NFQ where programmes are already individualised this scenario may be less challenging for providers than at the NFQ's mid-levels. It is generally more challenging to provide guidance to people in this scenario. We suspect that instances of the Type B scenario will be less frequent than Type A, but they may still need to be catered for.

2.3.4 COMMENT: What is involved in identifying opportunities for RPL and providing guidance for learners?

In general, providers who have RPL processes are expected to provide accessible information about them to learners. QQI's *Policy Restatement: Policy and Criteria for Access, Transfer and Progression in Relation to Learners for Providers of Further and Higher Education and Training* states that:

> *"All providers, for each and every programme, will publish in a standard and accessible format: [...] A statement of arrangements available for recognition of prior learning, for entry to each of their programmes, and for access to an award. [...]"*

QQI's *Core Statutory Quality Assurance Guidelines* were developed for use by all providers and state general expectations concerning institutional RPL policy and procedures:

> *"Policies and procedures for learner admission, progression and recognition include:*
>
> - *[...*
> - *...]*
> - *Fair recognition of education and training qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning.*
> - *Appropriate recognition procedures. These are in line with the national policies and criteria for ATP and the National Framework of Qualifications (NFQ) and any appropriate European recognition principles, conventions and guidelines including the European Qualifications Framework (EQF)."*

It is perhaps time to consider reviewing how effective these requirements have been in promoting RPL.

QQI's current validation criteria go further and require that all programmes include RPL arrangements:

> *"The programme includes suitable procedures and criteria for the recognition of prior learning for the purposes of access and, where appropriate, for advanced entry to the programme and for exemptions."*

A critical success factor for RPL is having a good information infrastructure in place. One of the challenges for learners and employers is to identify which of the thousands of existing programmes or qualifications might be most suitable for their specific needs. Information portals like *Fetch* (for FET) are a very useful starting point and can already identify programmes and qualifications by keyword search. There may be additional benefit to providing such search tools with more systematic ways of tagging programmes and qualifications with the occupations (using SOC-2010 or ESCO) that the programme and qualification help prepare people for. This would help because similarly titled qualifications may not be equally relevant to a specific occupation or role. Having a fine-grained occupational classification would enable a learner to search for all the qualifications associated with their occupation or desired occupation. Also, there may be a benefit in providing a tool to enable learners to make an initial simple self-assessment of their RPL needs so that they can be connected with a competent provider who can guide, advise or progress the RPL process.

Identifying individuals who can benefit from RPL requires good communication channels between providers who implement RPL, learners, employers, workers and other relevant stakeholders. The Regional Skills Fora are especially noteworthy in this context.

The Irish Register of Qualifications will also be helpful in this regard (especially when it evolves to include the learning outcomes associated with the qualifications) because it presents summary information about all programmes and the awards that they lead to in a standardised way.

We have been focussing on RPL as a means of access to specific qualifications or pathways to qualifications. In RPL for the purpose of social inclusion, or motivating further learning, the formal recognition of individual achievement may be at least as important an outcome as the specific qualification gained.

2.3.5 ISSUE FOR DISCUSSION: Certification and standards for RPL

A key question for RPL is how the relevant standards are defined and communicated especially when RPL is expected to lead directly to a qualification as distinct from leading to a pathway to a qualification (e.g. subject exemptions in, or advanced entry to, a programme). Standards are expected to be expressed as statements of knowledge, skill or competence (learning outcomes) rather than as processes or input measures (such as time served or credit).

To concretise the issues, suppose a learner wishes to gain a specific NFQ qualification through RPL without completing a relevant programme (type A scenario from section 2.3.3 above). The process would need to:

1) Access the standard for the relevant qualification
2) Assess the applicant against that standard and document the findings.

With a well-defined qualification standard that is amenable to consistent interpretation, the remaining challenge for RPL is to ensure that the recognition process (particularly the validation of learning) is unbiased as to how a learner's knowledge etc. was achieved, and proportionate (not unduly burdensome).

Standards are also required in the context of RPL for access to a programme or a stage within it. In this regard it is to be expected that statements of prior learning requirements are specified for access to the overall programme and any parts or stages of it for which exemptions may be granted. Such statements function as the standards for RPL processes.

Awarding bodies[129] can be expected to have standards for all of their NFQ awards expressed as statements of knowledge, skill or competence. However, standards (intended programme learning outcomes) for major named awards are often quite succinct and designed to be used and interpreted in the context of a specific programme—their reliable interpretation outside that context may be more challenging (if even possible) and may require access to programme content, module learning outcomes, and assessment task samples.

QQI, for example, has different types of awards standards ranging from highly generalised award-type descriptors, through broad standards and occupation-oriented standards (e.g. Architectural Technology and Early Learning and Care), to detailed standards for components in the CAS. Especially, when broad standards are used the **de facto** standard for qualifications based on them is the set of MIPLOs (minimum intended programme learning outcomes) and MIMLOs (minimum intended module learning outcomes) for the relevant programme.

[129] Note that QQI is an atypical awarding body. It does not conduct RPL processes itself. QQI awards made on the basis of RPL are made on the recommendation of a competent provider. A provider who has a validated programme leading to the relevant award is normally expected to be competent to make a recommendation on foot of an RPL process.

A Type B (see section 2.3.3 above) scenario example might be where a learner, on the basis of non-formal or informal learning, seeks an honours bachelor's degree **that does not already exist**. In the absence of a specific named NFQ qualification that can be targeted, the RPL process would at least need to do the following:

1) Determine and document the applicant's knowledge, skill and competence in the domain;
2) Compare (1) to the NFQ award-type descriptor for the honours bachelor's degree to confirm an acceptable fit.

(1) and (2) may occur consecutively or the process may perhaps oscillate between (1) and (2) until it converges on a determination and confirmation of an acceptable fit. The standard here is the NFQ award-type descriptor as interpreted by the RPL practitioners (the people involved in conducting the specific RPL process). If the RPL practitioners are familiar with programmes leading to NFQ honours bachelor's degree qualifications in the field of learning, they are likely to interpret the award-type descriptor consistently with those qualifications. This kind of process may result in a unique qualification. Much hinges on how the award-type descriptor is used.

2.3.6 COMMENT: What needs to be done to support the availability of standards for RPL?

A successful RPL process need not terminate in a qualification but if it does not, then it would ideally terminate in a pathway to a qualification.

As implied in 2.3.4, the IRQ could potentially evolve to make standards for all NFQ awards more visible. Such standards may not be sufficient on their own for RPL but may be helpful in identifying qualifications that would match an individual's RPL needs.

It may also be useful to include the RPL statements cited earlier (section 2.3.4) for each programme in the IRQ (or at least a hyperlink to them).

Where no specific standard exists other than an award-type descriptor (for all or part of the prior learning), one can envisage a process similar to the one used to validate programmes of education and training against a broad or generic standard. Instead of examining a documented programme, the process would examine the candidate and their supporting evidence. In principle this is something that requires awarding authority (because there is no validated programme). The challenge here is how to quality assure this kind of RPL and how to implement it in the context of FET.

There may be scope for the development of guidelines on the quality assurance of RPL processes and qualifications to ensure that they are trustworthy and meet the needs and expectations of society.

It is worth noting that class-based RPL processes, where a cohort of people with similar RPL needs are seeking a qualification on an RPL basis, can provide an economy of scale so that an RPL process that may be prohibitively expensive for a single person may be viable for a sufficiently large class of persons.

2.3.7 ISSUE FOR DISCUSSION: Differentiating qualifications gained through RPL

Some may argue that we should differentiate qualifications achieved by RPL from those achieved through completion of a programme of education that leads to the qualification.

2.3.8 COMMENT: Should qualifications gained through RPL be differentiated?

In Ireland it is not common practice to differentiate through the qualification itself. The Diploma Supplement (HE) or the Certificate Supplement (FET) may note the role of RPL in the achievement of the qualification.

2.3.9 ISSUE FOR DISCUSSION: Confidence in RPL processes and QA

Programmes of education and training leading to qualifications in the NFQ must generally be validated before learners are enrolled. Validation processes vary but they often involve expert evaluation by people who are independent of the programme provider. Programme validation can include scrutiny of foreseeable RPL processes that can be put in place at the design stage.

However, there may be a need for unforeseen RPL processes (Type B scenario), and one may well ask whether they should also be subject to expert evaluation by people who are independent of the RPL provider? Another question relates to the documentation that should be retained for such an RPL process.

2.3.10 COMMENT: How is RPL quality assured?

Section 3.2 of QQI's Core QA Guidelines addresses the quality assurance of RPL, for example:

> *"Policies and procedures for learner admission, progression and recognition include:*
>
> - *Fit-for-purpose admission, recognition and completion procedures.*
> - *Learner induction to both the provider and the programme.*
> - *Processes and tools to collect, monitor and act on information on learner progression and completion rates.*
> - *Fair recognition of education and training qualifications, periods of study and prior learning, including the recognition of non-formal and informal learning.*
> - *Appropriate recognition procedures. These are in line with the national policies and criteria for ATP and the National Framework of Qualifications (NFQ) and any appropriate European recognition principles, conventions and guidelines including the European Qualifications Framework (EQF)."*

This is quite comprehensive but also rather high level. There may be benefit in developing more detailed topic specific guidelines on the *quality assurance* of RPL processes, especially processes for the validation of non-formal and informal learning. Note this does not mean guidelines on how to do RPL.

3. Qualifications in the NFQ

3.1 Qualifications in general

3.1.1 ISSUE FOR DISCUSSION: NFQ implementation is not well understood by QQI

QQI is responsible for promoting, maintaining, further developing, and implementing the NFQ.

The Framework has been in place for 16 years and there is a wealth of experience to be researched. However, there has been relatively little research on its implementation as a national system of standards by awarding bodies. There are gaps in our understanding of the implementation of the NFQ especially by designated and delegated authority awarding bodies and the State Examinations Commission.

In higher education, QQI's focus has been on developing and implementing (with stakeholders, especially providers) a new external quality assurance system. With this now in place, there is an opportunity to increase emphasis on gaining insight into qualifications standards and the implementation of the NFQ by higher education awarding bodies.

The situation in FET is similar even though we have a clearer idea about how the NFQ is being used at least in new programme development because of our validation processes. That said this is another area that needs to be better understood. In further education, all the current awards that are recognised (included) within the NFQ are QQI's, and the link with the NFQ is designed into the QQI standards. However, many FET programmes have not been subject to a rigorous validation process of the kind that is currently in place and there are, therefore, gaps in our understanding about the consistency of implementation of NFQ implementation in FET.

The re-referencing of the NFQ to the EQF may provide an opportunity to reflect on the adequacy of our level of understanding of the links between the NFQ and real qualifications and the underpinning programmes (including assessment).

We have begun to systematically self-assess our own activities as an awarding body in this regard, for example we have examined our validation processes through a thematic analysis of approval and reapproval-related reports on programmes leading to our awards[130]. The thematic analysis was extended in 2019 to cover similar reports produced by universities, institutes of technology and a selection of professional recognition bodies. That study when completed may provide some useful insights into the implementation of the NFQ, e.g. reporting on the alignment of learning outcomes with the NFQ.

3.1.2 COMMENT: What do we mean by NFQ implementation?

When we speak of "implementation of the NFQ" we mean putting it into effect and that the relevant activities are demonstrably consistent with NFQ policies, criteria and standards determinations. QQI has statutory responsibility for implementing the NFQ, but other NFQ users including providers and especially awarding bodies also have key roles in implementing the NFQ (putting it into effect in their domains).

[130] https://www.qqi.ie//Publications/Pages/A-Thematic-Analysis-of-Reports-on-the-Accreditation-Approval-Review-of-Programmes-of-Higher-Education.aspx

3.1.3 COMMENT: How can we work with stakeholders to create greater transparency about how the NFQ is being implemented by awarding bodies?

Recognising that NFQ implementation operates at the macro, meso and micro levels, we should aim to stimulate activity at all these levels.

We would like to see the emergence of new or reenergised communities of practice centred on implementing and using the NFQ and the qualifications system more generally.

As mentioned earlier (section 2.1.14) it would also be useful to establish a *Qualifications System Advisory Group* comprising representatives of key stakeholders.

3.1.4 COMMENT: Would it be useful to conduct research to evaluate actual standards being achieved by learners?

This is addressed in section 7.2.4.

3.2 Further education and training qualifications

Currently, QQI is the only body making FET awards that are included in the NFQ. This situation would change if we were to:

- delegate authority to providers to make awards or
- list awarding bodies and include their awards within the NFQ.

Considering this and given the specific nature of our FET standards, most issues relating to FET qualifications in the NFQ will arise in section 4.1 on our evolving approach to setting standards.

3.2.1 ISSUE FOR DISCUSSION: The qualifications infrastructure is evolving

Providers of programmes of further education and training in addition to relying on QQI also rely on awarding bodies other than QQI that make awards outside the NFQ, for example vendor awarding bodies in information and communication technology (e.g. Cisco) and educational awarding bodies like City and Guilds. Such awards play an important role in the qualifications system and need to be duly recognised.

The anticipated process for listing (section 3.4) awarding bodies (to enable their awards to be included in the NFQ) is especially significant for further education and training. The listing of awarding bodies will provide quality assurance for the relevant awards *and* the associated provision that is comparable to that applying to other awards already included in the NFQ and their associated programmes.

Note that the Irish Register of Qualifications (section 12.1) will, when fully implemented, increase the transparency of programmes of education and training (e.g. courses, apprenticeships and such like) and the NFQ qualifications to which they lead.

3.2.2 COMMENT: Is it helpful to distinguish between IVET and CVET?

The notion that IVET (Initial VET) and CVET (Continuing VET) qualifications may be usefully distinguished may be worth debating.

