

# Referencing the Norwegian Qualifications Framework (NKR) levels to the European Qualifications Framework (EQF)

Report to the Norwegian referencing group

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## 1. Introduction

This report presents the level of correspondence of the description of the learning outcomes of the Norwegian Qualifications Framework (*Nasjonalt kvalifikasjonsrammeverk for livslang læring*, abbreviated as NKR) against those of the European Qualifications Framework (EQF) and proposes a considered alignment between them. The exercise on which the presentation is based can be regarded as a technical review that is part of the referencing process Norway is asked to undertake. It is important to emphasize that neither the technical review, nor the referencing process as a whole is intended to change the Norwegian education system. The NKR has to fit the Norwegian context and has to be rooted in the existing Norwegian education practices and structures.

The review starts with a brief reflection on the background of the NKR and EQF, followed by the presentation of the core methodology and a general comparison of the two frameworks. Aim is to examine the basic principles underlying them, including their overall objectives, their design, the learning outcomes approach on which they are based, and the way the levels are defined. Based on this general comparison the correspondence between the levels in the two frameworks will be analyzed in more detail through the way in which the learning outcomes are defined at each level in terms of knowledge, skills and competence.

## 2. Background of NKR and EQF

The European Qualifications Framework (EQF) is a joint European reference framework against which individual European countries, including Norway, can map their national qualifications framework. Overall aim is to indicate how levels of qualifications relate to each other throughout the involved countries. As such the EQF is expected to act as a translation device to make qualifications better readable and understandable for individuals and employers across the involved countries. The core of the EQF consists of eight reference levels describing at each of these levels the expected 'learning outcomes', i.e. what a learner who has mastered the requirements of a specific level knows ('knowledge'), understands ('skills') and is able to do ('competence'). Levels of national qualifications frameworks are to be placed at one of the EQF reference levels, ranging from basic (Level 1) to advanced (Level 8). It is assumed that this will enable a much easier comparison between national qualifications and should also mean that people do not have to repeat their learning if they move to another country. The EQF has three principle aims, i.e. to promote citizens' mobility

between the involved countries, to facilitate their lifelong learning, and to contribute to strengthen the quality of national education systems.

The EQF applies to all types of education, training and qualifications, from school to academic, professional and vocational education. The intention behind the EQF's approach is that it shifts the focus from the traditional system which emphasises 'learning inputs', such as the length of a learning experience, or type of institution. It is also intended to encourage lifelong learning by promoting the validation of non-formal and informal learning. The EQF initiative is closely related to the qualifications framework for the European Higher Education Area (EHEA) developed as part of the Bologna Process: the two frameworks are compatible and their implementation is coordinated. However, in this technical review the focus is only on the referencing of the NKR to the EQF; the qualifications framework for the EHEA is not part of the review.

For the involved EU member states EQF was introduced in a Recommendation which formally entered into force in April 2008. This Recommendation has also become part of the EEA agreement (March 2009). As a consequence, also the Norwegian government has been invited to develop a national Norwegian qualifications framework for lifelong learning (NKR) and link it to the EQF.

The current Norwegian efforts with the development of a national qualifications framework are directly related to the two European processes mentioned above, i.e. the EQF-process and the Bologna process. Unlike some other European countries Norway did not have a national qualifications framework before. It has worked since 2003 on the development of qualifications frameworks for specific parts of its education system, including higher education and tertiary vocational education (*'fagskoler'*). After the inclusion of the EQF recommendation in the EEA agreement, and the work in other European countries on the development of a national qualifications framework, also Norway decided to develop a comprehensive national qualifications framework, based on and integrating the work that had been done since 2003 on specific education level frameworks.

### 3. Primary, i.e. direct cross-referencing methods

A cross-referencing methodology needs to make accurate judgments about the comparability between the different levels in the NKR and the EQF. It needs to be holistic as well as sufficiently transparent to show how decisions were arrived at.

For the NKR – EQF comparison to be robust, the methodology needs to be both valid and reliable. Validity results from individual cross-referencing methods being fit for purpose, i.e. comparing factors that define levels in the NKR with comparable ones on the EQF. There is

also a ‘common-sense’ test of validity that asks whether the method is comparing things that are sufficiently meaningful in terms of level, as opposed to, for instance, examining only semantics.

In this review two exercises were undertaken. The first consisted of comparing the general description of learning outcomes (knowledge, skills and competences) in the NKR and EQF (sections 4 and 5). For this the formal definitions and terms from the EQF Recommendation and the NKR proposal were used. The second consisted of a detailed comparison of the descriptors per level of learning outcomes (knowledge, skills, competences) in the NKR and EQF (sections 6 and appendix 2).

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

Both frameworks have as a core purpose the description of learning outcomes, for which both use three categories, i.e. ‘knowledge’ ‘skills’ and ‘competence’. In the section below we will present the two sets of definitions of these categories from the EQF<sup>1</sup> and the NKR<sup>2</sup>. The definitions from the EQF Recommendation include a general description of the three categories, as well as the definition used ‘in the context of the EQF’, i.e. in the EQF table presenting the descriptors defining the levels of the EQF<sup>3</sup>. This will give a first indication of the overall compatibility of the two frameworks.

##### *Knowledge (‘Kunnskap’)*

In both frameworks knowledge is defined in relation to what is learned as well as the learning process involved. In the EQF’s Recommendation the learning process with respect to knowledge is referred to as “the outcome of the assimilation of information through learning.” In the NKR’s definition reference is made to “understanding” as the basis for acquiring knowledge. When it comes to what is learned the EQF’s definition indicates that “Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the EQF, knowledge is described as theoretical and/or factual.” In the NKR proposal knowledge (‘*kunnskap*’) is defined as the “theories, facts, terms, principles and

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<sup>1</sup> For the definitions of ‘knowledge’, ‘skills’ and ‘competence’ in the legal text of the EQF Recommendation, see: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:111:0001:0007:EN:PDF>

<sup>2</sup> The NKR definitions and terms are presented in the following document: “*Nasjonalt kvalifikasjonsrammeverk for livslang læring (NKR). Høringsforslag fra Kunnskapsdepartementet 26.1.2011*”. Oslo: Norwegian Ministry of Education.

<sup>3</sup> See: [http://ec.europa.eu/education/pub/pdf/general/eqf/broch\\_en.pdf](http://ec.europa.eu/education/pub/pdf/general/eqf/broch_en.pdf)

procedures within a discipline, field, academic area and/or a vocation, profession or work situation<sup>4</sup>.”

### *Skills ('Ferdigheter')*

In both frameworks this category concerns the ability to apply knowledge. In the EQF Recommendation 'skills' are described as “the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments)”. In the NKR 'skills' are referred to as *'ferdigheter'*, and described as “the ability to apply knowledge to solve problems and complete tasks. There are various types of skills – cognitive, practical, creative and communicative skills<sup>5</sup>.”

