The Higher Education Qualifications Framework in the Netherlands, a presentation for compatibility with the framework for Qualifications of the European Higher Education Area

Self-certification document

dated 15 December 2008

Contents

˚In the Netherlands, higher education comprises HBO (Hoger Beroeps Onderwijs: Higher Professional Education) and WO (Wetenschappelijk Onderwijs: Academic Higher Education). For easy reference, the two Dutch abbreviations will be used throughout this document.

Summary

In 2005, the higher education ministers adopted an overarching framework for qualifications in the European higher education area (QF-EHEA). In this overarching qualifications framework, the joint level descriptions (the so-called Dublin descriptors; cf. Annexes 1, 2 and 3[1]) constitute the point of reference for the three exit levels of the Bachelor's, Master's and Doctorate cycles. In 2005, the higher education ministers agreed that each country would develop a national higher education qualifications framework which would be compatible with the overarching European framework. This document, the Higher Education Qualifications Framework in the Netherlands, presents the elaboration of this agreement for the Netherlands and gives an unequivocal description of the Dutch education system. It pertains to the situation in 2008.

National Qualifications Framework
Similar to the QF-EHEA, the Higher Education Qualifications Framework in the Netherlands comprises three levels for the three cycles, i.e. Bachelor's programmes, Master's programmes and Doctorates. It describes all the qualifications and demonstrable learning outcomes for these three levels in such a way that they can be understood in the international context and furthermore defines the inter-relationships between the qualifications. In addition, the Netherlands has opted to define an additional divided level halfway through the first cycle: the description of the short cycle is used for the Associate degree level. Within the level structure, the Netherlands makes a distinction as to orientation. This is known as the binary system of programmes offered at universities of applied sciences (HBO) and research universities (WO).

Added value and significance of the Higher Education Qualifications Framework in the Netherlands
The goal of a National Qualifications Framework for Higher Education is to use the generic Dublin descriptors to describe per level the learning outcomes in terms of knowledge, skills and competences in order to increase understanding of our higher education system at home and abroad. To safeguard the quality and understanding of our higher education system abroad, it is important that the Netherlands can compare itself with other countries using the Dublin descriptors as a common frame of reference. It is crucial to make the Dutch system transparent and clear to foreign institutions, students and employers. Europe needs to be able to estimate the value of Dutch programmes and students. And students need to know what their level is and at what level they can follow a suitable further education programme. In addition, Dutch institutions have to be able to send inbound and outbound students on their way with the correct information and papers.

The national qualifications framework facilitates (international) mobility, for students continuing their studies or moving on to the labour market. On the one hand, students have better insight into the quality of the level to be achieved in the programme that they want to follow or follow up; this also applies for students who bring with them competences acquired elsewhere as well as programmes followed earlier. On the other hand, students will have an internationally set recognition of educational achievements and they will be able to demonstrate their knowledge, skills and other competences through the Diploma Supplement.

Essential to a qualifications framework is a sound international interpretation of levels and accompanying qualifications. This demands the stringent application of a description of learning outcomes in terms of knowledge, skills and competences, that students and employers can also understand. In the Dutch higher education sector, this is already effected through the accreditation process, and for a sound implementation of the national higher education qualifications framework it should also be introduced for the Diploma Supplement.

The Higher Education Qualifications Framework in the Netherlands is thus not new policy, but it is a step further along the road to transparency and the harmonization of structure. The ministry of Education, Culture and Science bears an overall responsibility for the Higher Education Qualifications Framework in the Netherlands. The NVAO will be charged with the task of overseeing the Higher

[1] The Dublin descriptors for Associate, Bachelor's and Master's degrees as well as for Doctorates can also be found as an annex to the accreditation framework at www.nvao.net or www.bologna2009benelux.org under documents on the qualifications framework for the EHEA.

Education Qualifications Framework in the Netherlands and keeping it up to date. Today in the Netherlands, institutions and programmes are already requested to indicate the level for Associate degrees, Bachelor's and Master's degrees, through the accreditation process. This is done through description of intended learning outcomes which refer to the generic "Dublin descriptors" for the level of a programme. For quality assurance of a Doctorate degree, per candidate a committee is installed, which assesses if the candidate fulfils the learning requirements. The implementation of the Higher Education Qualifications Framework in the Netherlands is being conducted by the Higher Education Institutions. The implementation requires from the institutions that the learning outcomes achieved by the student in terms of knowledge, skills and other competences are described and are reflected in the diploma supplement as well, as some institutions are already doing. The awarding of a diploma supplement is already mandatory, preferably in accordance with the European format.

Introduction

With a view to achieving a European Higher Education Area (EHEA) by 2010 through the Bologna process, considerable progress has been made since 1999 in realizing greater transparency in European higher education. Within the framework of the Bologna process, an overarching framework for qualifications in the European higher education area was developed (QF-EHEA). The Bergen Ministers Conference adopted this framework in Norway in 2005. They agreed that every country would develop a national qualifications framework for higher education (NQF-HE) and would indicate how this fitted into the European framework. In accordance with the agreements made in Bergen, all countries are to have completed this process by 2010.

A uniform description of higher education systems at the national level in the various European countries is of great importance for transparency, comparability and mutual understanding at home and abroad for students, institutions and employers. In particular, such descriptions are essential for countries without a binary system to have good knowledge and understanding of the Dutch higher education system.

A national qualifications framework is the unequivocal description at the national level of the education system, which is internationally understood, which describes all qualifications and other demonstrable learning achievements (based on certificates) in higher education and relates these to each other in a coherent way, and which defines the relationship between higher education qualifications[2].

The Higher Education Qualifications Framework in the Netherlands (NQF-HE) was effected in good cooperation between the partners in higher education. It describes the current situation of the Dutch system in terms of existing legislation and in practice. The ministry of Education, Culture and Science bears an overall responsibility for the Higher Education Qualifications Framework in the Netherlands. Given the fact that the Higher Education Qualifications Framework in the Netherlands is a description of the national education system, it will be continuously updated to accommodate future changes to the Dutch education system. The NVAO will be charged with the task of overseeing the National Higher Education Qualifications Framework and keeping it up to date. The implementation of the Higher Education Qualifications Framework in the Netherlands is being conducted by the Higher Education Institutions.