Discussing qualifications from that perspective can shift the focus to the needs of the learner and away from institutions and sub-systems, with boundary and territory issues. CVET is particularly interesting given the increased emphasis in skills policy on the education and training of those in employment.

3.2.3 COMMENT: What is the effect of the new QQI validation policy in FET?

QQI adopted a rigorous new validation policy in 2016 that applies to both FET and HE. The policy represented a step change in the approach to programme approval for providers in the FET sector. FET

providers have engaged well with the new approach. In addition to new programmes, all active FET programmes leading to QQI awards will have to be validated.

The new validation policy is key to many reforms we are discussing here as indicated, for example, by the numerous references to it in relation to streamlining our approach to standards.

3.3 Higher education qualifications

NFQ higher education qualifications are currently awarded by:

- designated awarding bodies (DABs);
- awarding bodies with delegated authority from QQI; and
- QQI.

This list may expand in the future with the prospect of *listing* other awarding bodies and *including* their awards within the NFQ.

3.3.1 ISSUE FOR DISCUSSION: There has been a long-term decline in enrolment on dedicated programmes leading to Higher Certificates and ordinary bachelor's degrees

There has been a significant long-term decline in enrolment on dedicated programmes leading to Higher Certificates (NFQ Level 6) and ordinary bachelor's degrees (NFQ Level 7) and growth in enrolment on honours bachelor's degree programmes (NFQ Level 8).

3.3.2 COMMENT: What are the reasons for the declining share of major HE awards at NFQ Levels 6 and 7?

The reasons for the declining share of major awards at NFQ Levels 6 and 7 in higher education need to be better understood. These awards are mainly made by the institutes of technology, the technological universities and QQI.

The longstanding declining share of major awards at NFQ Levels 6 and 7 in the technological sector in higher education would be unproblematic if it were due to well-informed demand or changing need. On the other hand, if it is due to more people being channelled into honours degree programmes because of ill-informed demand or if it is driven by provider interests then it may be problematic especially if it has led to a spreading of standards for honours bachelor's degrees.

Many of the other issues raised in this paper have a bearing on this matter. The THEA discussion paper published in May (THEA, 2019) provides useful data and analysis.

3.3.3 ISSUE FOR DISCUSSION: There been a drift away from ladder progression in the technological higher education sector

There has been a drift towards the use of exit awards and away from ladder progression in the technological higher education sector.

In the ladder progression scheme a person may begin by enrolling on a dedicated Higher Certificate programme. Better performing graduates of that programme could enrol on a dedicated add-on programme leading to an ordinary bachelor's degree. Better performing graduates of that programme could enrol on a dedicated add-on programme leading to an honours bachelor's degree. Shortly after the introduction of the NFQ, access to add-on programmes was widened to include potentially all graduates of the programme at the preceding rung not only the better performing ones e.g. with a merit or a distinction.

In the original ladder progression approach, each 'ladder rung' programme is discretely optimised to

enable people who meet specified academic achievements and aptitudes at enrolment to achieve a qualification that has a clearly defined vocational purpose.

Implemented well, the ladder progression approach can lead to a sequence of programmes each having a well-defined occupational role. It is likely that the ladder approach will take more student effort to reach a given level because a greater breadth is likely to be needed at the occupationally oriented intermediate ladder rungs to make them occupationally relevant.

For example, the first two years of a four-year honours bachelor's degree in engineering are designed to prepare people for the final two years and it is not unreasonable for them to focus more on physics, chemistry, engineering and mathematical sciences than on industrial problems requiring skills at NFQ Level 6. On the other hand, a two-year engineering qualification focussed on preparing a person for an engineering technician job would probably need to have a different set of more practically oriented outcomes. An honours bachelor's degree add-on would have to compensate for this difference and may have to be greater than two years in duration.

All this contrasts with a programme with exit awards where the provider begins by designing, for example, an honours bachelor's degree programme and then provides for exit awards for those who leave before completing the full programme. These exit awards are unlikely to be as occupationally useful as dedicated qualifications described in the preceding paragraphs.

3.3.4 ISSUE FOR DISCUSSION: The use of major awards as exit awards may be questionable in some circumstances

Exit major awards are sometimes offered to those who cannot, or choose not to, complete a higher-level major award programme.

One practice, for example, is to enrol a wide range of learners on honours bachelor's degree programmes and assume that all can keep up the same learning pace while enrolled but that some will eventually leave with an exit award because they are unable to progress any further at that pace. This model is questionable.

There is the pedagogical issue of the pace of learning having to cater for a wide range of students and this may be problematic for the weaker or more able students. In principle, the problem can be mitigated by the level of tuition being adapted to individual needs. Learners are diverse and a monoculture approach to education cannot be expected to be equitable.

There is also the danger that the qualifications at NFQ Levels 6 and 7 may (however unjustified this may be) be regarded as consolation awards for those who cannot progress further.

Arguably, exit awards that do not have a defined standalone purpose (other than recording partial completion) should be regarded as minor awards rather than major awards, irrespective of the quantity of associated credit.

3.3.5 COMMENT: Would it be useful to evaluate the practice of embedding major award programmes within higher-NFQ-level major award programmes?

Exit awards or other formal records of their learning achievements are important and helpful in providing exiting learners with evidence of their achievement.

Exit awards can be major awards if they meet the relevant standard and make sense as a discrete qualification. Otherwise minor or special purpose awards are a more appropriate choice.

The ladder-based-progression system, if each element leads to a meaningful qualification, is not subject to these problems.

We need to better understand current practices concerning exit awards and embedded programmes to determine whether there are, and the extent of any, problematic practices and their impact on learners and qualifications.

One specific question is whether higher education embedding practices are having a detrimental impact on the reputation of qualifications at NFQ Levels 6 and 7.

It may be worth considering excluding the use of major awards-types for exit awards that don't have well-defined standalone value other than the partial achievement of the outcomes of a larger programme.

3.3.6 ISSUE FOR DISCUSSION: The sustainability of some credit accretion rates is questionable

We sometimes wonder about the accuracy of some credit allocations that we see.

When one examines actual programmes in higher education, especially part-time programmes, one can sometimes wonder at how students can sustainably apply themselves at a rate of 25-30 hours per ECTS credit over several years.

For example, if a person is working full time (say 37 hours per week) and enrolled in a part-time course at a rate of 30 ECTS credits per annum, the workload is 53 hours per week if spread over the whole calendar year, and much higher if concentrated into the academic terms.

3.3.7 COMMENT: Might it be useful to gather empirical evidence on the sustainability of credit accretion rates?

It may be useful to gather empirical information on both academic and non-academic workload as part of an expanded Irish Survey of Student Engagement or otherwise.

3.3.8 ISSUE FOR DISCUSSION: We need to understand whether fragmentation of resources in higher education affects qualifications standards

It is challenging to maintain a suitable learning environment for students aiming to achieve outcomes at the higher NFQ levels. In the fields like engineering and science, where expensive equipment and teamwork are often required at the higher levels, it could conceivably be better to have fewer larger units than a greater number of smaller ones.

Except for higher education for certain regulated professions like medicine, it is not clear that there are mechanisms in place in Ireland that help avoid fragmentation.

Ultimately, society needs to know whether or not this is having an impact on the standards that can be achieved in qualifications that are based on resource-intensive programmes.

3.3.9 ISSUE FOR DISCUSSION: Actual qualifications standards in HE are not sufficiently transparent

If somebody were to ask us how the actual standards (meaning award-holders' achieved learning outcomes) of higher education qualifications were distributed across all disciplines and institution types, we would not be able to answer the question confidently. We would anticipate that awards classifications are of limited relevance for that type of comparison and that entry qualification selectivity explains some of the actual standards. We need to find ways of estimating actual standards being achieved by candidates for qualifications included in the NFQ.

External examining as practised, while it can contribute to comparisons of standards, does not directly provide the kind of data that may help us better understand how actual threshold standards for classes of qualifications are distributed.

There has been little research on the implementation of the NFQ in higher education that specifically addresses the consistency of the actual standards being achieved with NFQ level indicators. The reports of our institutional QA processes, while having the implementation of the NFQ as one of the goals, could perhaps provide greater insight than they do into the implementation of the NFQ.

The Framework Implementation Network (FIN) helped support the early implementation of the NFQ in the universities. While FIN has not been active in recent years, we are planning to encourage, and create opportunities for, the emergence of communities of practice relating to NFQ and the qualifications system more generally.

The designated awarding bodies are required to ensure their awards are 'recognised[131] within the Framework' meaning to '*ensure that a learner acquires the standard of knowledge, skill and competence associated with the level of that award within the Framework before an award is made*'. We don't have a clear understanding of how this is being done. Except for occupation-oriented programmes of higher education (e.g. engineering, medicine, law) where programmes are periodically externally accredited, we don't know enough about benchmarks or criteria other than the generic NFQ award-type descriptors that may be used to guide degree programme-level outcomes. The QQI-commissioned thematic analysis on programme approval processes is helping to shed light on this but more work will be required to complete the picture.

The appropriateness of the mechanisms used by awarding bodies for levelling qualifications and the transparency of procedures for assigning level are important in the context of EQF and QF-EHEA obligations and are reinforced in the most recent version of the ESG. The international currency of NFQ qualifications, mediated through regional qualifications frameworks, such as EQF and QF-EHEA, depends on transparency and effectiveness of procedures for including qualifications within the NFQ.

These matters are important in the context of the massification of higher education and the pressures that this inevitably places on institutions to keep up standards while enrolling greater numbers of students with lower academic aptitude or motivation.

The lack of transparency in actual standards has not gone unnoticed, for example:

> *"Dirke Van Damme, a senior official at the OECD's directorate for education and skills, said these figures represented a "huge drop" in literacy levels of graduates between the mid-1990s and 2012.*
>
> *... "There is certainly a need for much better data on what students are actually learning in terms of skills in universities – that's a very important question," he said."* (Source: Irish Times "'Huge drop' in literacy levels of Irish university graduates – OECD study", 20 February 2019)

We concur with the identification of a need for better data.

3.4 Other

3.4.1 ISSUE FOR DISCUSSION: The Leaving Certificate is levelled at 4-5

Among other things, the State Examinations Commission (SEC) makes the awards for senior cycle secondary education programmes (the Leaving Certificate).

The Leaving Certificate is levelled at 4-5. It is problematic not because it is impossible to conceive of a qualification that is so variable that may be at level 4 or level 5 depending on the subjects taken and grades but rather because those subjects don't have an NFQ level either. It may be more transparent for each LC subject to have an NFQ level but whether that would generally be considered desirable is another question. Very few countries level subjects. England levels grades for GCSE. The vast majority of European countries have found a way to include their upper secondary school leaving award at EQF 4 (NFQ 5). Ireland and Portugal are the exceptions in linking school Leaving Certificates, wholly or in part, with EQF 3 (NFQ 4).

[131] This term will be changed to 'included within the Framework' upon commencement of the relevant parts of the 2019 Amendment Act.

4. QQI awards standards

In this section we consider issues and options for updating and especially for streamlining QQI's systems of awards standards. Before reading this section please familiarise yourself if necessary with QQI's standards determination systems as described in Part 2 section 4.

4.1 QQI awards standards

4.1.1 ISSUE FOR DISCUSSION: We need to streamline our system of awards standards

Our Statement of Strategy (2019-2021) states:

> *We will streamline our system of standards and awards to permit providers to deliver flexible, responsive and nationally benchmarked programmes of education and training leading to our awards.*

4.1.2 COMMENT: What overall approach should be taken to streamlining QQI awards standards?

We offer for discussion the following guidelines for how we might streamline QQI's system of awards standards.

1. There is a practical limit to the complexity of a system of standards that can be practically maintained by QQI. Distributed approaches to standard setting can handle greater complexity and spread the workload. Based on the subsidiarity principle, more general standards can be determined more centrally (e.g. by QQI), and more specific ones can be determined more locally (at the programme development stage).
2. QQI's awards standards should be
    a. as general as possible,
    b. as few as possible (to allow providers the flexibility to adapt), and
    c. sufficiently specific to ensure that they can fulfil their regulatory purpose of helping to ensure that the qualifications system is serving society's needs.

    This also applies to the NFQ indicators.
3. There may be a need for some relatively specific QQI standards in a future streamlined system. The decision to establish a more specific QQI standard may be justified if the need to curtail variation in intended learning outcomes outweighed the loss of the freedom to differentiate. E.g. the Level 5 special purpose award in Maths for STEM is intended to be a benchmarked qualification offered by multiple providers for access to HE.
4. Awards standards must be maintained to a high level of quality. It is better to do less and do it well than risk compromising quality.
5. Awards standards relate to educational goals expressed as statements of knowledge, skill and competence. Such goals do not capture the *transformation* of a learner that a specific programme of education and training helps bring about. Therefore, attention to programmes is at least as important as attention to educational goals. Transformative learning theory is relevant here. And while awards standards help regulate education and training, they are not sufficient for that; the quality of the curriculum (including its intended learning outcomes and assessment) requires other regulatory tools.
6. It is often better for us to rely on a generic or broad award standard to guide a rigorous and transparent programme validation process than a more specific or prescriptive standard. Recall that the *minimum intended programme/module learning outcomes* become the *de facto* standard for the relevant qualification.

7. QQI does not aim to monopolise the NFQ awarding body function in FET (and it would have no prospect of doing so in HE). We aim to set standards and make awards only where there is a national interest in so doing—we do not aim to compete with designated awarding bodies or listed awarding bodies or delegated authority awarding bodies.

4.1.3 COMMENT: Standards for NFQ qualifications for profession-like occupations

For mainstream profession-like occupations, the NFQ's Professional Award-type Descriptors provide useful generic standards. These may be used as they are or annotated for specific occupations. Such annotations leave the PATD indicators unchanged as standards but guide their *interpretation*.