### *Competence ('generell kompetanse')*

This category of learning outcomes is referred to as 'competence' in the EQF and as *'generell kompetanse'* in the NKR. Both frameworks refer to this category in terms of the application of knowledge, skills and other abilities, especially with respect to the ability to work independently and take responsibility. In the EQF Recommendation 'competence' is referred to as “the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In the context of the EQF, competence is described in terms of responsibility and autonomy.” In the NKR proposal the following description is used: “*Generell kompetanse* is the ability to apply knowledge and skills in an independent way in various situations through showing the ability to cooperate, to take responsibility, the ability to reflect and think critically in study and work situations<sup>6</sup>.”

From this presentation of the descriptions of knowledge, skills and competence that form the foundation for the design of levels in NKR and EQF, it can be argued that the two frameworks are compatible in their understandings of the meaning of learning outcomes. However, before concluding definitely that the two frameworks correspond to each other and that a meaningful comparison of the levels in the two frameworks can be undertaken, we first will discuss in some more detail the main similarities and differences between the two frameworks.

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<sup>4</sup> In Norwegian: “forståelse av teorier, fakta, begreper, prinsipper, prosedyrer innenfor fag, fagområder og/eller yrker.”

<sup>5</sup> In Norwegian: “Evne til å anvende kunnskap til å løse problemer og oppgaver. Det er ulike typer ferdigheter – kognitive, praktiske, kreative og kommunikative ferdigheter”.

<sup>6</sup> In Norwegian: ”å kunne anvende kunnskap og ferdigheter på selvstendig vis i ulike situasjoner gjennom å vise samarbeidsevne, ansvarlighet, evne til refleksjon og kritisk tenkning i studier og yrke.”

## 5. General comparison NKR – EQF: main differences and similarities

The situation in Norway with respect to the referencing of the NKR to the EQF differs from the situation in other countries involved in the EQF process in a number of ways. First, at the moment of the review the NKR is still (partly) a proposal. The proposed NKR consists of 7 levels. Levels 5-7, referred to by the Ministry of Education as the learning outcomes of higher education, were finally determined by the Ministry in March 2009. A proposal for the learning outcomes of levels 1-4 was sent out January 2011 for consultation to all involved Norwegian education stakeholders. These stakeholders were requested to send their comments and proposals for change before 29 April 2011. Therefore, the version of the NKR that is the basis for this technical review is not the final version, but a version that is still ‘under construction’.

Second, Norway is not a member of the EU. This implies that the NKR is not directly linked to the legal text of the Commission’s Recommendation with respect to the EQF, but to the EEA agreement. While the EQF Recommendation’s legal text, with the included descriptions of the learning outcomes of all the EQF’s levels, and the definitions of a qualifications framework and the three categories ‘knowledge’, ‘skills’, and ‘competence’, is translated in all the EU’s 22 languages, there is no ‘legal’ translation available in Norwegian. While this does not affect the validity of the cross-referencing between the two frameworks as such, it does mean that unlike the situation in the EU member states, the Norwegian Ministry of Education had to make its own translations of the main terms and definitions of the EQF Recommendation. This has to be taken into account when examining the correspondence of the terms and formulations of used in the Norwegian framework with the terms and formulations used in the EQF.

Next to these specific differences the main overall difference between the EQF and national qualifications frameworks such as the NKR, is that while the EQF is designed as a ‘meta-framework’ that can be used by individual countries as a reference for their national framework(s), the NKR is being developed as a definitive, national structure and qualifications in the Norwegian education system are related directly to the NKR levels.

In addition to these basic differences in the underlying aims and purposes, as well as terms and definitions of the two frameworks, there are some differences in the construction of the levels and in what is valued in each framework. These concern:

- a) The construction of the level descriptors. The NKR uses a number of indicators within each learning outcomes category. These indicators describe a set of learning outcomes that candidates at this level should have mastered. This allows, amongst other things, for more flexibility than the EQF, which has one or at most two short statements in

each domain. The EQF statements do not describe specific learning outcomes but can be regarded as general descriptors of each of the levels. This difference is in line with the different purposes of the two frameworks, but when it comes to linkage and alignment it may affect the way that specific qualifications correspond to each other.

- b) The number of levels. The Ministry of Education proposes an NKR that consists of seven levels, while the EQF consists of eight levels. In its argumentation for proposing a different number of levels the Norwegian Ministry indicates that its main purpose is to prevent ‘system inflation’, in the sense of creating more than eight levels for satisfying demands from various educational stakeholders, as has happened in other involved countries. These demands are based on the wish of many educational groups to be positioned not only at a separate level, but also as high as possible in the qualifications framework. Through creating seven broad learning outcomes categories the Ministry intends to include all educational fields and vocational programmes at a specific, but broad qualification level in one category.
- c) The way the learning outcomes categories relate to each other. The NKR ‘*kunnskap*’ category can be related to the EQF ‘knowledge’, but also in part to the EQF ‘skills’ category through its focus on the practical procedures within a field or vocation, and to the EQF ‘competence’ category through its inclusion of self-understanding and -development. The NKR ‘*ferdigheter*’ category can be related to the EQF ‘skills category’, but in part also to the EQF ‘competence’ category when it comes to ‘responsibility’. The NKR category ‘*generell kompetanse*’ relates in part to the EQF category ‘competence’ when it comes to autonomy.
- d) The treatment of knowledge. The EQF uses a progressive scale of different types and contexts of theoretical and factual knowledge, ranging from basic knowledge to the most advanced frontier of a field of work or study. The NKR has a broader focus using descriptors that include self-understanding and –development, and know-how about one’s vocational, study or academic area.
- e) The interpretation of ‘competence’. In the EQF ‘competence’ category at levels 4-6 responsibility for the management of others is included; while at level 7 it is optional. This makes the responsibility descriptor of the EQF ‘competence’ category difficult to apply to qualifications that are not concerned with management. In the NKR, management or supervision of others is only included in level 3, and not included explicitly at the levels 4-7.
- f) The frameworks’ language. The learning outcomes of the NKR are formulated in Norwegian while the EQF is written in English. The Norwegian formulations are not derived from the EQF, but from the educational practices, incl. study plans in Norway.

Overall the language of the NKR is more ‘more careful, less focused on progress and competition, more on self-development and -understanding’ than the language of the EQF.

- g) The definition of qualifications framework (see appendix 1). In the underlying definition of a qualifications framework in the NKR proposal, the emphasis is on formal education, indicating that a qualifications framework is based on a nation’s education system. In the definition included in the EQF Recommendation the link with formal education is not made so explicitly; instead the focus is on learning and learning outcomes as such, which implicitly includes also non-formal learning outcomes.