The Higher Education Qualifications Framework in the Netherlands is not a legal document, nor is it a new policy instrument. It is a tool for institutions to use when setting up a programme or revising curricula in order to describe the level and the learning outcomes in terms of knowledge, skills and other competences so that they are internationally understood and therefore comparable. In the Netherlands, institutions and programmes are already requested through the accreditation process to indicate a level in terms of Associate degree, Bachelor's or Master's degree and to indicate the relationship to the QF-EHEA. This is done through description of intended learning outcomes which refer to the generic "Dublin descriptors" for the level of a programme. For quality assurance of a Doctorate degree, a committee is installed per candidate, which assesses if the candidate fulfils the learning requirements. The "Dublin descriptors" for the learning outcomes to be achieved at the end of the third cycle have been formulated on the basis of assessments regularly being used in the Netherlands and abroad. Likewise the Dublin descriptors for the learning achievements at the end of the first and second cycle have been formulated on the basis of intended levels in the Netherlands for access to the a Master's degree programme or a Doctorates trajectory.
The implementation of the NQF-HE requires from the institutions that the learning outcomes achieved by the student in terms of knowledge, skills and other competences is reflected in the diploma supplement as well, as some institutions are already doing. The awarding of a diploma supplement is already mandatory, preferably in accordance with the European format.

2 'The single description at national level…of an education system, which is internationally understood and through which all qualifications and other learning achievements in higher education may be described and related to each other in a coherent way and which defines the relationship between higher education qualifications.' (Bergen Communiqué, 2005)

Chapter 1 What is a National Qualifications Framework?

A national qualifications framework is the unequivocal description at the national level of the education system, which is internationally understood, which describes all qualifications and other demonstrable learning achievements (based on certificates) in higher education and relates these to each other in a coherent way, and which defines the relationship between higher education qualifications.

This means that the national qualifications framework:
- describes all qualifications (degrees or diplomas) that are awarded in the higher education system and relates these qualifications to one another in a coherent way;
- defines the relationship between the different education qualifications;
- clarifies the level of qualifications within the specific national context;
- is internationally understood.

1.1 The aim of the Higher Education Qualifications Framework in the Netherlands

The aim of the Higher Education Qualifications Framework in the Netherlands is to use generic Dublin descriptors to describe learning outcomes per level in terms of knowledge, skills and competences and thus to increase understanding at home and abroad. To safeguard the quality and understanding of our higher education system abroad, it is important that we can compare ourselves with other countries using the Dublin descriptors as a common frame of reference. In this way, we can keep our system up to date in respect of our neighbouring, competitor countries.

In fact, the aim is twofold:
a. the framework must offer a clear overview of the level of the qualifications, with a particular focus on transfer, intake and lateral entry, and of the meaning of the qualifications for Dutch society, including the labour market. The target group in this respect is broad and includes employers, human resources officers, branches of industry, aspiring students, all those desiring to reach a higher educational level, their parents or guardians, deans and student counsellors, higher education institutions, and various authorities and sections thereof;
b. the framework must show how Dutch qualifications are compatible with the overarching framework for the European higher education area so that Dutch qualifications can be properly understood internationally.

1.2 The steps to the realization of the Higher Education Qualifications Framework in the Netherlands

Design and implementation of the NQF-HE at institutional and/or programme level
Following the Bologna declaration of 1999, the Bachelor's–Master's structure was legally introduced in 2002 after a consultation period regarding policy documents on a new three-cycle degree structure and on quality assurance. For the transition to the Bachelor's-Master's system, draft end-level descriptors had been developed in terms of learning outcomes for the first and second cycles. (The descriptors for the third cycle and the short cycle were added later.)
Given the European context, these were compared with draft level descriptors that had been developed in countries/communities with comparable quality assurance systems. This comparison gave rise to what is called the "joint quality initiative" and to the "Dublin descriptors". These shared generic descriptors came to the fore as common elements in the level descriptors that were compared at the time (see www.jointquality.org agenda). Thus, in 2003 the "Dublin descriptors" were introduced into the Dutch Quality Assurance Framework as reference points for the level of Higher Education programmes.
In 2005, the Dublin descriptors were integrated into the overarching Framework for Qualifications of the European Higher Education Area (QF-EHEA), which was adopted by the ministerial conference in Bergen 2005. At the same time, it was agreed to develop National Qualifications Frameworks in line with the overarching QF-EHEA.

Consultation with stakeholders and decision to start the development of the Dutch NQF-HE.

In October 2004, when the Overarching Framework for Qualifications in the European Higher Education Area was proposed to be put on the agenda of the Bologna process Ministers meeting in Bergen in 2005, a seminar was scheduled in the Netherlands. This seminar was conducted in the ministry and chaired by the Secretary of State for Higher Education. The principals of all higher education Institutions, both publicly and privately funded, were invited. Topics on the agenda were the employability of graduates and the concept of the overarching framework for qualifications of the European Higher Education Area. The outcome of that meeting was that the principals understood the intention and meaning of the QF-EHEA and agreed that it would be adopted by the ministers in the forthcoming ministerial meeting. As this framework was in principle in line with developments at Dutch higher education institutions, the QF-EHEA was welcomed.

Agenda-setting and organisation of the process

After adoption of the QF-EHEA, the way to proceed with the development of the NQF-HE in the Netherlands was agreed in the already existing committee directing the implementation of the Bologna process in the Netherlands. That committee is chaired and facilitated by the Ministry of Education, Culture and Science. It further consists of the representatives of higher education institutions (academically-oriented university education, universities of applied sciences and privately funded providers of higher education), representatives of the student unions, the quality assurance agency (the Accreditation Organisation of the Netherlands and Flanders, NVAO), employers and employee organisations and a representative from the team of Bologna experts. A working group consisting of representatives of the ministry, the universities and the universities of applied sciences and the NVAO was formed to produce a draft NQF-HE. The draft was offered to the Bologna steering committee for comments. After the steering committee validated and verified an amended version, the draft NQF-HE was put to the test of all higher education institutions in a seminar in the ministry in October 2007. The draft has since then been publicly available.

During that seminar, those present agreed that this NQF-HE represents the Dutch higher education system, with a few textual comments still being taken into consideration. Those present agreed that the NQF-HE is ready and will be further implemented. Further implementation emphasises the set up of programmes in terms of learning outcomes and the reflection of the learning outcomes as well as the level of the qualification with reference to the overarching QF-EHEA in the student's Diploma Supplement.

Parallel to this process between government and governance of Higher Education Institutions various seminars took place in which the national qualifications framework was made known and understood to the level of the executives of Higher Education Institutions. These seminars were scheduled in various places in the Netherlands and were also conducted with help of the Bologna experts.

Inclusion of qualifications in the NQF-HE and quality assurance.

The generic descriptors for the end levels of the Bachelor's, Master's and Associate degree qualifications are the "Dublin descriptors" of the QF-EHEA, which have been incorporated into the accreditation framework of the NVAO. The NVAO ensures the quality of these qualifications.

The generic "Dublin descriptors" for the doctorate level and the Dutch generic descriptor for the doctorate level, as laid down in the university policy document "*Hora est*" (VSNU 2004), have been developed in congruence with each other and are very similar. University committees ensure the quality of the Doctoral degree.