We recently published draft standards for ELC at NFQ Levels 5 and 6 using this approach. At the same time corresponding annotations at NFQ Levels 7 and 8 were developed under the leadership of the Department of Education and Skills and published along with ours.

A similar approach could be followed for other professions. We would need to explore the options with the professional recognition bodies. There would need to be a way of creating the conditions necessary to ensure the quality of any such annotations.

We don't see our standards activity as competing with professional recognition bodies. On the contrary, we prefer to adopt suitable professional body standards rather than set up dual versions.

4.1.4 ISSUE FOR DISCUSSION: We need to understand the actual (intended and unintended) effects on the qualifications system of our awards standards and the NFQ

These issues will be captured under the sector headings.

4.1.5 ISSUE FOR DISCUSSION: QQI standards for some regulated activities are not actively linked with the regulatory side and can therefore fall out of date when regulations change

Some of QQI's awards are included in regulations. While we prefer this not to be done, if it must happen then there is a need for QQI and the relevant regulators to keep in contact. In particular, QQI needs to be alerted to any changes that warrant a variation in the standards. Unfortunately, the necessary linkages and mutual understandings may not always be in place.

4.2 Further education and training issues

Before reading this section you should, if necessary, familiarise yourself with QQI's FET standards determination systems as described in Part 2 section 4.2.

> *Vocational education and training (VET) is characterised by its distinctive features of straddling education and employment policies and the worlds of school and work and the involvement of the social partners, as well as its heterogeneity within and across Member States: it can arguably be singled out as the sector of greatest range and complexity.* (CEDEFOP, 2010, p. 30)

The range and complexity of vocational education and training in Ireland is vast. VET is not synonymous with FET: there are plenty of VET programmes in higher education. Like VET though, FET in Ireland is also wide-ranging and complex. Much of it is concerned with vocational education or the facilitation of lifelong learning (e.g. enhancing literacy, numeracy, social inclusion (of migrants and disadvantaged groups), and enabling access to education and training).

QQI is currently the only awarding body awarding FET qualifications that are included in the NFQ. The general ideas in section 4.1 on our evolving approach to setting standards and making our qualifications infrastructure more flexible and dynamic for providers apply to FET qualifications. In this section we delve deeper.

The range of FET qualifications in the NFQ is due to expand. Providers of programmes of further education and training already rely on awarding bodies that make awards outside the NFQ, these include vendor awarding bodies in information and communication technology and educational awarding bodies like City and Guilds. These awarding bodies play an important role in the qualifications system and need to be duly recognised (as is planned). The anticipated process for listing (Part 2 section 3.4) awarding bodies (to enable their awards to be included in the NFQ) is especially significant for further education and training. The listing of awarding bodies will provide quality assurance for the relevant awards and the associated provision that is comparable to that applying to other qualifications already included in the NFQ and their associated programmes.

The Irish Register of Qualifications (Part 2 section 12.1) will increase the transparency of programmes of education and training (i.e. the specific processes by which learners acquire knowledge, skill and competence e.g. courses, apprenticeships and such like) and the awards to which they lead. This will mean that the QQI awards standards will no longer be the main or most important source of information about FET awards.

The following sections outline some qualifications system issues for discussion from a FET perspective. We will then follow with some commentary. The comments may address more than one issue at a time which is why we don't interleave issues and comments in section 4.2.

Much of what we have to say here concerns the evolution of the Common Awards System and therefore focusses on opportunities for improvement. We have said little about its strengths. This should not be taken to imply that nothing positive can be said of it. We value the Common Awards System and its positive achievements e.g. placing emphasis on learning outcomes and implementing the NFQ in the FET sector.

4.2.1 ISSUE FOR DISCUSSION: The sustainability of CAS in its current form

When CAS was established, there was a failure to put in place resources to provide for regular updating. As a result, we have fallen behind in updating our existing complement of approximately 1800 CAS awards standards. This is a challenge for QQI and for the FET sector that depends on QQI awards.

While a certain number of CAS awards specifications have been developed since the establishment of QQI, many were developed prior to 2013 and many of those were the outcome of a migration process that applied to older standards including some NCVA (National Council for Vocational Awards) standards that predated FETAC. The migration process built on pre-existing standards, emphasised pragmatism, and sometimes owed more to inheritance and rationalization of pre-existing standards than to new developments in consultation with stakeholders such as employers.

To date there has been nowhere near the level of activity required to review and update standards every 5-7 years. The current number of award standards is unsustainable using *current* approaches.

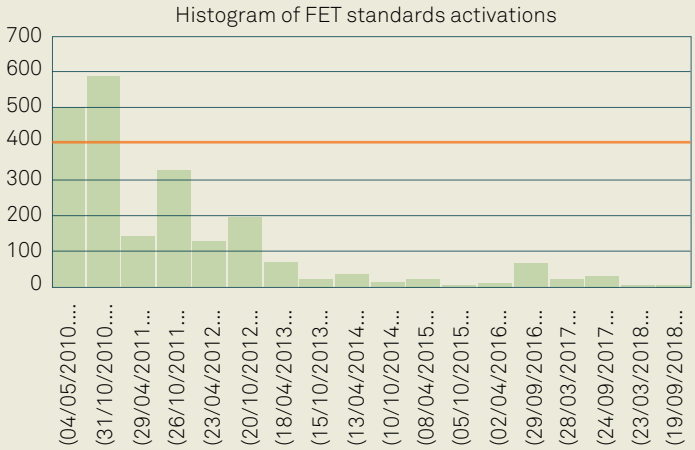

Figure 1 illustrates the numbers of FET (mostly CAS) awards standards by creation date including both compound and component awards. To review the current CAS stock every five years we would need to update 400 standards per annum (orange line). We are nowhere near that level of review and development activity.

4.2.2 ISSUE FOR DISCUSSION: The prescriptive nature of CAS as implemented in QBS

CAS in its original form and its implementation in QBS (QQI's Business System) for the purpose of certification is highly prescriptive. Its implementation in QBS is also a little oversimplified.

CAS impinges on decisions about programme structure and assessment that arguably would better be made independently by programme developers during the development process guided by a less specific award standard.

CAS lists assessment techniques for minor awards and while these are only for guidance they tend to be treated as rules by some. That can militate against integrated assessment and promote overassessment.

QQI's implementation of CAS in QBS is even more restrictive in some respects than its written policy. For example, a CAS certificate specification (major, special purpose or supplemental) may by policy be determined without prescribing any component awards but QBS does not yet facilitate that. This can lead to redundant minor awards specifications being required to satisfy QBS. Naturally, QQI will address its QBS issues in due course.

CAS standards are quite specific for the most part. They include detailed statements of expected learning outcomes. In theory the expected learning outcomes (ELOs) for components should be interpreted (as MIPLOs and MIMLOs) considering the linked certificate specification and that interpretation verified at validation. While this may be the case for programmes undergoing validation under the current policy, many programmes have been validated under different processes and criteria.

CAS components, in practice, currently function within QBS as units that can be used to meet certificate requirements for any compound award however they have been achieved. An extreme example of this is that a work experience component earned in one discipline can meet the certificate requirements for a compound award in a completely different discipline.

Another (related) example is that QQI certification of CAS awards, as currently implemented, does not always automatically require that a suitable programme be validated.

4.2.3 ISSUE FOR DISCUSSION: The unpredictability of learning outcomes for some compound awards

CAS attempts to realise a modularised system of standards but has not fully reconciled the tension between learning outcome specifications at the compound and component levels in situations where there is a lot of choice available at the component level.

Different further education and training programmes leading to a specific QQI compound award can (but do not always) have significantly different programme learning outcomes. Part of the reason for this is that some CAS major award specifications provide a wide choice in the selection of components. Naturally a certain amount of inter-provider variability is also observed.

Some providers value this diversity and there may be good reason for it especially in programmes leading to awards at the lower NFQ levels, but it has a cost. It can make it more challenging for anybody trying to use the relevant compound qualifications—if it is an employer they will not be sure whether an award-holder has the skills they need unless they look to the components; if it is a provider trying to design an add-on programme they will find it more difficult to match this diversity; if it is a HE provider trying to facilitate access they may be tempted to specify components that must be achieved.

There may be benefits to reducing some inter-, and intra-programme variability especially for those leading to major awards at NFQ Levels 5 and 6.

4.2.4 ISSUE FOR DISCUSSION: Revalidation in FET is not widely implemented yet

At the time of writing few FET programmes have been revalidated. Revalidation is an opportunity to update programmes to bring them into line with the current validation criteria.

4.2.5 ISSUE FOR DISCUSSION: Understanding the capacity of the FET Sector

The further education and training sector is engaged in transformational change and becoming more structured, with stronger governance and more autonomy. This will take time to equilibrate and there are yet significant challenges including human resources challenges.

Among the challenges is how to enhance capacity (even if this may largely involve actualisation of existing potential) to develop, review, improve and quality assure their programmes all while maintaining effective relationships with key stakeholders such as learners, employers, occupational associations, regulators and such like, while continuing to provide useful courses for lifelong learning (e.g. oriented towards employment, progression to further study or social inclusion).

Right now, we don't know how the potential capacity for these specific activities (e.g. developing programmes, drafting learning outcomes statements, designing and implementing quality assurance procedures) is distributed or what may need to be done to enhance it or how long that would take. This issue presents itself to us, for example, when we engage with the sector to promote the development of new programmes of further education and training (e.g. to implement new standards).

We need to understand what actual capacity exists for qualification and curriculum development,

evaluation, review. We rely heavily on this capacity to perform our awarding body functions (especially awards standards development and programme validation). We need to ensure that the load we impose on the sector is sustainable and recognised (so that it can be managed). This load, for example, involves contribution to:

1. QQI work on the review and development of awards standards and the NFQ.
2. QQI work on quality assurance
3. The design, maintenance and review of programmes of education and training (including the required stakeholder engagements).
4. Maintaining the infrastructure and tools required for the assessment of learners.
5. Provider-owned quality assurance

All these activities depend heavily on people who teach (as well as others) and cannot be done by consultants or centralised administrators. We do not have an estimate of the academic development and maintenance workload required by the activities listed above. We guess that the development and maintenance of awards standards and the associated curricula for FET qualifications alone is likely to require several hundreds of person years per year under steady state conditions assuming collaborative approaches are used to their maximum effect—and an even greater number without collaborative approaches.

The planned omnibus reviews of ETBs may shed some light on this.

4.2.6 ISSUE FOR DISCUSSION: Communities of practice in FET

Throughout this paper we have indicated roles for communities of practice (CoPs). We need to see greater recognition at macro level of the importance of CoPs in FET. We need to figure out how to create conditions that stimulate the emergence of sustainable CoPs.

4.2.7 ISSUE FOR DISCUSSION: Arrangements between ETBs and awarding bodies whose awards are not in the NFQ

There had been a problem complying with the legal requirements for such arrangements (section 48 of the 2012 Act) because QQI's powers to recognise within the NFQ were limited. This problem has been resolved by the 2019 Act (effective when commenced).

There can be great benefits for ETBs in working with some of these awarding bodies, especially ones that can provide them with high-quality curricular and assessment support. And some such qualifications are better understood by employers than their QQI equivalents if any.

4.2.8 ISSUE FOR DISCUSSION: CAS is not designed to work with unit awards of other awarding bodies

This issue will become more prominent when the NFQ is opened to listing awarding bodies.

4.2.9 ISSUE FOR DISCUSSION: Occupational standards in FET

See section 6.

4.2.10 COMMENT: If we were beginning from scratch, how much of CAS would we strive to implement today?

It is now time to consider how to evolve the Common Awards System. It is worth asking the question: if we were beginning from scratch, how much of CAS would we strive to implement today?

Conceivably, much of what CAS aims to do for further education through awards standards could

alternatively be accomplished by the establishment of sharable national curricula (see section 4.2.11) guided by less specific standards (e.g. NFQ award-type descriptors or QQI awards standards) and by occupational standards. The IRQ would be key in giving these arrangements the level of visibility currently enjoyed by CAS awards plus visibility of the associated programmes.[132] The use of shareable curricula (that could be linked by the IRQ) in conjunction with a reduced system of centralised standards could potentially deliver the intended benefits of CAS without its drawbacks and have the added benefit of devolving responsibility for certain decisions to where they are better taken.

If QQI does less by setting broader standards and as a consequence requires providers to take more responsibility for interpreting standards when developing programmes there will be more work for providers to do but not as much as one might imagine. A quantum of work is involved in (i) developing/maintaining standards; and (ii) developing/maintaining/implementing the associated qualifications, programmes, staff and assessment as applicable. (i) and (ii) are not independent. If QQI develops detailed standards centrally (e.g. setting component standards as has been the practice for many years) it makes greater demands on providers' resources (in helping with the development) and risks setting standards that are difficult to implement by taking decisions that may be better taken at the programme development stage. If QQI does less, providers may have to do a little more work at the programme development stage but that may be mitigated by having fewer programme development constraints (e.g. no predetermined components).

4.2.11 COMMENT: What are the benefits of shared curricula?

There are significant advantages to providers collaborating in the development, maintenance and implementation of shared curricula. It can be especially beneficial where relatively large numbers of smaller providers need to offer programmes designed to meet the same award standard. Aside from efficiency benefits for providers, reducing unnecessary differences in programmes may help reduce the likelihood of problematic levels of inter-provider variation and make it easier to secure recognition (for access or regulation purposes) for awards for programmes based on the shared curriculum.

