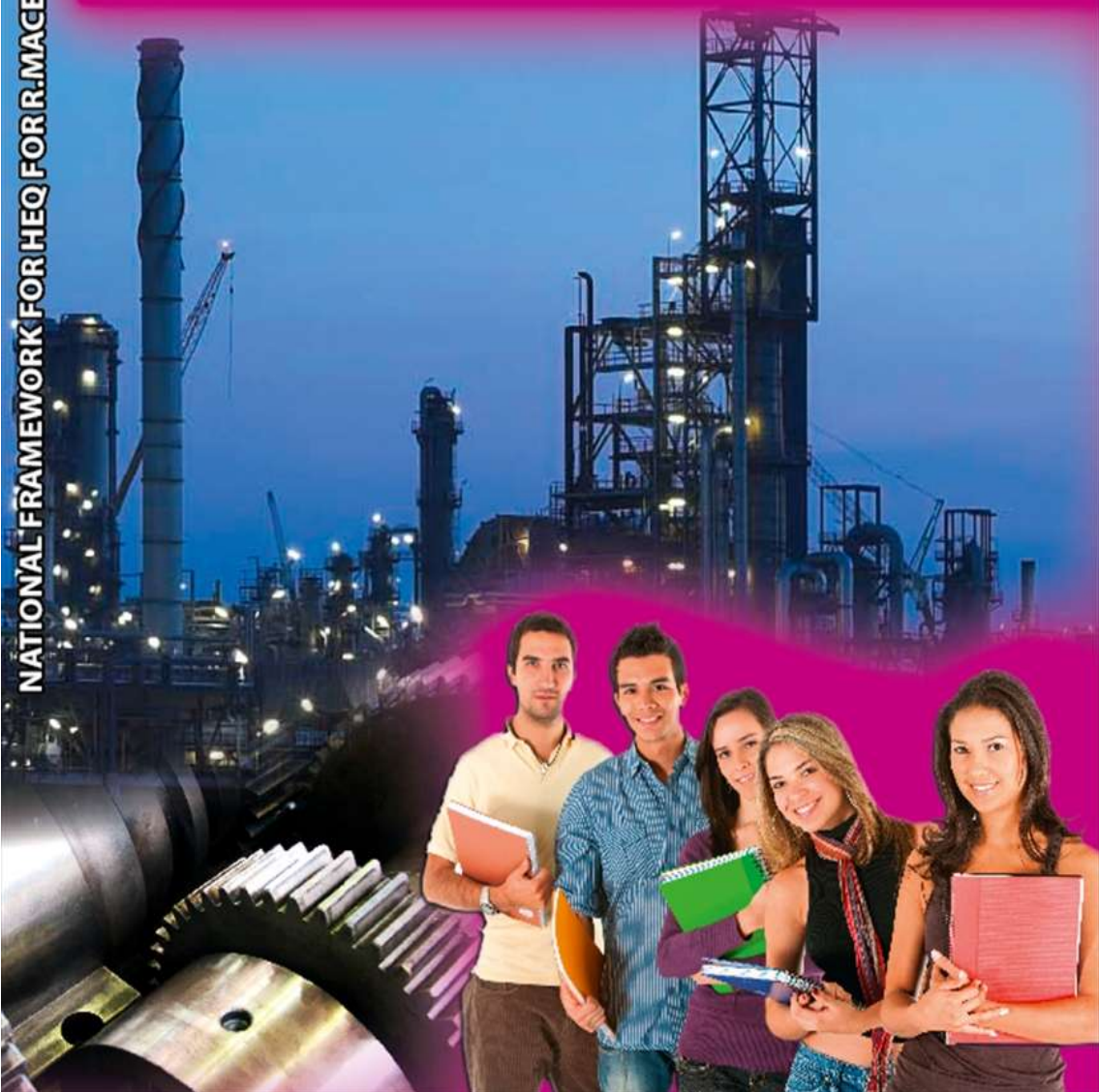
Tempus Project N° 145165-TEMPUS-2008-SE-SMHES
Designing and implementing of the National Qualifications Framework

National Framework for Higher Education Qualifications for Republic of Macedonia
- GUIDE -

Elizabeta BAHTOVSKA
Gordana JANEVSKA
Ratka NESHKOVSKA

NATIONAL FRAMEWORK FOR HEQ FOR R.MACEDONIA



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Bitola, 2011

Project:
N° 145165-TEMPUS-2008-SE-SMHES (2008-4763)

Project Contractor:
Prof. Janerik Lundquist
Linkoping University - Sweden

Project Coordinator:
Prof. Elizabeta Bahtovska
University “St. Kliment Ohridski” - Macedonia

CIP – Cataloguing in publication
National and University Library “St Kliment Ohridski” Skopje

378.21(497.7)

BAHTOVSKA Elizabeta
National Framework for Higher Education Qualifications for Republic of Macedonia: Guide /Elizabeta Bahtovska, Gordana Janevska, Ratka Neshkovska.- Bitola: University "St Kliment Ohridski", 2012. – 101p : Tables; 21 cm

The Publication is in the frame of Tempus project
Designing and Implementation of the NQF
No 145165-TEMPUS-2008-SE-SMHES

ISBN 978-9989-870-67-5
1. Janevska Gordana [author] 2. Neshkovska Ratka [author]
a) Higher Qualifications – Aligning with Bologna Declaration - Macedonia
COBISS.MK-ID 90693130

Publisher: University “St. Kliment Ohridski” - Bitola
Lector: Marija Jovanovska
Designer: Elizabeta Bahtovska, Aleksandar Bahtovski
Printing: a.c. “Kiro Dandaro”– Bitola
Circulation of 700 copies

Foreword

This guide is the result of the successful cooperation between the representatives from three EU HE institutions, (University of Linkoping - SE, Gent University - BE and University of applied sciences in Osnabruck - DE) and representatives from five Macedonian HE institutions, (University St Kliment Ohridski, University Ss. Cyril and Methodius, South East European University, Goce Delchev University and State University of Tetovo), the Ministry of Education and Sciences and Ministry of Labour and Social Policy in Republic of Macedonia, working together in the Tempus project "Designing and implementing the National Qualifications Framework". Grant applicant of the project is University of Linkoping – Sweden.

The objective of this project was to design and practical implement a model of National Qualifications Framework for the higher education, through accepted set of levels, in which all learning achievements (learning outcomes, skills, competences) may be measured and related to each other in a coherent way and which defines the relationship between all education and training awards in the HE in Macedonia. Designed NQF will put the needs of the Macedonian learner first and support the national objective of moving towards a 'lifelong learning society'. It will be the route through which the country will bring the education and training together in a single unified higher education system and enjoy international recognition. Thereby, it will contribute to the full personal development of each learner and the social and economic development of the nation at large.

Here, I would like to write a few words of appreciation to those who contributed to the Tempus project and without whom this project never could have succeeded. I am thankful to the project team for their hard work to come to this final result. Special thanks go to the Contractor of the project Janerik Lundquist (University of Linkoping - SE), for his unselfish help, coordination of the project activities and valuable input and dedication to the project. Many thanks to Luc Francois (Gent University-Belgium) and Volker Gehmlich (University of applied sciences,

Osnabruck – Germany) for their valuable contribution, practical advices, useful remarks and recommendations.

