

The Norwegian Qualifications Framework for Lifelong Learning (NQF)



Adopted by the Ministry of Education and Research on 15 December 2011

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1 Introduction and summary

1.1 Introduction

The Norwegian Qualifications Framework for Lifelong Learning (NQF) was adopted by the Ministry of Education and Research on 15 December 2011. See the table presenting the NQF on pages 18–25.

The text describing the qualifications framework was updated in April 2014.

The NQF takes the current Norwegian education and training system as its starting point and aims to describe it without changing it.

The aim of the work on the qualifications framework is to make the education and training systems easier to understand, both nationally and internationally, to facilitate increased mobility within and between countries, to contribute to flexible pathways and thereby strengthen lifelong learning.

The qualifications framework is new to Norway and will be under development for a long time. While it will primarily be implemented in the educational sector, the learning outcome descriptors are also relevant to the labour market and civil society. Although the learning outcome descriptors in the qualifications framework are based on the levels in the education and training system, they are worded so that they can serve as descriptions of qualifications obtained in other ways. The qualifications framework will thereby play an important role in the work on promoting lifelong learning. Among other things, it will provide a better point of reference for recognition of prior learning.

Initially, only qualifications achieved through the formal education and training system are included in the framework. The Ministry believes that the qualifications framework should be opened to include qualifications/competences that are currently not part of the formal education and training system. In autumn 2013, the Ministry therefore appointed a committee with the mandate of studying and submitting proposals for how education offered outside the formal education and training system can be included in the NQF. The committee is scheduled to submit its final recommendation by 31 December 2014.

The levels in the NQF will be referenced to the levels in the European Qualifications Framework for Lifelong Learning (EQF) in the course of 2014.

The NQF was developed as a separate project, in close contact with affected stakeholders in the world of work, education and in civil society. The Ministry emphasises that this close cooperation should continue when the framework is to be implemented and further developed.

1.2 Summary of the document

Chapter 2 describes the background and preconditions for the work on the NQF, which is a national continuation of two international processes: the preparation of the European Qualifications Framework for Lifelong Learning (EQF) in the EU and the preparation of a qualifications framework for higher education in the Bologna Process, which comprises 47 European countries. Most countries in Europe have therefore already developed or are in the process of developing qualifications frameworks for their own education and training systems.

The chapter describes the objective of the qualifications framework and how it can be used.

The Norwegian framework will be called the Norwegian Qualifications Framework for Lifelong Learning (NQF).

The fundamental element of a qualifications framework is that the qualifications are described in the form of learning *outcomes*, *not* as learning input. The goal is that the learning outcomes for the individual qualifications will be described in a way that makes it easy to see the interconnection between them, and thereby also the actual differences in learning outcomes between the different levels and pathways through the education system.

Chapter 3 describes the work on developing the NQF, and the subsequent process of referencing it to the European Qualifications Framework (EQF) and the framework of qualifications for the European higher education area (the Bologna Framework). The chapter also describes the consultation process with affected organisations and institutions.

Chapter 4 describes the structure of the framework. The NQF consists of seven levels that include the qualifications that exist in the formal Norwegian education and training system. In order to retain a parallel structure with the EQF, the numbering starts at Level 2, no descriptions or qualifications are therefore placed at Level 1. The NQF comprises the following levels:

- Level 2: Competence from primary/lower secondary school
- Level 3: Partially completed upper secondary education and training
- Level 4: Completed upper secondary education and training
- Level 5: Tertiary vocational education
- Level 6: Bachelor (1st cycle of higher education)
- Level 7: Master (2nd cycle)
- Level 8: PhD (3rd cycle)

The chapter also shows how levels 4, 5 and 6 are designed, in order to give a best possible description of the variation in qualifications within these levels.

Chapter 5 portrays the actual NQF and describes in more detail how each level is described through learning outcome descriptors of knowledge, skills and general competence. Knowledge is the understanding of theories, facts, concepts, principles and procedures in a discipline, subject area and/or profession/occupational field or industry. Skills encompass the ability to apply knowledge to complete tasks and solve problems. There are different types of skills – cognitive, practical, creative and communicative. General competence means the ability to use knowledge and skills in an independent manner in different situations by demonstrating the ability to cooperate, responsibility, and a capacity for reflection and critical thinking, in educational and work contexts.

Chapter 6 describes how qualifications can be included in the NQF. During the process of adopting the NQF, all publicly approved qualifications were placed in the framework, regardless of whether the education provider was public or private. However, tertiary vocational education of 1 1/2 years' duration was made subject to a separate assessment under the auspices of the Norwegian Agency for Quality Assurance in Education (NOKUT). The chapter also describes how further work will be done on the inclusion of partial qualifications, and competence/qualifications that are currently not part of the formal education and training system.

Chapter 7 describes the principles for quality assurance of the NQF. They are intended to fully reflect the official nature of the qualifications framework.

Chapter 8 describes the qualifications framework's relevance to the work on lifelong

learning. An important perspective in the work on developing national qualifications frameworks is that it contributes to making all learning that takes place throughout life visible and valued, regardless of where the learning takes place. It will therefore be possible to develop the learning outcome descriptors into a useful tool in the recognition of prior learning.

Chapter 9 deals with the legal status of the qualifications framework. The EQF Recommendation was incorporated into the EEA Agreement on 17 March 2009. The Recommendation calls for the participating countries to link their national qualifications systems to the EQF, and for all new qualification certificates, diplomas and Europass documents to contain a clear reference, by way of national qualifications systems, to the EQF. The Ministry aims to issue regulations for the NQF and referencing to the EQF.

Chapter 10 describes administrative and financial consequences of the work on implementing the NQF.

2 Background and preconditions for the national qualifications framework

2.1 The European qualifications frameworks – EQF and Bologna

The work on the Norwegian Qualifications Framework is a national continuation of two international processes: the EQF process and the Bologna Process.

The EQF process

The bodies of the EU adopted the Recommendation on the establishment of a European qualifications framework for lifelong learning (the European Qualifications Framework – EQF) in February 2008. It entered into force on 28 April the same year. Norway committed itself to following it up when the EEA Committee, on 17 March 2009, decided to incorporate it into Protocol 31 of the EEA Agreement. The EQF describes levels of qualifications at the European level in the form of learning outcomes. It is a tool that can be used to compare the education systems in different countries. The EQF does not aim to harmonise the participating countries' education systems, but to make it easier to read, understand and compare the systems.

The EQF covers general education, vocational training, higher education and adult education. It has eight levels and covers the full range of qualifications from primary school to doctoral degree level. Each level can, in principle, be attained through different educational and career paths.

The learning outcome descriptors in the EQF are expressed in the form of knowledge, skills and competence. The EQF is described in more detail later in this document, and it is also included in Appendix 3.

The Bologna Process

In the Bologna Process, which concerns cooperation on higher education between 47 countries in Europe, it was decided, at the ministerial meeting in Bergen in 2005, to establish an overarching framework of qualifications for the European higher education area. The decision was based on the Berlin Communiqué of 2003, in which the member countries were called on to develop national qualifications frameworks. The overarching framework consists of learning outcome descriptors for the three main levels of higher education, i.e. the bachelor, master and PhD levels, also referred to as the first, second and third cycles, to avoid language problems when referring to the names used for degrees in different countries.

It also enables the countries to have what are known as ‘intermediate qualifications’ at each of the three main levels. In the communiqué from the meeting, the ministers from the participating countries undertook to develop and introduce national qualifications frameworks for higher education in their respective countries, and to self-certify them in relation to the overarching framework of qualifications for the European higher education area (the Bologna Framework, often abbreviated EHEA-QF). The Bologna decision is included in Appendix 4.

Norway started the process of considering a national qualifications framework for higher education after the ministerial meeting in Berlin in 2003. Legal authority for introducing a framework was incorporated into the Act relating to Universities and University Colleges in 2005, and the work on developing a qualifications framework for higher education in Norway was initiated later the same year. A report proposing a framework with national learning outcome descriptors for the three levels of higher education was presented in April 2007 and then distributed for consultation. The proposal was then adjusted and further discussed with the sector. The qualifications framework for higher education was adopted in March 2009. See also section 3.1.

In autumn 2006, the Ministry of Education and Research initiated work with a view to producing a report on the establishment of a national qualifications framework for all levels. A consultation process was initiated at the same time by establishing a broadly composed reference group. The end of 2008 was set as the deadline for work on the report. A midway report was presented at the end of 2007. During the process, work was also started on developing learning outcome descriptors for subject-related and vocational competence. An initial process was also started for the tertiary vocational education level.

This first project group presented its final report in February 2009. This report formed the basis for discussion, with, among others, the reference group, about the strategy of the work in the future. The report has been an important basis for subsequent work.

Based on international developments, where it became increasingly clear that the other European countries in the EEA were going to develop national qualifications frameworks as the basis for referencing their national systems to the EQF, it was decided in September 2009 that a proposal for a comprehensive national qualifications framework was to be prepared for Norway as well, and that this would form the basis for referencing the Norwegian levels of qualifications to the EQF. The work on the qualifications framework was to be based on the work that had been started on a framework for the different educational levels (sub-frameworks), and on separate reports in areas where such work had not already been initiated. Moreover, the work was to be carried out in close contact with relevant stakeholders, and with the reference group that had been established.

The present document is the result of this process.

2.2 Definition of the qualifications framework

In the EQF Recommendation, national qualifications frameworks are defined as follows:

‘National qualifications framework means an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society.’

Based on a similar understanding, the Ministry has adopted the following wording:

‘A qualifications framework is an overall, systematic description of different levels of formal qualifications that can be attained in an education system.

The framework is a systematic description of levels and of the competence achieved at the levels in the Norwegian education and training system. National qualifications frameworks are based on the national education system and show levels and progression and their connections with the labour market and civil society.’

See the list of terminology used in Appendix 2.

2.3 Objective of the qualifications framework

The EU emphasises three important objectives for the establishment of the EQF:

- to promote – or reduce obstacles to – mobility between countries through identical descriptions of qualifications and definitions of levels;
- to strengthen opportunities for lifelong learning in the countries concerned, among other things by contributing to coordinating the different parts of the education and training systems, avoiding dead ends in the systems and establishing expedient schemes for the assessment, documentation and formal recognition of qualifications achieved outside the formal education system;
- to contribute to increased quality in national education systems, among other things by encouraging countries to establish expedient quality assurance systems.

2.4 What is a national framework, and what methods are used in the description?

The fundamental element of a qualifications framework is that the qualifications are described in terms of their learning *outcomes*, *not* the learning input. It is what the candidate knows at the end of a learning process that is described, not what he or she had to do to get there. The goal is that the learning outcome for the individual qualifications will be described in a way that makes it easy to see the interconnection between the different qualifications, and thereby also the actual differences in learning outcomes between the different levels and different pathways through the education system.

The learning outcome descriptors are therefore intended to show the progression in the system. This is expressed by the use of verbs that describe an increasing degree of knowledge and understanding, level of skills and general competence. One example is that knowledge can be described as ‘is familiar with’ – ‘has knowledge of’ – ‘has insight into’ – which form an ascending order. It is also a principle that the levels are described actively and independently, and that comparisons with levels below and above are avoided. The knowledge, skills or general competence described at one level is not described again at the next, unless they are developed further. The descriptors focus on what the candidate is capable of and is *not* related to what he or she does not know or master.