While these differences are of relevance and have to be taken into account when referencing the NKR to the EQF, when considering the way the levels in the two frameworks are designed and developed, many similarities can be referred to. These include:

- The frameworks are designed to enable users to compare aspects of learning.
- Both frameworks share core concepts: they are based on the approach of identifying learning outcomes, described in terms of knowledge, skills and competence.
- In both frameworks the descriptors of the learning outcomes per level are completely neutral in terms of academic field/discipline, or profession/vocation.
- Both frameworks are based on the notion of progress in learning and qualifications: the terms used for indicating the outcomes represent an increasing level of knowledge, skills and competence.
- Both frameworks focus on learning *outcomes*, and not on *input* factors. They want to express what candidates have mastered at a certain qualifications level, not what they had to do to get there.
- In both frameworks the starting point is to focus on what candidates *have* mastered at a certain qualifications level, and not on what they have *not* mastered or are *not* able to do.

Given these similarities, it can be concluded that NKR and EQF are sufficiently compatible to be able to cross-reference from the one to the other, implying that a comparison of the learning outcomes levels and categories in the two frameworks is possible.



## 6. Outline mapping of levels

A first examination of the NKR level descriptors against the EQF ones, by reading across the two frameworks, identifying the EQF level that appears to give the best overall fit against the NKR level descriptors and indicators, gives the following result.

NKR level 1: Reasonably good match with EQF level 2 as well as a partial match with level 3

NKR level 2: Partial match with EQF levels 2 as well as 3, as well as in a number of respects level 1

NKR levels 3a and b: Good match with EQF level 4

NKR level 4, Fagskole 1: Partial match with EQF level 4 and weak match with level 5

NKR level 4, Fagskole 2: Reasonably good match with EQF level 4 and partial match with level 5

NKR level 5, Short Higher Education: Reasonably good match with EQF level 5 and partial match with level 6

NKR level 5, Bachelor cycle 1: Reasonably good match with EQF level 5 and partial match with level 6

NKR level 6: Reasonably good match with EQF levels 6 as well as 7

NKR level 7: Good match with EQF level 8

In appendix 2 the detailed comparisons for all levels, categories, descriptors and statements that underlie the above mapping of levels are presented. The indicators used range from 'Good match', 'Partial match', 'Weak match' to 'No match'. For each of these indicators one or more different colors were used to visualize the level of correspondence. They were used by the experts involved in this technical review as to indicate the level of correspondence between the NKR descriptors and statements and the EQF descriptors. This implies that the exercise was not a semantic one, but was based on the judgment of the experts of the focus and underlying intentions and focus of each of the descriptors and statements. This exercise was only made in one direction, i.e. from NKR to EQF. No explicit exercise has been undertaken to examine the level of correspondence between the EQF descriptors and the NKR descriptors and statements. Nonetheless, in the tables in Appendix 2 specific parts of the EQF descriptors are not marked with a color which is an indication of the fact that there is no match between these parts of the EQF descriptors and any of the descriptors and statements in the NKR.

## 7. NKR and EQF level comparisons

As discussed above (sections 4 and 5) the NKR includes at each level more, and more detailed descriptions and statements than the EQF. Nonetheless, as discussed above in both frameworks the basic categories are at each level ‘knowledge’, ‘skills’ and ‘competence’, which allows for a detailed comparison of the learning outcomes that candidates at each level are expected to have mastered. Aim is to come to a more definite mapping of NKR levels versus EQF levels. As in the first exercise (section 6 and appendix 2), also this definite mapping consists of comparing the NKR descriptors and statements for each level. Here we will elaborate the first exercise by describing the strength of the correspondence between specific levels of the NKR and the EQF in detail.

### **NKR level 1 and EQF level 2**

THE NKR refers at level 1 to *grunnleggende kunnskap* which can be argued to correspond to the EQF reference to ‘basic factual knowledge’ at level 2. While the EQF is ‘neutral’ in its knowledge descriptor, the NKR refers in detail to specific objectives of the Norwegian education system at this level, including the expectation that candidates at this level have knowledge about basic circumstances in major aspects of the society. The expectation in the NKR that candidates at this level have basic knowledge ‘*på tvers af fag*’ can be regarded as going further than the knowledge requirements at level 2 of the EQF.

The NKR refers to ‘*ferdigheter*’ at level 1 in four statements, which together can be argued to go somewhat beyond the skills expectations of the EQF at level 2. The latter describes skills as to be used to ‘carry out basic tasks, solving routine problems and using simple rules and tools’. The NKR refers, e.g., to ‘*faglige sammenhenger, fremmedspråk, ny kunnskap, og flere fagområder*’.

The NKR refers to ‘competence’ in a Norwegian context as ‘*delta, samarbeide, drøfte og vurdere, foreta selvstendige valg, begrunne og handle med og innenfor relativt krevende forutsetninger*’. The EQF descriptor is more neutral. In the NKR only reviewing is expected to happen under supervision, while this is a core point in the EQF.

There is a reasonably good correspondence between the NKR and EQF learning outcomes descriptors at these levels, with the NKR level 1 going in all three categories in a number of respects beyond the EQF level 2.

### **NKR level 2 and EQF level 3**

At this level the NKR seems to include an inconsistency with respect to the ‘knowledge’ (*‘kunnskaper’*) category, in the sense that at this level the descriptors incorporate a number of restrictions (*‘et enkelt fag, flere avgrensede fagfelt, noe forståelse’*) that do not only not correspond fully to the descriptors of EQF level 3, but are also not included in NKR level 1. This is not in line with the basic principle of the NKR of level progress.

Also with respect to the skills (*‘ferdigheter’*) descriptors in the NKR level 2 a number of restrictions (e.g. *‘innenfor eget fag/fagfelt, motta og følge instruksjonen, utføre noen oppgaver’*) are included that do not fully correspond to EQF level 3 skills descriptor, while these delimitations were also not part of the NKR level 1 *‘ferdigheter’* descriptors.

The NKR descriptors in the ‘component’ (*‘generell kompetanse’*) category are more compatible with the EQF level 3 descriptor, e.g. when it comes to ‘taking responsibility for completion of tasks’. Nonetheless, also with respect to this component the NKR descriptors include some restrictions (e.g. *‘avgrensede arbeidsoppgaver’*) that were not included at NKR level 1.

There is partial correspondence between the NKR descriptors and statements, and the EQF descriptors at these levels, particularly in relation to the ‘competence’ component. The ‘knowledge’ and ‘skills’ learning outcomes refer in a number of respects to a less complex operational range than their EQF level 3 equivalents.

### **NKR level 3a and 3b and EQF level 4**

The ‘knowledge’ learning outcomes at these levels in the two frameworks correspond well with each other. The NKR refers to *‘kunnskap om relevante begreper, modeller, og prinsipper innenfor fagområdet’*, and the EQF refers to knowledge in broad contexts within a field. NKR level 3b refers to *‘erfaringsbasert kunnskap’*. It is not clear what is meant with this here.

Also with respect to the *‘ferdigheter’* learning outcomes the two frameworks are compatible at these levels. The level of detail in the NKR descriptors, however, raises the question whether all descriptors correspond to the EQF’s skills descriptor at this level of ‘a range of cognitive and practical skills’.