Providers pooling their resources to collaborate in designing and maintaining the curriculum benefit because it allows more resources than would otherwise be available to be assigned to the development and maintenance of the programme. If the curriculum is properly and thoroughly documented (e.g. as required by QQI's new validation policy) it also has the advantage of supporting greater consistency and providing a much larger experiential base to inform the evolution and enhancement of the programme.

There is scope for extensive collaboration among FET providers, especially ETBs. Indeed, this has already been demonstrated. Collaboration helps to provide scale, to share effective practice, to pool resources, and all these things can be done without compromising providers' essential individuality. A sharable curriculum may offer some latitude for local adaptation. After all, absolute uniformity could be problematic by making innovation more unlikely. We hope to be able to encourage providers in FET (private and public) to make greater use of shareable curricula and to facilitate the communities of practice required to sustain them.

As already noted, minimum intended programme learning outcomes (MIPLOs) are the de facto standards for QQI named awards made in respect of validated programmes. MIPLOs would form part of any sharable curriculum.

[132] There may still be a need for some national minor or special purpose awards standards but probably significantly fewer than at present. Note that having fewer QQI minor awards standards does not necessarily mean there will be fewer minor awards but rather that responsibility for the outcomes of some is devolved to the provider and approved by QQI (or a suitable DA awarding body) at validation.

As noted in section 4.2.3, different programmes currently leading to the same major award can have significantly different learning outcomes and this can affect the currency of, and complicate the use of, major award qualifications by employers, professional bodies, regulators and educational institutions.

We have already argued that it is difficult to regulate training exclusively using outcome standards. The educational process (formation) also requires attention (including any workplace formation such as an apprenticeship). Standardising the curriculum could provide a layer of voluntary regulation that would help in this respect. It would be voluntary because QQI has no mandate to prescribe curricula and considers that curricula must be developed by providers informed by the needs of users of the qualifications to which they lead e.g. stakeholders including employers, occupational (including activity) associations, and regulators. QQI evaluates the efficacy of a proposed curriculum through validation/revalidation.

There are challenges to establishing shared curricula that should not be ignored. For example, what if a group of providers is unwilling to share outside the group? To that we would say that it is not necessary to take an all-or-nothing approach to shared curricula. As there is no legal framework for establishing national curricula, they would have to be created through consensus building.

4.2.12 COMMENT: Should QQI devolve responsibility for ELOs for minor awards to providers?

At the time of writing there are about 1400 minor award specifications in CAS (see Part 2 section 4.2). Each minor award specification contains a detailed statement of expected learning outcomes (ELOs). Within specific programmes leading to CAS awards, it is common for every minor award to have an associated module that is unique to it.

Under the current validation policy, all providers are expected to develop embedded curricula (including indicative content, MIMLOs and assessment strategy) for each programme's modules when the relevant programme is due for revalidation.

The updating of modules (including their MIPLOs) as part of the revalidation process may provide an opportunity for the programme owner to take over responsibility for specifying the learning outcomes for some associated minor awards (especially any that are unique to the programme). QQI may then retire the relevant component specifications but it would in any case continue to certify the new provider-updated minor awards approved at re-validation. These would be included in the IRQ but no longer within CAS. This is the way QQI already handles minor awards in HET. The NFQ award-type descriptors together with the relevant broad QQI standard would function as the standard in such cases.

This could be widely applied if, for each major award, consensus could be established that there would be a national curriculum for the programme leading to the major award. Then transfer of responsibility for the minors would not result in a proliferation of similar minor awards (one of the problems CAS was designed to solve).

4.2.13 COMMENT: Are there complementary or alternative approaches to CAS?

There are complementary or alternative approaches to CAS. The new apprenticeships provide one example. Also, we recently published standards for Early Learning and Care (ELC) awards at NFQ Levels 5 and 6 that are based on the professional award-type descriptors. The new ELC standards are outside CAS and replace CAS compound and component awards standards at Levels 5 and 6.

Providers working with these standards are free to structure their programme as they see fit. They are no longer constrained to work within a pre-determined modular structure.

This approach may suit other occupation/profession-oriented vocational FET awards with large certification volumes. Again, the approach can pay additional dividends if consensus can be established for national curricula for ELC programmes.

4.2.14 COMMENT: What is the optimal balance between centralised and distributed control?

The work on maintenance of named awards standards and curricula is currently shared between the FET providers and QQI for the most part. In its work on the determination of standards, QQI relies on the support of many external individuals drawing them from providers, employers, regulators and professional associations (its internal resource for this work is fewer than four people).

At the system level, the *minimum* total amount of work to be done is independent of who does the work, but the actual amount of work required depends on how it is shared between QQI and providers. See section 4.2.10 for a further discussion of this.

There is also another question about the optimum balance between how far down QQI's coordinating activities reach and how much responsibility for programme and named award design rests with providers. Centralised coordination has convergent tendencies by its nature. Providers acting independently have divergent tendencies. Divergence can result in better programmes and awards. Convergence promotes system coherence.

We suggest that the optimum balance is where we (QQI) do just enough to ensure acceptable coherence at the system level and no more. Though it may be that we will need to do more than we typically would for innovative qualifications or to help support incipient professions.

More generally a distributed approach to control (or regulation if you prefer) for the FET sector can be more effective than a centralised one. The secondary school model in particular is not a good fit for FET in Ireland.

4.2.15 COMMENT: Do we really need assessment guidelines in CAS?

In law, assessment is a provider responsibility and we think providers need to be free to take an integrated strategic approach to assessment at programme level.

The current CAS requirements on assessment techniques were developed as part of a much more light-touch validation regime. The current approach to validation by QQI is more than sufficiently rigorous to ensure that the programme and module assessment strategies are appropriate.

For those reasons we propose to remove routinely prescribed assessment techniques from new CAS specifications and make it clearer that references to assessment in existing CAS specifications are for guidance only. It will still be possible for critical assessment requirements to be set through special validation conditions—but this would be the exception rather than the norm.

These matters will be addressed as part of our follow-up work with stakeholders on the Green Paper on Assessment (2018).

4.2.16 COMMENT: Should we allow more flexible use of CAS specifications subject to validation?

All CAS compound award specifications contain "certificate requirements" that specify CAS components that must be achieved before the compound award can be made—there is often a degree of choice available. Under current arrangements, if the award of another awarding body were to replace a specific CAS component it would need to overlap with the component's expected learning outcomes, and it is unlikely that any specific award of a similar volume would just happen to overlap.

A more flexible approach would be to relax the certificate requirements to being fully or partly indicative subject to any programmes proposing alternatives being validated directly by QQI. Such programmes could mix units leading to awards of other awarding bodies with QQI component awards.

This would facilitate the diversification of FET qualifications in the NFQ and allow more flexible use of CAS standards as CAS evolves.

4.2.17 COMMENT: Can we coordinate CAS standards review and revalidation?

In section 4.2.12 we discussed the possibility of retiring CAS components in favour of curriculum-specific minor awards approved at programme revalidation.

More generally, the programme revalidation process may also be an appropriate time to consider a review of major awards standards, especially where the shareable curriculum approach is to be used.

It may not always be feasible to coordinate a review of standards and revalidation closely. Sometimes standards will need to change so much that validation is required irrespective of when the programme was originally validated.

4.2.18 COMMENT: Is there an over-reliance on the transferrable skills module concept?

While 'transferrable skills' are essential, addressing them by means of transferrable skills modules, component awards standards and minor awards may not always be optimally effective in providing/stimulating the necessary formation—it may be that transferable skills need to transcend individual units within vocational educational programmes and be developed using a more integrated approach.

4.2.19 COMMENT: Should we retire CAS awards specifications that are little used?

We have already begun a process of culling unused or little-used CAS awards specifications. The current retirement criteria are

- All classes of CAS awards developed prior to 2014 that have never been certified.
- All classes of CAS awards developed prior to 2014 that have been certified fewer than 20 times (in total over the whole sector) in the years prior to 2018.

The low activity threshold is conservative and may need to be increased in future years.

Following consultation with stakeholders about proposals to deactivate awards meeting these criteria, approximately 200 CAS awards were deactivated in October 2019.

4.2.20 COMMENT: Can we identify any CAS awards specifications that are not serving learners well?

QQI certification data is available to the CSO (Central Statistics Office) and can be linked with other data by the CSO. This just may offer the possibility of identifying awards that are more or less effectual for learners. A progression- or employment-oriented award, for example, may be seen as ineffectual if it is not associated with progression to follow-on educational or employment opportunities. Of course, an award may not be intrinsically ineffectual, rather it may be ineffectual on account of the quality of the programmes of education and training that lead to it.

If we can identify awards that the data suggests are ineffectual we can evaluate them with providers and take appropriate action (e.g. retire or replace them).

4.2.21 COMMENT: How can the Irish Register of Qualifications help?

We have been discussing possible futures for the Common Awards System (CAS). One of the attractions of CAS is that its awards specifications and the linkages between awards are readily available via a searchable online database. With the advent of the Irish Register of Qualifications, information about each (and every) award that is included in the NFQ will be available through it. In due course this will include its title, NFQ level, learning outcomes, credit (units and volume) and information about the programmes that lead to it. This means that we no longer need to rely on CAS to create this kind of transparency. This in turn means that we can be open to more distributed approaches than CAS to maintaining qualifications infrastructure.

4.3 Higher education issues

4.3.1 ISSUE FOR DISCUSSION: Many QQI higher education awards standards have not changed for 14 years

Virtually none of our higher education standards have been reviewed since they were originally published around 2005.

Perhaps more importantly, we have not done any detailed systematic research on how these standards are being used notwithstanding that we can learn something of this when programmes are presented for validation or revalidation under the current (2016) validation policy.

It is noteworthy that the 2016 validation policy has required applications to map their programme learning outcomes against standards but that is a relatively recent practice.

It is also noteworthy that our HE standards in different fields are presented in different styles. This is not necessarily problematic, but it may be beneficial to have a greater level of consistency.

4.3.2 ISSUE FOR DISCUSSION: There is a lack of clarity about how QQI's broad awards standards for HE awards are intended to be used

Most QQI awards standards for higher education are not for named awards but rather for classes of named awards that signify varying volumes of learning and have varying focusses.

Such standards can be regarded as annotations on the NFQ's grid of level indicators that provide indicative material on how the NFQ level indicators are to be interpreted in the specified field of learning (the breadth of the fields covered varies considerably).

These kinds of standards can serve a useful purpose but only when people are clear about how they are expected to be used.

Consider for example, the Awards Standards—Business. The knowledge breadth indicator at NFQ Level 6 is:

> *Basic knowledge of general business subjects:*
>
> 1. *Management and Organisation (Including: Accounting, Finance, Human Resources, Enterprise, Marketing ...)*
> 2. *Regulatory Environment (Including: Law ...)*
> 3. *Information and Communication Systems (Including: Accounting, Information and Communications Technology ...)*
> 4. *Economics (Including: Sectoral and International Economics, ...).*

A provider offering a programme leading to a QQI award in pure economics would be expected to use this standard but much of the content of this extract of the standard is not central to economics and would likely receive relatively less emphasis than the economics content. Another provider offering a programme providing a broad foundation in general business topics with options to specialise in economics in the third and fourth years may well address all the material in the standard in a more balanced way.

Matters are less clear still when two standards are to be used together for a single award, for example, a programme leading to a Bachelor of Science in Economics would be expected to be designed having regard to Awards Standards—Science and Awards Standards—Business.

4.3.3 COMMENT: Are there alternatives to QQI higher education awards standards?

If there is broad agreement on the benefits of developing subject guidelines for higher education (see Part 3 section 5.1.2), then we could retire the broad QQI HE awards standards and rely instead on subject guidelines. This is in the context of the designation, on 1 January 2020, of IOTs as awarding bodies that can make awards at NFQ Levels 1 to 9. With that change, QQI HE awards standards will apply to only a fraction of the total. For example, QQI awarded about seven per cent of honours bachelor's degrees in 2017.

The standards that could be replaced by subject guidelines include:

- Art and Design —Award Standards
- Business —Award Standards
- Computing—Award Standards
- Science—Award Standards

QQI's professionally oriented standards are a different matter. This group includes:

- Architecture—Awards Standards
- Architectural Technology— Award Standards
- Counselling and Psychotherapy—Awards Standards
- Nursing and Midwifery—Awards Standards
- Engineering—Award Standards
- Professional Master of Education—Award Standard
- Social Care Work—Awards Standards
- Provisional Standards for LLB and LLM Degrees

In all cases there are bodies that could potentially if they do not already maintain occupational standards that could be used in conjunction with NFQ award-type descriptors instead of a QQI standard.

A final group includes standards required to support the English Language Education sector. There is a continuing need for a teaching qualification standard and, pending the emergence of a possible alternative, for a standard for foundation year awards for international students:

- English Language Teaching—Awards Standards
- Pre-Higher Education Foundation Awards for International Students.

5. DABs awards standards

5.1.1 ISSUE FOR DISCUSSION: As standards, the NFQ indicators are highly abstract

The NFQ award-type descriptors serve as generalised standards for the designated awarding bodies but they are quite abstract. There is a particularly heavy reliance on the NFQ grid of level indicators as general standards for diverse awarding bodies. There may be benefits to placing additional focus on the NFQ by developing new award-type descriptors. The professional award-type descriptors are one example of this. It may also be worth exploring whether the NFQ may usefully be supplemented with 'subject guidelines'.