The aim of the level descriptors is to describe the knowledge, skills and general competence that all candidates who have completed an education at the level in question are expected to have achieved, regardless of the subject area in which they took the education.

The objectives of the qualifications framework include:

- to shift the focus from teaching to learning – from learning input to learning outcome
- to ease the planning of the individual’s educational pathway
- to describe the actual differences in learning outcomes at the different levels
- to facilitate lifelong learning
- to make the qualifications easier to understand for the labour market and society in

general, and to clarify what overarching knowledge, skills and general competence each individual candidate actually has

- to facilitate the recognition of qualifications across national borders
- to ensure better utilisation of competence for both individuals and society.

The qualifications framework is expected to be very important in relation to making the education systems easier to understand both nationally and internationally, increasing mobility within and between countries, contributing to flexible learning pathways and thereby strengthening lifelong learning.

2.5 Name of the national qualifications framework

The Norwegian qualifications framework will be called the Norwegian Qualifications Framework for Lifelong Learning (NQF). ‘Norwegian’ is used instead of ‘national’ in English. The name directly reflects the name of the European Qualifications Framework for Lifelong Learning (EQF) and it is also in harmony with the terminology that has already been introduced in the qualifications framework for higher education. The fact that the qualifications framework concerns ‘lifelong learning’ means that the framework describes qualifications at all levels, and that it is intended to promote the valuation of qualifications throughout life (lifelong) and in all arenas (life-wide). Read more about this in Chapter 8 Bridges to lifelong learning and prior learning.

2.6 Who is the qualifications framework intended for?

The qualifications framework is especially aimed at employers and employees and everyone who wishes to apply for or is taking an education. However, different needs and interests underlie the development of qualifications frameworks in the different countries. In a country like South Africa, the method has been useful in connection with building a comprehensive education system with shared principles and good internal coherence. In other countries with a complex structure, such as Ireland, it has proved to be an expedient tool for necessary simplification and clarification. The Norwegian education and training system has long traditions, is simple and transparent and has relatively recently undergone changes that have resulted in greater coherence and simplification. The NQF has therefore not been developed in order to reform the system.

For Norway, the most important objective in the short term is better communication. The NQF is a new way of describing our established education and training system, which has several advantages. Firstly, it is the first time that an overarching description has been given of what pupils/apprentices/candidates at the different levels are expected to know upon completion of their education. Secondly, it describes the system’s inherent coherence in a new way, which in turn will facilitate better educational and career guidance. Thirdly, it means that we have a description that facilitates comparisons with qualifications from other countries, via the EQF and the Bologna Framework. Fourthly, the descriptors form a basis for improving communication with the labour market and the possibilities of valuing competence.

In this way, the qualifications framework can be of value for several groups:

- pupils, apprentices and students
- employees and other adults who have acquired experience and competence outside the education and training system
- the labour market, which will gain additional information about the competences acquired through different education programmes
- the general public, which will have a better overview of the structure and goals of the education and training system.

2.7 Preconditions for the establishment of a framework in Norway

The subject curricula used in primary and secondary education and training are already based on the principle of describing learning outcomes. This has not previously been the case in higher education. The fact that all programmes are to be described in terms of their learning outcomes is a new pedagogical principle for universities and university colleges that was introduced with the qualifications framework. The shift from focusing on learning inputs to learning outcomes is a necessary and desired result of the work on the framework. The universities and university colleges were given until the end of 2012 to prepare learning outcome descriptors for all education programmes, disciplines and courses. Nor has it previously been a requirement in tertiary vocational education to describe learning outcomes. From autumn 2014, however, applications for the recognition of new tertiary vocational education programmes must contain learning outcome descriptors.

Although challenges remain at many institutions, the Norwegian education and training system has come far in its introduction of learning outcome descriptors. We also have a simpler and more transparent education and training system than most other countries. In general, the preconditions for establishing a qualifications framework are therefore met in Norway.

Moreover, competence acquired outside the formal education and training system, through formal, non-formal or informal learning (prior learning) can be assessed in relation to existing subject curricula, national curricula and programme descriptions. The right to recognition of prior learning is regulated by the Education Act, the Tertiary Vocational Education Act and the Act relating to Universities and University Colleges. Individuals' prior learning in a discipline cannot be directly placed in the NQF, but it can lead to a shorter educational pathway to an approved diploma with an assigned level in the NQF.

2.8 The framework is meant to describe the Norwegian system

The starting point for the NQF is that it should fit the Norwegian context and be rooted in the Norwegian education and training system. The qualifications framework has not been developed to reform the system.

Higher education qualifications that are part of the current degree system are included in the framework. Consequently, programmes such as specialist education programmes and further education in health-related subjects are not included. Degrees prior to the introduction of the Quality Reform was introduced are not included either.

The qualifications framework comprises formal qualifications offered in today's education and training system. In this context, it is important to emphasise the official nature of the framework and the requirements for quality assurance (see Chapter 7 and Appendix 1: Criteria and procedures for referencing national levels of qualification to the EQF).

2.9 Relationship to the EU's directive on the recognition of professional qualifications

Directive 2005/36/EC on the recognition of professional qualifications is intended to make it easier for someone in an EEA/EU state to practise a regulated profession in another EEA/EU state, so that he/she is not discriminated against in relation to the country's own nationals. Pursuant to the Directive, a regulated profession is a profession the pursuit of which is subject to qualification requirements from the authorities set out in law or regulations. The Directive was amended by Directive 2013/55/EU. This Directive is intended to modernise and simplify the recognition procedures. The EQF is mentioned in the preamble to the Directive. Any joint education programmes as provided for by the Directive shall be based on the levels in the EQF.

3 Preparing the Bologna Framework and the EQF, and the referencing process

The follow-up of the EQF recommendation in Norway is divided into two main phases: the development of a comprehensive national qualifications framework, and the referencing of its levels to the EQF. Both processes are organised as inclusive processes in order to ensure the participation of affected stakeholders, institutions and organisations. As mentioned, preparations for an overarching national qualifications framework for higher education were initiated on the basis of the decisions made at the ministerial meetings under the Bologna Process in Berlin in 2003 and Bergen in 2005. It now constitutes the top three levels in the NQF.

3.1 Preparation of a national qualifications framework

In December 2005, the Ministry of Education and Research appointed a working group comprised of representatives of the Ministry's Department of Higher Education, the Norwegian Agency for Quality Assurance in Education (NOKUT), the Norwegian Association of Higher Education Institutions (UHR) and the student organisations. It was given the task of assessing the need for a national qualifications framework for higher education, its importance and how it should be developed. In addition, a diverse reference group was appointed. It included representatives of institutions of higher education, tertiary vocational colleges, upper secondary schools, the Norwegian Association for Adult Learning, the Norwegian Agency for Lifelong Learning (VOX), the Norwegian Registration Authority for Health Personnel (SAFH), employer and employee organisations, the Union of Education Norway, the Norwegian Association of Researchers, the Norwegian Centre for International Cooperation in Education (SIU) and the Ministry of Trade and Industry.

The working group's report contains a concrete proposal for a qualifications framework, i.e. level descriptors for the three levels of higher education. The select committee's report was widely distributed for consultation in the sector. The consultative bodies were largely positive to the introduction of a qualifications framework. The majority of the consultative bodies underlined the importance of 'making haste slowly' and that resources be allocated to the work. The majority also took a positive view of UHR being assigned an important role in the further development of the framework, particularly through its academic and professional councils.

Based on the consultation process, the Ministry of Education and Research adopted the qualifications framework for higher education in March 2009. In addition, a proposal for learning outcome descriptors for the university college graduate degree was distributed for consultation in November 2009. It was generally well received by the consultative bodies. There is broad agreement on the descriptors arrived at for these levels. The qualifications framework for higher education is included in the top three levels of the NQF.

Work on the other levels of the qualifications framework, which started in 2006, intensified when the EU adopted the EQF in 2008. A reference group was then appointed that included participants from most of the organisations and institutions that had taken part in the consideration of the qualifications framework for higher education. Until the adoption of the NQF in December 2011, the work took place in close contact with this reference group.¹

¹ The following organisations/institutions participated in the reference group: The Norwegian Confederation of Trade Unions (LO), the Confederation of Norwegian Enterprise (NHO), the Norwegian Association of Local and Regional Authorities (KS), the Federation of Norwegian Commercial and Service Enterprises (HSH), the Employers' Association Spekter, the Confederation of Vocational Unions (YS), the Confederation of Unions for Professionals (Unio), the Federation of Norwegian Professional Associations, NOKUT, VOX, UHR, the Norwegian Network for Private Higher Education Institutions, the contact committee for the county directors of education, the

From autumn 2009, the group's remit was to propose a comprehensive national qualifications framework.

3.2 Follow-up of the consultation process

A draft of the Norwegian Qualifications Framework was distributed for consultation in spring 2011. Eighty-five consultation submissions were received. The qualifications framework was adjusted in light of the submissions. Some main points are mentioned here.

Broad support for the adoption a qualifications framework was expressed during the consultation, but several pointed out that adjustments would be necessary as experience was gained. The Ministry agrees that such a framework must be subject to evaluation and necessary adjustments, but assumes that experience should be gained first. This is described in more detail in the document.

One main question during the consultation process was how to deal with qualifications/competence that are not part of the education and training system. The Ministry agreed that it is necessary to make it clear that the education and training system is currently open to new qualifications. This is now being considered by the committee appointed by the Ministry, which was given the task of considering and submitting proposals for how education offered outside the formal education and training system can be included in the NQF.

Several parties called for stronger emphasis on the lifelong learning perspective. This has been incorporated through amendments in Chapter 8.

Many views were expressed as regards the number of levels, and it was proposed to include new levels under the primary and lower secondary school level. Views were also expressed on the basic competence level and on the tertiary vocational education structure. The Ministry upheld the proposal of seven levels (see, for example, Chapter 4–6), but it chose to start the numbering at Level 2 in order to ensure a structure that better parallels the levels of the EQF.

A clear majority of the consultative bodies endorsed the proposal for two sets of learning outcome descriptors at Level 4. This proposal was therefore upheld.

Many commented on the level descriptors in the framework and called for better progression and more internal coherence. Some bodies proposed concrete adjustments of the descriptions. The descriptions at levels 2 to 5 have been re-assessed and adjusted in light of the proposals. The Ministry has also endeavoured to group the descriptions in a way that serves to clarify the internal coherence of the system; see Appendix 5.

The consultation submissions also contained editorial suggestions that were considered in connection with the final review of this document. The language of the NQF document has been updated in accordance with the changed status of the document.

Norwegian Association of Christian Colleges (KFF), the Norwegian School Students Union, the Norwegian Student Union, the Norwegian Association of Students (the two latter were replaced by the Norwegian Student Union when they merged), the Association of Norwegian Students Abroad (ANSA), the Norwegian Association for Adult Learning, the Norwegian Association for Distance Learning, the Council for county authority tertiary education, the National Council for Vocational Education and Training (SRY), the Federation of Norwegian Industries (from 2010), the Norwegian Directorate for Education and Training

3.3 Work on referencing and self-certification

The EQF Recommendation recommends that countries establish links between their national qualification systems and the EQF by 2010, especially by referencing – in a transparent manner – their qualification levels to the EQF's levels. In most countries, the process is delayed in relation to the goal of 2010. It was also recommended that the countries establish a national coordination point.