Words of appreciation also go to the representatives from Macedonian partners in the project, especially to the Rector of the coordinating university Zlatko Zoglev (University St Kliment Ohridski – MK) and the participants in the project activities: Ljupco Trpezanovski, Sasho Atanasoski, Gordana Janevska, Ratka Neshkovska, Kaliopa Stilinovic (UKLO-Bitola), Mome Spasovski, Kole Vasilevski, (UKIM-Skopje), Zamir Dika, Vladimir Radevski, Besnik Xheladini (SEEU-Tetovo), Liljana Koleva Gudeva (GDU-Stip), Qufli Osmani, Valon Abdiu (SUT-Tetovo), Borcho Aleksov, Snezana Bilic-Sotiroska, Marija Krakutovska (MES-Skopje), Mirjanka Aleksevska, Maja Paopatolevska (MLSP – Skopje) for their very useful contributions to the project results.

Last but not least I thank the European Commission for providing the necessary financial support to carry out this project.

I hope that this Guide, as a practical tool for the design of the National Qualification Framework and the formulation of the level descriptors, will answer to the needs of those involved in the transformation of study content into learning outcomes. The greater transparency in programme outputs thus created will certainly facilitate the recognition process and the creation of a common language for qualifications.

October 2011

Prof. Elizabeta Bahtovska
Project Coordinator

Contents

1. Introduction

This Guide is about the implementation of *National framework for higher education qualifications in Republic of Macedonia, (*NF-HEQ in RM). It applies to higher education qualifications, granted by a higher education provider in the exercise of its degree awarding powers.

This Guide uses the definition of 'qualifications framework' proposed by Bologna Working Group on Qualifications Frameworks (BWGQF), that was also incorporated in the Decree for NF-HEQ adopted by the Government of Republic of Macedonia in November 2010.

In clear terms a national framework for higher education qualifications is defined here as: the single description, at national level or 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 [7].

A Qualifications Framework is an instrument for the development, classification and recognition of skills, knowledge and competencies along a continuum of agreed levels. It is a way of structuring the existing and new qualifications, which are defined by learning outcomes, i.e. *clear statements of what the learner is expected to know, understand and/or be able to demonstrate on the successful completion of the approved programme of learning* [18].

A complete qualifications framework provides a systematic description of the full range of qualifications within a given

education system, as well as the ways in which learners can navigate between them. Qualifications therefore have to be described in such a way as to cover the full purpose of education, so the framework must be multi-dimensional.

2. Background

The development of National Qualifications Frameworks (NQFs) has been a major international trend in reforming national education and training systems since the late 1990s. The initiative first started, and was diffused mostly, among English-speaking developed countries. However, since the late 1990s such frameworks have also been adopted by non-English-speaking and developing countries.

In Europe, the importance of mutual recognition of qualifications has been recognized since the early 1990s; the current proposals for an *European Qualifications Framework* are an outcome of a series of attempts to deal with this issue in different ways. Many member countries have long-established qualification systems (not necessarily frameworks), while others are engaged in a process of reform of education and training. There is, therefore, a need to find a solution which respects well-established national traditions while simultaneously providing a clear basis for mutual recognition and mobility of labour across the enlarged EU.

The Bologna Process was initiated in 1999. It now involves 47 countries. An important action line in this Process is the restructuring of higher education programmes and accordingly changes to the qualifications (diplomas). In 2003, the Ministers with responsibility for higher education gathered in Berlin to review the progress of in the Bologna process.

'Ministers encourage the member states to elaborate a framework of comparable and compatible qualifications for their higher education systems, which should seek to describe qualifications in terms of workload, level, learning outcomes, competences and profile. They also undertake to elaborate an overarching framework of qualifications for the European Higher Education Area. (FQ for EHEA)' [1]

Berlin Communiqué

An effective overarching Framework for Qualifications for the EHEA is necessary for many reasons. Primarily, it should help the Bologna Process to establish real transparency among the existing European systems of higher education through the development of a shared basis for understanding these systems and the qualifications they contain. This should improve the recognition of foreign qualifications, enhance the mobility of citizens and make credential evaluation more accurate. The overarching framework should also provide guidance to those countries developing their national frameworks. Last, but not least, it provides a context for effective quality assurance.

The Bergen Conference of European Ministers responsible for higher education in 2005 adopted the overarching framework for qualifications in the EHEA,[6], comprising of three cycles (including, within national contexts, the possibility of intermediate qualifications), the generic descriptors for each cycle based on learning outcomes and competences, and the credit ranges in the first and second cycles. Ministers committed themselves to elaborate national frameworks for qualifications compatible with the overarching framework for qualifications in the EHEA by 2010.

In 2008 the European Commission launched a European Qualifications Framework for Life Long Learning (EQF for LLL). Its objective is to encompass all types of learning in one overall framework. This framework is the outcome of the so-called

Copenhagen Process, which focuses on the Vocational Educational and Training sector. The EQF meta-framework intends to act as a translation device between the Member States' national qualifications systems. It aims at providing employers and educational establishments across Europe the opportunity to compare and better understand the qualifications presented by individuals. The core of the EQF system are its 8 reference levels, covering a range from basic to the highest level qualifications. This framework has as its objective that every new qualification issued in the EU has a reference to the appropriate EQF reference level, "so the benefits to mobility and lifelong learning that the EQF brings will be visible and available to every EU citizen". National Qualifications Frameworks (NQFs) are presently being mapped to the QF for the EHEA and/or the EQF for LLL.

It is planned that the countries within the European Union and other states participating in the Lisbon Strategy will align their national frameworks of qualifications with the EQF by 2012.

The diagram presented in Table 2.1. and Fig.2.1. illustrates the relationship between the FQ-EHEA and the EQF.

Table 2.1. Relationship between the EQF levels and the Bologna cycles

EQF	Bologna Framework
1	
2	
3	
4	
5	*
6	First Cycle
7	Second Cycle
8	Third Cycle

* EQF level 5 is linked with Dublin Descriptor Short Cycle Qualification (within or linked to the first cycle). This is not formally part of the FQ-EHEA – in adopting the FQ-EHEA, Ministers agreed that the Framework would include, within national contexts, the possibility of intermediate qualifications.