The qualifications for Design Engineers and Medical Specialists have been incorporated in the NQF-HE, as established qualifications beyond the Master's level. The quality of these qualifications is up to the present ensured by professional bodies.

Approval

The above-mentioned consultations with the Dutch Higher Education Institutions have been rather unusual processes concerning policy dialogues on higher education in the Netherlands. Regular policy consultations usually take place between the Ministry and the representative bodies of the Universities (VSNU), the Universities of Applied Sciences (HBO-raad) and the privately funded education institutions (PAEPON). Therefore, it was also considered appropriate to follow this regular procedure with regard to the development of the NQF-HE. Thus, in addition to directly involving all principals of higher education institutions, the regular consultation procedure between the ministry and the above-mentioned bodies was also followed. By October 2008, these bodies formally agreed that the presentation in the NQF-HE is correct and that the institutions adhere to the principles set out in it.

The verification of the National Qualifications Framework by the international expert panel complements and finalises a process of communication with Higher Education institutions and other relevant stakeholders concerning the learning outcomes of higher education programmes.

1.3 The Higher Education Qualifications Framework in the Netherlands in brief

The Dutch framework consists of three levels that end with the awarding of a degree: Bachelor's, Master's and Doctorate. These levels correspond to the three cycles of the overarching framework of the European higher education area. The exit level per cycle is described by the Dublin descriptors, descriptions that in the Netherlands are used as reference points for the three levels. For the exit levels of the first and second cycles, the number of credits involved (ECTS credits) is indicated (cf. annexes 1 and 3).

The level corresponding to the end of the first cycle is concluded with the awarding of a Bachelor's degree. This degree allows admission to the labour market and further study programmes in the second cycle.
Within or linked to the first cycle, the Dutch system has "short cycle" higher education programmes. These short cycle programmes – comprising components of a HBO Bachelor's programme – allow admission to the labour market and to subsequent HBO programmes that end with the awarding of a Bachelor's degree. The degrees awarded to graduates of Associate degree programmes will be known as Associate Degrees[3].

The level corresponding to the final attainment level of the second cycle ends with the awarding of a Master's degree. This degree allows admission to the labour market and further progress in the third cycle.

The level corresponding to the end of the third cycle ends with the awarding of a Doctorate. A Doctorate allows admission to the labour market. As far as the framework is concerned, there is no subsequent level.

The Dutch system makes a distinction in orientation within this level structure. This system is known as the binary system of study programmes offered through universities of applied sciences (HBO) and research universities (WO). In principle, HBO programmes lead to the performance of a profession; WO programmes on the other hand, are academically oriented in a particularly field. The degrees are of the same level but have a different orientation. To make this distinction clear, the titles of WO Bachelor's and Master's degrees are extended with the words "of Arts" or "of Science". This difference in orientation means that HBO Bachelor's degrees seldom allow seamless progress to WO Master's programmes (cf. 2.3 for more information on refusal of admission). Graduates of WO Bachelor's programmes can always seamlessly progress to at least one WO Master's programme. The majority of all Master's programme graduates (HBO and WO) flow on to the labour market. Some Master's degree programmes (research Master's programmes) are aimed at careers in research that frequently take the form of a Doctorate programme at a research university. Intake into a Doctorate programme as a rule follows the successful completion of a WO Master's degree, although universities have the power to admit anyone they deem capable of successfully completing the programme. The awarding of Doctorate degrees is reserved for research universities.

[3] Though a descriptor for the "short cycle" has been developed, the joint Ministers have decided to only accept the main division of three cycles as reference point, indicating also that each country has the freedom to define a "short cycle" (within or linked to the first cycle). In the Netherlands this short cycle only prevails in the HBO-sector.

Chapter 2 The relationship between the overarching European qualifications framework (QF-EHEA) and the Higher Education Qualifications Framework in the Netherlands (NQF-HE)

2.1 Description of programmes and learning outcomes in terms of knowledge, skills and other competences

As indicated earlier, the general descriptions (Dublin descriptors) of the exit levels of the first, second and third cycles function as points of reference in the European qualifications framework for higher education. Crucial to a qualifications framework is an appropriate international interpretation of levels and corresponding qualifications. In this regard, it is essential that higher education institutions build and assess their programmes in terms of attainment targets and/or exit competences[4]. This requires a strict application of a description of learning achievements in terms of knowledge, skills and competences, which is comprehensible for students and employers as well. In other words: the knowledge, insight and skills graduates need to have attained in order to be awarded a certificate or degree.

2.2 Qualifications and accreditation process

In the Netherlands, the NVAO (Accreditation Organisation of the Netherlands and Flanders) is responsible for assuring the quality of first and second cycle programmes that lead to a Bachelor's or Master's degree. Thus, accreditation of a programme means that graduates will have attained the level which is specific to a particular qualification in that discipline, and that the Bachelor's or Master's degree qualification for the first or second cycle exit level is justly awarded.
The NVAO assesses the level (Bachelor's or Master's) of the objectives of a programme using the following criterion: "The exit qualifications of the programme are in line with the general, internationally accepted descriptions of the qualifications of a Bachelor's or Master's degree".
The NVAO accreditation framework has incorporated the Dublin descriptors for the exit levels of Bachelor's and Master's degree programmes as reference points for monitoring the quality of programmes (cf.www.nvao.net), as well as the quality of the exams administered.

Within the context of the accreditation process, for each programme external experts draw up a frame of reference for the level of the programme and assess the level from that perspective. In this regard they can make use of the available national or international further "reference competences" for fields of study/domains/programmes. Subsequently, the NVAO assesses whether or not the assessment was made verifiably and whether the examinations take place adequately.
In order to be able to relate the programmes to the general "Dublin" descriptors for the levels, programme-specific level descriptors are formulated to provide compatibility with the general Dublin descriptors. European descriptors are available for a growing number of fields of study (via European thematic networks, particularly the Tuning project[5]). Although such descriptors were developed from a different perspective, they are very much in line with the generic Dublin descriptors. For other fields of study and in general, external (international) experts have to draw up programme-specific level descriptors and assess whether or not the level of the programme is in line with the general Dublin descriptors. In consultation with its members and groups of stakeholders in the relevant occupational fields, the Netherlands Association of Universities of Applied Sciences (HBO-raad) has set down national programme profiles at the programme level. These relate to the Dublin descriptors and agreements have been made that the programmes will adhere to these profiles. Based on the programme profiles, so-called "domain competences" have been formulated for broad subject areas, which have been made available on the HBO-raad website (www.hbo-raad.nl). The website lists the programmes/institutions that use these domain competences as reference points.