National coordination point for the EQF (NCP)

In June 2010, a national coordination point was established in NOKUT that will fill the role of NCP. The national coordination point shall provide support and contribute to quality and transparency of the link between the national framework and the European Qualifications Framework for Lifelong Learning, as well as providing guidance on and information about the national qualifications framework. In addition, the NCP will play a key role in the process of establishing references between the levels in the national (NQF) and the European framework (EQF). In Norway, the Ministry has been assigned main responsibility for the actual referencing process. NOKUT is now the national coordination point for the qualifications framework.

Self-certification in the Bologna Process

As part of the Bologna Process, it became necessary to introduce a system for the certification of different national qualifications frameworks at the European level. Approval is given at the European level for correspondence, or at least communication, between the individual national qualifications frameworks for higher education and the overarching framework of qualifications for the European higher education area. The bodies involved in the Bologna Process believed that it would be time-consuming if a European body or group was given the task of certifying the national frameworks, and a system of self-certification was therefore chosen. A system was created whereby the countries evaluate their own systems to substantiate that they are in accordance with the overarching qualifications framework. Guidelines have been prepared for such self-certification; see Appendix 1.

The original timeframe for self-certification stated that all the countries' national qualifications frameworks for higher education would be self-certified by 2010. The deadline has been postponed because, among other things, the introduction of the national frameworks is taking longer than first expected. All countries must now have completed their self-certification by 2012.

In both the Bologna Process and the EU system, it has been decided that self-certification in accordance with the Bologna guidelines will be valid as a referencing process for the higher education part of the qualifications framework in the EU system, and vice versa. This has probably resulted in some countries choosing to postpone self-certification in the Bologna Process. The countries that have chosen to prepare qualifications frameworks for the entire education system, i.e. the entire EU/EEA, have in many cases chosen to put the self-certification process on hold until the whole framework can be referenced in accordance with the guidelines in the EQF Recommendation.

Carrying out the referencing process

The referencing process started in February 2011 based on the proposed qualifications framework. Responsibility for coordinating the process was assigned to a working group (the referencing group) under the Ministry's NQF project. The group also drew up a proposal for the Norwegian self-certification report. The group consisted of representatives of the authorities and affected parties, as well as national and international experts.

The referencing group began by organising a conference at which all the affected stakeholders

were represented. The purpose was to clarify the process and the goals of the referencing.

In spring 2011, the University of Oslo was given the task of carrying out a technical review of the learning outcome descriptors in the Norwegian qualifications framework, compared with those of the EQF. The report from the technical review was discussed at a consultation conference in June 2011. Together with the consultation submissions on the NQF document, it forms the basis for the national referencing report that was prepared by the referencing group. The purpose of the consultation conference was to give all affected parties an opportunity to provide input on how the qualifications in the NQF were to be linked to the EQF. The University of Oslo has also carried out a technical review as a basis for the self-certification report.

The Ministry of Education and Research will build on this report in its referencing to the EQF in the EQF Advisory Group. The purpose of the reference is to make it clear that the work meets the international criteria that have been drawn up for referencing between national qualifications systems and the EQF.

The criteria for the referencing process and the self-certification process are set out in Appendix 1.

The referencing report was written in English, out of consideration for the international experts who were involved in the work and because it was to be further considered by the EQF's international bodies.

4 The structure of the qualifications framework (overarching)

4.1 The elements of the framework document

The NQF is an overarching framework that does not contain subject-specific learning outcome descriptors. Such descriptions will still be contained in subject curricula, education plans, programme descriptions and national curricula. The level descriptors in the qualifications framework are divided into three parts: For each level, the knowledge, skills and general competence that must be achieved at this level are described. Furthermore, the degrees and titles, diplomas, craft/journeyman's certificates and certificates of competence that are linked to the different levels will be described.

Appendix 2 includes an overview of the terminology that is used in the qualifications framework. Emphasis has been placed on using Norwegian terms that correspond to the terms used in international documents, for example the EU's decision on the EQF.

4.2 More details about the level structure

Number of levels

The EQF contains eight levels, and the overarching framework of qualifications for the European higher education area contains three levels, with the possibility of intermediate qualification levels. Some countries have based their national frameworks directly on the EQF levels, which mean that these frameworks are directly linked to the EQF, level by level. Norway considered this, but noted that many other countries have chosen to describe their own system, regardless of the number of levels. Some have more and some have fewer levels than the EQF. The Norwegian education and training system, with pertaining legislation, was used as the basis for the number of levels. In this way, the qualifications framework will work better in the national context. The connection between the Norwegian and the two European qualification frameworks is attended to through the referencing process and the self-certification process.

The Norwegian framework consists of seven levels. Level 1 has been kept open in order to make the system easier to understand in relation to the EQF. This level is not described, and no qualifications are placed here. Therefore, the national qualifications framework starts with Level 2: Competence from primary/lower secondary school.

Level 3 is partially completed upper secondary education and training, Level 4 is completed upper secondary education and training, Level 5 is completed tertiary vocational education, Level 6 is the first cycle of higher education (bachelor), Level 7 is the second cycle of higher education (master) and Level 8 is the third cycle (PhD). The qualification ‘university college graduate’ is described as an intermediate level in Level 6.

The top three levels relate to the three upper levels in the overarching framework of qualifications for the European higher education area and the three upper levels of the EQF.

Principles for the placing of qualifications at a level

The following principles form the basis for the placement of qualifications:

Learning outcome more important than length of education

The Ministry has followed the principle that forms the basis for the whole EQF, namely that placement at a level is primarily based on the *learning outcome* for the individual qualifications and not on the length of the education. As a consequence, qualifications of varying length and scope are placed at the same level. This is due to the fact that the learning outcomes of the different qualifications are assessed as being equal.

While developing a qualifications framework for higher education, the starting point was a wish for a framework that was as simple as possible, with as few levels as possible. The explicit preference was to maintain a framework of three main levels. The principle and point of departure was that very weighty reasons would have to exist in order to either expand the number of levels over and above the three main levels or to develop separate learning outcome descriptors for other qualifications. In principle, all qualifications in higher education were to be placed at one of the three main levels. The result is that, at Level 6 Bachelor (1st cycle), bachelor degrees of varying length are placed at the same level, i.e. four-year bachelor degrees performing arts) and three-year bachelor degrees, as well as the four-year primary teacher education and subject teacher training. It will be clear from the programme descriptions that the degrees differ from each other in terms of their scope.

Prevent inflation in the number of levels and placement at too high a level

In all countries that have worked on qualifications frameworks, there has been an inherent tendency towards inflation in the system, meaning a tendency to increase the total number of levels in the framework, based on groups arguing that their qualifications are so different from others that they require a separate level, and a tendency for everyone to want their qualifications to be placed at the highest possible level. The Ministry would like to emphasise that the most important thing is that a qualification is placed at the *correct* level, not as high level as possible. It is not expedient for a qualification to be placed at a level where it does not belong, and if the expectations of the competence a candidate with this qualification has, for example on the part of an employer, do not match what the employer actually gets because of unrealistic expectations of the learning outcome of the qualification. That would be damaging to a qualification’s reputation. In addition, placement at the incorrect level can also weaken trust in our qualifications framework and the education and training system abroad.

The level descriptors are intended to fit all subject areas

The learning outcome descriptors for a level are general and overarching because they are

intended to fit all qualifications at the given level, regardless of the subject area. As a result, the learning outcome for some qualifications may include knowledge or skills that are at a higher level than the level at which the qualification as a whole is placed. The fact that individual elements of the learning outcome are at a higher level does not necessarily mean that the qualification should be placed at a higher level; it is the *total* learning outcome that decides the level at which the qualification is placed. In the European context, people talk about the ‘best fit’ (best possible correspondence), i.e. they acknowledge that it is sometimes the case that not all parts of the learning outcome are at the same level, but that the total learning outcome means that the qualification should be placed at the given level.

4.3 More about levels 4, 5 and 6

Parallel learning outcome descriptors at Level 4

The EQF descriptors are generic at each level, with descriptions that do not distinguish between competence achieved through studies and competence achieved through vocational training. This is done to include the wide variation that exists in European education systems. Norwegian upper secondary education is clearly divided between programmes for general studies (qualifying for entrance to higher education) and vocational study programmes. The Ministry has therefore drawn up separate learning outcome descriptors for general studies and vocational qualifications. The learning outcome descriptors are worded so that both are placed at the same level in the national qualifications framework and can thereby be referenced to the same EQF level.

Two learning outcome descriptors for completed and passed tertiary vocational education

Tertiary vocational education in Norway builds on completed upper secondary education, both general studies qualifying for higher education and vocational programmes, or corresponding prior learning. This means that tertiary vocational education can be based on both sets of learning outcome descriptors from upper secondary education.

The Ministry has adopted two sets of learning outcome descriptors for tertiary vocational education, called Tertiary Vocational Training 1 and Tertiary Vocational Training 2. Tertiary Vocational Training 2 is based on two-year tertiary vocational education programmes, while Tertiary Vocational Training 1 is based on shorter tertiary vocational education programmes. The descriptors are cumulative and must therefore be read in conjunction with each other. Consequently, where no new descriptions exist for Tertiary Vocational Training 2, it is the Tertiary Vocational Training 1 descriptors that must be used. In other systems, Tertiary Vocational Training 2 is a supplement to Tertiary Vocational Training 1.

The reason for proposing more than one set of descriptors is that tertiary vocational education programmes vary greatly:

- Programmes of different length are available: 6 months, 1 year, 1 1/2 years and 2 years.
- Some tertiary vocational programmes are organised as one-plus-one models, i.e. that recognition has been granted for a one-year study programme that can be extended to a two-year programme (e.g. art subjects, maritime education, the Salvation Army’s Officer Training College).
- Some private tertiary vocational programmes conclude and offer a resit possibility every semester.
- Other tertiary vocational programmes are an indivisible unit.

There are also differences with regard to whether the programmes explore their subject areas in breadth or in depth.

Intermediate level, first cycle of higher education

The overarching qualifications framework for the European higher education area was adopted at the ministerial meeting in connection with the Bologna Process in Bergen in 2005.

The ministers agreed that shorter degrees would not be defined as a separate qualifications level in European higher education, but that the countries can have ‘intermediate qualifications’ within each of the three main levels (bachelor, master, PhD). Consequently, there can be programmes in the qualifications framework that belong to a level without representing completion of that level, an ‘intermediate qualification’. In Norwegian higher education, the degree ‘university college graduate’ is an example of such an intermediate level: the programme is taught at bachelor level, but does not represent completion of the level. As a result, the university college graduate degree represents an intermediate level within the bachelor level (first cycle) in the qualifications framework for higher education, not a separate level. For higher education, the Ministry has decided to maintain a framework of three levels; bachelor (first cycle), master (second cycle) and PhD (third cycle).