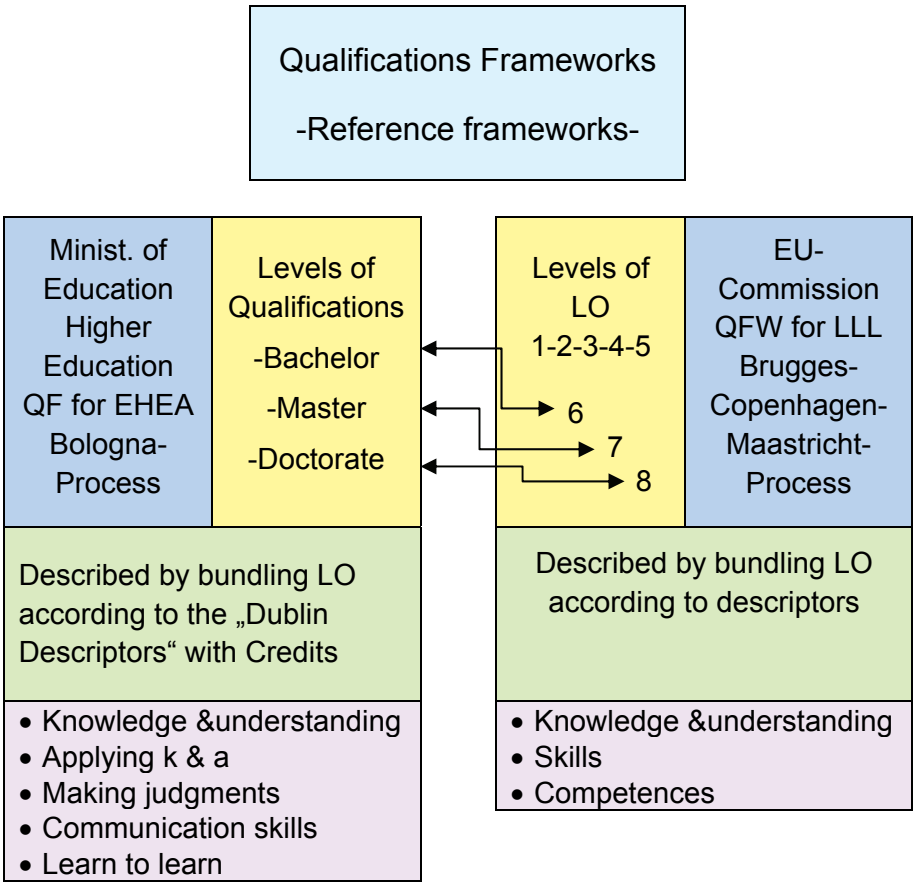
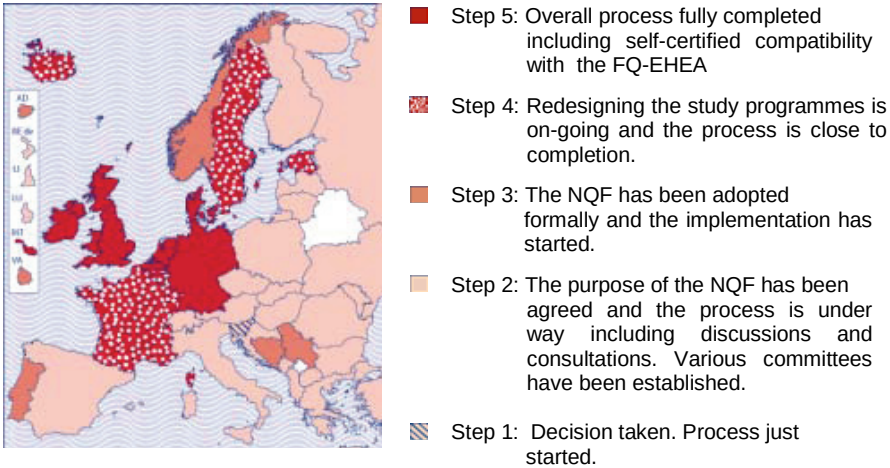


Figure 2.1. Relationship between the FQ-EHEA and the EQF

The vast majority of Bologna countries have launched the process to define and implement a qualification framework at national level. Seven of them have completed the whole process including self certification of its compatibility with the overarching Framework for Qualifications of the European Higher Education

Area (FQ-EHEA) and re-design of programmes within the higher education institutions. The other countries have started the process and most of them do not expect to finalize it before 2012. In contrast to the introduction of the Diploma Supplement, the design and development of national qualifications frameworks has proven to be complex, and therefore the need for widespread consultation and public debate to ensure understanding of the frameworks and their purposes is essential. Thus, although only few countries are likely to achieve the goal of having a fully functioning national qualifications framework in place by 2010, the progress that has been made in this area is nevertheless very significant.



Source: Eurydice, 2010, [22].

Fig.2.2. NQF introduction across Europe in 2010

The pace of NQF introduction internationally is such that it is difficult to be certain that any list of developments is completely up-to-date. However, the map above gives some indication of the extent of NQF introduction across Europe.

3. Framework for Qualifications for the European Higher Education Area (FQ-EHEA)

3.1. Rationale and Purpose of the FQ-EHEA

There are a number of countries with national frameworks of qualifications already in place or being put in place, each reflecting national structures and policy priorities. Some of these relate to all education and training while others just to higher education.

The rationale for the FQ-EHEA is to provide a mechanism to relate national frameworks to each other so as to enable:

(a) International transparency – this is at the heart of the Bologna process, and although the mechanisms, such as the Diploma Supplement, have a role to play in this objective, it is difficult to ensure that qualifications can be easily read and compared across the borders without a simple architecture for mutual understanding.

(b) International recognition of qualifications – this will be assisted by a framework, which provides a common understanding of the outcomes presented through qualifications for the purposes of employment and access to continuing education.

(c) International mobility of learners and graduates – this depends on the recognition of their prior learning and qualifications gained. Learners can ultimately have greater confidence that the outcomes of study abroad will contribute to the qualification sought in their home country.

A framework will also be of particular help in supporting the development and recognition of joint degrees from more than one country.

3.2. Basic Elements of FQ-EHEA

3.2.1. Profile

Here the term Profile is used to refer to the specific field of learning of a qualification. Fields of learning are central to the European tradition of higher education, with learners typically obtaining their degree in a particular field. In some cases, there are professional reasons for being quite precise about whether a qualification is or is not within a field, whereas for others some measure of ambiguity about which field a qualification belongs in may be acceptable.

There have been a number of developments within the EHEA, where academic and professional bodies have come together and shared expertise to 'tune' their curricula and in some cases to harmonize them. While these developments can be helpful in promoting recognition and mobility, it must be noted that the professional profile is a matter of national sovereignty. Developments within a discipline on a voluntary basis at European level cannot supplant the competent national responsibility for standard setting. The function of recognition is also a matter of each state and is facilitated through the European Network of Information Centres / National Academic Recognition Information Centres (ENIC/NARIC).

3.2.2. Cycles and Levels

The fundamental question for any framework of qualifications concerns its structure and the number of divisions it contains. The concept of "cycle" has been used in the Bologna

Process to refer to stages in higher education, which incorporates qualifications, programmes, and phases of learning. The term "level" is more commonly found in documentation on national frameworks of qualifications and in the EQF.

Therefore, it is proposed that the three principal divisions in the framework to be identified by reference to qualifications corresponding to completion of the cycle:

- First cycle (higher education) qualifications
- Second cycle (higher education) qualifications
- Third cycle (higher education) qualifications

The Berlin communiqué requires that shorter higher education linked to the first cycle should be also considered. Qualifications corresponding to successful completion of the short cycle (within or linked to the first cycle) should also be identified. This is sometimes spoken of as an entry route. Strictly speaking this is not a qualification and is thus not part of the framework for qualifications of the EHEA.

3.2.3. Descriptors of Learning Outcomes

Learning outcomes represent one of the essential building blocks for transparency within higher education systems and qualifications; they were the subject of a Bologna Conference held in Edinburgh, 1-2 July 2004, where all aspects of their application were examined in the context of the Bologna developments. Learning outcomes have been defined as:

"statements of what a learner is expected to know, understand and/or be able to do at the end of a period of learning", [19].