When it comes to the ‘competence’ category in the NKR at this level the correspondence with the EQF level 4 is less clear. While both frameworks emphasize autonomy, the NKR is more open in its descriptors. The EQF speaks for example of ‘study contexts that are usually predictable, but are subject to change’ whereas the NKR refers to *‘nye og sammensatte kontekster’*. This openness of the NKR can be argued to allow for a further development of the learning outcomes with respect to competence at this level, than is possible in the EQF.

There is a good match between the NKR descriptors and the EQF descriptors at these levels in the two frameworks.

#### **NKR level 4 (Fagskole 1) and EQF level 5**

The NKR refers at this level in a non-specific way to knowledge, while the EQF refers to ‘comprehensive, specialised, factual and theoretical knowledge’. In addition, the NKR descriptors refer to vocational aspects such as ‘*krav til kvalitet*’, and ‘*oppdatere yrkesfaglige kunnskap*’. These aspects are not included in the EQF descriptors.

The NKR also refers to skills in a general way (‘*kan anvende faglig kunnskap*’) whereas the EQF refers to a ‘comprehensive range of cognitive and practical skills’.

The ‘competence’ descriptors of the NKR at this level hardly match the competence statements of the EQF level 5. The NKR refers to ethical aspects, which are not included in the EQF learning outcomes, whereas the EQF emphasize management and supervision which are not referred to in the NKR outcomes.

There is a weak match between NKR level 4 (FS1) and EQF level 5

#### **NKR level 4 (Fagskole 2) and EQF level 5**

The NKR refers in a general way to knowledge this is expected to be applied in specialised areas, while the EQF refers at this level to ‘comprehensive, specialised, factual and theoretical knowledge’. Two of the statements listed under the ‘knowledge’ category in the NKR (points 2 and 4, referring to ‘*vurdere*’ and ‘*har innsikt*’) can be regarded as skills statements. As with respect to the previous level (FS1) also here the NKR does not express a clear progress in the learning outcomes concerning knowledge.

The ‘skills’ learning outcomes in the NKR do not stretch as far as the outcomes in the EQF. The latter refers to ‘develop creative solutions to abstract problems’, whereas the NKR refers to ‘*kan reflektere over egen faglig utøvelse*’.

The notion of ‘responsibility’ as part of the ‘competence’ category is referred to in different ways in the two frameworks. Whereas the NKR refers to ‘*bidra til organisasjonsutvikling*’, states the EQF ‘exercise management where there is unpredictable change’. The NKR refers to ‘*utveksle synspunkter*’, whereas the EQF refers to ‘supervision’ and ‘review performance of others’.

There is a partial match between NKR level 4 (Fagskole 2) and the EQF level 5.

### **NKR level 5 (del av Bachelor; kortere høyere utdanning) and EQF level 6**

The NKR refers at this level to knowledge in general, while the EQF refers to ‘advanced knowledge’. The NKR refers to ‘R&D work, the updating of knowledge, and the history and traditions of the field’, whereas the EQF refers to ‘a critical understanding of theories and principles’.

Also with respect to the ‘skills’ learning outcomes the NKR makes a general reference (*‘anvende faglig kunnskap’*), where the EQF refers to ‘advanced skills’. Also in other respects there is a gap between the NKR skills outcomes and the EQF ones. The NKR refers, for example, to *‘justere egen faglig utøvelse under veiledning’* and *‘knytte fagstoff til en problemstilling’*, whereas the EQF refers to ‘solve complex and unpredictable problems’.

With respect to the ‘competence’ category both frameworks emphasize ‘responsibility and autonomy’ differently. The NKR refers to *‘planlegge og gjennomføre arbeidsoppgaver og prosjekter alene og i gruppe’*, whereas the EQF refers to ‘manage complex activities and projects’. The EQF refers to ‘taking responsibility’ while the NKR refers to *‘utveksle synspunkter’*. Finally, the first point stated in the NKR ‘competence’ category starts with *‘har kunnskap’*. This point belongs to the knowledge category.

There is a partial match between the NKR and the EQF descriptors of the learning outcomes at this level.

### **NKR level 5 (Bachelor; 1. syklus) and EQF level 6**

The NKR refers to *‘bred kunnskap’*, which corresponds more with the comprehensive knowledge referred to at EQF level 5 than with the advanced knowledge of EQF level 6. Further, the NKR refers at this level to ‘R&D work, the updating of knowledge, and the history and traditions of the field’, whereas the EQF refers to ‘a critical understanding of theories and principles’.

With respect to the ‘skills’ learning outcomes the NKR makes a reference to *‘anvende faglig kunnskap og relevante resultater fra FoUarbeid’* ), whereas the EQF refers to ‘advanced skills’. In other respects there is more of a gap between the NKR skills outcomes and the EQF ones. The NKR refers, for example, to *‘justere egen faglig utøvelse under veiledning’* and *‘knytte fagstoff til en problemstilling’*, whereas the EQF refers to ‘solve complex and unpredictable problems’.

With respect to the ‘competence’ category both frameworks emphasize ‘responsibility and autonomy’ differently. The NKR refers to *‘planlegge og gjennomføre varierte arbeidsoppgaver og prosjekter som strekker seg over tid alene og i gruppe’*, whereas the EQF refers to ‘manage complex activities and projects’. The EQF refers to ‘taking responsibility’ while the NKR refers to *‘utveksle synspunkter’*. Finally, also at this level the first point stated in the NKR ‘competence’ category starts with *‘har kunnskap’*. This point belongs to the knowledge category.

There is a partial match between the NKR and the EQF descriptors of the learning outcomes at this level.

### **NKR level 6 and EQF level 7**

Overall there is a reasonable good match between the NKR and EQF in this category. The NKR refers to *‘avansert kunnskap, spesialisert innsikt, inngående kunnskap’*, whereas the EQF refers to ‘highly specialised knowledge’ and ‘critical awareness of knowledge issues’. In the NKR the third point (*‘anvende kunnskap’*) and fourth point (*‘analysere faglige problemstillinger’*) belong to the skills category.

The NKR refers to the skills outcomes in a general way (*‘analysere, bruke, gjennomføre’*), while the EQF refers to ‘specialised problem-solving skills’. Both frameworks are focused on research skills. However, only the NKR indicates that the learner should be doing research ‘under supervision’.

The ‘competence’ descriptors have a reasonable good match in both frameworks, referring to *‘nye områder for å gjennomføre avanserte arbeidsoppgave og prosjekter’* (NKR) and ‘transform contexts that are complex, unpredictable and require new approaches’ (EQF). A difference concerns the expectations of the EQF towards the ‘management of work and teams’, and the NKR focus on *‘formidle, kommunisere, bidra’*.

The correspondence between the learning outcomes descriptors in the NKR and the EQF at this level are reasonable good.