5 The level descriptors

5.1 Description of the levels in the NQF: knowledge, skills and general competence

In line with international recommendations and experience, the level descriptors in this chapter are divided into knowledge, skills and general competence. The EQF uses the term ‘competence’. This is a term that is understood differently from one country to the next, and several countries have therefore chosen their own designation. England, for example, has called this element ‘independence and responsibility’. Sweden points out that the word ‘*kompetanse*’ (‘competence’) does not mean the same in Sweden as it does internationally. Nor would the word ‘*kompetanse*’ alone express the intention behind this learning outcome descriptor in Norway. In the work on developing the national qualifications framework for higher education, the term ‘*generell kompetanse*’ (‘general competence’) was used as a heading for this category of learning outcome descriptors. It was general competence that best fitted the type of interdisciplinary competence that was to be described here. In the work on developing learning outcome descriptors for primary and lower secondary education, it is a term that expresses mastery at a general, overall level that includes both knowledge and skills. As the term general competence is already well-established and seems to be meaningful for other training and education levels as well, the term is also used in the whole national qualifications framework.

The learning outcome descriptors that are used can be summarised as follows:

Knowledge: Knowledge is understanding of theories, facts, concepts, principles and procedures in a discipline, subject area and/or profession.

Skills: The ability to apply knowledge to complete tasks and solve problems. There are different types of skills: cognitive, practical, creative and communicative.

General competence: General competence is the ability to use knowledge and skills in an independent manner in different situations in study and work contexts, by demonstrating the ability to cooperate, the ability to act responsibly, and a capacity for reflection and critical thinking.

5.2 Progression in the NQF

The different levels are intended to represent a progression, although it is not a requirement for all levels that the previous level has been attained. The progression is intended to describe an increasing degree of complexity. This applies to the actual knowledge and skills, and the situation they are to be used in. This also includes expectations with regard to independence, analytical ability, assessment and innovation in the person applying the knowledge and skills. The systematic approach can be visualised through the questions in the following table (adapted from the Danish qualifications framework for lifelong learning, the Danish Ministry of Education 2009):

Tools for level descriptors

Knowledge	Skills	General competence
<p>Types and complexity:</p> <p>Does it involve knowledge about theory or practice? Does it involve knowledge in a discipline, subject area or profession? How complex or extensive is the knowledge?</p>	<p>Types:</p> <p>Does it concern cognitive, practical, creative or communicative skills?</p>	<p>Challenges relating to change:</p> <p>In what type of work or educational contexts can the knowledge and skills be used? To what extent is the person in question able to deal with changes and unpredictable situations?</p>
<p>Understanding:</p> <p>To what extent can the person in question place the knowledge in a context?</p>	<p>Task-solving:</p> <p>How complex are the tasks that can be managed at this level, for example with regard to assessing and applying knowledge?</p>	<p>Cooperation and responsibility:</p> <p>To what extent can the person in question take responsibility for their own work and that of others? To what degree is the person able to participate in complex situations of cooperation?</p>
	<p>Communication:</p> <p>What target groups can the person in question communicate with, at what level and complexity and using what tools?</p>	<p>Learning:</p> <p>To what extent can the person in question take responsibility for their own learning and further development of their competence?</p>

The progression in the NQF should be read both horizontally and vertically. Vertical progression is understood as progression between the levels within each of the categories of knowledge, skills and general competence. One example of progression from the learning outcome description at Level 2 under knowledge: ‘is familiar with different educational choices and occupations’, to Level 3: ‘has an understanding of his/her own educational and work opportunities’ etc. Horizontal progression is, for example, when something that is described as knowledge or skills at one level can be so internalised at a different level that it is described as general competence. An example of a horizontal reading of progression is the following learning outcome description at Level 7 under skills: ‘can carry out an independent, limited research or development project under supervision and in accordance with applicable norms for research ethics’. This skill is developed into general competence at Level 8 under the description ‘can manage complex interdisciplinary assignments and projects’. Another example of a horizontal reading of progression in the NQF is found under knowledge at Level 2 and skills at Level 4. Under knowledge at Level 2, it says that the candidate ‘has a basic knowledge about the use of sources, about how information can be obtained, documented, assessed and applied’. This knowledge is further developed into a skill at Level 4. Here, the candidate can ‘analyse and assess different types of sources of relevance to his/her own work’/ ‘analyse and assess different types of sources’.

5.3 Tabular presentation of the Norwegian Qualifications Framework (NQF)

Level/ Typical education	KNOWLEDGE An understanding of theories, facts, principles, procedures in subject areas and/or occupations	SKILLS The ability to utilise knowledge to solve problems or tasks (cognitive, practical, creative and communication skills)	GENERAL COMPETENCE The ability to utilise knowledge and skills in an independent manner in different situations
(Level 1: Open) No qualifications enrolled at this level. The level is not part of the NQF.	No learning outcome descriptors	No learning outcome descriptors	No learning outcome descriptors
Level 2: Competence from primary/lower secondary school	<i>The candidate...</i> <ul style="list-style-type: none"> • has a basic knowledge of important facts and concepts in and across subjects • has knowledge of fundamental political, social, cultural and environmental conditions • has a basic knowledge about the use of sources, about how information can be obtained, documented, assessed and applied • has a basic understanding of learning how to learn • is familiar with different educational choices and occupations 	<i>The candidate...</i> <ul style="list-style-type: none"> • can express him/herself verbally and in writing, read, is numerate and can use digital tools in the school work context • can present topics in Norwegian/Sami and at least one foreign language • can use experience, creativity and exploratory work methods to acquire new knowledge • can use practical-aesthetical work methods in several subject areas • can reflect on his/her own participation in different media 	<i>The candidate...</i> <ul style="list-style-type: none"> • can make use of his/her knowledge and experience to participate in a democratic and inclusive society • can cooperate with others in both the work/school and social context • can discuss and assess others and his/her own school work under supervision • can make independent choices, state the reasons for them and act on the basis of them

<p>Level 3: Partially completed upper secondary education and training</p>	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • has knowledge of important facts and concepts in his/her own subject/subject area • has knowledge of work methods, procedures and tools in one or more limited subjects/subject areas • is aware of relevant regulations and quality requirements • has an understanding of his/her own educational and work opportunities 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can communicate and express him/herself in his/her own subject/subject area • can use relevant technology to solve subject-specific tasks • can receive and follow instructions and carry out specific tasks within the subject area • can be creative when carrying out tasks • can search for and use information from different sources to further his/her development in relation to future work and/or education 	<ul style="list-style-type: none"> • can cooperate with others in the performance of work and utilise relevant skills and knowledge • can initiate and carry out limited tasks • can seek and accept guidance in relation to concrete tasks and own vocational development
<p>Level 4A: Completed upper secondary vocational education – Subject-related skills and vocational competence</p>	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • has knowledge of relevant concepts, models and principles in the subject area • has knowledge of, and has an overview of materials, equipment and work methods, and can give reasons for his/her choices • has the experience-based knowledge required to practise in the vocational field 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can systematise, present and report on planned and completed work • can carry out calculations and assess consequences • can solve vocational challenges in a critical and creative manner, alone or in cooperation with others 	<p><i>The candidate....</i></p> <ul style="list-style-type: none"> • can use his/her own vocational competence in new and complex contexts • can work independently and take responsibility for ensuring that work is carried out with the required craftsmanship and in accordance with legislation, regulations and established ethical standards in the trade/field in question

	<ul style="list-style-type: none"> • has insight into the importance and historical development of the trade/occupation in a societal perspective • has knowledge of relevant regulations, standards, agreements and quality requirements • has knowledge of different learning strategies and can utilise them in his/her own learning • has an understanding of his/her own educational and work opportunities 	<ul style="list-style-type: none"> • can use relevant concepts, principles, materials and equipment in his/her work • can communicate in at least one foreign language • can assess and choose work methods for solving subject-specific tasks • can be creative when planning and performing work • can carry out work in accordance with the applicable regulations, standards, agreements and quality requirements • can analyse and assess different types of sources of relevance to his/her own work 	<ul style="list-style-type: none"> • can cooperate and communicate with colleagues, customers and/or users when carrying out his/her work • can guide others in their work • can document and assess others' work and own work in connection with planning, organising, work performance and results • can reflect on his/her own vocational competence as the basis for future choices • can initiate tasks and activities that promote his/her own learning and development
<p>Level 4B: Completed upper secondary school – higher education entrance requirement</p>	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • has knowledge of important facts, concepts, theories, principles and methods in different subjects • has the experience-based knowledge required to practise different subjects • has insight into how academic issues relate to society as a whole 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can express him/herself verbally and in writing in different academic contexts • can read, is numerate and can use digital tools and media to solve academic challenges in a critical and creative manner, alone or in cooperation with others 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can use his/her own academic competence in new and complex contexts • can plan and organise work, independently and in cooperation with others • can use his/her academic knowledge and skills to develop knowledge together with others

	<ul style="list-style-type: none"> • has knowledge of different learning strategies and can apply them in his/her own learning • has an understanding of his/her own educational and work opportunities 	<ul style="list-style-type: none"> • can use academic terminology in communication and cooperation • can communicate in at least two foreign languages • can apply relevant methods, principles and strategies to solve subject-specific tasks • can explore, analyse, formulate and discuss different issues • can analyse and assess different types of sources 	<ul style="list-style-type: none"> • can guide others to a certain extent in academic situations • can assess the quality of and take responsibility for the results of his/her own and joint work • can reflect on his/her own academic competence as the basis for future choices
<p>Level 5: Tertiary vocational training 1</p>	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • has knowledge of concepts, processes and tools that are used in a specialised field of work • has insight into relevant regulations, standards, agreements and quality requirements • has a knowledge of the industry and is familiar with the field of work • can update his/her vocational knowledge • understands the importance of his/her own trade/discipline in a societal and value-creation perspective 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can apply vocational knowledge to practical and theoretical problems • masters relevant vocational tools, materials, techniques and styles • can find information and material that is relevant to a vocational problem • can study a situation and identify subject-related issues and what measures need to be implemented 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • understands the ethical principles that apply in the trade/ field of work • has developed an ethical attitude in relation to the practising of his/her discipline • can carry out work based on the needs of selected target groups • can build relations with his/her peers, also across discipline boundaries, and with external target groups • can develop work methods, products and/or services of relevance to practising the discipline

<p>Level 5: Tertiary vocational training 2</p>	<p><i>The candidate.</i></p> <ul style="list-style-type: none"> • has knowledge of concepts, theories, models processes and tools that are used in a specialised field of work • can assess his/her own work in relation to the applicable norms and requirements • is familiar with the history, traditions, distinctive nature and place in society of the trade/discipline • has insight into his/her own opportunities for development 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can explain his/her vocational choices • can reflect over his/her own vocational practice and adjust it under supervision • can find and refer to information and vocational material and assess its relevance to a vocational issue 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can plan and carry out vocational tasks and projects alone or as part of a group and in accordance with ethical requirements and principles • can exchange points of view with others with a background in the trade/discipline and participate in discussions about the development of good practice • can contribute to organisational development
<p>Level 6 (part of Bachelor): Higher education of shorter duration: A candidate who has completed his or her qualification should have the following learning outcomes defined in terms of knowledge, skills and general competence:</p>	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • has knowledge of important topics, theories, problems, processes, tools and methods in the subject area • is familiar with research and development work in the field • can update his/her knowledge in the subject area • is familiar with the subject area's history, traditions, distinctive nature and place in society 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can apply academic knowledge to practical and theoretical problems and explain his/her choices • can reflect on his/her own academic practice and adjust it under supervision • can find, assess and refer to information and academic material and relate it to an issue • masters relevant academic tools, techniques and styles 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • has insight into relevant ethical issues relating to the field/ profession • can plan and carry out tasks and projects alone or as part of a group and in accordance with ethical requirements and principles • can present important academic material such as theories, problems and solutions, both in writing and orally, as well as using other relevant forms of communication • can exchange opinions with others with a background in the field and participate in discussions concerning the development of good practice • is familiar with new ideas and innovative processes