In this context we note the following quotation from the National Strategy for Higher Education to 2030—Report of the Strategy Group:

> *The emphasis to date has been on the process of quality assurance; in future this should be complemented by a focus on standards across the sector. A national approach to subject guidelines could draw on the experience of the EU Tuning project which served as a forum for developing reference points (expressed in terms of intended learning outcomes) at subject area level during the past decade. In the Irish context, subject guidelines should be developed as a supporting academic infrastructure to the National Framework of Qualifications. This work should be progressed by subject experts from the academic community and coordinated by the new Qualifications and Quality Assurance Ireland agency. Care must be taken to demonstrate that this project does not create an excessively bureaucratic or costly system. In addition, a comprehensive and independent review should be undertaken of the external examiner system and the grading system more generally.* (Higher Education Strategy Group, 2011, p. 58)

Nine years on in 2020, the main emphasis in higher education QA institutional reviews is still on the process of quality assurance, however there is also an emphasis on quality enhancement in the continually evolving annual institutional quality reporting (AIQR) process. And while QQI has signalled a broadening of out of its approaches in its corporate statement of strategy for 2019-2021 it has yet to figure out precisely how best to do this for HE.

5.1.2 COMMENT: What is the level of interest, the feasibility and what are the potential benefits of promoting the establishment of subject guidelines for higher education?

The National Strategy for Higher Education to 2030—Report of the Strategy Group: stated that *subject guidelines should be developed as a supporting academic infrastructure to the National Framework of Qualifications.*

To date nothing has been done on this front. We consider that the feasibility and benefits of developing such infrastructure should now be explored with stakeholders. It would be timely now that the landscape has changed with institutes of technology having become DABs on 1 January 2020.

Such a project would be complicated (but not fatally) by the putative spread in actual standards of higher education qualifications. A threshold approach could set a lower boundary without limiting providers who aim higher.

One of the advantages of establishing subject guidelines is that they may help catalyse the emergence of, and give a focus to, communities of practice in the subjects involved. It may also help with refreshing the HE external examiner system.

5.1.3 COMMENT: Should we explore whether there is a possibility of collaborating in the forthcoming review of QAA benchmark statements?

The QAA is planning a review of its benchmark statements[133]. There are about eighty statements and they have been useful (and up to now free) references for Irish institutions in the design of programmes and qualifications and for QQI in the development of standards.

It may be useful to explore whether it would be possible for QQI and Irish institutions to collaborate in this review and secure access to the revised statements should it be restricted in the future.

[133] https://wonkhe.com/blogs/why-the-subject-of-a-course-defines-the-course-of-a-subject-qaa-subject-benchmarks/

6. Professional qualifications

Many NFQ qualifications are professionally or practitioner oriented. In this section we discuss issues that are particular to these kinds of qualifications.

6.1 Issues and commentary

6.1.1 ISSUE FOR DISCUSSION: Involving employers, occupational associations and regulators in the specification of educational qualifications

If vocational education and training, whatever the NFQ level of the resulting award, is to be relevant to employment then employers must be involved, at least, in the setting of the educational goals (e.g. minimum intended programme learning outcomes). If the occupation has a professional infrastructure (e.g. professional body that may be linked to the wider international community of practice in the discipline) then it should also be involved. If the occupation is regulated, the regulator should be involved.

Occupational standards can be a useful starting point for developing educational standards and ultimately programmes of education and training designed to prepare people for either practice or probationary practice in an occupation (e.g. a profession).

6.1.2 COMMENT: How can the concept of occupational standards and their use be promoted and supported?

Occupational[134] standards (or profiles) can function as a bridge between the education and training system and people involved with occupations that use educational qualifications. In Ireland there are already some occupational standards in place, but we think there is scope for a greater number of them.

We need to explore ways of promoting the utilisation of existing infrastructure and the development of new infrastructure to maintain occupational standards that will inform the development and review of programmes of education and training. Eventually it may be useful to have a central repository of occupational standards set out in a consistent format.

We have a direct interest because of the significance of this infrastructure for qualifications standards and educational quality assurance. There is also the issue that our awards and awards standards are sometimes used as proxies for some of the missing occupational infrastructure.

6.1.3 COMMENT: Can we do better at conceptualising and demonstrating competence in Ireland?

Professional, practitioner or occupational competence can be challenging if not practically impossible to develop exclusively in a simulated professional context. Formation through interaction with other people (e.g. in human situations) is critical for developing practitioner competence. Therefore, many occupation-oriented programmes include a work-placement or internship where the learner can develop and demonstrate at least the minimum level of competence required for probationary professional practice. In some professions the full professional competence is only achieved following completion of an educational programme after a period of work as a probationary practitioner.

Learning by doing is a natural and often effective way to develop competence. Quality apprenticeships (where

[134] Occupation for these purposes refers to well-defined roles such as plumber, accountant and so on as well as activities that may be only part of a person's job, e.g. handling F-gases.

a person works under the supervision of a qualified practitioner and gradually takes on more complex tasks across the full range needed until they can work as an independent practitioner) are especially interesting in the context of competence as they build authentic occupational practice into the programme in a natural way.

On the other hand, unitised approaches to educational formation can easily fail to provide the authentic opportunities required for the development of competence if due attention is not paid to the integration of the learning achieved in units. This problem is compounded when the relevant units are designed to be used by many different programmes e.g. as in the Common Awards System.

6.1.4 COMMENT: What occupational standards-related infrastructure already exists for regulated activities?

The Department of Education and Skills maintains a list of competent authorities along with other relevant information.

It can be time consuming to find all the information needed to understand how a professional occupation is regulated and how that regulation interfaces with tertiary educational qualifications.

A specific occupation may have infrastructure for some of, or all, the following:

- the maintenance of occupational standards (that describe the knowledge, skills, competence and qualifications requirements (see Part 2 section 7));
- supporting the initial formation of prospective practitioners;
- supporting continuing professional development of practitioners;
- accrediting programmes of initial and continuing vocational education (further or higher education);
- the recognition of qualifications and the registering of recognised qualifications;
- regulating competence to practise (e.g. licensing, and withdrawal of licence, to practise);
- providing professional body services to members.

We would like to encourage the establishment of a clear baseline for the existing occupational infrastructure for regulated occupations in Ireland. Having this baseline data would allow questions to be posed about the efficacy of existing arrangements and, where applicable, opportunities for enhancing them. This would not only shed light on what is in place but may help to identify opportunities for the *emergence* of additional infrastructure.

The following information needs to be readily available:

A. Occupation[135] name
B. List of relevant occupational standards with details on where they originate.
C. The procedures and criteria for recognising educational awards as meeting competent authority (professional recognition body) requirements i.e. that are recognised as attesting to knowledge, skill or competence required for occupational practice or for further developing practitioner competence.
D. List of educational awards meeting competent authority requirements.
E. List of educational programmes that are recognised as providing training to prepare for occupational practice or to develop practitioner competence.

[135] Recall that the term an occupation, occupational standard or occupational regulation may apply to activities that may only be part of an occupation, for example the activity may be handling certain kinds of materials that are used in different occupations.

F. The quality assurance processes for educational programmes leading to recognised educational awards.

G. The processes to alert educational bodies to relevant changes (e.g. changes to occupational standards).

H. The formal agreements in place with educational awarding bodies for the purpose of ensuring that qualifications are kept up to date.

I. Information about any register of qualified/licensed practitioners.

J. The mechanisms for enabling practitioners to prove to an employer that they are qualified/licensed to practise.

K. Information on whether recognition of a particular occupational qualification in Ireland is based solely on recognition in another EU member state.

6.1.5 COMMENT: How can academic and professional accreditation be streamlined?

Some higher education providers perceive some unnecessary duplication when programmes are subject to both academic and professional accreditation. QQI has been working with professional bodies in recent years to understand their accreditation processes and how they relate to academic accreditation processes. Good progress is being made.

6.1.6 ISSUE FOR DISCUSSION: Occupational regulation that relies exclusively on initial educational qualifications can be unsafe

Educational qualifications can attest to a person's role competence. However, that attestation is at a specified time and educational awarding bodies are rarely well positioned to attest to continuing role competence.

Even the most stable occupations and associated role requirements are evolving, and new occupations can emerge, and old ones become extinct.

Professional regulation that relies exclusively on an initial educational qualification to entitle a person to practise for life is incomplete because it does not address the possibility of changes either to the practitioner or to the occupational requirements. That said, not all regulation aims to be complete. In some instances, a regulator may be satisfied if practitioners have had initial training and not concern itself with continuing fitness to practice. Many regulated occupations nowadays require continuing professional development throughout practitioners' careers.

In the context of a regulated activity a licence to fulfil a specific role may be issued to the holder of an educational qualification and such a licence may require that a specific kind of educational qualification be recently acquired or, if acquired previously, then re-acquired before a licence can be renewed. But crucially, it is licensing rather than the award of an educational qualification that attests to current competence.

We are not directly concerned in this paper with licences as such or with mechanisms for licensing. That said, there is much to be gained by regulators having a clear understanding of educational qualifications, their own role in the qualifications system and the tools and conventions for exchanging information about qualifications.

6.1.7 ISSUE FOR DISCUSSION: The comparability of occupational profiles for apprenticeships

Occupational profiles for apprenticeships are approved by the Apprenticeship Council. As defined, the occupational profile contains material that is likely to be included in any properly documented apprenticeship programme. It is a kind of synopsis of the apprenticeship. It does not function as a standard that exists independently of and prior to the programme but rather something that is developed in parallel with the programme.

The format of, and level of detail in, published occupational profiles vary. The utility of occupational profiles would be enhanced if they were more consistent. A tighter template and guidelines may assist in this regard.

7. Infrastructure for modelling the supply of, and need and demand for qualifications

7.1 National strategies and planning

7.1.1 ISSUE FOR DISCUSSION: Securing a shared vision for the FET system, the tertiary system and perhaps the education system overall

If all key stakeholders share a vision for something, it is more likely that vision will be realised. It is difficult to manage large scale change without a vision. A vision needs to be realistic, ambitious and motivating.

Much is happening in the planning space. There is a high-level vision in *Project Ireland 2040: National Development Plan 2018—2027*. There is an *Action Plan for Education 2019* that is aligned with the *Department of Education and Skills' Statement of Strategy 2019-2021*[136]. The HEA has established *Mission-based Performance Compacts* with the institutions it is designated to fund. Similarly, SOLAS has established Strategic Performance Agreements with ETBs that reflect a range of key national targets for the FET sector. And there is more besides these.

A new FET strategy is being finalised at the time of writing. This will help providers develop the systems and secure the resources required to realise the vision. Likewise, it will undoubtedly help us and other actors build or evolve the infrastructure needed for the future[137].

What is of particular interest for the purposes of this paper is a motivating envisioning of the tertiary education system and especially the FET system which is undergoing major change. It may be especially helpful if there were a shared vision for how FET and HE might work together in the context of a tertiary education system serving Irish society's evolving requirements in the context of a *post compulsory education and training* strategy.

We hope the material in this paper may help stimulate discussion among stakeholders and contribute to the work of reaching such a shared vision. For example, the comments about the creation of new pathways involving new kinds of transitions in section 2.2.6.

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[136] https://www.education.ie/en/The-Department/Action-Plan-for-Education-2016-2019/

[137] In that regard, (CEDEFOP, 2018) provides some useful reference scenarios for thinking about the kind of FET sector we would wish to have ten years from now.

Scenario 1: Lifelong learning at the heart—Pluralist VET
Scenario 2: Occupational and professional competence at the heart—Distinctive VET
Scenario 3: Job-oriented training at the heart—Special purpose and/or marginalised VET

Overall, Ireland's FET system aligns most closely with Scenario 1 (Pluralist VET) and there are no major indications that this will change, even if some sub-systems align with Scenarios 2 or 3.

7.1.2 ISSUE FOR DISCUSSION: We need long-term strategies with realistic goals to help us plan

We are not operating under steady state conditions. QQI and its stakeholders are not in equilibrium. We are in a process of change. Some of our change cycles run over years. The infrastructure QQI puts in place has long-term effects on institutions. There is a learning curve when significant change is introduced, and people need to be confident to invest in implementing new initiatives e.g. in our case guidelines, policies, criteria or standards. This will only work smoothly where we have short, medium and long-term plans so that people understand the long-term strategy and are motivated to engage. We in turn need to know in broad terms where other macro-level actors are heading.

Changing qualifications systems, education and training systems and workplace practices, requires activity at the macro, meso and micro levels. System actors (see section 3.2.2, Part 1) should be expected to self-organise to the greatest extent possible, but they need broad guidance especially as regards long-term visions and realistic objectives for the future.

For example, QQI needs to co-develop and set out a vision that is shared and agreed with all the key stakeholders for how it will evolve its system of FET standards over the coming years and outline the anticipated implications this will have for institutions so that they can manage the changes and remodel or develop the required capacities and capabilities.

7.1.3 ISSUE FOR DISCUSSION: Differentiating FET and HE around NFQ Levels 5-7

We have already raised issues relating to the differentiation of FET and HET. This paper has supported the label tertiary education to avoid reinforcing differences that may have more to do with institutions than essentials. The FET/HE overlap occurs explicitly at NFQ Level 6 but also involves Levels 5 and 7. See 2.1.7 and 2.1.8.

7.1.4 ISSUE FOR DISCUSSION: There is uncertainty about the role in FET provision of IOTs and TUs

The extension of institutes' of technology (IOT's) awarding powers to include making further education and training awards is noteworthy because the bodies listed in section 44(9) of the *Qualifications and Quality Assurance (Education and Training) Act 2012* (including ETBs) may enter into arrangements with awarding bodies other than QQI subject to the conditions set out in section 48 of the 2012 Act.

There is an uncertainty about how the future involvement of technological sector higher education institutions (IOTs or TUs) in provision leading to further education and training qualifications will unfold. Currently, the greater part of most of the craft apprenticeship programmes (where QQI is the awarding body) is provided by IOTs who are collaborating with SOLAS as their coordinating provider.