### **NKR level 7 and EQF level 8**

The NKR descriptor concerning the ‘knowledge’ category at this level refers to *‘kunnskapsfronten’*, whereas the EQF describes ‘knowledge at the most advanced frontier’. It can be argued that the NKR’s statements 2 (*‘vurdere’*) and 3 (*‘bidra’*) fit better in the ‘skills’ category.

Under the ‘skills’ category one can observe a clear progress in terms in the EQF referring to ‘the most advanced and specialised skills’, whereas the NKR expects of candidates that they will be able to *‘formulere problemstillinger, drive forskning på høyt internasjonalt nivå, handterekomplekse faglige spørsmål’*. Both frameworks expect that the candidates at this level will be able to ‘redefine existing knowledge and professional practice’.

Under ‘competence’, both frameworks refer to ‘responsibility and autonomy’, even though the focus in the NKR (*‘identifisere, styre, formidle, delta, vurdere’*) is somewhat different from the focus in the EQF (‘substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment’).

There is a clearly a good match at this level between the NKR descriptors and statements and the EQF descriptors.

## 8. Conclusions

The aim of this technical review was to establish the correspondence between the levels in the Norwegian National Qualifications Framework (*Nasjonalt kvalifikasjonsrammeverk for livslang læring – NKR*) and the level descriptors of the European Qualifications Framework (EQF). This review was undertaken in two phases. In the first phase the involved experts examined and compared the two frameworks and their underlying objectives and purposes. Based on this examination a first mapping of the NKR to the EQF was produced. This exercise was taken further in the second phase in which the involved experts made a detailed analysis of the comparability of the levels of the NKR and EQF based on the learning outcomes categories ‘knowledge’ (*kunnskap*), skills (*ferdigheter*) and competence (*generell kompetanse*).

Taking into consideration that the NKR is partly still ‘under construction’ we propose the following alignment of the two frameworks, with the indication of the assessed strength of the match for each level.

**Table 1: Correspondence between NKR and EQF**

Norwegian NKR	EQF	Match
	Level 1	
Level 1	Level 2	Reasonably good
Level 2	Level 3	Partial
Level 3a and 3b	Level 4	Good
Level 4 (Fagskole 1)	Level 5	Weak
Level 4 (Fagskole 2)	Level 5	Partial
Level 5 (del av Bachelor: kortere høyere utdanning)	Level 6	Partial
Level 5 (Bachelor 1. syklus)	Level 6	Partial
Level 6	Level 7	Reasonably good
Level 7	Level 8	Good



## Appendix 1: Definitions

The definition of a qualifications framework as presented in the recommendations concerning the EQF is:

*”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”.*

In Norway a qualifications framework is defined as follows by the Ministry of Education:

*“A qualifications framework is a comprehensive, systematic and level-divided description of formal qualifications that can be obtained within an education system. The framework is a systematic description of the level and the acquired competency for university and college-degrees, craft and vocational competency, general study competency, basic education competency and tertiary vocational education competency.*

*A national qualifications framework is based on a nation’s education system, and shows educational level, progression and connection to labour market and society.”*

In Norwegian the latter definition is formulated as follows:

*”Et kvalifikasjonsrammeverk er en samlet, systematisk og nivådelt beskrivelse av formelle kvalifikasjoner som kan oppnås innenfor et utdanningssystem.*

*Rammeverket er en systematisk beskrivelse av nivå og oppnådd kompetanse for universitets- og høyskolegrader, fag- og yrkeskompetanse, generell studiekompetanse, grunnskolekompetanse og fagskolekompetanse.*

*Nasjonale kvalifikasjonsrammeverk er basert på nasjonens utdanningssystem, viser nivå og progresjon og sammenheng til arbeidsliv og samfunnsliv.”*

## Appendix 2: Detailed level analysis

### Level 1: Grunnskolekompetanse

<b>Explanation:</b> Knowledge: good match Knowledge: partial match Knowledge/Skills/Competence: no match Skills: partial match Competence: partial match Competence: partial match			
NKR Indicators/descriptors	NKR level	EQF level	EQF Indicators/descriptors
<p><i>Kandidaten....:</i></p> <ul style="list-style-type: none"> <li>• har grunnleggende kunnskap om sentrale fakta og begrep i og på tvers av fag</li> <li>• har kunnskap om grunnleggende politiske, sosiale, kulturelle og miljømessige forhold</li> <li>• har kunnskap om hvordan fakta innhentes, dokumenteres og anvendes</li> <li>• har grunnleggende kunnskap om det å lære å lære</li> <li>• har kunnskap om ulike utdanningsvalg og yrker</li> </ul>	K1	K2           K3	basic factual knowledge of a field of work or study           Knowledge of facts, principles, processes and general concepts, in a field of work or study
<ul style="list-style-type: none"> <li>• kan uttrykke seg muntlig og skriftlig, lese, regne og bruke digitale verktøy i faglige sammenhenger</li> <li>• kan presentere emner på norsk/samisk og minst ett fremmedspråk</li> <li>• kan bruke erfaringer, kreativitet og utforskende arbeidsmåter i tilegnelse av ny kunnskap</li> <li>• kan bruke praktisk-estetiske arbeidsmåter på flere fagområder</li> </ul>	F1	S2           S3	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           a range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information
<ul style="list-style-type: none"> <li>• kan bruke kunnskaper og erfaringer for å delta i et demokratisk og inkluderende samfunn</li> </ul>	GK1	C2	work or study under supervision with some autonomy

<ul style="list-style-type: none"> <li>• kan samarbeide med andre både faglig og sosialt</li> <li>• kan drøfte og vurdere andres og egne faglige arbeider under veiledning</li> <li>• kan foreta selvstendige valg, begrunne og handle ut fra dem</li> </ul>		C3	<p>take responsibility for completion of tasks in work or study;</p> <p>adapt own behaviour to circumstances in solving problems</p>
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## Level 2: Grunnkompetanse