<p>Level 6 Bachelor (1. cycle)</p> <p>A candidate who has completed his or her qualification should have the following learning outcomes defined in terms of knowledge, skills and general competence:</p>	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • has broad knowledge of important topics, theories, issues, processes, tools and methods within the academic field • is familiar with research and development work in the field • can update his/her knowledge in the field • has knowledge of the history, traditions, distinctive character and place in society of the academic field 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can apply academic knowledge and relevant results of research and development work to practical and theoretical problems and make well-founded choices • can reflect upon his/her own academic practice and adjust it under supervision • can find, evaluate and refer to information and scholarly subject matter and present it in a manner that sheds light on the problem • masters relevant scholarly tools, techniques and forms of communication 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • has insight into relevant academic and professional ethical issues • can plan and carry out varied assignments and projects over time, alone or as part of a group, and in accordance with ethical requirements and principles • can communicate important academic subject matters such as theories, problems and solutions, both in writing and orally, as well as through other relevant forms of communication • can exchange opinions and experiences with others with a background in the field, thereby contributing to the development of good practice • is familiar with new thinking and innovation processes
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<p>Level 7: Master (2. cycle)</p> <p>A candidate who has completed his or her qualification should have the following learning outcomes defined in terms of knowledge, skills and general competence:</p>	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • has advanced knowledge within the academic field and specialized insight in a limited area • has thorough knowledge of the scholarly or artistic theories and methods in the field • can apply knowledge to new areas within the academic field • can analyze academic problems on the basis of the history, traditions, distinctive character and place in society of the academic field 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can analyze and deal critically with various sources of information and use them to structure and formulate scholarly arguments • can analyze existing theories, methods and interpretations in the field and work independently on practical and theoretical problems • can use relevant methods for research and scholarly and /or artistic development work in an independent manner • can carry out an independent, limited research or development project under supervision and in accordance with applicable norms for research ethics 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can analyze relevant academic, professional and research ethical problems • can apply his/her knowledge and skills in new areas in order to carry out advanced assignments and projects • can communicate extensive independent work and masters language and terminology of the academic field • can communicate about academic issues, analyses and conclusions in the field, both with specialists and the general public • can contribute to new thinking and innovation processes
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<p>Level 8: Ph.D. (3. cycle)</p> <p>A candidate who has completed his or her qualification should have the following learning outcomes defined in terms of knowledge, skills and general competence:</p>	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • is in the forefront of knowledge within his/her academic field and masters the field's philosophy of science and/or artistic issues and methods • can evaluate the expediency and application of different methods and processes in research and scholarly and/or artistic development projects • can contribute to the development of new knowledge, new theories, methods, interpretations and forms of documentation in the field 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can formulate problems, plan and carry out research and scholarly and/or artistic development work • can carry out research and scholarly and/or artistic research work of a high international standard • can handle complex academic issues and challenge established knowledge and practice in the field 	<p><i>The candidate...</i></p> <ul style="list-style-type: none"> • can identify new relevant ethical issues and carry out his/her research with scholarly integrity • can manage complex interdisciplinary assignments and projects • can communicate research and development work through recognized Norwegian and international channels • can participate in debates in the field in international forums • can assess the need for, initiate and practice innovation
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Appendix 5 shows a matrix in which the learning outcome descriptors are grouped thematically next to each other in ascending order. The matrix makes it easier to compare the progression in the descriptions from one level to the next.

6 Inclusion of qualifications

6.1 Inclusion in a level in the qualifications framework

One of the goals of the qualifications framework is to enable all new diplomas, craft/journeyman's certificates and certificates of competence that are issued in Norway to be equipped with a clear reference, by way of the national qualifications framework, to the corresponding EQF level. This chapter discusses the issues raised by this, and examples are used to demonstrate a main pattern for what education and training are placed at which levels.

6.2 Inclusion of partial qualifications in the framework

Several countries have provided the option of including partial qualifications in their framework. In Denmark, they are described as supplementary qualifications. Ireland uses the term 'Supplemental Awards'. They can come in addition to the qualification at the given level, but will not in themselves confer the qualification described. Many supplementary qualifications can be assessed together and, if relevant, be added together to make up a full qualification. At present, other countries conclude that there is no basis for creating such a system.

It has been discussed whether the Norwegian qualifications framework should also encompass such a system. In higher education, the system of credits makes it possible to add partial competences to constitute a completed course or degree. The introduction of credits in tertiary vocational education in 2013 means that this is also applicable for tertiary vocational education. However, at other levels, tools need to be developed to produce better descriptions of scope. Thus, the introduction of such a system has not been proposed for the NQF at present. For upper secondary education and training, Level 3 partially completed upper secondary education qualification, will be part of a full qualification.

However, the question should be further discussed. It is assumed that a system for including partial qualifications in the framework would be interesting for many people who have started but not completed a qualification. Among other things, this could apply to adult immigrants who are given mandatory tuition in the Norwegian language and social studies. This could serve to highlight whether they have qualifications over and above their achieved level, and, if relevant, what they lack to achieve a qualification at a higher level.

6.3 Inclusion of new qualifications/competences that are currently not part of the formal education and training system

Only formally approved study programmes were included in the Norwegian qualifications framework at the time of adoption. Therefore, the right to have the EQF level included on diplomas only applies to these programmes. Competence achieved in non-formal and informal learning arenas, such as competence achieved through courses provided by an adult learning association, distance learning, in-house training and other competence achieved through employment, is not directly placed in the framework. This type of competence must be assessed in relation to formal subject curricula, programme descriptions etc. in order to achieve qualifications included in the framework.

In time, the qualifications framework will also have to address the inclusion of competence/courses/training offered by non-formal education providers. This question differs from the discussion about lifelong learning in that it concerns the qualifications framework at system level, not individual recognition. The inclusion of a qualification in the framework applies to a structured provision of education and will not be the same as individual valuation and recognition of competence, neither in relation to other education nor to regulated professions. For individuals, the pathway will still have to go via the education

and training system and, if relevant, a recognition of prior learning. Inclusion in the framework can have a signal effect vis-à-vis both the Norwegian labour market and – through referencing to the EQF – other countries’ frameworks.

Norway already has guidelines and procedures in place for how the need for new qualifications are dealt with by the social partners in connection with vocational education and training. Furthermore, both tertiary vocational education and higher education institutions have incentives for establishing new study programmes or courses when a need for new skills arises. This means that the education and training system – and thereby also the qualifications framework – is flexible and open to meeting new competence needs.

One of the main objectives of the qualifications framework is to strengthen opportunities for lifelong learning. Naturally, many countries that have started developing a framework have wanted to find ways of including competence acquired outside the formal education system.

When the Ministry distributed the adopted qualifications framework for higher education, it touched upon this issue in the cover letter:

‘If a national qualifications framework is adopted for the whole education system, it may be relevant to develop more descriptions and include other qualifications than those provided for in the Act relating to Universities and University Colleges. This could, for example, include degrees and professional training that can no longer be awarded (as Ireland has done), various specialisations (such as for medical practitioners and dentists) and further education that does not lead to a degree. If, how, and when the qualifications framework can be expanded will depend on the solutions chosen for the other parts of the education system. It is not possible at the present time to estimate a timeframe for such assessments.’

The Ministry believes that the qualifications framework should be opened to include competence that is currently not part of the formal education and training system, and it is studying how this can be done. The committee that is to report on and submit proposals for how education offered outside the formal education and training system can be included in the national qualifications framework will also study guidelines and procedures for such inclusion. The study will be based, among other things, on the guidelines and procedures that currently exist for how new competence is recognised and accredited.

6.4 Inclusion of education programmes in the qualifications framework

Level	Qualification certificate
2	Certificate of primary and lower secondary education
3	Certificate of partially completed upper secondary education and training
4	Certificate of upper secondary education Craft/Trade certificate Journeyman’s certificate
5	Certificate of tertiary vocational education (included in Tertiary Vocational Training 1 or 2)
6	Certificate – university college graduate Certificate for completed teacher training programme (general and primary teacher training) Bachelor’s degree diploma

7	Master's degree diploma Diploma – Master's degree in law Diploma – <i>cand.med.vet</i> Diploma – <i>cand.med.</i> Diploma – <i>cand.psykol.</i> Diploma – <i>cand.theol.</i> Diploma for some English master's degrees (Master of Arts, Master of Laws, MBA etc.)
8	Diploma – PhD Diploma – <i>dr. philos.</i> Diploma – artistic research programme

Most tertiary vocational programmes are placed based on the length of the education. Two-year programmes are placed at Level 5.2, and half-year and one-year programmes are placed at Level 5.1. For 1 1/2-year programmes, NOKUT will carry out a targeted expert evaluation of the learning outcome to decide the level at which they are to be placed.

6.5 Direct reference to the EQF and the Bologna Framework

The EQF Recommendation states that, in the course of 2012, the countries shall ensure that all new 'certificates, diplomas and Europass documents' issued by a competent body contain a clear reference to the appropriate EQF level. For Norway, this means that individual certificates/diplomas, craft and journeyman's certificates and certificates of competence shall include such a direct reference. This will come in addition to certificate supplements, diploma supplements and similar arrangements that Norway has already introduced.

Work on this cannot start until clear references have been established between the Norwegian qualifications framework and the EQF. This will require extensive administrative and technical development work. As soon as it is possible to do so, Norway aims to follow up the Recommendation. The reference to the level in the Bologna Framework will be shown in the diploma supplement.

7 Quality assurance of the NQF

Quality assurance of the Norwegian Qualifications Framework takes place partly on its establishment and partly through maintenance and further development of the framework. The procedures must fully reflect the official nature of the qualifications framework.

In connection with the establishment of the qualifications framework, the most important quality assurance elements are as follows:

- The development of the Norwegian Qualifications Framework was based directly on the educational qualifications it is intended to describe. The process took place in close contact with the competent educational authorities, including authorities that are responsible for the quality assurance of the respective educational levels. The link between the overarching framework and the learning outcome for the individual educational levels is verifiable and transparent. All study programmes that form the basis for the descriptors are subject to continuous external and internal quality assurance.
- The principles for inclusion of different education have been explained. The inclusion has been approved by the respective authorities.
- The qualifications framework has been developed in consultation with stakeholders and affected institutions and organisations, both through the established reference group and through consultation processes.

Future maintenance and further development of the qualifications framework:

The NQF can be influenced by several factors: The qualifications described can change as a result of changes in society, the labour market and the education and training system. A need may arise for new qualifications/qualification levels. In addition, it may become necessary to include new offers of education in the adopted qualification system or to change the placement of individual qualifications within the framework.