Learning outcomes have applications in many locations:

(i) the individual higher education institution (for course units/modules and programmes of study);

(ii) nationally (for qualifications, qualifications frameworks and quality assurance regimes); and

(iii) internationally (for wider recognition and transparency purposes).

They are important for understanding the qualifications in the society, for example by learners and employers.

Learning outcomes statements are typically characterized by the use of active verbs expressing knowledge, comprehension, application, analysis, synthesis and evaluation, etc. With 'outcomes-based approaches', they have implications on qualifications, curriculum design, teaching, learning and assessment, as well as quality assurance. They are thus likely to form an important part of 21st century approaches to higher education (and, indeed, to education and training generally) and the reconsideration of such vital questions as to what, whom, how, where and when we teach and assess.

A key element in contemporary qualification frameworks is the specification of learning outcomes. The range of outcomes can be categorised and specified in various ways. Traditionally, higher education was relatively explicit regarding the knowledge (outcomes) to be achieved, or at least the knowledge covered by the curriculum. It was however somewhat less explicit regarding the skills or competences required for awarding a given qualification. The generic outcomes for a qualification, that is the learning outcomes common to all holders of a particular type of qualification, may be expressed in a 'qualification descriptors' for each of the cycles or levels and are used as a reference to decide whether the LOs of a particular programme meet minimum standards.

The descriptors for a FQ - EHEA framework necessarily have to be quite general in nature. Not only that they have to accommodate a wide range of disciplines and profiles, but they have to also accommodate, as far as possible, the national variations in how qualifications have been developed and

specified. For practical purposes, the descriptors should be short and easy to understand. They should avoid technical language, bearing in mind that they will be used in reference to national qualifications systems expressed in a variety of languages.

An informal group of higher education specialists from a variety of countries developed a set of descriptors that have come to be referred to as the 'Dublin Descriptors' [5]. The initial descriptors for the first and second cycle were commended at the ministers' meeting in Berlin. Subsequently, the group has developed a descriptor for the third cycle. Recently, a descriptor for a short cycle (within or linked to the first cycle), following the pattern of the other three cycles, has also been produced. These descriptors (especially for the first and second cycles) have been found as useful in various ways to national quality assurance agencies, developers of higher education standards, and designers of higher programmes. So far, no significant revisions have been proposed.

The Dublin descriptors were built on the following elements:

- *knowledge and understanding;*
- *applying knowledge and understanding;*
- *making judgments;*
- *communications skills;*
- *learning skills.*

The Dublin Descriptors offer generic statements of typical expectations of achievements and abilities associated with qualifications that represent the end of each of a Bologna cycle. They are not meant to be prescriptive; they do not represent threshold or minimum requirements and they are not exhaustive; similar or equivalent characteristics may be added or substituted. The descriptors seek to identify the nature of the whole qualification. The descriptors are not subject specific nor are limited to academic, professional or vocational areas.

The Dublin descriptors are listed in APPENDIX 1.

3.2.4. Credit and Workload

The advantages associated with national credit systems could to some extent be replicated at the European level. Furthermore, there would be additional benefits from the adoption of a suitable common credit system that could support the qualifications framework and could potentially:

- provide national frameworks of qualifications with a common credit language (based on learning outcomes and student workload) for describing and locating diverse national qualifications;
- help to promote the widespread development and implementation of learning outcomes and competences with credits used as a method of quantifying and expressing learning achievement;
- build upon a wide existing European base of experience amongst institutions associated with the international credit developments;
- facilitate the precise location of learning by linking credits to national systems of levels and the overarching Bologna cycle descriptors;
- act as an additional set of reference points to facilitate Europe-wide quality assurance and the understanding of national frameworks of qualifications;
- provide a seamless bridge between higher education and other education, particularly enabling the development of a consistent and common European framework for lifelong learning that integrates all forms and modes of learning;
- aid the development and construction of international joint degree programmes and programme collaborations by

facilitating flexible learning paths and a range of different qualification profiles;

- facilitate the global articulation of the European Higher Education Area (and the recognition of its qualifications) with other credit-based systems.

It is proposed that credits are assigned to qualifications within national systems, and that credit systems developed and implemented within national qualifications frameworks should be compatible with the ECTS.

Building on these discussions, the following are proposed as guidelines for the association of credits with qualifications within national frameworks:

- Short cycle (within or linked to the first cycle) qualifications may typically include / be represented by approximately 120 ECTS credits;
- First cycle qualifications may typically include / be represented by 180-240 ECTS credits;
- Second cycle qualifications may typically include / be represented by 90-120 ECTS credits – the minimum requirement should amount 60 ECTS credits at second cycle level;
- Third cycle qualifications do not necessarily have credits associated with them.

4. Good Practice for the Development of National Frameworks for HE Qualifications (NF for HEQ)

At present there is a considerable body of experience in designing and implementing the NQFs. This experience, drawn from countries throughout the world can help to identify effective approaches for its implementation, and also to avoid some pitfalls.

While every country has its own unique features and traditions, there is much to be gained from looking at the practical lessons from international experience. There is no a 'single best way' for all countries because there is no approach which is universally applicable. Rather, it sets out key principles, explains the main issues that policy makers will need to consider, and reviews the advantages and disadvantages of the various ways of addressing these issues.

In 2005 the Bologna Working Group on Qualifications Frameworks gave the following suggestions for good practice for the development of national frameworks of qualifications, [7]:

- The development and review process for producing good frameworks is most effective when it involves all relevant stakeholders both within and outside higher education. Higher education frameworks naturally link to Vocational Education and Training (VET) and post-secondary education and as such are best viewed and treated as a national initiative. This also makes possible the inclusion of, or links to, other areas of education and training outside higher education.

- The framework for higher education qualifications should identify a clear and nationally-agreed set of purposes.
- Frameworks for higher education qualifications benefit from the inclusion of cycles and /or levels, and articulation with outcome-focused indicators and/or descriptors of qualifications.
- The use of learning outcomes in describing units, modules, and whole qualifications helps in their transparency, recognition and subsequent student and citizen mobility. The identification of formal links to learning outcomes should play an important role in the development of national frameworks of qualifications.
- More flexible higher education frameworks of qualifications have the benefit of promoting multiple pathways into and through higher education, and thus through encouraging lifelong learning and the efficient use of resources promote greater social cohesion.
- Higher education frameworks of qualifications benefit from being directly linked to credit accumulation and transfer systems. Credits are student-centered tools that can enhance the flexibility, clarity, progression and coherence of educational systems when they are expressed in terms of learning outcomes, levels/cycles and workload. Credit systems facilitate bridges and links between different forms, modes, levels and sectors of education and can be instrumental in facilitating access, inclusion and lifelong learning.
- Higher education frameworks of qualifications should explicitly link to academic standards, national and institutional quality assurance systems, and public understanding of the place and level of nationally recognised qualifications.
- Public confidence in academic standards requires public understanding of the achievements represented by

different higher education qualifications and titles. This confidence and understanding is enhanced by the publication of appropriate institutional audits and/or subject review reports.

- The development and application of 'new style' national frameworks of qualifications facilitates the development of autonomous higher education institutions by creating clear external reference points that help to promote high quality, responsible and responsive institutions.
- National frameworks of qualifications need to articulate in a transparent way the overarching European framework for qualifications. The process of articulation should involve the careful mapping of national qualifications (their levels, learning outcomes and descriptors) with the cycle descriptors identified for the European overarching framework.