<p><b>Explanation:</b>  <b>Knowledge:</b> good match  <b>Knowledge:</b> partial match  <b>Knowledge/Competence:</b> no match  <b>Skills:</b> partial match  <b>Skills:</b> partial match  <b>Skills/Competence:</b> weak match  <b>Competence:</b> good match  <b>Competence:</b> partial match</p>			
<p>NKR Indicators/descriptors</p>	<p>NKR level</p>	<p>EQF level</p>	<p>EQF Indicators/descriptors</p>
<p><i>Kandidaten...:</i></p> <ul style="list-style-type: none"> <li>• har grunnleggende kunnskap om sentrale fakta og begrep innen enkelte fag/fagfelt</li> <li>• har kunnskap om arbeidsmåter, prosedyrer og verktøy innenfor ett eller flere avgrensede fagfelt</li> <li>• har noe forståelse for egne muligheter innen utdanning og arbeid</li> </ul>	<p>K2</p>	<p>K2  K3</p>	<p>Basic factual knowledge of a field of work or study</p> <p>Knowledge of facts, principles, processes and general concepts, in a field of work or study</p>
<ul style="list-style-type: none"> <li>• kan kommunisere og uttrykke seg muntlig og skriftlig innenfor eget fag/fagfelt</li> <li>• kan motta og følge instruksjoner og kan utføre noen oppgaver innenfor fagfeltet</li> <li>• viser evne til kreativitet i utførelse av arbeidet</li> <li>• kan søke og bruke informasjon fra ulike kilder i egen utvikling for videre arbeid og/eller utdanning</li> </ul>	<p>F2</p>	<p>S2  S3</p>	<p>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</p> <p>a range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information</p>
<ul style="list-style-type: none"> <li>• kan samarbeide med andre i utførelse av faglig arbeid og anvende relevante ferdigheter og kunnskaper</li> <li>• kan ta initiativ til, og gjennomføre avgrensede arbeidsoppgaver</li> <li>• kan søke og ta imot veiledning i forhold til konkrete arbeidsoppgaver og egen faglig utvikling</li> </ul>	<p>GK2</p>	<p>C2  C3</p>	<p>work or study under supervision with some autonomy</p> <p>take responsibility for completion of tasks in work or study;</p> <p>adapt own behaviour to circumstances in solving problems</p>

## Level 3a: Fullført Videregående opplæring - Fag- og yrkeskompetanse

<b>Explanation:</b> Knowledge: good match Knowledge/Skills/Competence: no match Skills: Good match Skills: partial match Competence: good match Competence: partial match Competence: partial match Competence: partial match			
NKR Indicators/descriptors	NKR level	EQF level	EQF Indicators/descriptors
<p><i>Kandidaten...:</i></p> <ul style="list-style-type: none"> <li>har kunnskap om relevante begreper, modeller, og prinsipper innenfor fagområdet</li> <li>har kunnskap om, og oversikt over materialer, utstyr og arbeidsmetoder og kan begrunne valgene</li> <li>har innsikt i sammenhenger mellom faglige problemstillinger og forhold i samfunnet</li> <li>har kunnskap om relevant regelverk, standarder, avtaler og krav til kvalitet</li> <li>har kunnskap om ulike læringsstrategier og kan anvende dem i egen læring</li> <li>har kunnskap om egne muligheter innen utdanning og arbeid</li> </ul>	K3a	K4	factual and theoretical knowledge in broad contexts within a field of work or study
<ul style="list-style-type: none"> <li>kan systematisere, presentere og rapportere om planlagt og utført arbeid</li> <li>kan foreta faglige beregninger og vurdere konsekvenser</li> <li>kan løse faglige utfordringer på en kritisk og kreativ måte, alene og i samspill med andre</li> <li>kan bruke relevante begreper, prinsipper, materialer og utstyr i arbeidet</li> <li>kan kommunisere på minst ett fremmedspråk innenfor eget arbeidsområde</li> <li>kan vurdere og velge arbeidsmetoder for å løse fagspesifikke oppgaver</li> <li>kan anvende relevant teknologi</li> <li>kan vise kreativitet i planlegging og utførelse av arbeidet</li> <li>kan utføre arbeidet i tråd med</li> </ul>	F3a	S4	a range of cognitive and practical skills required to generate solutions to specific problems in 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

gjeldende regelverk, standarder, avtaler og krav til kvalitet			
<ul style="list-style-type: none"> <li>• kan anvende egen fagkompetanse i nye og sammensatte kontekster</li> <li>• kan arbeide selvstendig og ta ansvar for at arbeidet utføres faglig forsvarlig i henhold til lov- og regelverk og etablert yrkesetikk</li> <li>• kan samarbeide og kommunisere med kolleger, kunder og/eller brukere i utførelse av arbeid</li> <li>• kan veilede andre i arbeidet</li> <li>• kan dokumentere og vurdere eget og andres arbeid i forbindelse med planlegging, organisering, utførelse og resultat</li> <li>• kan reflektere over egen faglig kompetanse som grunnlag for videre valg</li> <li>• kan ta initiativ til arbeidsoppgaver og aktiviteter som fremmer egen læring og utvikling</li> </ul>	GK3a	C4  C5	<p>exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change;</p> <p>supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities</p> <p>exercise management and supervision in contexts of work or study activities where there is unpredictable change</p>

### Level 3b: Fullført videregående opplæring - Generell studiekompetanse

<b>Explanation:</b>			
Knowledge: good match			
Knowledge/Skills/Competence: no match			
Skills: Good match			
Skills: partial match			
Competence: good match			
Competence: Good match			
Competence: partial match			
Competence: partial match			
Competence: partial match			
NKR Indicators/descriptors	NKR level	EQF level	EQF Indicators/descriptors
<p><i>Kandidaten...:</i></p> <ul style="list-style-type: none"> <li>• har kunnskap om sentrale fakta, begrep, teorier, prinsipper og metoder innen ulike fag</li> <li>• har erfaringsbasert kunnskap som kreves for å praktisere innen ulike fag</li> <li>• har innsikt i sammenhenger mellom faglige problemstillinger og forhold i samfunnet</li> <li>• har kunnskap om ulike læringsstrategier og kan anvende dem i egen læring</li> <li>• har kunnskap om egne muligheter innen utdanning og arbeid</li> </ul>	K 3B	K4	<p>factual and theoretical knowledge in broad contexts within a field of work or study</p>
<ul style="list-style-type: none"> <li>• Kan uttrykke seg muntlig og skriftlig i varierte faglige sammenhenger og kan lese, regne og bruke digitale verktøy og medier</li> <li>• kan løse faglige utfordringer på en kritisk og kreativ måte, alene og i samspill med andre</li> <li>• kan anvende faglig terminologi i kommunikasjon og samarbeid</li> <li>• kan kommunisere på minst to fremmedspråk</li> <li>• kan anvende relevante metoder, generelle prinsipper og strategier for å kunne løse fagspesifikke oppgaver</li> <li>• kan utforske, analysere, utforme og drøfte ulike problemstillinger</li> </ul>	F 3B	S4	<p>a range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study</p> <p>a range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study</p>

<ul style="list-style-type: none"> <li>• kan anvende egen fagkompetanse i nye og sammensatte kontekster</li> <li>• kan planlegge og organisere arbeid selvstendig og i samarbeid med andre</li> <li>• kan bruke faglige kunnskaper og ferdigheter i felles kunnskapsbygging med andre</li> <li>• kan lede andre i avgrensede faglige situasjoner</li> <li>• kan vurdere kvaliteten av og ta ansvar for resultatene av eget og felles arbeid</li> <li>• kan reflektere over egen faglig kompetanse som grunnlag for videre valg</li> </ul>	GK 3B	C4       C5	<p>exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change</p> <p>supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities</p> <p>exercise management and supervision in contexts of work or study activities where there is unpredictable change</p> <p>review and develop performance of self and others</p>
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## Level 4: Fagskole 1