It is not beyond the realms of possibility that IOTs, now that they have become designated awarding bodies, will begin making FET awards. If that were to happen, it would have implications for QQI and its ability to influence coherence in the FET system because QQI awards standards do not apply to designated awarding bodies' awards. However, it is unlikely that the IOTs would wish to exercise this power because this possibility does not currently exist for the technological universities who are in effect restricted to higher education (see also 2.1.7). Also, the fate of the HE qualifications at NFQ Levels 6 and 7 over the past fifteen years suggests that the technological sector institutions are most strongly focussed on honours bachelor's degrees. Finally, some key stakeholders may not be interested in this.

It is noteworthy that the technological sector competes with the FET PLC sector for LC graduates and that may prompt increased technological sector involvement in provision in FET institutions (e.g. foundation year programmes) designed to feed their mainstream programmes.

7.2 System level analysis and modelling

7.2.1 ISSUE FOR DISCUSSION: Enrich the quality of data on the functioning of the qualifications system

> *For a successful technology, reality must take precedence over public relations, for Nature cannot be fooled.* (Richard P. Feynman)

As a society we need to gather longitudinal data on people to track their successive engagements with the education and training system and their career progress after any qualification and between/during the programmes that they follow. These data can help with the construction of mathematical (stochastic) models[138] that may enable analysts to study the various systems involved, identify opportunities for improvement and conduct prospective policy analysis on possible interventions.

As noted in Part 2 section 8, there are several organisations already producing valuable system-level data on the flows of people (and their socio-economic characteristics) through education and training systems and to and from the workplace. Nevertheless, there is scope to do more.

Opinions are important too and are useful to study, especially when trying to understand the social dynamics within the qualifications system, and while they have a reality (they influence behaviour) they are not always solidly connected with objective reality[139]. Studying people's opinions while necessary is insufficient to understand how these systems operate especially when conflicts of interest enter the analyses.

In the past we have seen debates on subjects such as whether there is problematic grade inflation reduced to

- relatively narrow analysis of limited data (because we can only analyse what we have) that don't necessarily provide a complete understanding of the issues or
- relatively vague speculation that effects can be explained by improved teaching and learning approaches and such like.

Better centralised data gathering, more sophisticated modelling and combining quantitative and qualitative methods can all help improve our understanding and identify causes for concern and opportunities for improving the tertiary education system.

7.2.2 COMMENT: How can tertiary learning pathways be better understood?

Recognising the substantial progress that has already been made in the use of data, there remains scope for yet better data, analysis and prospective policy analysis models on the functioning of the tertiary education system, the qualifications system and the wider socio-economic system.

We are especially interested in the modelling of tertiary learning pathways. Individuals' accumulation of qualifications, and therefore the learning paths they travel through the learning outcomes space (Part 1 section 3.2.1) can be identified and correlated with other data such as employment data. We have already outlined some of the work that is being done in that regard.

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[138] The term 'modelling' may suggest a level of certainty beyond that achievable in the social sciences. Rather we are interested in anything that increases the reliability and reduces the uncertainty with which we can answer important questions especially about the potential impact of policy change.

[139] When we speak about objective reality, we mean something that is measurable even if only in principle.

Lifelong learning pathways and especially the learning pathway segments that link different qualifications provide important information. It would be useful to explore potential for stochastic modelling of learning pathways (based on analysis of the multitude of actual learning pathways taken) and determining whether these models may be useful in identifying opportunities for enhancement of the tertiary qualifications system.

The CSO is ideally placed to conduct/enable this kind of analysis as it can gather and analyse PPSN linked data from multiple sources. Its remit allows it to access, aggregate and analyse data that others may not (legally) be able to, owing to the law on the use of personal data. Such analysis may help reveal patterns in ensembles of learning paths (qualifications histories), identify popular pathways, and model how these may be associated with other factors such as employment histories, demographic data. The CSO already works with HEA, SOLAS and QQI on longitudinal analyses. This would be an extension of that kind of work.

In the longer term the results of such analyses (if sufficiently reliable and informative) may even be published in a form that is accessible to prospective learners to provide additional information that may help learners make choices.

Such results if sufficiently granular, may also help programme and qualifications developers/reviewers in their work. Beyond national datasets, the Data-Enabled Student Success Initiative (DESSI)[140], co-ordinated by the NFETL in partnership with partners across the sector, has been building capacity across higher education institutions to strategically engage with, and maximise the value of, their data as a resource for supporting student success.

7.2.3 COMMENT: More granular data on the functioning of the qualifications system

Data analysis need not stop with qualifications and employment—it is technically possible to examine, for example, progression within programmes of education and training if suitable data are collected and made available.

To gain the maximum benefit from these kinds of analysis we need to ensure that suitable data are recorded reliably and consistently. Maximising the potential for this kind of analysis would involve agreeing data collection protocols and standardised definitions for key terms.

Ideally, we would like see models for the probability of any individual with specified characteristics progressing through a specified learning pathway (or sub-pathway). For example, the probability that they would progress through each of the stages (on first or second attempt) of an honours bachelor's degree, PLC or apprenticeship programme. Institutions are well placed (if not always well resourced) to do this kind of analysis at the programme level but there may also be a need for higher level macro analysis to examine system level patterns.

Again, important work on this front has already been done by SOLAS, HEA, CSO with others but we think there is scope to do more.

7.2.4 COMMENT: What do we know about achieved learning outcomes?

In addition to understanding learning pathways through the qualifications system we also need better data on the achieved learning outcomes (ALOs) for learners at all levels. Accounting for qualifications is important and relatively straightforward but qualifications may not always be reliable proxies for

[140] https://www.teachingandlearning.ie/our-priorities/student-success/data-enabled-student-success/

ALOs. Just because two awarding bodies have aligned their awards with the same NFQ award-type and have similar ILOs (intended learning outcomes) does not guarantee that the graduates' ALOs are as comparable as we expect. There may be a need for additional observational proxies (to qualifications) for ALOs and perhaps some direct measurement (sampling). We cannot just assume that the NFQ is being implemented consistently because there are processes in place, and existing QA reviews (important as they are) are not designed to answer that question.

The idea here is to help find out the extent to which qualifications are worthy of the confidence that people place in them. In higher education, for example, the OECD AHELO project was likely motivated by a similar concern. The EU CALOHEE project (https://www.calohee.eu/) may be relevant. The topic is also of interest for refining analyses concerning the match between occupations/jobs and education and skills.

The topic is somewhat related to the concept of learning gain that has been popular in US for the past fifteen years and is gaining currency in the UK[141].

7.2.5 ISSUE FOR DISCUSSION: We need to better understand how FET component awards are used for lifelong learning

This is an area of significant and increasing interest. Significant work is already being done on tracking the progress of FET major award holders into employment or higher education and their progress within higher education. For example, we have already mentioned the work of SOLAS, HEA and the Transitions Reform Steering Group.

We suspect that more can be done with the data to help QQI in evolving the Common Awards System for FET. QQI needs to better understand how component award accumulation within CAS happens over time so that any changes it makes will not have any problematic unintended consequences e.g. that would block important lifelong learning pathways.

There has been relatively little systematic research on the detail of credit accumulation within FET. There is already a wealth of relevant data available to QQI.

7.2.6 ISSUE FOR DISCUSSION: PLSS and QQI databases are not yet harmonised

The PLSS and QQI databases are not yet harmonised but SOLAS and QQI have agreed to work towards harmonisation and to collaborate closely on data/analysis.

7.2.7 ISSUE FOR DISCUSSION: CAO points model for FET

There is a view that the CAO points model for FET works to some extent for IOTs. Nevertheless, the CAO points system was designed for the Leaving Certificate examination system which is very different from FET. FET qualifications are far more varied than the LC, they are assessed differently, and this means that for practical purposes the application of the CAO approach will never work as well as it does with the LC unless FET is changed to become like the LC.

CAO points provide a mechanism for allocating places where the demand exceeds the supply. They serve as indicators of aptitude, attainment and application. The consistency of the LC examination allows them to function as a mechanism for allocating scarce places when the stakes are high (and litigation is a real prospect if there is any irregularity). It is this latter function that is difficult to replicate in FET. One simply cannot reasonably expect a comparable level of reliability and consistency between SEC and FET

[141] (E.Evans, et al., 2018) provide a comprehensive outline of the issues involved in estimating learning gain in higher education.

assessment. This is a problem as CAO points are based on FET module grades. The CAO aspect of the progression problem is most acute where demand exceeds supply.

Higher education institutions are used to dealing with LC graduates presenting with CAO points. As the percentage of entrants coming from FET programmes increases pressure will increase on the current CAO arrangements for FET e.g. empirical justification of the cap on points and points allocations. There may be a need to start looking for alternative or complementary approaches to the allocation of HE places where demand exceeds supply (e.g. the HPAT for access to medicine).

7.3 Current and future skills needs analysis

'Skills needs' in this context refers to information about knowledge, skill, or competence associated with occupations or qualifications. The section on infrastructure for modelling skills supply, demand and needs (Part 2 section 8) is relevant.

7.3.1 ISSUE FOR DISCUSSION: More granular skills forecasting may be required

Tertiary graduates will typically wish their qualifications to help advance their careers. This applies to initial qualifications as well as to lifelong learning. This is likely to prompt them to question how well their programmes and associated educational and training qualifications are matched to skills needs of prospective employers. Providers and employers can be expected to raise similar questions.

It is clearly important to be able to inform educational development and review activity with empirical information about skills needs (especially of employers). Indeed, QQI is required to inform itself about the "*education, training, skills and qualifications requirements of industry, agriculture, business, tourism, trade, the professions and the public service, including requirements as to the level of knowledge, skill or competence to be acquired by learners*" (section 9(2) of the 2012 Act).

Ireland has infrastructure for this, but there may be opportunities to enhance it, particularly in terms of the granularity of some of the data that is available (e.g. about occupations).

Getting detailed information on the above topics can sometimes be a challenge. A lot of the intelligence comes through the communities of practices to which developers/reviewers belong. However, there is also a need for targeted empirical data on skills needs. The Expert Group on Future Skills Needs (EGFSN) reports provide useful empirical data on future skills needs mainly at the macro level. Naturally, their reports should stimulate others to look more closely at the areas identified and fill in any missing detail. Sometimes, EGFSN reports explicitly recommend that such extrapolation take place: e.g. "*Develop a Freight Transport, Distribution and Logistics Skills Engagement Group*" and "*Develop National Occupation Standards for the FTDL sector to create career pathways in a range of roles*" were included in the recommendations in the report entitled "Addressing the Skills Needs Arising from the Potential Trade Implications of Brexit" (on p16).

Being able to associate qualifications data with data on specific occupations may help us better understand how well tertiary education programmes are preparing people for employment. Awarding bodies have rich information about qualifications that can be linked to individuals identified by PPSN; in principle this can be combined by the CSO with other PPSN-linked data e.g. with Revenue[142] data to find out when and where graduates are employed and in what industrial sector. The Revenue data do not generally include detailed information about the occupation of an individual. The Census does

[142] https://revenue.ie/en/Home.aspx

collect detailed occupational data, but it only provides a five-yearly snapshot. There may be a benefit in gathering, and reporting on, more detailed occupation and skill related data. The earlier discussion on occupational standards is also relevant.

7.3.2 Comment: Is there a need for more granular information about skills needs?

It would be especially useful to have additional sources of timely information about the specific jobs that graduates are doing (occupations) and more granular information about the skills needs of those jobs. The comment below on classifications schemes also applies.

Such data may allow more penetrating longitudinal analysis to help better understand learning pathways and the impact of programmes and qualifications on individuals.

7.3.3 ISSUE FOR DISCUSSION: Is there a skill bundling problem?

There is a lack of uniformly high-resolution data on skills needs at different NFQ levels. The practice in Irish universities and the increasing practice in technological higher education institutions of focussing mainly on the top three NFQ levels may also add to the challenge of estimating the demand for skills at other NFQ levels because the NFQ is more likely understood through qualifications with which people are familiar than directly. If an employer has a skill requirement that is typically only addressed in programmes leading to honours bachelor's degrees then if asked about the NFQ level of qualifications required one suspects that that employer will, unless they understand the NFQ, likely indicate Level 8 even if the required skill is not at that NFQ level.

7.3.4 COMMENT: Should greater use be made of occupational, skills and competence classifications schemes?

Classifications schemes can facilitate communication between the education system and wider society. They are especially useful when gathering information from diverse sources.

Recall that the main occupational classifications scheme used in Ireland is SOC-2010[143]. It includes about 900 occupations. It specifies[144] a job description, the educational entry requirements for the job, the key tasks involved, and related jobs.

Recall also that the European Skills, Competences, Qualifications and Occupations (ESCO[145]) classifications scheme was launched in 2017 and while still a work in progress is useable. It includes about 3000 occupations[146]. ESCO data include a description of the occupation and a list of essential knowledge, skill and competence (it includes over 13,000 skills and competences). An example of the use of ESCO skills classification is the analysis of online vacancies in Ireland and other countries by Cedefop's Skills Panorama[147].

Both SOC 2010 and ESCO are mapped to the International Labour Organisation's International Standard Classification of Occupations (ISCO).

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[143] https://www.bls.gov/soc/2010/home.htm (there is now a more recent version: SOC 2018).

[144] E.g. https://onsdigital.github.io/dp-classification-tools/standard-occupational-classification/data/SingleClass.html?soc=2124&from=212

[145] https://ec.europa.eu/esco/portal/skill

[146] For comparison of classifications schemes see: https://publications.iadb.org/publications/english/document/Occupations_Labor_Market_Classifications_Taxonomies_and_Ontologies_in_the_21st_Century_en_en.pdf

[147] https://skillspanorama.cedefop.europa.eu/en/indicators/skills-online-vacancies

To facilitate better information exchange between different actors (e.g. education, employers, policy makers, diverse state data collectors), there may be benefit in more widespread implementation of such classifications schemes for occupations and the ESCO knowledge, skills and competence classifications.