[4] The term "competence" is used in this context to mean the combined total of knowledge, insight and skills acquired.

[5] Wagenaar, R, Educational Structures, Learning Outcomes, Workload and the Calculation of ECTS Credits, In: Gonzáles, J, Wagenaar , R (red.), Tuning Educational Structures in Europe, Final Report. Phase One, Universidad de Deusto, Bilbao, 2003, pp. 223-246 (available via http://tuning.unideusto.org/tuningeu/

National or international legal requirements apply to a number of professions. National programme profiles and national domain competences form the national frame of reference when programmes are accredited. This means that these descriptions constitute the national basis. In this respect, every programme has the freedom to shape the programme itself with supplementary and additional elements and so give it its own profile. Higher education that is not publicly funded is not involved in these programme profiles and is not required to conform to them. The three technological universities in the Netherlands have developed criteria for Academic Bachelor's and Master's degree curricula[6], based on the Dublin descriptors. These criteria have been approved by the NVAO. The criteria appear to be still general in nature and are now also used by the Radboud University in Nijmegen.

Regarding assuring the quality of doctorate programmes, the Dublin descriptors are in part formulated using level assessments that are usual in the Netherlands. For the awarding of a doctorate, a separate committee is set up for each candidate to assess and monitor the level. The standard duration of a study programme leading to a Doctorate is four years. This period of study is mainly focused on (being capable of) carrying out research independently and in so doing demonstrating the ability to develop and apply – and communicate about – innovative concepts or ideas. Dependent on the competences of the candidate and the field of study, the candidate follows one or more courses that are usually of limited duration, sometimes completely tailored to the person involved, and of which the scope is not indicated using ECTS credits.

The level of the Doctorate programme is also part of assuring quality in the field of research. The regular assessment of the quality of the research and the research environment takes place according to legislation including an assessment every six years by external experts. Part of the assessment framework is the training of researchers. One of the related criteria is that the Doctorates are of an internationally comparable level.

Dutch research universities have incorporated in 2004 the relation between the Dublin descriptors for the exit level of Doctorate degree programmes and their descriptors for Doctoral Exams in *Hora Est! Reforming the Research Training System*[7] as a reference point for monitoring the quality of third cycle programmes. The development of such nationally applicable standards tied in with efforts within the Bologna Process to create transparent and comparable standards for systems in higher education within the Netherlands as well as between the Netherlands and foreign countries. As the equivalence of degrees and their mutual recognition by research universities have been estimated essential preconditions for mobility and co-operation, generic final achievement standards for a doctorate in compliance with the Dublin descriptors have been developed. Reasons mentioned:

- to harmonise the doctoral degree with other programmes, particularly Master's degree courses and designer programmes;
- to encourage transparency and equivalence within the research training system;
- to create a framework for the assessment of the doctoral degree candidate and their thesis;
- to create a framework for the development of quality assurance.

Since the adoption of *Hora Est*! *Reforming the Research Training System* qualifications that signify completion of the third cycle are awarded to students who:

Dublin descriptor	**Hora Est descriptor**
• have demonstrated a *systematic understanding* of a field of study and mastery of the skills and methods of research *associated with that field*;	• the successful candidate has acquired and worked with a *substantial body of knowledge* which, at the very least, embraces the principles and methods of international academic practice and of theorisation, methodology and study *in the discipline concerned;*

[6] A.W.M. Meijers, C.W.A.M. van Overveld, J.C. Perrenet, Criteria for Academic Bachelor's and Master's Curricula, TU/e 2005 (also available via www.jointquality.org descriptors special descriptors)

[7] VSNU, Hora Est! Reforming the Research Training System, Utrecht, 2004, page 16,17

• have demonstrated the ability to conceive, design, implement and adapt a substantial *process of research with scholarly integrity;*	• the successful candidate is able to exercise *social responsibility in conducting, applying and making use of their own research.*
• have made a contribution through *original* research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication;	• the successful candidate has made an *original* contribution to academic research of a quality which stands up to peer review at the level usual in the Netherlands;
• are capable of critical analysis, evaluation and synthesis of *new and complex ideas*;	• the successful candidate possesses the ability to design and implement *a substantial project for the purpose of developing new knowledge;*
• can *communicate* with their peers, the larger scholarly community and with society in general about their areas of expertise;	• the successful candidate is able to *communicate* knowledge and methods pertaining to their discipline or specialism in an effective way;
• can be expected to be able to promote, within academic and professional contexts, technological, social or cultural *advancement in a knowledge based society.*	• the successful candidate has demonstrated their ability to apply the academic methods used in the discipline concerned *for developing, interpreting and putting into practice new knowledge;*

2.3 The binary system: orientation or profiles

The overarching European framework does not distinguish between any profiles or orientations. Such distinctions can be made in the national frameworks. Given that the Netherlands has a binary system involving different titles for qualifications obtained in professionally-oriented higher education programmes (HBO) or academically-oriented higher education programmes (WO), this distinction is illustrated in the Higher Education Qualifications Framework in the Netherlands.
This means that in addition to distinguishing between the levels of programmes, the framework also specifies their orientation. The orientation of a programme is expressed in the title of the degree. Different titles are issued on completion of the more specifically professionally-oriented programmes than on the completion of programmes that are in general more broadly academically oriented.
The qualification is thus the same: a Bachelor's or Master's degree because the general final level is the same, but the title of the degree differs because the orientation is different. To show this distinction the suffix "of Arts" or "of Science" is added to the Bachelor's or Master's degree awarded after completion of a more academically-oriented higher education programme. This difference in orientation entails that graduates awarded a Bachelor's degree after completion of a professionally-oriented higher education programme in the majority of the cases are not directly admitted to academically-oriented (WO) and professionally-oriented (HBO) Master's programmes. Many HBO Master's programmes require several years of prior work experience. Graduates of academically oriented (WO) Bachelor's programmes can always seamlessly progress to at least one WO Master's programme. The majority of all Master's programme graduates (HBO and WO) flow on to the labour market.
Regarding possible refusal of admission to a Master's programme after a Bachelor's programme, the institutions act in conformity with the code of conduct laid down in the Lisbon recognition convention; i.e., the institution substantiates the reason for the refusal of admission to the candidate.

2.4 Self-certification process

To bring the national framework into line with the overarching framework, a process of self-certification has been agreed[8]. To check that the description in this National Higher Education Qualifications

[8] Pages 54-57 of the proposal for the overarching framework report "A Framework for Qualifications of the European Higher Education Area", mentions "good practices" and their development. Pages 88-90 contain a summary of the criteria and procedures for self-certification.