<b>Explanation:</b> Knowledge: partial match Knowledge: partial match Knowledge/Skills/Competence: no match Skills: partial match Skills: partial match Competence: partial match			
NKR Indicators/descriptors	NKR level	EQF level	EQF Indicators/descriptors
<p><i>Kandidaten...:</i></p> <ul style="list-style-type: none"> <li>• har kunnskap om begreper, prosesser og verktøy som anvendes innenfor et spesialisert fagområde</li> <li>• har innsikt i relevant regelverk, standarder, avtaler og krav til kvalitet</li> <li>• har bransjekunnskap og kjennskap til yrkesfeltet</li> <li>• kan oppdatere sin yrkesfaglige kunnskap</li> <li>• forstår hvordan egen bransje/yrke er en del av samfunnet</li> <li>•</li> </ul>	4FS1 K	4K  5K	<p>factual and theoretical knowledge in broad contexts within a field of work or study</p> <p>comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge</p>
<ul style="list-style-type: none"> <li>• kan anvende faglig kunnskap på praktiske og teoretiske problemstillinger</li> <li>• kan anvende relevante faglige verktøy, materialer, teknikker og uttrykksformer</li> <li>• kan finne informasjon og fagstoff som er relevant for en yrkesfaglig problemstilling</li> <li>• kan kartlegge en situasjon og vurdere og identifisere behov for iverksetting av tiltak</li> </ul>	4FS1 S	4S  5S	<p>a range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study</p> <p>a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems</p>
<ul style="list-style-type: none"> <li>• har forståelse for yrkes- og bransjeetiske prinsipper</li> <li>• har utviklet en etisk grunnholdning i utøvelsen av yrket</li> <li>• kan utføre arbeidet etter utvalgte målgruppers behov</li> <li>• kan bygge relasjoner med fagfeller og på tvers av fag, samt med</li> </ul>	4FS1 GK	4C	<p>exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change;</p> <p>supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities</p>

<p>eksterne målgrupper</p> <ul style="list-style-type: none"> <li>kan utvikle arbeidsmetoder, produkter og/eller tjenester av relevans for yrkesutøvelsen</li> </ul>		5C	<p>exercise management and supervision in contexts of work or study activities where there is unpredictable change;  review and develop performance of self and others</p>
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## Level 4: Fagskole 2

<b>Explanation:</b> Knowledge: partial match Knowledge: partial match Knowledge/Skills: weak match Skills: partial match Skills/Competence: no match Competence: partial match Competence: weak match			
NKR Indicators/descriptors	NKR Level	EQF Level	EQF Indicators/descriptors
<p><i>Kandidaten...:</i></p> <ul style="list-style-type: none"> <li>• har kunnskap om begreper, teorier modeller, prosesser og verktøy som anvendes innenfor et spesialisert fagområde</li> <li>• kan vurdere eget arbeid i forhold til gjeldende normer og krav</li> <li>• kjenner til bransjens/yrkets historie, tradisjoner, egenart og plass i samfunnet</li> <li>• har innsikt i egne utviklingsmuligheter</li> </ul>	4FS2 K	4K  5K	<p>factual and theoretical knowledge in broad contexts within a field of work or study</p> <p>comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge</p>
<ul style="list-style-type: none"> <li>• kan gjøre rede for sine faglige valg</li> <li>• kan reflektere over egen faglig utøvelse og justere denne under veiledning</li> <li>• kan finne og henvise til informasjon og fagstoff og vurdere relevansen for en yrkesfaglig problemstilling</li> </ul>	4FS2 S	4S  5S	<p>a range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study</p> <p>a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems</p>
<ul style="list-style-type: none"> <li>• kan planlegge og gjennomføre yrkesrettede arbeidsoppgaver og prosjekter alene og som deltaker i gruppe, og i tråd med etiske krav og retningslinjer</li> <li>• kan utveksle synspunkter med andre med bakgrunn innenfor bransjen/yrket og delta i diskusjoner om utvikling av god praksis</li> <li>• kan bidra til organisasjonsutvikling</li> </ul>	4FS2 GK	4C  5C	<p>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</p> <p>exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others</p>

## Level 5: Kortere høyere utdanning (del av Bachelor)

<b>Explanation:</b> Knowledge: partial match Knowledge/Skills/Competence: no match Knowledge/Skills/Competence: weak match Knowledge/Skills/Competence: partial match Skills: partial match Competence: partial match			
NKR Indicators/descriptors	NKR Level	EQF level	EQF Indicators/descriptors
<p><i>Kandidaten...:</i></p> <ul style="list-style-type: none"> <li>• har kunnskap om sentrale temaer, teorier, problemstillinger, prosesser, verktøy og metoder innenfor fagområdet</li> <li>• kjenner til forsknings- og utviklingsarbeid innenfor fagområdet</li> <li>• kan oppdatere sin kunnskap innenfor fagområdet</li> <li>• kjenner til fagområdets historie, tradisjoner, egenart og plass i samfunnet</li> </ul>	5B1 K	5K  6K	<p>comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge</p> <p>advanced knowledge of a field of work or study, involving a critical understanding of theories and principles</p>
<ul style="list-style-type: none"> <li>• kan anvende faglig kunnskap på praktiske og teoretiske problemstillinger og gjøre rede for sine valg</li> <li>• kan reflektere over egen faglig utøvelse og justere denne under veiledning</li> <li>• kan finne, vurdere og henvise til informasjon og fagstoff og knytte dette til en problemstilling</li> <li>• kan anvende relevante faglige verktøy, teknikker og uttrykksformer</li> </ul>	5B1 S	5S  6S	<p>a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems</p> <p>advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study</p>
<ul style="list-style-type: none"> <li>• har kunnskap om relevante fag- og yrkesetiske problemstillinger</li> <li>• kan planlegge og gjennomføre arbeidsoppgaver og prosjekter alene og som deltaker i gruppe og i tråd med etiske krav og retningslinjer</li> <li>• kan presentere sentralt fagstoff som teorier, problemstillinger og løsninger både skriftlig, muntlig og gjennom andre relevante uttrykksformer</li> </ul>	5B1 GK	5C  6C	<p>exercise management and supervision in contexts of work or study activities where there is unpredictable change;</p> <p>review and develop performance of self and others</p> <p>manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts;</p>

<ul style="list-style-type: none"> <li>• kan utveksle synspunkter med andre med bakgrunn innenfor fagområdet og delta i diskusjoner om utvikling av god praksis</li> <li>• kjenner til nytenking og innovasjonsprosesser</li> </ul>			<p>take responsibility for managing professional development of individuals and groups</p>
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## Level 5: Bachelor (1. syklus)