Such classifications schemes can help in the codification of occupational standards and with their international benchmarking. Their use would also provide a basis for collecting more useful data on what occupations people move into after initial or continuing tertiary education and the occupational pathways that people tend to follow.

Having better data on occupations and the associated skills (e.g. standards, trends, interrelations) will help ensure that educational and training qualifications are relevant to the lifelong learning needs of people in Ireland.

7.3.5 COMMENT: Use SOC2010 or ESCO to classify the principal occupation that vocational qualifications and programmes address

There may be benefit in tertiary programmes identifying, *in addition to* the ISCED field of learning code, one or more codes to indicate the main kinds of occupations that graduates typically pursue.

The ISCED Field of Education indicators while useful for many purposes are relatively coarse-grained. For example, ISCED2013-FOET code 0533 which is used for physics is also used for astrophysics and medical physics which emphasise completely different aspects of physics. This is not an isolated example. Code 0714, for example, covers electronics and automation which includes a vast and diverse set of sub-fields.

8. UK issues

8.1.1 ISSUE FOR DISCUSSION: Understanding the influences of UK qualifications on the Irish qualifications system

One consequence of the linkage between the educational and qualifications systems of the UK and Ireland is that the Irish qualifications system can be influenced by the strong gravitational pull of UK policies and practices. When interests are aligned, this can work to Ireland's benefit given the scale of the UK and the resources it has available to it. For example, the QAA subject benchmarks can be very useful for Irish HEIs. On the other hand, in situations where Ireland may wish to diverge from a UK practice, the gravitational pull can be a complicating factor.

Brexit is relevant here. UK awarding bodies operating in Ireland and the recognition of qualifications for regulatory purposes is also worth discussing in the aftermath of Brexit.

8.1.2 ISSUE FOR DISCUSSION: Brexit implications

Brexit gives rise issues relating to qualifications. Hopefully many will be addressed through agreement between the UK and EU.

9. Emerging digital infrastructure

Last but not least, information technology (ICT) is driving change by enabling practices that heretofore would have been impractical owing to the complexity of their information processing and storage requirements. It is as difficult to overstate the ubiquity or importance of its effect as it is difficult to predict precisely how it will change qualifications systems. There will certainly be change because qualifications systems are all about information and its communication.

9.1 Digital platforms for exchanging information about qualifications

9.1.1 ISSUE FOR DISCUSSION: The need to explore how digital technology exchanges trusted information about an individual's qualifications

Information technology promises interesting prospects for enriching the utility and credibility of certification especially with the prospect of having trusted platforms for securely storing and presenting a CV with a portfolio of qualifications (or credentials[148]) from diverse awarding bodies (e.g. to a prospective employers). We will elaborate a little later but will not delve deeply into certification issues in this paper.

Qualification certificates can be tedious for qualifications system actors to manage, present recognise and evaluate. There is a prospect that these tasks can be made easier by harnessing information and communication technology.

Digital credentials technologies can provide a mechanism for addressing those tedious tasks. This is because they can involve far more than the mere digitisation of the printed certificate. They can store meta data with certificates that can help with verification and include information about specific achievements by the holder that helped them earn the credential. They can be designed to be secure, portable and easily communicable.

The case for digital credentials (if a common standard can be agreed) is compelling. It is possible to envisage a European-level platform emerging perhaps through Europass. They key is probably in the agreement of international standards and protocols for qualifications data exchange.

Micro credentials (a *topic du jour*) are qualifications for small volumes of learning in contrast to macro-credentials (such as honours bachelor's degrees). The NFQ's minor, special purpose and supplemental award-types are examples of prototype micro-credentials and perhaps meso-credentials, though micro credentials can be smaller than the smallest QQI minor awards. There is undoubedly a necessity for people to be able to complete selected parts of larger programmes that may be of interest; for example, a person with a computer science degree may, a few years after graduation, be interested in a module introducing some new software technology. Arguably the educational process (and associated learning) is more important than the credential, but a micro credential (e.g. minor award) is a useful way of formally recording the achievement and it may add weight to a CV.

Digital badges can help make micro-credentials more valuable and therefore more attractive. For example, Open Badges is an open source implementation of digital badges:

> *"The Open Badges 2.0 (OBv2) specification describes a method for packaging information about accomplishments and recognition, embedding it into portable image files as digital badges, and establishing resources for its validation and verification. It includes term definitions for representations of data in Open Badges."* [149]

9.1.2 ISSUE FOR DISCUSSION: The need to be vigilant about the security of electronic records

A key consideration in evaluating the value of any would-be credential repository is whether it can be trusted to attest to the holder's validly and reliably assessed knowledge, skill or competence at the specified time.

How do we know that an individual who presents us with a qualification is indeed qualified? We could check with the awarding body who can check their own database. But what if others have gained unauthorised access to that database so that they can create or destroy records? Clearly, security of electronic records is important to support continued trust in qualifications.

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[148] See (Chakroun & Keevy, 2018) for a detailed discussion of digital credentialing and implications for the recognition of learning across borders.

[149] https://www.imsglobal.org/sites/default/files/Badges/OBv2p0Final/impl/index.html

Appendices

1. QQI Standards development activity

Table 5 Standards review and development activity.

	Teaching English as a Second or Other Language Nov 2018	Diving Mar 2018	Dance & Music Nov 2017	Domestic and Non-Domestic Gas Safety Jun 2017	Door Security Security Guarding Apr2017	Firefighting	Digital/ Web Dec 2016	Tour Guiding Jun 2016	Agriculture	HE Architewctural Technology Feb 2016
Provider	3	2	3	3	5	1	9	5	5	6
Employer		1			1	1			1	3
Prof. Assoc		1	1	2	2		2	2	2	2
Regulator/Govt	1	1	1	2	1	2		2	4	1
International	2	1			2	1		2		1
Other		1		2	1	1	2		1	
Total		7	5	9	12	6	13	11	13	13
No. of Meetings	?	4	4	4	?	4	4	4	8	?
	ELE L6-L9	6S20620 (1)	5M20588 (2)	6S20559 (4)	Not on CAS	6S20493 (5)	6M20496 (2)	6S20232 (3)	5M20454 (30)	HE L6 to L9
		6S20619 (1)	6M20595 (6)	6U20556 (1)				6S20233 (2)	6M20486 (24)	
			5M20599 (3)					6S20256 (4)	6S20487 (4)	
			6M20602 (2)					6S20280 (2)		
No. of Compound		2	4	2	2	1	1	4	3	
No. of component		2	13	5	2	5	2	7	54	
Credit Value		35	300	40	20	45	30	105	490	

2. QQI Higher Education Award Standards

The following table provides the complete set (including the generic standards) for major award-types and for the International Foundation Year awards:

Table 6 Higher education Awards Standards

Standard	Breadth	Nature
Architecture—Awards Standards	Narrow	NFQ indicators together with discipline-specific indicators at Levels 6-9
Architectural Technology—Award Standards	Narrow	NFQ indicators together with discipline-specific indicators at Levels 6-9
Art and Design—Award Standards	Medium	NFQ indicators together with discipline-specific indicators at Levels 6-9
Business —Award Standards	Medium	NFQ indicators together with discipline-specific indicators at Levels 6-9
Computing—Award Standards	Medium	NFQ indicators together with discipline-specific indicators at Levels 6-9
Counselling and Psychotherapy—Awards Standards	Narrow	NFQ indicators together with discipline-specific indicators at Levels 6-9 and special validation conditions.
Engineering—Award Standards	Medium	NFQ indicators together with discipline-specific indicators at Levels 6-9
English Language Teaching—Awards Standards	Narrow	NFQ indicators together with discipline-specific indicators at Levels 6-9
Generic Major Awards—Awards Standards	Wide	NFQ award-type descriptors with eight sub strands
Professional Award-type Descriptors	Wide	NFQ award-type descriptors with a distinctive set of sub-strands designed for professional or occupation-oriented awards
Pre-Higher Education Foundation Awards for International Students	Narrow standard	Minimum expected learning outcomes at NFQ Levels 5 and 8.
Nursing and Midwifery—Awards Standards	Occupation-specific	NFQ indicators together with discipline-specific indicators at levels 6-9 with some instructions on their use
Professional Master of Education—Award Standard	Occupation-specific	NFQ award-type descriptor provides the standard for the level of the award and the relevant Teaching Council regulations provide the standard for scope.
Provisional Standards for LLB and LLM Degrees	Narrow	NFQ award-type descriptor provides the standard for the level of the award and the standard for scope is defined with reference to the norms in Irish Universities.
Science—Award Standards	Broad	NFQ indicators together with discipline-specific indicators at NFQ Levels 6-9
Social Care Work —Awards Standards	Narrow	NFQ indicators together with discipline-specific indicators at Levels 6-9 and special validation conditions.

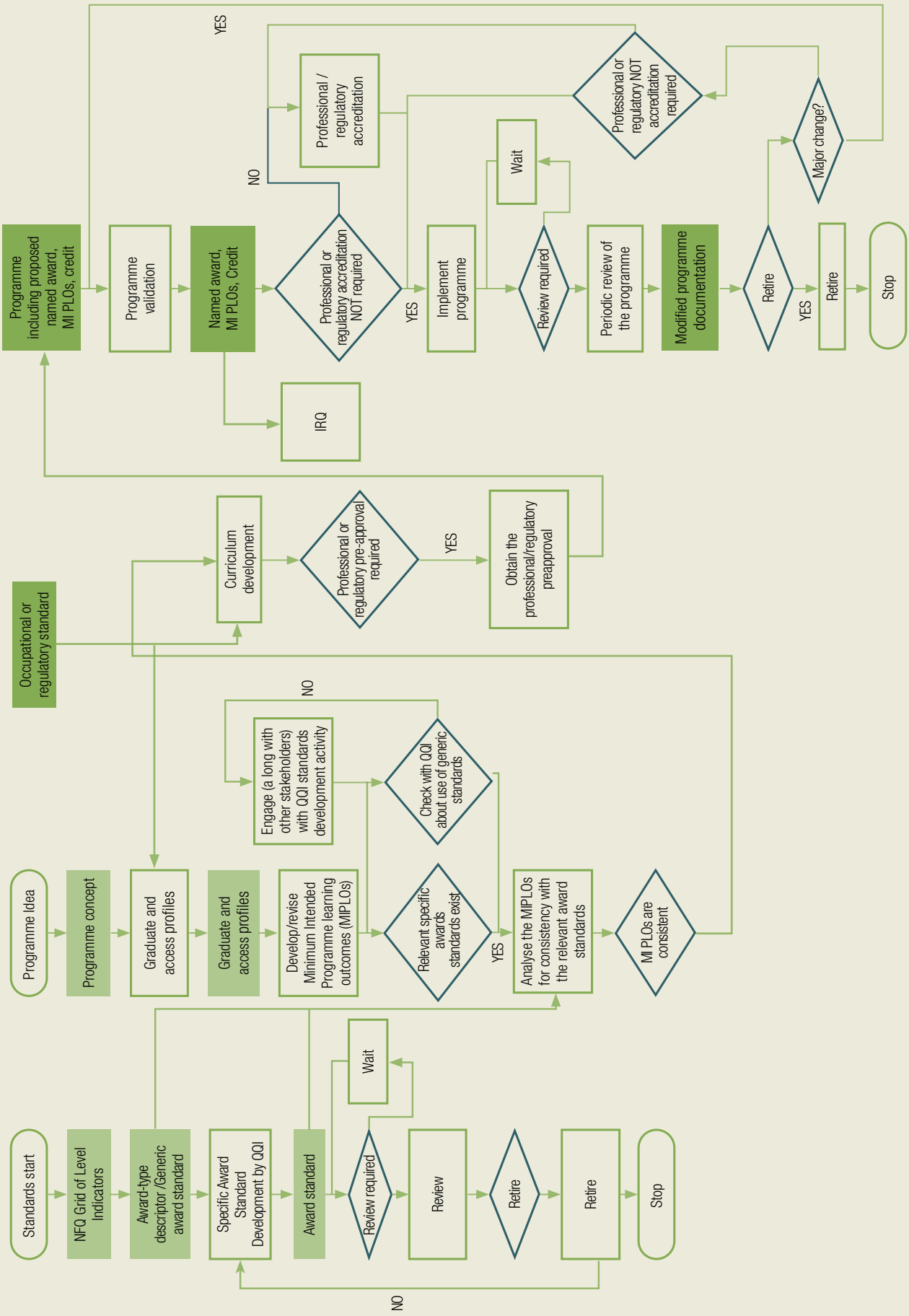

Figure 2 QQI awards standard in a broader context.

3. De facto named awards standards linked with approved programme learning outcomes

As noted, programmes and qualifications generally need to be considered jointly. Programmes leading to awards that are subject to QQI standards, for example, are validated by QQI or by a provider to whom QQI has delegated authority.

The concept of a national programme has been adopted for apprenticeship. Each apprenticeship involves one programme, one coordinating provider, at least one employer, and may involve many collaborating providers and employers.

Many providers share curricula to help distribute the workload.

Programmes offering formation for regulated occupations are often accredited by the regulator or by a professional body that is recognised by the regulator. Such programme accreditation generally aims to ensure that programmes meet (more or less) explicit accreditation criteria and must normally be renewed periodically (e.g. every five years). Such accreditation can help bring greater coherence to the relevant qualifications sub-systems.

Figure 2 QQI awards standard in a broader context. is a simplified diagram that shows the relationship between the NFQ, standards-development, regulatory/professional accreditation, programme validation and review.