Individual countries may choose to define 'qualifications framework' in a more specific way. Nevertheless, NQF must have levels based on some kind of criteria, and also it must employ some means of ensuring that qualifications registered on the framework meet criteria related to matters such as quality and accessibility. Distinctive features that tend to be present in the NQFs are:

- a single system of system of levels for all qualifications;
- qualifications based on standards or outcomes;
- assessment based on explicit criteria;
- a national system of credit accumulation and transfer;
- a common approach to describing qualifications;
- a common classification system for subjects and occupational sectors.

5. Designing a NF for HEQ

The NF for HEQ is an important reference point for providers of higher education. The aim of NF for HEQ, and associated guidance for implementation, is to assist higher education providers to maintain academics standards; to inform on the international comparability of academic standards, especially in the European context; to ensure international competitiveness; and to facilitate student and graduate mobility. Higher education providers may find it useful to refer to the NF for HEQ in their discussions with the main stakeholders in higher education (prospective students and employers) about the outcomes and attributes that each qualification represents.

The fundamental premise of the NF for HEQ is that qualifications should be awarded on the basis of achievement of outcomes and attainment rather than years of study. Qualification descriptors are key to this premise. Qualification descriptors set out the generic outcomes and attributes expected for the award of individual qualifications. The qualification descriptors contained in the NF for HEQ exemplify the outcomes and attributes expected of learning that results in the award of higher education qualifications. These outcomes represent the integration of various learning experiences resulting from designated and coherent programmes of study. These qualifications, which develop graduates with high-level analytical skills and a broad range of competences, are therefore distinct from training or solely the acquisition of higher level skills.

The NF for HEQ is also used as a reference point in institutional audit/review and other forms of external review. Audit and review teams will examine the means which higher education providers use to ensure that their awards and qualifications are of an academic standard at least consistent with those referred to in the NF for HEQ, and that higher education providers are,

where relevant, exercising their powers as degree awarding bodies in a proper manner. In particular, audit and review teams will wish to look at how higher education providers check the alignment between the academic standards of their awards and the levels referred to in the NF for HEQ. In this regard, the NF for HEQ should be regarded as a framework, not as a strait jacket.

Designing a NF for HEQ means creating the framework into which existing or new qualifications will be placed. The design of a NF for HEQ requires the development of:

- a framework of levels with descriptors for each level
- procedures and criteria for accrediting and registering qualifications on the NF for HEQ, accrediting education and training providers, and ensuring that assessment leading to the award of NF for HEQ conforms to national standards.

6. Building Trust

The success and acceptance of the FQ for EHEA depends on trust and confidence among all stakeholders. This is to be achieved through a 'process in which each participating country is seeking to verify the compatibility of its national framework with the FQ for EHEA'.

This verification process requires more than a mere expression of qualifications by the competent national body. National frameworks and their associated quality assurance arrangements must satisfy a series of criteria and procedures, including:

- the designation of competent bodies responsible for the maintenance of the Framework by the national ministry with responsibility for higher education;
- a clear and demonstrable link between the qualifications

in the national framework and the cycle qualification descriptors of the FQ for EHEA;

- the existence of national quality assurance systems for higher education consistent with the Berlin Communiqué and any subsequent communiqué agreed by ministers in the Bologna Process;
- the national framework, and any alignment with the FQ for EHEA, is to be referenced in all Diploma Supplements;
- the verification report must be made public so that partners in the Bologna Process are able to see the reasons that lead the competent national authorities to conclude that their framework is compatible with the Bologna framework. It is strongly recommended that the verification exercise include at least one foreign expert.

Following the adoption of the FQ for EHEA in 2005, a further working group was established. Various seminars and other activities were organised to help countries develop and implement their national frameworks. The group concluded in 2007 that the FQ for EHEA and the procedures and criteria for verification of compatibility of national qualifications framework with the Bologna framework are adequate and serve their purpose. The Group made a number of recommendations to be considered by countries in undertaking the verification process. These are included in APPENDIX 4.

7. National Framework for HE Qualifications in Republic of Macedonia (NF-HEQ in RM)

Higher education institutions, students and employers in Republic of Macedonia operate and compete in a European and international context. The framework for higher education qualifications in Republic of Macedonia is designated to meet the expectations of the Bologna Declaration and thus it will be aligned with *The Framework for Qualifications of the European Higher Education Area* (FQ-EHEA).

The National Framework for Higher Education Qualifications that closely define the profile, objectives and initial creation of the curricula of the first, second and third cycle of studies and curricula for vocational education shorter than three years in Republic of Macedonia was established by the *Decree on the National Framework for Higher Education Qualifications* ("Official Gazette" No.154 from 30/11/2010), [24] adopted by the Government.

According to **Article 2** of the **Decree**,

The National Framework for Higher Education Qualifications (hereinafter: the National Framework) is the only internationally recognized description, at the level of national higher education system, which describe all interconnected higher qualifications and learning outcomes and determine relationships between higher education qualifications.

The National Framework is a mandatory national standard regulating the methods of acquisition and use of higher qualifications in the Republic of Macedonia.

The National Framework is an instrument for the

establishment of higher education qualifications acquired in the Republic of Macedonia which provides the basis for visibility, access, passable, acquisition and quality of qualifications.

7.1. Baseline for NF–HEQ in RM

Designing the National Framework for Higher Education Qualifications in R.Macedonia is based on the 'Overarching framework for qualifications in the EHEA', compatible with the EQF for LLL (EQF). The spirit of the Lisbon Recognition Convention (LRC), ratified by Macedonia in 2003, was reflected in three new laws adopted by the Assembly of RM in the last few years:

- New Law on Higher Education ("Official Gazette" No. 35 / 2008)
- Low on Adult Education ("Official Gazette" No. 7/ 2008)
- Low on Vocational Education and Training ("Official Gazette" No. 71/2006)

7.2. Methodology Used for Designing and Implementing NF-HEQ in RM

The process of designing and implementing the National Framework for Higher Education Qualifications in Republic of Macedonia is following the TEN STEPS Recommendation as an outcome of the NQF Development and Certification Report from Bologna Working Group on Qualifications Framework, submitted to the Conference of the Bologna Process in London, 2007, APPENDIX 3. In continuation, the activities undertaken for realization of the TEN STEPS recommendation are presented, marked with the following colours depending on the phase of their realization:

Activities already done

Activities undertaken and partially done

Next activities

STEP ONE

Decision to start: *Taken by the national body responsible for higher education – Minister*.

The decision to start was taken by the national body responsible for higher education in Republic of Macedonia – Minister:

- Article 99 of the new law on Higher Education, stipulates that the Government of R. Macedonia should adopt NQF on the proposal by the Minister;
- In the Declaration signed by the Minister of Education in 2008 for harmonization with the EU legislation, there is a part for NQF;
- The Ministry of Education and Sciences endorsed two international projects in the field of qualifications frameworks:
  - TEMPUS Structural measure on NQF – Designing and Implementing of NQF ;
  - EU CARDS Project –Technical assistance to the Ministry of Education and Science on Lifelong Learning.

STEP TWO

Setting the Agenda: *The purpose of our NQF*

Public confidence in academic standards requires public understanding of the achievements represented by higher by higher education qualifications.