Framework also reflects the reality of the situation, a self-certification test is conducted by an international panel. A country that has fitted in its national qualifications framework in accordance with the European conditions – i.e. transparently and having used external experts – issues a letter stating that the self-certification process has been completed. This letter is made public, whereupon the country concerned is included on a list of countries that have completed the certification process. This list is kept up to date by the ENIC/NARIC network of the Council of Europe and the EU.

Given that quality assurance is an important aspect in this relationship, the Dutch government has designated the NVAO to implement the self-certification process. The NVAO checks whether first and second cycle programmes satisfy the descriptors and therefore meet the requirements regarding learning achievements for the cycle concerned. (The level of the third cycle programmes is also assessed by external peers, but is not subjected to the process of accreditation.) The NVAO will involve international experts in the self-certification process.
For the Netherlands, the process of self-certification means that it must be demonstrated that the attainment targets of programmes satisfy the Dublin descriptors. Based on this, the qualification is fitted into a particular cycle. In this way, it becomes clear what each qualification or certificate, diploma or degree means for the labour market or for a course of further study. The ENIC and NARIC recognition networks can use this as a starting point in the assessment of the level of the qualifications. In the Netherlands, Nuffic functions as ENIC/NARIC. It has an advisory role regarding the recognition of qualifications.

2.5 Role of the Diploma Supplement

In accordance with European agreements, when a student successfully completes a programme, the institution indicates on the Diploma Supplement how the qualification fits into the Dutch and European frameworks. In the Netherlands, the intended and realized learning outcomes are already set out in the accreditation process. For the proper implementation of the National Higher Education Qualifications Framework, these outcomes should also be reflected in the Diploma Supplement, considering the fact that other countries are also drawing up national qualification frameworks in which Diploma Supplements reflect the position of the qualification concerned in the overarching framework. Thus, based on the reference points of the overarching framework, the level of all qualifications in the European higher education area will be comparable.

Chapter 3 Outline of the Dutch higher education framework

Admission from	First cycle	Second cycle	Third cycle
MBO/HAVO/VWO	Associate degree 120 ECTS		
MBO/HAVO/VWO	Bachelor's degree 240 ECTS professionally oriented Former title of Ing.	Master's degree 60 ECTS 75 ECTS 90 ECTS 120 ECTS[9]	Doctorate (standard: 4 years) Design engineer (standard: 2 years)
VWO	180 ECTS academically oriented	Former titles of Drs, Ir, Mr, etc 180 ECTS[10] 240 ECTS[11]	Medical specialist[12] (standard: 3-6 years)

Explanation of the table (cf. Annex 4, which illustrates the table)
MBO, HAVO and VWO all allow admission to Bachelor's programmes.
MBO and HAVO allow admission to professionally-oriented Bachelor's programmes.
VWO allows admission to academically-oriented Bachelor's programmes.
MBO, HAVO and VWO also allow admission to professionally-oriented Associate degree programmes. In this regard, it is important to know that the duration and level of HAVO and VWO are different and that the exit level of MBO is generally regarded as comparable to the exit level of HAVO as far as admission to higher education is concerned.
The Associate degree allows admission to the remaining part of professionally-oriented Bachelor's programmes.
Bachelor's degrees allow admission to Master's programmes (in particular cases, under certain conditions). Master's degrees allow admission to Doctorate programmes. The MSc degree allows admission to Design Engineering programmes. Based on a Master of Medicine degree, registration on the occupational register is entitled and necessary to practice as a doctor, for Medical Specialists, a further course of study must be completed.
MBO, HAVO, VWO, Associate degrees, Bachelor's degrees, Master's degrees and Doctorates all allow admission to the labour market.
In addition to the transfer possibilities mentioned above, HBO students may also transfer to WO after completing their propaedeutic year, while WO students may transfer to HBO.

N.B. For access to the Open Universiteit (Open University) no explicit preparatory diploma is obligatory. The Open University offers academically oriented higher education at the levels of the first, second and third cycle.

3.1 Relationship to the European Qualifications Framework for Lifelong Learning

The Qualifications framework for the European Higher Education Area to which this National Qualifications Framework for Higher Education refers, was accepted in 2005 by 46 European countries.

[9] Including Master's programmes for registered accountants, Research Master's degrees and Master's degrees for dentists up to and including 2009.
[10] Including Master's programmes for first level teachers, humanistic arts, veterinary science, pharmacology, clinical technology and dentistry with effect from 2010.
11 Including Master's programmes for professionally oriented degrees in architecture, urban planning, landscape architecture (formerly post-graduate programmes).
[12] On completion of a Master of Medicine degree, candidates can continue to become Medical Specialists. These programmes vary in length from 3 to 6 years. The scope of these programmes for specialists is not indicated in ECTS credits.

Currently, at the European Union level (25 countries), the European Qualifications Framework for Lifelong Learning (EQF-LLL) has been developed for all levels of education. The levels of the short cycle (the Associate degree) and the First, Second and Third Cycles are defined in the European Qualifications Framework for Lifelong Learning as levels 5, 6, 7 and 8 respectively.

Chapter 4 Closer examination of the orientation of qualifications

4.1 Assessment criteria of the accreditation framework, HBO and WO profiles

The HBO and WO orientations are assessed on the basis of five standards from the accreditation framework (cf. table).

Assessment criteria from the accreditation framework for HBO and WO orientation

Theme	Standard	Criterion
Objectives	Orientation Higher professional education (HBO) / Academic higher education (WO)	The final qualifications of the programme correspond to the following descriptions of HBO and WO Bachelor's and Master's programmes: **HBO:** – the final qualifications are derived in part from occupation profiles and/or professional competences drawn up by (or discussed with) the relevant occupational field, and/or any applicable national or international statutory requirements for the profession; – holders of HBO Bachelor's degrees have obtained the qualifications for the level of starter professional practitioner in a specific occupation or linked spectrum of occupations for which a HBO degree is either required or would be of use; – holders of HBO Master's degrees have obtained the qualifications for the level of independent and/or management level professional practitioner in an occupation or spectrum of occupations, and have reached the level needed to work in a multi-disciplinary environment in which a HBO degree is either required or would be of use. **WO:** – the final qualifications are derived from the requirements of scientific disciplines, international scientific practice and – where applicable for specific programmes – relevant practice in the future occupational field; – holders of WO Bachelor's degrees have obtained the qualifications to allow admission to at least one subsequent WO course of study at the Master's level and to the labour market; – holders of WO Master's degrees have obtained the qualifications to carry out independent scientific research or to resolve multi-disciplinary and inter-disciplinary issues in professional practices for which a WO degree is required or would be of use.
Programme	Higher professional education (HBO) / Academic higher education (WO) requirements	The programme meets the following criteria for HBO or WO programmes: **HBO:** – the knowledge of students is developed through specialised literature, course material derived from professional practice and through interaction with professional practice and/or (applied) research; – the programme can be shown to be linked to current developments in the field of study/discipline; – the programme guarantees the development of professional skills and can be shown to be linked to current professional practice. **WO:** – the knowledge of students is developed through interaction between the educational programme and scientific research within the relevant disciplines; – the programme is in line with developments in the relevant scientific discipline(s) through its demonstrable links with current scientific theories;