- Responsibility for the process must be clearly assigned. Until further notice, the Ministry of Education and Research will be responsible for taking initiatives and for the quality assurance of the processes. As the highest body responsible for the education and training system, the Ministry of Education and Research will have power of decision.
- Systems for consulting the social partners and other affected groups will be continued.
- A system should be established for carrying out independent, regular evaluations of the work. The first evaluation can take place within six years of the adoption of the framework.
- More extensive changes – such as the need for new levels – should follow a process in accordance with to the one implemented when the framework was established. Changes in the number of levels will also trigger a new referencing process.
- If the inclusion of new qualifications is demanded, the quality assurance will follow the recognition procedures set out in educational legislation.

8 Bridges to lifelong learning and prior learning.

The names of both the EQF and the NQF are directly linked to lifelong learning. An important perspective, also in the work on developing national qualifications frameworks, is making all learning that takes place throughout life visible and valued, regardless of where the learning takes place.

The EQF Recommendation contains several references to lifelong learning in general and to the validation of non-formal and informal learning in particular. The EQF memo ‘Added value of national qualifications frameworks in implementing the EQF’ states:

‘The new frameworks are...often linked to lifelong learning strategies and are also in many cases open to the learning taking place outside formal education and training, at work and in leisure.’

In Norway, the term lifelong learning entails strengthening the connection and transition between the different parts of the education and training system, as well as between the education and training system, society and the labour market. The Ministry of Education and Research is working in several ways on how lifelong learning can be achieved for individuals, at the same time as society is ensured good access to the competence it needs at all times. Important areas in the work on lifelong learning include:

- strengthening basic skills
- developing good systems for the documentation, assessment and recognition of prior learning
- strengthening educational and career guidance
- facilitating lifelong learning
- facilitating learning in the workplace

Documentation, assessment and recognition of prior learning are among the most important

means of facilitating lifelong learning for adults. The right to recognition of prior learning is provided for in the Education Act, the Tertiary Vocational Education Act and the Act relating to Universities and University Colleges. Prior learning is assessed in relation to existing subject curricula for primary and lower secondary school, upper secondary education, education plans for tertiary vocational education and national curricula and programme descriptions for higher education.

The purpose of assessing prior learning for adults is to have their competence documented and validated as the basis for further education or work. Prior learning must be perceived as legitimate by both the education and training system and the labour market. Individuals' prior learning in a discipline cannot be directly included in the NQF, but a recognition of prior learning could lead indirectly to a shorter pathway to the completion of an education included in the NQF.

The transition to learning outcome descriptors increases the possibility of assessing the equivalence of competence acquired outside the regular education system. There are currently no common guidelines or methods for documenting and recognising prior learning for the different learning arenas. However, in autumn 2013, in cooperation with representatives of tertiary vocational education and universities and university colleges, VOX produced two guides: one on the recognition of prior learning in connection with admission to tertiary vocational education, and one on exemption from parts of higher education based on recognition of prior learning. The education and training system is systemised and organised through subject curricula, programme descriptions and assessment and documentation procedures. In the world of work, there are separate systems for mapping and developing the competences of individual employees. These systems are part of the internal career development plans for each individual employee. Adult learning associations, distance learning institutions and folk high schools are required to issue documentation for completed training on the basis of courses and programmes.

It is challenging to assess whether competence achieved in these sectors is equivalent to the learning outcome descriptors in subject curricula, programme descriptions etc. in the formal education and training system. Developing better tools for describing and assessing learning outcomes will therefore be important in order to ensuring fair and equal treatment in the recognition of prior learning. The goal must be to improve the documentation of such learning with a view to valuing prior learning.

The qualifications framework is neither detailed enough nor subject-specific enough in order to relate competence acquired through work or in the third sector directly to the framework. Therefore, it is not possible to establish a direct link between individuals' prior learning and a general qualifications framework. On the other hand, competence acquired by the individual can be linked to the framework through recognition of prior learning, as shown below.

Level/ typical education	Lifelong learning Recognition of prior learning
Level 2 Competence from primary and lower secondary school	Subject curricula for completed lower secondary school are used as the reference for the assessment and, if applicable, recognition of prior learning
Level 3 Partially completed upper secondary education and training	Subject curricula for upper secondary school subjects are used as the reference for the assessment and, if applicable, recognition of prior learning

Level 4 Completed upper secondary education for vocational education and training /Higher education entrance requirement	Subject curricula for upper secondary school subjects are used as the reference for the assessment and, if applicable, recognition of prior learning.
Level 5 Tertiary vocational training	Programme descriptions for tertiary vocational education are used as the reference for the description and recognition of lifelong and prior learning.
Level 6 University college graduate (intermediate level)/ Primary teacher training/ Bachelor (First cycle)	Programme descriptions for university college graduate degrees or bachelor degrees etc. are used as the reference for the description and recognition of lifelong and prior learning.
Level 7 Master (Second cycle)	Programme descriptions for master's degrees etc. are used as the reference for the description and recognition of lifelong and prior learning.
Level 8 PhD (3rd cycle)	Programme descriptions for PhD degrees etc. are used as the reference for the description and recognition of lifelong and prior learning.

The qualifications framework can contribute to:

- learning outcome descriptors becoming a general principle for the development of subject curricula and programme descriptions, forming the basis for the valuing of competence from the formal education and training system, the labour market and civil society;
- learning outcome descriptors in the form of knowledge, skills and general competence providing useful information about the levels in the qualification framework;
- learning outcome descriptors forming the basis for developing better and more adapted forms of assessment, as well as methods and practices for documenting competence. This can contribute to equal and fair assessment.
- coherent use of terminology and language, making it easier to interpret what different forms of competence entail;
- shifting attention from systems and procedures to contents and learning outcomes.

On this basis, the Ministry will give priority to improving the possibilities provided for by the qualifications framework in a lifelong learning perspective.

9 Legal status and consequences

The EQF Recommendation was incorporated into the EEA Agreement on 17 March 2009. The Recommendation is a non-binding legislative act. The Recommendation requests the participating countries to link their national qualifications systems to the EQF, and to ensure that all new qualification certificates, diplomas and Europass documents contain a clear reference to the EQF via national qualifications systems.

Implementation of the EQF Recommendation in Norwegian law

By incorporating the EQF Recommendation into the EEA Agreement, Norway has decided to 'seek to strengthen cooperation' within the framework of the Recommendation. This means

that we are relatively free to choose which legal status the national qualifications framework and referencing report shall have.

Adopting the framework in the form of regulations means that the framework has a strong legal status, and that it is perceived as predictable, visible and available through its publication on the *Lovdata* website. Giving the framework the status of regulations will help to ensure good procedures for participation in the event of any future amendments to the framework.

The NQF is a coherent, cumulative presentation of the qualification levels in the Norwegian education and training system. The Ministry aims to issue separate regulations for the overarching national qualifications framework. Legal authority for the framework is also provided for in all the education acts (the Education Act, the Tertiary Vocational Education Act and the Act relating to Universities and University Colleges).

Referencing from the NQF to the EQF – legal implications

The concrete referencing of NQF levels to EQF levels is vital to understanding the NQF. The need for predictability, visibility and availability is therefore equally strong in this context as for the national qualifications framework. The same considerations that favour giving the NQF the status of regulations also indicate that the referencing should be in the form of regulations.

Legal authority for linking the NQF to the EQF

All diplomas, craft/journeyman's certificates and certificates of competence issued by approved authorities must refer to the NQF/EQF. This entails new obligations. The referencing to the EQF can be formulated as a *duty* for the issuer of the diploma/certificate. It is primarily the central government authorities that must ensure that the regulatory requirements are met. The legal provision should be worded so that it also encompasses future needs for legal authority generated by these processes. It should therefore be worded in a general manner, for example in a way that authorises the Ministry to issue regulations on the design of qualification certificates and diplomas and that national authorities ensure that there is legal authority for referencing Norwegian qualifications to the European framework. In such case, this can take place by expanding the present legal authority provided for in the sector legislation.

The Norwegian referencing process will be concluded in 2014. Formal adoption will thus not be relevant until later in 2014. Consequently, we do not need to make a decision on legal authority until then, at which point we will know more about what other countries have decided to do.

10 Implementation, administrative responsibility, administrative and financial consequences

10.1 Implementation and administrative responsibility

The national qualifications framework will be issued as regulations, which will enter into force as soon as possible. Responsibility for national coordination of further work will rest with the Ministry of Education and Research.

Some countries have established dedicated bodies that are responsible for work on qualifications systems. That is not seen as very relevant in Norway, where responsibility and cooperation patterns are already well established in the education field. The respective competent authorities and bodies will have responsibility in their fields, and coordination can take place in the Ministry. The expediency of this form of organisation may be included in

the evaluation that has been announced.

The Norwegian Agency for Quality Assurance in Education (NOKUT) is the national coordination point (NCP) for the EQF. The coordination point is tasked with providing information about the NQF at the national and international level, and about how it is linked to the EQF. In fields where NOKUT lacks expertise, it will collaborate with relevant national authorities. NOKUT is responsible for the official website about the NQF.

A national database will be established for the qualifications framework. The plan is that it will be linked to the European portal that is being established. The Ministry will ask a suitable body to operate this database and to maintain contact with the European portal.

10.2 Administrative and financial consequences

NOKUT has received funding to attend to its duties as national coordination point. Once we are in the operating phase, the need for resources will be reviewed again.

Establishing and operating a database can take place as part of the Ministry's day-to-day work on developing ICT solutions for information about the education and training system. Endeavours will be made to achieve synergies with other EU/EEA information tools, if possible.

Day-to-day work on the NQF is expected to take place within the framework of programme area 07.

With time, the establishment of the NQF, and the fact that it will become easier to compare qualifications between different countries, is expected to lead to simplification and savings for employers as users of the qualifications, and for the educational institutions.

Appendix 1

Criteria and procedures for referencing national levels of qualification to the EQF

1. The responsibilities and/or legal competence of all relevant national bodies involved in the referencing process, including the National Coordination Point, are clearly determined and published by the competent public authorities.
2. There is a clear and demonstrable link between the qualifications levels in the national qualifications framework or system and the level descriptors of the European Qualifications Framework.
3. The national framework or qualifications system and its qualifications are based on the principle and objective of learning outcomes and linked to arrangements for validation of non-formal and informal learning and, where these exist, to credit systems.
4. The procedures for inclusion of qualifications in the national qualifications framework or for describing the place of qualifications in the national qualification system are transparent.
5. The national quality assurance system(s) for education and training refer(s) to the national qualifications framework or system and are consistent with the relevant European principles and guidelines (as indicated in annex 3 of the Recommendation).
6. The referencing process shall include the stated agreement of the relevant quality assurance bodies.
7. The referencing process shall involve international experts.
8. The competent national body or bodies shall certify the referencing of the national framework or system with the EQF. One comprehensive report, setting out the referencing and the evidence supporting it shall be published by the competent national bodies, including the National Coordination Point, and shall address separately each of the criteria.
9. The official EQF platform shall maintain a public listing of member states that have confirmed that they have completed the referencing process, including links to completed referencing reports.
10. Following the referencing process, and in line with the timelines set in the Recommendation, all new qualification certificates, diplomas and Europass documents issued by the competent authorities contain a clear reference, by way of national qualifications systems, to the appropriate European Qualifications Framework level.