There are two main sets of reasons for developing a National Framework for the HE qualifications:

- making progression routes easier and clearer, improving learner and career mobility and
- ensuring quality assurance and recognition (securing international recognition for national qualifications).

According to **Article 3** of the **Decree**, the objectives of the National Framework for HEQ in R.Macedonia are in that line:

- *to enable higher education institutions, employers, parents, prospective students and others to understand the achievements and characteristics of acquired title and the way qualifications are interlinked;*
- *to provide support to higher education institutions, students and others in the elucidation of potential routes for progression and transfer of credits especially in the context of wider participation in lifelong learning;*
- *to maintain comparability of norms, standards and methodology, especially those accepted in the only space for higher education, to ensure international competitiveness and to facilitate mobility of students and graduates;*
- *to help higher education institutions in the process of external quality assessment through the adoption of the starting points for the establishment and determination of academic standards.*

The National Framework for HEQ can be viewed as a public accessible register of all qualifications which are acquired in RM and are recognized and confirmed on the territory of the Republic of Macedonia. It is being developed in compliance with the Law on Recognition of Continuing Education Outcomes. The NF-HEQ in RM aim is to put this Law into effect.

The aim of the NF-HEQ in RM is not:

- to replace existing qualification and educational systems

(The NF-HEQ in RM should strive to make them interconnected, transparent, coherent and to complete them with missing system tools, e.g. qualification and assessment standards); complication

- to be a complication for citizens (from the administrative point of view). People should not be hampered by the NF-HEQ in RM, but on the contrary the NF-HEQ in RM should offer them possibility of proving qualifications.

As a result, the NF-HEQ in RM should enable higher education providers to communicate to employers, prospective students, appropriate government agencies/bodies and other stakeholders the achievements and attributes represented by the typical higher education qualification titles.

STEP THREE

Organizing the Process: *Identifying Stakeholders*

The stakeholders were identified by a detailed survey conducted by the project partners of the above mentioned projects:

- all Higher Education institutions (public and private) in R. Macedonia
- Ministry of Education and Sciences
- Accreditation and Evaluation Board
- Ministry of Labour and Social Policy
- Employers
- Students
- Trade Unions
- Chambers of Commerce,
- EU, etc.

STEP FOUR

Design Profile: *Level Structure, Level Descriptors Learning Outcomes, Credit Ranges*

In order to design the level structure, data were gathered from all accredited Higher Education Institutions in R. Macedonia, identified by the Accreditation Board. Relevant data to design the profile of QF were analyzed, as follows:

- Field of qualifications issued
- Name of the Faculty/Department
- Type of studies
- The study programme (name, cycle, duration in years, ECTS)
- Profile of the Diploma - qualifications

From the data analysis it was concluded that all HE Institutions in RM have organized studies according the "Bologna" Levels/Cycles of studies. The range of ECTS varies as it is shown in Table 7.1.

Table 7.1. The range of ECTS in RM

	First Cycle	Second Cycle	Third Cycle
Level Structure	Bachelor	Master	Doctor
Credit Range	180 ECTS and 240 ECTS	60 ECTS, 90 ECTS, 120 ECTS	Few accredited programs according Bologna

A comparative analyze of the QF in Higher Education System in R. Macedonia before and after Bologna was done and is presented in the table below.

Table 7.2. Comparative analyze of the QF in HE in RM before and after Bologna

Level in the NF for HEQ before Bologna	Higher Education	Level in the European Framework (for HEQ)
VIII	Doctoral Degree	Level 8 Min 3 years
VII/2	Master of Sciences	Level 7 60-120 ECTS
VII/1	Bachelor of Sciences	Level 6 180 – 240 ECTS
VI	HE diploma 2 years	Level 5

As a result of the data analysis and comparative analysis, a NF for HEQ for RM was designed. Because of its importance, the framework and the corresponding descriptors associated to each level in the NF for HEQ are presented in detail in subchapter 7.3. and subchapter 7.4., respectively.

STEP FIVE

Consultation, National Discussion and Acceptance of Design by Stakeholders

The proposed design of the NF-HEQ in RM together with the level descriptors were presented during a workshop at University "St. Kliment Ohridski" in February 2010, and discussed with the most important stakeholders invited at the workshop. A questionnaire was prepared especially for this workshop and distributed among the participants in order to receive remarks, comments and

recommendations on the proposed draft version of the framework and level descriptors. After that, taking into account the comments received from the letters of the stakeholders, the comments from the workshop and the questionnaires, in May 2010 both documents were offered to the Ministry of Education for acceptance and further legalization of the framework.

STEP SIX

Approval According to National Tradition by Minister /Government/Legislation

In November 2010, a *Decree on the National Framework for Higher Education Qualifications* was adopted by the Government, and published ("Official Gazette" No.154, 30/11/2010).

STEP SEVEN

Administrative set-up Division of Tasks of Implementation between HEI, QAA and other Bodies

The implementation of the NF-HEQ in RM will require coordinated and joint work by a range of bodies, including the main sectors of HE in R. Macedonia, and also a wide range of other bodies such as professional and statutory bodies, employers, students etc. These organisations and groups should consider how best to work together in order to develop a shared national plan for implementing the NF-HEQ in RM to support learning.

Actions that need to be addressed to achieve this aim include:

- informing learners, the public and employers of the implementation and features of the new NF-HEQ in RM
- agreement on some NF-HEQ wide arrangements and guidelines for credit rating and leveling

- agreement between various key national, regional and local bodies on the timetable for full adoption of the NF-HEQ in their varying sectors
- development of arrangements by which all other assessed learning outcomes can be recognised for credit
- development of clear routes for progression and credit transfer, and articulation of programmes

According to the Tempus Project Application, (2009-2012) the following activities were foreseen to be completed for successful implementation of the NF for HEQ in RM:

- Establishing a national body/agency responsible for NF for HEQ in RM, that will assure the quality of implementation of the NQF, promote and apply the principles of quality assurance in education and training, consult policy decisions, contact the faculties etc.;
- Establishing national coordinating points to support the process of implementing the NF for HEQ in RM (tasks include guidance to stakeholders, graduates, employers, encouraging their participation in the process)
- Training the administrative and academic staff how to provide logistical support/advice for the students in relation to making progression routes easier and clearer (improving learner and career mobility, obtaining an europass etc.)

In order to establish the national body/agency responsible for NF-HEQ in RM, the Ministry of Education and Sciences, established a Department for recognition and equivalence of HE qualifications with four employees financed by the Ministry of Education and Sciences.

Five national coordinating points to support the process of implementing the NF for HEQ were established at five HE institutions in RM, Employability Offices or Career centers: University St Kliment

Ohridski - Bitola, University Ss Cyril&Methodius – Skopje, South East European University – Tetovo, Goce Delcev University – Stip and State University – Tetovo. One representative from the administrative staff from each office was trained at the University of Linkoping how to provide logistical support/advice for the students in relation to making progression routes easier and clearer.

STEP EIGHT

Implementation at institutional/programme level; Reformulation of individual study programmes to learning outcome based approach.