		– the programme guarantees the development of skills in the field of scientific research ; – where applicable, programmes have demonstrable links with the current practice of the relevant occupations.
Programme	Intake	In terms of its form and content, the programme is in line with the qualifications of incoming students: – **HBO** Bachelor's programmes: VWO, HAVO, Associate degree programmes, middle-management courses or specialised training (WEB) or comparable qualifications as demonstrated in admission tests; – **WO** Bachelor's programmes: VWO, HBO propaedeutic year or comparable qualifications as demonstrated in entrance exams; – HBO and WO Master's programmes: Bachelor's degree and possibly (content-based) selection
Programme	Duration	The programme meets the formal requirements regarding the study load of the curriculum: – HBO Bachelor's programmes: 240 credit points – WO Bachelor's programmes: as a rule, 180 credit points – HBO Master's programmes: 60 credit points minimum – WO Master's programmes: 60 credit points minimum, depending on the programme
Staffing	Higher professional education (HBO) / Academic higher education (WO) requirements	The programme meets the following criteria regarding the use of staff in HBO and WO programmes: **HBO**: A major part of the course is given by staff who link the programme to professional practice **WO**: A major part of the course is given by researchers who contribute to the development of the field of study

All accredited Bachelor's and Master's programmes are listed on the Central Register of Higher Education Study Programmes (www.ib-groep.nl → Zakelijk → HO → Croho).

4.2 HBO Bachelor programmes 240 ECTS, HBO Master programmes and titles

All HBO Bachelor's degrees are based on a programme scope of 240 ECTS. The field of study is added to the degree awarded. Common titles for connected domains can be found on the website of the HBO-raad (www.hbo-raad.nl) and are listed below. For example, Higher Education in Engineering and Technology comprises four domains with the recommended Bachelor's degree.

Higher education in engineering and technology	
Bachelor of Engineering	B Eng
Bachelor of Built Environment	B BE
Bachelor of Applied Science	B AS
Bachelor of Information and Communication Technology	B ICT
Higher education in economics and management	
Bachelor of Business Administration	BBA
Bachelor of Commerce	B Com
Bachelor of Economics	B Ec
Bachelor of Communication	B Comn
Bachelor of Laws	LLB
Higher education in social and community work	
Bachelor of Social Work	B SW
Bachelor of Theology	B Theology
Bachelor of Business Administration	BBA

Bachelor of Laws	LLB	
Teacher training		
Bachelor of Education	B Ed	
Higher education in health care		
Bachelor of Health	B Health	
Bachelor of Nursing	B Nursing	
Higher education in the arts		
Bachelor and Master of Fine Art	B FA	M FA
Bachelor and Master of Design	B Des	M Des
Bachelor of Fine Art in Education	B FA Ed	
Bachelor of Film and Television	B FT	
Bachelor and Master of Music	B Mus	M Mus
Bachelor of Music in Education	B Mus Ed	
Bachelor of Theatre	B Th	
Bachelor of Theatre in Education	B Th Ed	
Bachelor of Dance	B Da	
Bachelor of Dance in Education	B Da Ed	
Master of Music in Sonology		M Mus Son
Master of Dance in Choreography		M Da Chor
Master of Dance Therapy		M Da T
Master of Typography		M Ty
Master of Architecture		M Arch
Master of Landscape Architecture		M LA
Master of Urban Design		M UD
Higher education in agriculture		
No recommendations have been provided for the agriculture sector.		

Explanation
As set out in paragraph 2.2, “National Profiles” have been developed for programmes bearing the same name. On the basis of these profiles, domain competences were subsequently developed for programmes that are related in terms of content. Each degree listed above is linked to such a broad professional area, the so-called knowledge and skills domain for which peers from a professional group have specified the corresponding competences, i.e., what graduates know, what they are capable of and frequently also what mentality they have. These profiles and competences are set out on the website of the Netherlands Association of Universities of Applied Sciences, www.hbo-raad.nl. Each domain consists of some 5 to 10 pages of text. Increasingly, national profiles and domain competences are validated on an international scale (*body of knowledge and skills*). The aggregate descriptions can be characterised as a database, which can be adapted as necessary.
Initially, the competences relating to Bachelor’s degree programmes were entered into the database. For a few Master’s programmes, suffixes to the name of the degree are available as references. In the future, descriptions of the programmes that lead to Associate degrees will be included. An Associate degree is not tied to an independent programme but rather to a two-year educational programme that consists of elements of a HBO Bachelor’s programme. After completion of the programme, graduates of an Associate degree programme can enter the labour market or choose to follow up their Bachelor’s programme.

In the HBO sector (universities of applied sciences), domain competences are considered to be those competences that determine the core competences of the (broad) professionally-focused orientation of the Bachelor’s programme. These domain competences together with the general Bachelor’s programme competences and specialised competences make up the competences that are acquired in the programme. Domain-specific competences form the so-called stem of the programme for both “broad” and “narrow” programmes that lead to the same title. For example, the domain competences related to Bachelor of Engineering programmes indicate that each programme for which a B.Eng is awarded has included these domain competences in the curriculum, and therefore, every B.Eng graduate has acquired these competences. Thus, the extension to the title is accounted for, without

setting down exactly what proportion of the curriculum is made up by the domain competences. As a matter of fact, in practice, (large) differences can arise in the proportion of domain competences in the curriculum. This depends, among other things, on the extent to which programmes focus on “narrow” occupations, and which competences are defined as domain competences. Current programmes that lead to the broad title of Bachelor of Business Administration are aimed at a broad range of occupations, which means that they probably have a smaller section of the curriculum in common than programmes focusing on highly specific occupations, such as programmes that lead to the award of a Bachelor of Nursing. A graduate’s Diploma Supplement reflects the exact competences he or she has achieved.

As indicated in paragraph 2.2, non-government-funded higher education is not covered by the agreements made with the Netherlands Association of Universities of Applied Sciences (HBO-raad). These programmes need to be accredited, as do the government-funded HBO programmes, before they can be incorporated into the Central Register of Higher Education Programmes (CROHO register). The accreditation process entails a demonstration of correspondence with the reference levels of the European qualifications framework; another aspect that it is checked whether the title matches the profile of the programme.