Criteria for self-certification of the qualifications framework for higher education in relation to the Bologna Framework

- The national framework for higher education qualifications and the body or bodies responsible for its development are designated by the national ministry with responsibility for higher education.
- There is a clear and demonstrable link between the qualifications in the national framework and the cycle qualification descriptors of the European framework.
- The national framework and its qualifications are demonstrably based on learning outcomes and the qualifications are linked to ECTS or ECTS compatible credits.
- The procedures for inclusion of qualifications in the national framework are transparent.
- The national quality assurance system for higher education refer to the national framework of qualifications and are consistent with the Berlin Communiqué and any subsequent communiqué agreed by ministers in the Bologna Process.
- The national framework, and any alignment with the European framework, is referenced in all Diploma Supplements.
- The responsibilities of the domestic parties to the national framework are clearly determined and published.

(Source: General report of the Bologna Follow-Up Group to Bergen Ministerial Conference, 2005)

Appendix 2

Concepts/terms

The following table sets out some terms relating to the qualifications framework and lifelong learning, and a description of the contexts in which the terms and concepts are used and understood in this document. Definitions used in international policy documents have also been included.

The document is structured so that the most important terms are in Table 1, sorted so that related terms are explained in context. Table 2 contains a more extensive glossary and is sorted alphabetically.

TABLE 1

TERM	DESCRIPTION	ENGLISH DEFINITION
Qualifications framework⁴	<p>A qualifications framework is an overall, systematic description of different levels of formal qualifications that can be attained in an education and training system.</p> <p>The framework is a systematic description of levels and the competence achieved for university and university college degrees, vocational education and training, upper secondary education (higher education entrance requirements), competence from primary/lower secondary school and tertiary vocational education.</p> <p>National qualifications frameworks are based on the national education system and show levels, progression and connections to the labour market and civil society.</p>	<p>National qualifications framework means an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society</p>
Sub-framework	<p>A sub-framework is a term used to describe frameworks in the different parts of the sector (primary and lower secondary school, upper secondary school, tertiary vocational education, higher education.)</p>	
Qualification	<p>A qualification is a formal learning outcome at a certain level, approved by a body, which can be documented.</p>	<p>a “qualification” means a formal outcome of an assessment and validation process which is obtained when a competent body</p>

⁴The education and training system and its formal quality and accreditation mechanisms are referred to as a qualifications system. The qualifications framework can serve as one of the characteristics of a qualifications system.

	In Norway, a qualification usually refers to formal competence.	determines that an individual has achieved learning outcomes to given standards.
Lifelong learning	Learning throughout life that results in increased knowledge, skills, competence and/or qualifications.	A learning activity undertaken throughout life, which results in improving knowledge, know-how, skills, competences and/or qualifications for personal, social and/or professional reasons.
Prior learning	All competence achieved through formal, non-formal or informal learning.	
Recognition of prior learning	Recognition of prior learning for admission to study programmes or for shortening of education programmes, performed by a competent body. Responsibility for ensuring that documentation of competence, assessment and recognition are carried out in a responsible manner rests with the municipality, county authority or university/university college. The recognition of prior learning is relevant as a tool for lifelong learning. Non-formal competence and informal competence can be formalised through recognition of prior learning.	
a) non-formal competence	Non-formal competence is the result of <i>organised</i> learning that has taken place in non-formal learning arenas (voluntary sector, teaching in the workplace, private course providers etc.). The training is not subject to official programme descriptions/subject curricula, but is often documented in the form of a course certificate.	a) Non-formal learning: learning which is embedded in planning activities not explicitly designated as learning (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner's point of view.
b) informal competence	Informal competence is the result of <i>non-organised</i> learning that has taken place outside the formal system. The learning activity can be characterised as everyday learning from the different situations a person takes part in through the home, school,	b) Informal learning: learning resulting from daily activities related to work, family or leisure. It is not organized or structured in terms of objectives, time or learning support.

	working life and social participation. Such competence may be documented by individuals through the completion of a document mapping the competence acquired.	Informal learning is in most cases unintentional from the learner's perspective.
Learning outcome	What a person <i>knows</i> and <i>is able to do</i> as a result of a learning process. Learning outcomes are described in the form of <i>knowledge, skills and general competence</i> . The level of the learning outcome depends on the complexity of the knowledge, skills and general competence.	“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.
a) Knowledge	Knowledge is the understanding of theories, facts, concepts, principles and procedures in a discipline, subject area and/or profession.	Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study.
b) Skills	The ability to apply knowledge to complete tasks and solve problems. There are different types of skills – cognitive, practical, creative and communicative skills.	“Skills” means the ability to apply knowledge and use know-how to complete tasks and solve problems.
c) General competence	General competence is the ability to use knowledge and skills in an independent manner in different situations by demonstrating an ability to cooperate, responsibility, an ability for reflection and critical thinking in study and work contexts.	“Competence” means the proven ability to use knowledge, skills and personal, social and/ or methodological abilities, in work or study situations and in professional and personal development.
Referencing levels of qualifications	Linking levels of qualifications in the national qualifications framework to the European Qualifications Framework (EQF).	Referencing levels of qualifications within national qualifications systems to the EQF levels

TABLE 2

Alphabetical list of important terms for the framework and some related terms.

ECTS (European credit transfer and accumulation system) A credit system created as a translation tool for describing the student work load and learning outcome for courses in higher education.

ECVET (European credit system for vocational education and training) a credit system that refers to the learning outcome of vocational education and training.

Course The smallest unit that can be approved and form part of a study programme or tertiary vocational education. The scope of a course is measured in credits or credit points (tertiary vocational education).

Course description The plan for a course: the goals for and content of the course, expected learning outcome, forms of learning and assessment and other compulsory requirements.

Europass A folder of five different documents that are intended to help present skills and qualifications in a simple and transparent manner in Europe.

Formative assessment Continuous assessment that is intended to promote learning.

Skills The ability to apply knowledge to solve problems and complete tasks. There are different types of skills – cognitive, practical, creative and communicative skills.

General competence The ability to use knowledge and skills independently in different situations. Competence also includes demonstrating an ability to cooperate, responsibility, an ability for reflection and critical thinking in study and work contexts.

Referencing of level of qualifications Link between levels of qualifications in the national qualifications framework and the European Qualifications Framework (EQF).

Non-formal competence The result of *organised* learning that has taken place in a non-formal learning arena. The training is not subject to official programme descriptions/subject curricula, but is often documented in the form of a course certificate.

Knowledge An understanding of theories, facts, terms, principles and procedures in a discipline, subject area and/or profession.

Qualification A qualification is a formal learning outcome that is assessed by a competent authority and can be documented.

Lifelong learning Learning throughout life that results in increased knowledge, skills, competence and, if applicable, qualifications.

Life-wide learning A collective term that includes the acquisition of formal competence, non-formal competence and informal competence; learning that takes place in all arenas of life. Life-wide learning is a dimension of lifelong learning.

Curriculum The national curriculum for the Knowledge Promotion in primary and secondary education and training forms the basis and framework for education and training at schools and in enterprises. It consists of a general part, principles for the teaching, subject

curricula and the distribution of subjects and classes for primary and secondary education and training. The national curriculum is adopted as regulations pursuant to the Education Act and is binding for primary and secondary education and training.

Learning outcome What a person *knows and is able to do* as a result of a learning process. Learning outcomes are described in the form of *knowledge, skills and competence*. The level of the learning outcome depends on the complexity of the knowledge, skills and general competence.

Recognition of prior learning A recognition of prior learning for admission to study programmes or for shortening education programmes, performed by a competent body. Responsibility for ensuring that documentation of competence, assessment and recognition are carried out in a responsible manner rests with the county authority, tertiary vocational education institution or university/university college. The recognition of prior learning is relevant as a tool for lifelong learning. Non-formal competence and informal competence can be formalised through recognition of prior learning.

Programme description/national curriculum A comprehensive plan for a study programme in higher education: goals for and contents of the programme, expected learning outcome, sequencing of the programme, learning and assessment methods and other compulsory requirements.

Credits (see also ECTS) A unit of measurement in higher education indicating the nominal length of study, student workload and scope.

Examples:

- University college graduate degree, 120 credits
- Bachelor's degree, 180 credits
- Bachelor's degree, 240 credits (performing and creative programmes in music)
- Master's degree, 60/90/120 credits
- Master's degree, 300 credits
- PhD degree, three years

Summative assessment Assessment on completion of an education programme that is to provide information about a pupil's overall competence in a subject.

Informal competence The result of learning that has taken place in learning arenas outside the formal system, and that is *not organised*. Such competence may be documented by individuals through the completion of a document mapping the competence acquired.

Assessment and exam *For higher education:* Assessment of whether and to what extent a student has achieved the learning outcomes set as the goal for the course or study programme. *For primary and secondary education and training:* An assessment shall express *to what extent* a candidate has achieved the competence aims (expected learning outcome) set out in the curriculum. The assessment is standard-based, i.e. related to competence aims. This means that the assessment is intended to show the candidate's ability to use acquired knowledge and/or performance-related or creative abilities. The candidate's performance is rated with the help of grades. Grades describe *the quality* of a performance in relation to the expected learning outcome; see competence aims in subject curricula.

Appendix 3

European Qualifications Framework for Lifelong Learning – level descriptors

Descriptors defining levels in the European Qualifications Framework (EQF)			
Each of the 8 levels is defined by a set of descriptors indicating the learning outcomes relevant to qualifications at that level in any system of qualifications			
Level	Knowledge	Skills	Competence
	In the context of EQF, knowledge is described as theoretical and factual	In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) and practical (involving manual dexterity and the use of methods, materials, tools and instruments)	In the context of EQF, competence is described in terms of responsibility and autonomy
Level 1	Basic general knowledge	basic skills required to carry out simple tasks	work or study under direct supervision in a structured context
Level 2	Basic factual knowledge of a field of work or study	basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	work or study under supervision with some autonomy
Level 3	Knowledge of facts, principles, processes and general concepts, in a field of work or study	a range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	take responsibility for completion of tasks in work or study; adapt own behavior to circumstances in solving problems
Level 4	Factual and theoretical knowledge in broad contexts within a field of work or study	a range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Level 5 ^[1]	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others

Level 6 ^[2]	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups
Level 7 ^[3]	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research Critical awareness of knowledge issues in a field and at the interface between different fields	specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams
Level 8 ^[4]	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields	the most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice	demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

1. [^](#)The descriptor for the higher education short cycle (within or linked to the first cycle), developed by the Joint Quality Initiative as part of the Bologna process, corresponds to the learning outcomes for EQF level 5.
2. [^](#)The descriptor for the first cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 6.
3. [^](#)The descriptor for the second cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 7.
4. [^](#)The descriptor for the third cycle in the Framework for Qualifications of the European Higher Education Area agreed by the ministers responsible for higher education at their meeting in Bergen in May 2005 in the framework of the Bologna process corresponds to the learning outcomes for EQF level 8.

Appendix 4

The Bergen Communiqué in the Bologna Process (2005, paragraph on qualifications frameworks)

The degree system

We note with satisfaction that the two-cycle degree system is being implemented on a large scale, with more than half of the students being enrolled in it in most countries. However, there are still some obstacles to access between cycles. Furthermore, there is a need for greater dialogue, involving Governments, institutions and social partners, to increase the employability of graduates with bachelor qualifications, including in appropriate posts within the public service.