According to **Article 14,** *the HE institutions should prepare specific descriptors of the qualifications, which determine learning outcomes for the individual study program from the corresponding cycle of studies, submit them to the Ministry of Higher Education, as well as publish them on the websites.*

The restructuring of individual study programmes to learning outcome based approach started in December 2010. To facilitate the process, Tempus Project Working Group prepared learning outcomes for five particular study programmes in various areas of study:

- Technical and technological sciences – Electrical Engineering (first and second cycle)
- Medical sciences and health – Pharmacy (first, second and third cycle) and Medical nurses (first cycle)
- Biotechnical sciences - Agriculture (first and second cycle)
- Social sciences – psychology (first and second cycle)
- Technical and technological sciences - Computer sciences (first and second cycle)

STEP NINE

Inclusion of Qualifications in the NQF; Accreditation or Similar (cfr. Berlin Communiqué).

Macedonian national Quality Assurance system was reconsidered in accordance with the ESG - Standards and Guidelines for Quality Assurance in the European Higher Education Area, and was officially accepted in July 2007.

According to the Tempus project application (2009-2012), the following activity was foreseen to be carried out for successful implementation of the NF for HEQ in RM:

1. *Designing a Quality Evaluation Matrix (QEM) to control the criteria for accreditation and registration of qualification in the NQF according to national standards;*

The Accreditation and Evaluation Board of Republic of Macedonia, became an associate member of ENQA on 5th of October, 2011. On its session on 31.10.2011 a set of templates for unification of the compulsory components that the study programmes of the first, second and third cycle should contain was adopted. They also adopted a template for the course programme and template with data about the teaching professor.(Official Gazette No154, 04.11.2011). An ongoing process of restructuring all HE study programmes according to the new requirements is taking place and their accreditation is foreseen to be finished before the start of the academic year 2012/2013.

STEP TEN

Self-certification of Compatibility with the EHEA framework (Alignment to Bologna cycles etc.)

The self–certification process of compatibility with EHEA, should follow the recommendations and proposals by the Bologna Working Group on Qualifications Frameworks given in APPENDIX 4.

In this context, the quality assurance system, and the criteria and procedures for verifying the compatibility, have a role to play.

7.3. Positioning Qualifications within NF-HEQ in R.Macedonia

When positioning higher education qualifications within the NF-HEQ, higher education providers wish to assure the public that the achievements represented by qualifications are appropriate and represented consistently. Higher education providers are responsible for demonstrating that each of their qualifications is allocated to the appropriate level of the NF-HEQ.

When designing and approving programmes, higher educational providers wish to ensure that a coherent learning experience is delivered. In addition, higher education providers wish to take into account the regulatory and other requirements of the appropriate government agencies/bodies which accredit specific professional programmes – Accreditation and Evaluation Agency.

Positioning qualifications within NF-HEQ in R. Macedonia is regulated in articles 7, 8, 9 and 10 of the Decree:

(Article 7) *The titles of qualifications are defined in a way that allows their inclusion in the National Framework to be understandable to all stakeholders and they are in accordance with the classification of scientific-research areas, fields and areas under the International Frascati Classification, which is given in addition to the Decree for the norms and standards for establishment of higher education institutions and for performing higher education activities.*

For higher education qualifications in the Republic of Macedonia the Register is kept by the Ministry of Higher

Education.

(Article 8) *Determining the level of existing and new qualifications in the National Framework is based on learning outcomes specified for the given qualification.*

A group of different qualifications acquired in different scientific areas of study, can be placed on the same level in the National Framework if they meet the general criteria for learning outcomes for that level.

The curricula can be of different or same scientific field, performed with different subjects, but such that allow the student to acquire the knowledge, skills and competencies specific to a given cycle, which prepare him/her to enter the next cycle or provide him/her the opportunity for employment for certain professional jobs.

The level of qualification is determined by meeting the requirement for the minimum number of credits for the given level. For each qualification, the total number of credits is clearly and unambiguously stated in the qualification.

(Article 9) *The study program for which the qualification is awarded allows comparison with other qualifications, define the target group for which the qualification was designed and determine the learning outcomes in the form of general descriptors of qualification for the whole study program and specific descriptors of qualification for each subject within the study program.*

(Article 10) *The qualifications consist of obligatory courses that define the essential knowledge and skills and elective courses in addition to the specific skills acquired by the obligatory subjects.*

Optional items that are deemed necessary for certain jobs are not necessary for the award of the qualification.

For each qualification, the structure of the proportion of courses is clearly stated.

Table 7.3. Levels of the NF-HEQ in RM

Level in the National Framework for HE Qualific. in RM		Higher Education	Level in the European Framework (for HE Qualific.)
VIII		III cycle Doctoral Studies	8
VII	VIIA	II cycle Academic studies for Master Degree	7
	VIIB	II cycle Specialist Degree	
VI	VIA	I cycle University Studies 240 credits Professional Studies 240 credits	6
	VIB	I cycle University Studies 180 credits Professional Studies 180 credits	
V	VA	Professional Studies from 60 to 120 credits Short cycles within the first cycle	5
	VB	Vocational education associated with the first cycle of studies up to 60ECTS	

The levels of the NF-HEQ in R.Macedonia, are presented in Table 7.3. For the purpose of this document, the term 'levels' will be used throughout.

The levels in NF-HEQ represent bands of qualifications that share similar expectations of attainment. There are three levels VI, VII and VIII and a short cycle, level V, linked to the first cycle in the NF-HEQ in R. Macedonia. Levels V, VI and VII are divided into two sublevels.

The framework must allow users to determine the relations between Macedonian qualifications and the levels of the NF-HEQ. After reviewing descriptions and information on individual levels, which NF-HEQ contains, the relationship between individual NF-HEQ levels and EQF levels is determined. Table 7.3 also indicates the relatioinship between the levels and the cycles of the NF-HEQ in RM.

The NF-HEQ will not replace the present qualification and educational systems, but will strive to make them interconnected, more transparent and coherent.

The degrees of higher education acquired before the entry into force of this Decree, compared with levels corresponding to the NF-HEQ are presented in Table 7.4:

Table 7.4. Comparison between degrees of NF-HEQ higher education before and after the Decree

Level in the National Framework for HE Qualific. in RM	VIII	VII		VI		V	
		VIIA	VIIБ	VIA	VIБ	VA	VБ
Former degrees	VIII	VII/2		VII/1		VI	

7.4. Qualification Descriptors

This section provides detailed information about the qualification descriptor for each level of the framework. Each level is illustrated by, and each award determined by reference to a qualification descriptor.

To create the NF-HEQ in RM as a manageable and easily understandable system and to make it possible to compare and recognise learning outcomes, the outcomes should be described:

- in a standardized way;
- with the most simple structure;
- using elements that will be easily changed when various amendments and updating are carried out.

Qualifications must be described in a standardized way that NF-HEQ in RM accomplish its set goals. Qualification requirements are described in qualification standards: criteria and verification procedures on learning outcomes into assessment standards.

The system of qualification descriptors is the backbone of the NF-HEQ. The development of these descriptors is based on the fact that they must be conceived in a simple and clear way. If the NF-HEQ was more complicated, it would be less transparent and therefore very difficult to put into effect and accept.