HBO Master’s degrees
The current law sets down that graduates of accredited HBO Master’s programmes are awarded Master’s degrees (M). As a rule, the universities of applied sciences are free to determine the study load of the programme in ECTS and to supplement this title with a suffix related to the specific field of work. The name of the degree to be awarded is a point for consideration during the accreditation process, in order to check that it accurately reflects the programme in question. Current Dutch legislation prohibits the use of the suffixes ‘of Arts’ and ‘of Science’ in the titles of HBO Master’s degrees. The universities of applied sciences may use these terms only if they have the programme accredited abroad (as well). On this basis, many universities of applied sciences have chosen to add ‘of Arts’ and ‘of Science’ to their degree programmes. In 2004, the degrees awarded broke down as follows: 26% Master of Science, 27% Master of Arts and 45% Master’s degrees.

4.3 WO Bachelor programmes 180 ECTS, WO Master programmes and titles

After completing a WO programme, depending on the level, either a Bachelor’s or Master’s degree is awarded. Due to the academic orientation, the suffixes “of Arts” or “of Science” are added to the title (BA and BSc or MA and MSc).
BAs and MAs are awarded for language and culture disciplines.
BSc and MSc degrees are awarded for all other disciplines.
LLB and LLM degrees (Legal Law Bachelor’s degrees and Legal Law Master’s degrees) can be legitimately awarded after the completion of certain law programmes.
All programmes leading to a WO Bachelor’s degree have a study load of 180 ECTS. Master’s programmes vary in study load. Master’s programmes for medical doctors, veterinary surgeons and pharmacists carry a study load of 180 ECTS. Master’s programmes in dentistry currently have a study load of 120 ECTS, but this will increase to 180 ECTS with effect from the academic year 2010/11. Preparations have been made to amend the law in this respect. The study load of Master’s programmes training teachers for the highest levels of secondary education (first level teaching qualification) range from 60 to 120 ECTS.
The so-called “Research Master’s” programmes, leading to the MA degree, carry a study load of 120 ECTS and focus specifically on research careers.
The WO Master’s programmes in science / technology and health care also carry a study load of 120 ECTS.
Other Master’s programmes have a study load of 60 and in some cases 90 ECTS.
Master’s degrees awarded after successful completion of a 60 or 90 ECTS programme as well as Master’s degrees awarded after completion of a programme comprising 120 or more ECTS give access to the third cycle, i.e., the pursuit of a Doctorate.
The Diploma Supplement explains the content and study load of the Bachelor’s and Master’s programmes in question.

Trainee design engineer programmes
These are structured programmes, offered by the Universities of Technology, with a normative duration of two years following the completion of a Master’s programme. The competences are

tailored to the professional design engineering practice; they differ in nature from those pertaining to the Doctorate as the third cycle exit level.

Medical specialist programmes
After completing a Master's programme in medicine, graduates may enrol in a training programme for Medical Specialists. The duration of these programmes ranges from 3 to 6 years.

4.4 Initial and post-initial education

Current legislation distinguishes between initial and post-initial education. This distinction is related to the system of funding. Initial education is funded by the government, while post-initial education, in principle, is not. HBO Master's programmes are, in principle, post-initial. Some of these programmes are funded by the government because of their considerable social significance. For example, Advanced Nursing Practitioner, Physician's Assistant and first-level teaching qualifications. Academic post-initial Master's programmes, provided they have been incorporated into the CROHO register, i.e., have been accredited, carry the title of Master of Science/Arts (MSc/MA).

Annex 1 The framework for qualifications of the European Higher Education Area

	Outcomes	ECTS Credits
Short cycle (within or linked to the first cycle) qualifications	Qualifications that signify completion of the higher education short cycle (within or linked to the first cycle) are awarded to students who: • have demonstrated knowledge and understanding in a field of study that builds upon general secondary education[13] and is typically at a level supported by advanced textbooks; such knowledge provides an underpinning for a field of work or vocation, personal development, and further studies to complete the first cycle; • can apply their knowledge and understanding in occupational contexts; • have the ability to identify and use data to formulate responses to well-defined concrete and abstract problems; • can communicate about their understanding, skills and activities with peers, supervisors and clients; • have the learning skills to undertake further studies with some autonomy.	Approximately 120 ECTS credits
First cycle qualifications	Qualifications that signify completion of the first cycle are awarded to students who: • have demonstrated knowledge and understanding in a field of study that builds upon their general secondary education[14], and is typically at a level that, while supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study; • can apply their knowledge and understanding in a manner that indicates a professional[15] approach to their work or vocation, and have competences[16] typically demonstrated through devising and sustaining arguments and solving problems within their field of study; • have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, scientific or ethical issues;	Typically include 180-240 ECTS credits

[13] General secondary education also includes vocational education with a sufficiently general component.

[14] ISCED 1997 recognises that while it is desirable to classify levels on the basis of educational content, the diversity of programmes, curricula and structure makes this impossible to do on a worldwide scale without employing additional criteria such as entrance requirements, duration and national qualifications structure. ISCED Levels 5 and 6 refer to tertiary education. Level 5 is defined as tertiary education not leading to an advanced research qualification. It is further divided into 5A and 5B, using a set of subsidiary criteria. Level 6 refers to tertiary education leading to an advanced research qualification.

[15] The word 'professional' is used in the descriptors in its broadest sense, relating to those attributes relevant to undertaking work or a vocation and involving the application of some aspects of advanced learning. It is not used with regard to those specific requirements relating to regulated professions. The latter may be identified with the profile / specification.

[16] The word 'competence' is used in the descriptors in its broadest sense, allowing for gradations of abilities or skills. It is not used in the narrower sense identified solely on the basis of a 'yes/no' assessment.

	• can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences; • have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.	
Second cycle qualifications	*Qualifications that signify completion of the **second cycle** are awarded to students who:* • have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with the first cycle, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research17 context; • can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study; • have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements; • can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously; • have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.	Normally carry 90-120 ECTS credits – the minimum requirements should amount to 60 ECTS credits at the second cycle level
Third cycle qualifications	Qualifications that signify completion of the third cycle are awarded to students who: • have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with that field; • have demonstrated the ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity; • have made a contribution through original research that extends the frontier of knowledge by developing a substantial body of work, some of which merits national or international refereed publication; • are capable of critical analysis, evaluation and synthesis of new and complex ideas; • can communicate with their peers, the larger scholarly community and with society in general	Not specified

[17] The word '**research**' is used to cover a wide variety of activities, with the context often related to a field of study; the term is used here to represent a careful study or investigation based on a systematic understanding and critical awareness of knowledge. The word is used in an inclusive way to accommodate the range of activities that support original and innovative work in the whole range of academic, professional and technological fields, including the humanities, and traditional, performing, and other creative arts. It is not used in any limited or restricted sense, or relating solely to a traditional 'scientific method'.

	about their areas of expertise; • can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.	