We adopt the overarching framework for qualifications in the EHEA, comprising three cycles (including, within national contexts, the possibility of intermediate qualifications), generic descriptors for each cycle based on learning outcomes and competences, and credit ranges in the first and second cycles. We commit ourselves to elaborating national frameworks for qualifications compatible with the overarching framework for qualifications in the EHEA by 2010, and to having started work on this by 2007. We ask the Follow-up Group to report on the implementation and further development of the overarching framework.

We underline the importance of ensuring complementarity between the overarching framework for the EHEA and the proposed broader framework for qualifications for lifelong learning encompassing general education as well as vocational education and training as now being developed within the European Union as well as among participating countries. We ask the European Commission fully to consult all parties to the Bologna Process as work progresses.

Appendix 5 Matrix with thematically grouped learning outcome descriptors listed in ascending order

The learning outcomes are organised thematically in order of complexity and progress.

KNOWLEDGE

Competence from primary/lower secondary school	Partially completed upper secondary education	Completed upper secondary vocational education	Completed upper secondary school higher education requirements	Tertiary vocational qualifications 1	Tertiary vocational qualifications 2	Higher education of shorter duration	Bachelor's qualifications	Master's qualifications	Ph.D. qualifications
<i>The candidate...</i> has basic knowledge of important facts and concepts in and across subjects	<i>The candidate...</i> has knowledge of important facts and concepts in his/her own subject/subject area is aware of relevant regulations and quality requirements	<i>The candidate...</i> has knowledge of relevant concepts, models and principles in the subject area has knowledge of relevant regulations, standards, agreements and quality requirements	<i>The candidate...</i> has knowledge of important facts, concepts, theories, principles and methods in different subjects	<i>The candidate...</i> has knowledge of concepts, processes and tools that are used in a specialised field of work has insight into relevant regulations, standards, agreements and quality requirements	<i>The candidate...</i> has knowledge of concepts, theories, models processes and tools that are used in a specialised field of work can assess his/her own work in relation to the applicable norms and requirements	<i>The candidate...</i> has knowledge of important topics, theories, problems, processes, tools and methods in the field	<i>The candidate...</i> has broad knowledge of important topics, theories, issues, processes, tools and methods within the field	<i>The candidate...</i> has advanced knowledge within the academic field and specialized insight in a limited area	<i>The candidate...</i> is in the forefront of knowledge within his/her academic field and masters the field's philosophy of science and/or artistic issues and methods
	has knowledge of work methods, procedures and tools in one or more limited subjects/subject areas	has the experience-based knowledge required to practise in the vocational field has knowledge of , and has an overview of materials, equipment and work methods, and can give reasons for his/her choices	has the experience-based knowledge required to practise different subjects	has knowledge of the industry and is familiar with the field of work		is familiar with research and development work in the field	is familiar with research and development work in the field	has thorough knowledge of the scholarly or artistic theories and methods in the field	can evaluate the expediency and application of different methods and processes in research and scholarly and/or artistic development projects
has basic knowledge about the use of sources, about how information can be obtained, documented, assessed and applied				can update his/her vocational knowledge		can update his/her knowledge in the field	can update his/her knowledge in the field	can apply knowledge to new areas within the academic field	can contribute to the development of new knowledge, new theories, methods, interpretations and forms of documentation in the field
has knowledge of fundamental political, social, cultural and environmental conditions		has insight into the importance and historical development of the trade/occupation in a societal perspective	has insight into how academic issues relate to society as a whole	understands the importance of his/her own trade/discipline in a societal and value-creation perspective	is familiar with the history, traditions, distinctive nature and place in society of the trade/discipline	is familiar with the history, traditions, distinctive nature and place in society of the field	has knowledge of the history, traditions, distinctive character and place in society of the field	can analyze academic problems on the basis of the history, traditions, distinctive character and place in society of the field	
has basic understanding of learning how to learn		has knowledge of different learning strategies and can utilise them in his/her own learning	has knowledge of different learning strategies and can apply them in his/her own learning						
is familiar with different educational choices and occupations	has an understanding of his/her own educational and work opportunities	has an understanding of his/her own educational and work opportunities	has an understanding of his/her own educational and work opportunities		has insight into his/her own opportunities for development				

SKILLS

Competence from primary/lower secondary school	Partially completed upper secondary education	Completed upper secondary vocational education	Completed upper secondary school higher education requirements	Tertiary vocational qualifications 1	Tertiary vocational qualifications 2	Higher education of shorter duration	Bachelor's qualifications	Master's qualifications	Ph.D. qualifications
<i>The candidate...</i> can express him/herself verbally and in writing, read, is numerate and can use digital tools in the school work context	<i>The candidate...</i> can communicate and express him/herself in his/her own subject/subject area	<i>The candidate...</i> can systematise, present and report on planned and completed work can carry out calculations and assess consequences	<i>The candidate...</i> can express him/herself verbally and in writing in different academic contexts can read, is numerate and can use digital tools and media to solve academic challenges in a critical and creative manner, alone or in cooperation with others	<i>The candidate...</i> can apply vocational knowledge to practical and theoretical problems	<i>The candidate...</i> can explain his/her vocational choices	<i>The candidate...</i> can apply academic knowledge to practical and theoretical problems and explain his/her choices	<i>The candidate...</i> can apply academic knowledge and relevant results of research and development work to practical and theoretical problems and make well-founded choices	<i>The candidate...</i> can analyze existing theories, methods and interpretations in the field and work independently on practical and theoretical problems	<i>The candidate...</i> can formulate problems, plan and carry out research and scholarly and/or artistic development work
	can use relevant technology to solve subject-specific tasks	can use relevant concepts, principles, materials and equipment in his/her work can carry out work in accordance with the applicable regulations, standards, agreements and quality requirements	can use academic terminology in communication and cooperation	masters relevant vocational tools, materials, techniques and styles	can reflect over his/her own vocational practice and adjust it under supervision	can reflect on his/her own academic practice and adjust it under supervision	can reflect upon his/her own academic practice and adjust it under supervision	can use relevant methods for research and scholarly and /or artistic development work in an independent manner	can carry out research and scholarly and/or artistic research work of a high international standard
can present topics in Norwegian/Sami and at least one foreign language		can communicate in at least one foreign language	can communicate in at least two foreign languages	can find information and material that is relevant to a vocational problem	can find and refer to information and vocational material and assess its relevance to a vocational issue	can find, assess and refer to information and academic material and relate it to an issue	can find, evaluate and refer to information and scholarly subject matter and present it in a manner that sheds light on the problem	can analyze and deal critically with various sources of information and use them to structure and formulate scholarly arguments	can handle complex academic issues and challenge established knowledge and practice in the field
can use experience, creativity and exploratory work methods to acquire new knowledge	can receive and follow instructions and carry out specific tasks within the subject area	can analyse and assess different types of sources of relevance to his/her own work	can apply relevant methods, principles and strategies to solve subject-specific tasks	can study a situation and identify subject-related issues and what measures need to be implemented		masters relevant academic tools, techniques and styles	masters relevant scholarly tools, techniques and forms of communication	can carry out an independent, limited research or development project under supervision and in accordance with applicable norms for research ethics	
can use practical-aesthetical work methods in several subject areas can reflect on his/her own participation in different media	can be creative when carrying out tasks	can solve vocational challenges in a critical and creative manner, alone or in cooperation with others can be creative when planning and performing work	can explore, analyse, formulate and discuss different issues						
	can search for and use information from different sources to further his/her development in relation to future work and/or education	can analyse and assess different types of sources of relevance to his/her own work	can analyse and assess different types of sources						

GENERAL COMPETENCE

Competence from primary/lower secondary school	Partially completed upper secondary education	Completed upper secondary vocational education	Completed upper secondary school higher education requirements	Tertiary vocational qualifications 1	Tertiary vocational qualifications 2	Higher education of shorter duration	Bachelor's qualifications	Master's qualifications	Ph.D. qualifications
<i>The candidate...</i> can make use of his/her knowledge and experience to participate in a democratic and inclusive society		<i>The candidate...</i> can use his/her own vocational competence in new and complex contexts	<i>The candidate...</i> can use his/her own academic competence in new and complex contexts	<i>The candidate...</i>	<i>The candidate...</i>	<i>The candidate...</i> has insight into relevant ethical issues relating to the field/ profession	<i>The candidate...</i> has insight into relevant academic and professional ethical issues	<i>The candidate...</i> can analyze relevant academic, professional and research ethical problems	<i>The candidate...</i> can identify new relevant ethical issues and carry out his/her research with scholarly integrity
can cooperate with others in both the work/school and social context	can cooperate with others in the performance of work and utilise relevant skills and knowledge	can work independently and take responsibility for ensuring that work is carried out with the required craftsmanship and in accordance with legislation, regulations and established ethical standards in the trade/field in question	can plan and organise work, independently and in cooperation with others	understands the ethical principles that apply in the trade/ field of work has developed an ethical attitude in relation to the practising of his/her discipline	can plan and carry out vocational tasks and projects alone or as part of a group and in accordance with ethical requirements and principles	can plan and carry out tasks and projects alone or as part of a group and in accordance with ethical requirements and principles	can plan and carry out varied assignments and projects over time, alone or as part of a group , and in accordance with ethical requirements and principles	can apply his/her knowledge and skills in new areas in order to carry out advanced assignments and projects	can manage complex interdisciplinary assignments and projects
		can cooperate and communicate with colleagues, customers and/or users when carrying out his/her work	can use his/her academic knowledge and skills to develop knowledge together with others	can carry out work based on the needs of selected target groups can build relations with his/her peers, also across discipline boundaries, and with external target groups		can present important academic material such as theories, problems and solutions, both in writing and orally, as well as using other relevant forms of communication	can communicate important academic subject matters such as theories, problems and solutions, both in writing and orally, as well as through other relevant forms of communication	can communicate extensive independent work and masters language and terminology of the academic field	can communicate research and development work through recognized Norwegian and international channels
	can initiate and carry out limited tasks	can guide others in their work	can guide others to a certain extent in academic situations		can exchange points of view with others with a background in the trade/discipline and participate in discussions about the development of good practice	can exchange opinions with others with a background in the field and participate in discussions concerning the development of good practice	can exchange opinions and experiences with others with a background in the field, thereby contributing to the development of good practice	can communicate about academic issues, analyses and conclusions in the field, both with specialists and the general public	can participate in debates in the field in international forums
can discuss and assess others and his/her own school work under supervision		can document and assess others' work and own work in connection with planning, organising, work performance and results	can assess the quality of and take responsibility for the results of his/her own and joint work	can develop work methods, products and/or services of relevance to practising the discipline	can contribute to organisational development	is familiar with new ideas and innovation processes	is familiar with new thinking and innovation processes	can contribute to new thinking and innovation processes	can assess the need for, initiate and practice innovation
can make independent choices, state the reasons for them and act on the basis of them	can seek and accept guidance in relation to concrete tasks and own vocational development	can reflect on his/her own vocational competence as the basis for future choices can initiate tasks and activities that promote his/her own learning and development	can reflect on his/her own academic competence as the basis for future choices						