<b>Explanation:</b> Knowledge: partial match Knowledge/Skills/Competence: weak match Knowledge/Skills/Competence: no match Skills/Competence: partial match Skills: partial match Competence: partial match			
NKR Indicators/descriptors	NKR Level	EQF level	EQF Indicators/descriptors
<p><i>Kandidaten...:</i></p> <ul style="list-style-type: none"> <li>har bred kunnskap om sentrale temaer, teorier, problemstillinger, prosesser, verktøy og metoder innenfor fagområdet</li> <li>kjenner til forsknings- og utviklingsarbeid innenfor fagområdet</li> <li>kan oppdatere sin kunnskap innenfor fagområdet</li> <li>har kunnskap om fagområdets historie, tradisjoner, egenart og plass i samfunnet</li> </ul>	5B2 K	5K  6K	<p>comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge</p> <p>advanced knowledge of a field of work or study, involving a critical understanding of theories and principles</p>
<ul style="list-style-type: none"> <li>kan anvende faglig kunnskap og relevante resultater fra forsknings- og utviklingsarbeid på praktiske og teoretiske problemstillinger og treffe begrunnede valg</li> <li>kan reflektere over egen faglig utøvelse og justere denne under veiledning</li> <li>kan finne, vurdere og henvise til informasjon og fagstoff og framstille dette slik at det belyser en problemstilling</li> <li>kan beherske relevante faglige verktøy, teknikker og uttrykksformer</li> </ul>	5B2 S	5S  6S	<p>a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems</p> <p>advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study</p>
<ul style="list-style-type: none"> <li>har innsikt i relevante fag- og yrkesetiske problemstillinger</li> <li>kan planlegge og gjennomføre varierte arbeidsoppgaver og prosjekter som strekker seg over tid, alene og som deltaker i en gruppe, og</li> </ul>	5B2 GK	5C	<p>exercise management and supervision in contexts of work or study activities where there is unpredictable change;</p> <p>review and develop performance of self and others</p>

<p>i tråd med etiske krav og retningslinjer</p> <ul style="list-style-type: none"> <li>• kan formidle sentralt fagstoff som teorier, problemstillinger og løsninger både skriftlig, muntlig og gjennom andre relevante uttrykksformer</li> <li>• kan utveksle synspunkter og erfaringer med andre med bakgrunn innenfor fagområdet og gjennom dette bidra til utvikling av god praksis</li> <li>• kjenner til nytenkning og innovasjonsprosesser</li> </ul>		6C	<p>manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts;</p> <p>take responsibility for managing professional development of individuals and groups</p>
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## Level 6: Master (2. syklus)

<b>Explanation:</b> Knowledge: good match Knowledge: good match Knowledge: partial match Knowledge: partial match Skills/Competence: no match Skills/Competences: partial match Skills/Competence: weak match Skills/Competence: partial match Competence: partial match			
NKR Indicators/descriptors	NKR Level	EQF level	EQF Indicators/descriptors
<p><i>Kandidaten...:</i></p> <ul style="list-style-type: none"> <li>• har avansert kunnskap innenfor fagområdet og spesialisert innsikt i et avgrenset område</li> <li>• har inngående kunnskap om fagområdets vitenskapelige eller kunstfaglige teori og metoder</li> <li>• kan anvende kunnskap på nye områder innenfor fagområdet</li> <li>• kan analysere faglige problemstillinger med utgangspunkt i fagområdets historie, tradisjoner, egenart og plass i samfunnet</li> </ul>	6M K	6K  7K	<p>advanced knowledge of a field of work or study, involving a critical understanding of theories and principles</p> <p>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;</p> <p>critical awareness of knowledge issues in a field and at the interface between different fields</p>
<ul style="list-style-type: none"> <li>• kan analysere og forholde seg kritisk til ulike informasjonskilder og anvende disse til å strukturere og formulere faglige resonnementer</li> <li>• kan analysere eksisterende teorier, metoder og fortolkninger innenfor fagområdet og arbeide selvstendig med praktisk og teoretisk problemløsning</li> <li>• kan bruke relevante metoder for forskning og faglig og/eller kunstnerisk utviklingsarbeid på en selvstendig måte</li> <li>• kan gjennomføre et selvstendig, avgrenset forsknings- eller utviklingsprosjekt under veiledning og i tråd med gjeldende forskningsetiske normer</li> </ul>	6M S	6S  7S	<p>advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study</p> <p>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</p>



<ul style="list-style-type: none"> <li>kan analysere relevante fag-, yrkes- og forskningsetiske problemstillinger</li> <li>kan anvende sine kunnskaper og ferdigheter på nye områder for å gjennomføre avanserte arbeidsoppgaver og prosjekter</li> <li>kan formidle omfattende selvstendig arbeid og behersker fagområdets uttrykksformer</li> <li>kan kommunisere om faglige problemstillinger, analyser og konklusjoner innenfor fagområdet, både med spesialister og til allmennheten</li> <li>kan bidra til nytenking og i innovasjonsprosesser</li> </ul>	<p>6M GK</p>	<p>6C</p> <p>7C</p>	<p>manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts;</p> <p>take responsibility for managing professional development of individuals and groups</p> <p>manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches</p> <p>take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams</p>
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## Level 7: PhD (3. syklus)

<b>Explanation:</b> Knowledge: good match Knowledge/Skills: partial match Skills/Competence: good match Skills/Competence: partial match Skills/Competence: weak match			
NKR Indicators/descriptors	NKR Level	EQF level	EQF Indicators/descriptors
<p><i>Kandidaten...:</i></p> <ul style="list-style-type: none"> <li>er i kunnskapsfronten innenfor sitt fagområde og behersker fagområdets vitenskapsteori og/eller kunstneriske problemstillinger og metoder</li> <li>kan vurdere hensiktsmessigheten og anvendelsen av ulike metoder og prosesser i forskning og faglige og/eller kunstneriske utviklingsprosjekter</li> <li>kan bidra til utvikling av ny kunnskap, nye teorier, metoder, fortolkninger og dokumentasjonsformer innenfor fagområdet</li> </ul>	7PhD K	8K	knowledge at the most advanced frontier of a field of work or study and at the interface between fields
<ul style="list-style-type: none"> <li>kan formulere problemstillinger for, planlegge og gjennomføre forskning og faglig og/eller kunstnerisk utviklingsarbeid</li> <li>kan drive forskning og faglig og/eller kunstnerisk utviklingsarbeid på høyt internasjonalt nivå</li> <li>kan håndtere komplekse faglige spørsmål og utfordre etablert kunnskap og praksis på fagområdet</li> </ul>	7PhD S	8S	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
<ul style="list-style-type: none"> <li>kan identifisere nye relevante etiske problemstillinger og utøve sin forskning med faglig integritet</li> <li>kan styre komplekse tverrfaglige arbeidsoppgaver og prosjekter</li> <li>kan formidle forsknings- og utviklingsarbeid gjennom anerkjente nasjonale og internasjonale kanaler</li> <li>kan delta i debatter innenfor fagområdet i internasjonale fora</li> </ul>	7PhD GK	8C	demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research

<ul style="list-style-type: none"><li>• kan vurdere behovet for, ta initiativet til og drive innovasjon</li></ul>			
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