Annex 2 Outline for differentiation between the cycles

Cycle	Knowledge and understanding:
1 (Bachelor's)	[Is] supported by advanced text books [with] some aspects informed by knowledge at the forefront of their field of study.
2 (Master's)	provides a basis or opportunity for originality in developing or applying ideas often in a research* context.
3 (Doctorate)	[includes] a systematic understanding of their field of study and mastery of the methods of research* associated with that field.

	Applying knowledge and understanding:
1 (Bachelor's)	[through] devising and sustaining arguments.
2 (Master's)	[through] problem solving abilities [applied] in new or unfamiliar environments within broader (or multidisciplinary) contexts.
3 (Doctorate)	[is demonstrated by the] ability to conceive, design, implement and adapt a substantial process of research* with scholarly integrity. [is in the context of] a contribution that extends the frontier of knowledge by developing a substantial body of work some of which merits national or international refereed publication.

	Making judgements:
1 (Bachelor's)	[involves] gathering and interpreting relevant data.
2 (Master's)	[demonstrates] the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete data.
3 (Doctorate)	[requires being] capable of critical analysis, evaluation and synthesis of new and complex ideas.

	Communication
1 (Bachelor's)	[of] information, ideas, problems and solutions.
2 (Master's)	[of] their conclusions and the underpinning knowledge and rationale (restricted scope) to specialist and non-specialist audiences (monologue).
3 (Doctorate)	with their peers, the larger scholarly community and with society in general (dialogue) about their areas of expertise (broad scope).

	Learning skills
1 (Bachelor's)	have developed those skills needed to study further with a high level of autonomy.
2 (Master's)	study in a manner that may be largely self-directed or autonomous..
3 (Doctorate)	expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement.

Annex 3 Dutch translation of the Dublin descriptors for the first, second and third cycle exit levels, in the Netherlands referred to as Bachelor, Master and Doctor.

	Kwalificaties Bachelor	**Kwalificaties Master**
Kennis en inzicht	Heeft aantoonbare kennis en inzicht van een vakgebied, waarbij wordt voortgebouwd op het niveau bereikt in het voortgezet onderwijs en dit wordt overtroffen; functioneert doorgaans op een niveau waarop met ondersteuning van gespecialiseerde handboeken, enige aspecten voorkomen waarvoor kennis van de laatste ontwikkelingen in het vakgebied vereist is.	Heeft aantoonbare kennis en inzicht, gebaseerd op de kennis en het inzicht op het niveau van Bachelor en die deze overtreffen en/of verdiepen, alsmede een basis of een kans bieden om een originele bijdrage te leveren aan het ontwikkelen en/of toepassen van ideeën, vaak in onderzoeksverband.
Toepassen kennis en inzicht	Is in staat om zijn/haar kennis en inzicht op dusdanige wijze toe te passen, dat dit een professionele benadering van zijn/haar werk of beroep laat zien, en beschikt verder over competenties voor het opstellen en verdiepen van argumentaties en voor het oplossen van problemen op het vakgebied.	Is in staat om kennis en inzicht en probleemoplossende vermogens toe te passen in nieuwe of onbekende omstandigheden binnen een bredere (of multidisciplinaire) context die gerelateerd is aan het vakgebied; is in staat om kennis te integreren en met complexe materie om te gaan.
Oordeelsvorming	Is in staat om relevante gegevens te verzamelen en interpreteren (meestal op het vakgebied) met het doel een oordeel te vormen dat mede gebaseerd is op het afwegen van relevante sociaal-maatschappelijke, wetenschappelijke of ethische aspecten.	Is in staat om oordelen te formuleren op grond van onvolledige of beperkte informatie en daarbij rekening te houden met sociaal-maatschappelijke en ethische verantwoordelijkheden, die zijn verbonden aan het toepassen van de eigen kennis en oordelen.
Communicatie	Is in staat om informatie, ideeën en oplossingen over te brengen op een publiek bestaande uit specialisten of niet-specialisten.	Is in staat om conclusies, alsmede De kennis, motieven en overwegingen die hieraan ten grondslag liggen, duidelijk en ondubbelzinnig over te brengen op een publiek van specialisten of niet-specialisten.
Leervaardigheden	Bezit de leervaardigheden die noodzakelijk zijn om een vervolgstudie die een hoog niveau van autonomie veronderstelt aan te gaan.	Bezit de leervaardigheden die hem of haar in staat stellen een vervolgstudie aan te gaan met een grotendeels zelfgestuurd of autonoom karakter.

Kwalificaties Doctor

Kennis en inzicht	Heeft aangetoond een vakgebied systematisch te begrijpen en de vaardigheden en methodieken te beheersen van onderzoek in dat vakgebied.
Toepassen van kennis en inzicht	Heeft de bekwaamheid aangetoond om met de geëigende integriteit van een onderzoeker een omvangrijk onderzoeksproces te ontwerpen, ontwikkelen, uit

	te voeren en aan te passen. Heeft door origineel onderzoek een bijdrage geleverd aan verlegging van de grenzen van kennis door een omvangrijke hoeveelheid werk, waarvan een deel een national of international beoordeelde publicatie verdient.
Oordeelsvorming	Is in staat tot kritische analyse, evaluatie en synthese van nieuwe en complexe ideeën.
Communicatie	Kan communiceren met vakgenoten, de bredere wetenschappelijke gemeenschap en de samenleving als geheel over het terrein waarop hij of zij deskundig is.
Leervaardigheden	Wordt binnen de academische en professionele context verwacht in staat te zijn om technologische, sociale of culturele vooruitgang te bewerkstelligen in een kennissamenleving.

Een afgestudeerde van het korte programma in de hbo-bachelor:

1. heeft aantoonbare kennis en inzicht van een vakgebied waarbij wordt voortgebouwd op algemeen voortgezet onderwijs*, functioneert doorgaans op het niveau van gevorderde leerboeken, heeft een kennisondergrond voor een beroepenveld of een beroep, voor persoonlijke ontwikkeling en voor verdere studie om de eerste cyclus (bachelor) af te ronden;
2. heeft de vaardigheid om gegevens te identificeren en te gebruiken, teneinde een respons te bepalen met betrekking tot duidelijk gedefinieerde, concrete en abstracte problemen;
3. is in staat om kennis en inzicht in beroepsmatige contexten toe te passen;
4. kan communiceren met gelijken, leidinggevenden en cliënten over begrip, vaardigheden en werkzaamheden;
5. bezit de leervaardigheden om een vervolgopleiding die een zekere mate van autonomie vraagt, aan te gaan.

Annex 4 Diagram of the Dutch education system, also intended as annex to the Diploma Supplement