4. Glossary

Assessment

Learner assessment (specifically assessment of learning) means inference (e.g. judgement or estimation or evaluation) of a learner's knowledge, skill or competence by comparison with a standard based on appropriate evidence. Self-assessment is included in this. Assessment has many purposes (including summative and formative).

Award standard:

"The knowledge, skill or competence to be acquired, and where appropriate, demonstrated, by a learner before the specified award may be made."

Awarding body:

"A body issuing [certified] qualifications (certificates, diplomas or titles) formally recognising the learning outcomes (knowledge, skills, competences) of an individual, following an assessment and validation procedure"[150]

Certificate (cognate terms should be construed in line with this interpretation):

"An official document, issued by an awarding body, which records the achievement of an individual following an assessment and validation against a predefined standard. (Certification of learning outcomes ... The process of issuing a certificate, diploma or title formally attesting that a set of learning outcomes (knowledge, know-how, skills and/or competences) acquired by an individual have been assessed and validated by a competent body against a predefined standard.)"151

Certification of learning outcomes

See certificate.

Common Awards System

See Part 2, section 4.2.2. Two terms are used frequently by CAS to characterise its awards:

- Component
- Compound.

Compound award (Common Awards System)

A CAS compound award is an award with prescribed component awards. It may be a major, supplemental or special purpose award. A compound award is described by a 'certificate specification' and this includes 'certificate requirements' that detail all the associated component awards and the combinations of component awards that must be made/held before the compound award may be made/held. The overarching expected learning outcomes for a compound award are also included in its certificate specification. Compound awards are issued as certificates.

Component award (Common Awards System)

In CAS, the term component or 'component award' is synonymous with the NFQ term 'minor award'. A component award is described by a 'component specification'. A component certificate may certify that an individual holds one or more named component awards.

[150] https://www.eqf-support.eu/9.0.html (accessed 24/1/2019)

[151] https://www.eqf-support.eu/9.0.html (accessed 24/1/2019)

Credential (or transcript)

The use of the term **credential** is increasing in popularity (especially in the context of micro-credentials and in the digitisation of certificates) but there isn't a standard definition. One possible definition is suggested by (Chakroun & Keevy, 2018).

> *"Electronic or paper-based representation of the different types of learning acquired by an individual (adapted from Keevy and Chakroun, 2015). A paper-based representation is most commonly referred to as a transcript."*

A credential is probably best thought of as being **synonymous with a certificate**. The use of the term credential seems to be increasing. Credentials can range from micro-credentials certifying small volumes of learning to macro-credentials (e.g. transcript for achievement in an honours degree programme).

Credit

"*confirmation that a part of a qualification, consisting of a coherent set of learning outcomes has been assessed and validated by a competent authority, according to an agreed standard; credit is awarded by competent authorities when the individual has achieved the defined learning outcomes, evidenced by appropriate assessments and can be expressed in a quantitative value (e.g. credits or credit points) demonstrating the estimated workload an individual typically needs for achieving related learning outcomes;* " (Council of the EU Recommendation 2017/C 189/03)

Credit (in the context of a programme of education and training)

"credit" means an acknowledgement of an enrolled learner's completion of a programme or part of a programme of education and training to a particular standard;

"credit transfer" means transferring credits awarded for studies undertaken as part of one programme of education and training to another programme. (Section 56 of the 2012 Act)

Designated awarding body:

This is a term defined in the Qualifications and Quality Assurance (Education and Training) Act 2012, it means a previously established university, the National University of Ireland, an educational institution established as a university under section 9 of the Act of 1997, the Dublin Institute of Technology and the Royal College of Surgeons in Ireland

External quality assurance (of education and training)

It is an externally owned process used for the purpose of quality assurance. Programme validation and accreditation by bodies that are external to the programme provider are examples.

External examiner

An external examiner is an independent expert who is a member of the broader community of practice within the programme's field of learning and whose accomplishments attest to his/her likelihood of having the authority necessary to fulfil the responsibilities of the role. The External Authenticator in FET fulfils a similar role. In research degree programmes, the term 'external examiner' is used to refer to an 'external assessor'. The functions of the research degree external examiner are different from those of the external examiner for other types of programmes

Learning

a) *"**formal learning** means learning which takes place in an organised and structured environment, specifically dedicated to learning, and typically leads to the award of a qualification, usually in the form of a certificate or a diploma; it includes systems of general education, initial vocational training and higher education;*

b) ***informal learning*** *means learning resulting from daily activities related to work, family or leisure and is not organised or structured in terms of objectives, time or learning support; it may be unintentional from the learner's perspective; examples of learning outcomes acquired through informal learning are skills acquired through life and work experiences, project management skills or ICT skills acquired at work, languages learned and intercultural skills acquired during a stay in another country, ICT skills acquired outside work, skills acquired through volunteering, cultural activities, sports, youth work and through activities at home (e.g. taking care of a child);"* (Source: Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning OJ C 398, 22.12.2012, pp. 1–5)

Learning pathways (educational or lifelong learning or learning pathways):

See section 3.2.1 for the definition.

Listed awarding body (anticipating the 2018 amendment bill passing into law):

Essentially, it means an awarding body whose name, for the time being, appears in the list of supernumerary awarding bodies that make awards that are included within the NFQ;

Learning outcomes (expected, intended or actual):

See section 3.1.3 for the main points. Some additional reflections are provided in the following paragraphs.

Our understanding of learning outcomes is most definitely not limited to the simplistic notion that only objectively observable behaviours can usefully be discussed. Cognitive processes can and should be included in any discussion of learning at any level.

Learning is the result of effort by an individual learner. Programmes of education and training are designed to help motivate, stimulate and guide learners. When we speak of intended *programme* learning outcomes, we are thinking of the result of the transformation of a learner who actively engages with the programme of education and training.

When considering the meanings that can be extracted from learning outcomes statements, we cannot rely only upon the statement text alone, we must also consider the person who is interpreting the statement and especially the consensus that is likely to be reached by a relevant CoP. CoPs help provide definitive support for standards. They also help support trust in and recognition of qualifications.

To members of a community of practice, a compact statement can encode substantial information that would not be fully evident to non-members from the statement alone. Within communities of practice words or phrases can be considered to encode or connect to information that would not be immediately evident to those outside the community of practice. A member of (or a group from) a community of practice can be expected to extrapolate knowledge, skill and competence from a learning outcome statement.

A learning outcome statement once established may take on new meaning as it is used over time within a community of practice. Learning outcome statements are partly symbolic (symbolising the meaning attached to them by the CoP e.g. We know what we mean...) and rely on abstractions from the CoP's repertoire.

Without the communities of practice to decode the outcomes reliably and consistently, higher order learning outcome statements are challenged to encode or represent what has been learned in a way that can be understood by people outside the CoP without being impractically detailed. The idea therefore that learning outcomes make everything transparent to everyone

is naïve. However, they can be presented in a way that provides for layers of interpretation requiring increasing expertise.

Micro-credential

A qualification that attests to a small-volume, highly specific learning achievement. The term often arises in the context of digital badges.

Minimum intended programme learning outcome:

The minimum achievement (in terms of knowledge, skill and competence) that the learner is certified to have attained if he/she successfully completes a particular programme (i.e. passes all the required assessments). The minimum intended programme learning outcomes define the minimum learning outcomes for a particular programme at the programme level.

NFQ Award-type Descriptor:

The NFQ is a system of 10 levels (currently). Multiple award-types may be defined at each NFQ level. Award-types are characterised by award-type descriptors. For details see (NQAI, 2003, p. 28).

NFQ Award Class:

There are currently five classes of awards in the NFQ (Major, Minor, Special Purpose, Supplemental and Professional) but professional awards may have a secondary class (Major, etc.).

NFQ Level:

The NFQ currently has 10 levels. Levels are defined using 'Level Indicators'. These take the form of statements about the breadth and kind of knowledge, the range and selectivity of skills, the role and context competence, learning competence and insight. For details see (NQAI, 2003, p. 28).

Occupation

"A "job" is defined as a set of tasks and duties executed, or meant to be executed, by one person; a set of jobs whose main tasks and duties are characterised by a high degree of similarity constitutes an occupation. Persons are classified by occupation through their relationship to a past, present or future job."[152]

Occupational profile (general definition):

"An occupational profile is a description of the knowledge, skills, competences that a professional or worker must have to perform a competently at the workplace."[153]

Path

A path is an individual figurative journey through the qualifications system. See also pathway.

Pathway

The concept of a pathway is explained in section (3.2.1).

Programme of education and training (programme):

A programme of education and training is a process by which a learner acquires knowledge, skill or competence and includes a course of study, a course of instruction and an apprenticeship.

In the publicly funded FET sector a FET programme can also mean a funding programme—such as the PLC programme, the BTEI programme and such like. We do not use the term programme in this sense. Also, FET is expected to move increasingly away from approaches based on multiple different funding programmes over the next few years.

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[152] https://stats.oecd.org/glossary/detail.asp?ID=1876

[153] https://www.euvetsupport.eu/index.php?id=127 (03/07/2019)

Provider of a programme of education and training (provider):

Provider means provider of a programme of education and training. Some providers certify their own learners, but others rely on external awarding bodies for certification.

A provider of a programme is responsible for enrolling qualified learners, managing and implementing the programme; and guiding, caring for and assessing learners.

If the provider is also the awarding body for the programme, then they are responsible for summative assessment to determine whether a learner has met the standard for an award.

If the provider is not the awarding body, they may or may not be responsible for summative assessment to determine whether a learner has met the standard for an award.

Qualification:

"*... the formal outcome of an assessment and validation process which is obtained when a competent body determines* [at a specified time][154]

Qualification system:

"National Qualifications System means all aspects of a state's activity related to the recognition of learning and other mechanisms that link education and training to the labour market and civil society. This includes the development and implementation of institutional arrangements and processes relating to quality assurance, assessment and the award of qualifications. A National Qualifications System may be composed of several subsystems and may include a National Qualifications Framework."

The concept of a qualifications system is important because many different groups are involved in supporting qualifications.

Recognition:

Formal recognition: process of granting official status to learning outcomes knowledge, skills and competences either through:

c) ***non-formal learning*** *means learning which takes place through planned activities (in terms of learning objectives, learning time) where some form of learning support is present (e.g. student-teacher relationships); it may cover programmes to impart work skills, adult literacy and basic education for early school leavers; very common cases of non-formal learning include in-company training, through which companies update and improve the skills of their workers such as ICT skills, structured on-line learning (e.g. by making use of open educational resources), and courses organised by civil society organisations for their members, their target group or the general public;*

Recognition of prior learning:

The recognition of prior learning (RPL) is a term or art defined in Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning (OJ C 398, 22.12.2012, pp. 1–5.). It means "the validation of learning outcomes, whether from formal education or non-formal or informal learning, acquired before requesting validation."

See also Part 1 section 7.

Standard: The EQF definition of the term 'standard'

"A series of elements whose content is defined by concerned actors. This can be

- ***competence standard****s: knowledge, skills, competences linked to the practice of a job;*

[154] Our addition to the EQF definition.

- ***education standards****: statements of learning objectives, content of curricula, entry requirements and resources required to meet the learning objectives;*
- *: statements of the activities and tasks related to a specific job and to its practice;*
- ***occupational standards***[155] ***assessment standard****: statements of the learning outcomes to be assessed and the methodology used;*
- ***validation standards****: statements of the level of achievement to be reached by the person assessed, and the methodology used;*
- ***certification standards****: statements of the rules applicable for obtaining a certificate or diploma as well as the rights conferred.*

According to the system, these standards can be defined separately or be part of one document."

This list of examples is not exhaustive. In this Technical Paper where we use the term standard without a qualifier its precise meaning will depend on the context. Though we will often use it with a qualifier and define more precisely what we mean by the resulting term, for example, we use the term **award standard** in the context of QQI awards to refer to the

> *determination of the knowledge, skill or competence to be acquired, and where appropriate, demonstrated, by a learner before the specified award may be made* (this formulation is rooted in the Qualifications and Quality Assurance (Education and Training) Act 2012).

That definition is closest, in its construction, to the 'competence standard' defined above. It is the only example in the definition that *does not* use the term 'statement'.

Tertiary education:

Tertiary education, for the purpose of this paper, means further education and training, higher education and professional education and training. This usage is similar to that in Australia but different from that of ISCED which would regard the lower NFQ level FET awards are post-secondary non-tertiary.

Validation of a programme of education and training designed to lead to a QQI award:

Programme validation is a regulatory process that (in essence) determines whether (or not) a particular QQI award can be offered in respect of a provider's programme of education and training.

The term validate has other meanings in other contexts e.g. validation of prior learning.

Validation of learning outcomes

"Validation of learning outcomes means a process of confirmation by an authorised body that an individual has acquired learning outcomes measured against a relevant standard and consists of the

1. identification through dialogue of particular experiences of an individual;
2. documentation to make visible the individual's experiences;
3. a formal assessment of these experiences; and
4. certification of the results of the assessment which may lead to a partial or full qualification." (Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning (2012/C 398/01).)

[155] There are also related narrower standards for certain (often regulated) activities that may not be sole occupations that are of interest here, for example F-gas handling. We take occupational standard to mean both kinds of standards unless the context makes the more literal interpretation explicit.

Vocational education and training

"Vocational education and training, abbreviated as VET, sometimes simply called vocational training, is the training in skills and teaching of knowledge related to a specific trade, occupation or vocation in which the student or employee wishes to participate.
Vocational education may be undertaken at an educational institution, as part of secondary or tertiary education, or may be part of initial training during employment, for example as an apprentice, or as a combination of formal education and workplace learning"[156]

[156] https://ec.europa.eu/eurostat/statistics-explained/index.php/Category:Education_and_training_glossary

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