According to **Article 5 of the Decree** *Qualification descriptor represents a description or measurable indicator of learning outcomes and achievements for which the student has been assessed and which the student should be able to demonstrate for the qualification that is awarded.*

There are general descriptors of the qualifications for each cycle of studies in the National Framework, and they reflect the

usual skills and accomplishments of the student and relate to the qualifications that indicate completion of specific study cycle.

Specific descriptors of qualifications that determine learning outcomes for individual study program from the corresponding cycle are prepared by the higher education institution.

Data on skills and accomplishments acquired by the student, as well as the use of qualification are disclosed in the Diploma supplement.

The qualification descriptors of the NF-HEQ reflect five distinct levels of intellectual achievements associated with the typical higher education qualifications awarded by higher education providers in Republic of Macedonia in accordance with their degree awarding powers.

The description of learning outcomes for a given level of qualification is expressed with the following descriptors of qualifications (**Article 6**)*:*

- *knowledge and understanding,*
- *applying knowledge and understanding,*
- *making judgment,*
- *communications skills, and*
- *learning skills.*

Descriptors exemplify the nature and characteristics of the main qualification at each level, and comparison demonstrates the nature and characteristics of gradation between qualifications at different levels. They provide clear points of reference at each level and describe outcomes, cover the great majority of existing qualifications. However, the NF-HEQ has the flexibility to accommodate diversity and innovation, and to accommodate new qualifications as the need for them arises.

Descriptor for a Higher Education Qualification at level 5: Short Cycle

Qualifications that signify successful completion of the short cycle (60 – 120 ECTS) are awarded to a person who meets the following descriptors of qualifications:

- Knowledge and understanding
  - Have demonstrated knowledge and understanding in area that builds upon general secondary education supported by advanced textbooks;
  - Possess knowledge to support the field of work or vocation, opportunity for personal development and extension of additional studies to complete the first cycle;
- Applying knowledge and understanding
  - Ability for practical and professional application of knowledge and understanding;
- Making judgment
  - Ability to search, identify and use data to formulate responses and solutions to well-defined concrete and abstract problems;
- Communications skills
  - Capability to communicate about the specific abstract problems, skills and activities, with peers, supervisors and clients;
- Learning skills
  - Have the learning skills to undertake further studies with some autonomy.

Descriptor for a Higher Education Qualification at level 6: Bachelor's Degree

Qualifications that signify a successful completion of the

first cycle of study (180 – 240 ECTS) are awarded to person who meets the following descriptors of qualifications:

- Knowledge and understanding
  - Have demonstrated knowledge and understanding founded upon prior education and training within the main field of study, including knowledge about the range of theoretical, practical, conceptual, comparative and critical perspectives in the field within appropriate methodology;
  - Understanding in a particular area and familiarity with current research issues and new sources of knowledge;
  - Have demonstrated knowledge and understanding of various theories, methodologies
- Applying knowledge and understanding
  - Can apply their knowledge and understanding in a manner that indicates a professional approach to work or vocation;
  - Have demonstrated competences for indentifying, analyzing and solving problems;
  - Be able to devise and sustain arguments within their field of study;
- Making judgment
  - Ability to gather, analyze, evaluate, and present information, ideas, concepts from relevant data;
  - Exercise appropriate judgment, taking into account relevant personal, social, scientific or ethical aspects;
  - Ability to evaluate theoretical and practical issues, to explain the reasons and to choose an appropriate solution.

- Communications skills
  - Can communicate and discuss information, ideas, problems and solutions on the contexts where criteria for decisions and the scope of the task may be well defined to both specialist and non- specialist audiences;
  - Take shared responsibility for collective results;
  - Ability for independent participation into specific, scientific and interdisciplinary discussions, with a professional approach.
- Learning skills
  - Take initiative to identify and address learning needs for further knowledge and ongoing learning, with a high degree of autonomy.

Descriptor for a Higher Education Qualification at level 7: Master's Degree

Qualifications that signify a successful completion of the second cycle of study (60– 120 ECTS) are awarded to a person who meets the following descriptors of qualifications:

- Knowledge and understanding
  - Have demonstrated knowledge and understanding founded upon Bachelor level within the main field of study, implementing methodologies appropriate for solving complex problems, both systematically and creatively, that provides a basis or opportunity for originality in developing and/or applying autonomous ideas in a research context;
  - Ability to use an expanded and deepened knowledge;
  - Have demonstrated high levels of specialist competence in one or more specific fields

- Possess knowledge of one or more subject areas in the given scientific fields, based on the most renowned international scientific research in that field.

- Applying knowledge and understanding
  - Ability to critically, independently and creatively solve problems with some originality in new or unfamiliar environments within multidisciplinary context related to their field of study;

- Making judgment
  - Ability to synthesize and integrate knowledge;
  - Ability to deal with complex issues both systematically and creatively, make sound judgments even on the basis of incomplete or restricted information, but that include reflecting on the personal, social and ethical responsibilities linked to the application of their knowledge and judgments;
  - Ability to assess and make selection of scientific theories, methodologies, tools and general skills in the subject areas, and to establish a new analysis and solutions on a scientific basis;

- Communications skills
  - Can communicate their conclusions and recommendations with the argumentation of the knowledge and rationale underpinning these, to both specialist and non- specialist audiences clearly and unambiguously;
  - Take over significant responsibility for the collective results; lead and initiate activity;

- Learning skills
  - Ability to identify personal need for further

knowledge and to operate independently, to acquire new knowledge and skills autonomously within the societal context;
- Ability to take responsibility for further professional development and improvement.

Descriptor for a Higher Education Qualification at level 8: Doctoral Degree

Qualifications that signify a successful completion of the third cycle of study are awarded to a person who meets the following descriptors of qualifications:

- Knowledge and understanding
  - Have demonstrated a systematic understanding of a field of study and mastery of methods and skills of research within that field in accordance with the highest international standards;
- Applying knowledge and understanding
  - 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;
- Making judgment
  - Ability of critical analysis, evaluation and synthesis of new and complex ideas, having assessment competences;
  - Ability to independently initiate and participate in national and international research networks and events with scientific integrity

- Ability to independently initiate research and development projects that will generate new knowledge and skills for development in the research field;

- Communications skills
  - Can communicate with their peers, the larger academic community and with society in general about the scope of their expertise;

- Learning skills
  - Can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society

7.5. Aligning NF for HEQ with FQ for EHEA

NF for HEQ, which is not aligned with FQ for EHEA in a coherent way, would not fulfill the learners' expectations of a European Higher Education Area of transparency and mobility where qualifications are easily recognised across borders. The way in which the national frameworks are aligned to the overarching framework is therefore of outmost importance.

In order to facilitate fair recognition, it is necessary for foreign partners to trust that national qualifications also in practice correspond to the levels to which they are attached. In this context, the quality assurance system, however it is organized nationally, has a role to play.

7.5.1. Quality Assurance and National Frameworks of Qualifications within the context of the EHEA

The mobility of staff and students has introduced an international element to quality assurance although again this is generally based predominantly on national contexts.

The development of the Bologna process carries in itself greater expectations concerning an international 'marketplace' for students, employees and employers. If the process is to be successful it will inevitably need to address 'trust' within a much wider context, and particularly greater expectations of increased transparency regarding national qualifications, their standards and their quality assurance.

Such a set of common and shared principles is emerging within the Bologna Process. These principles are recognised as underpinning quality assurance irrespective of the various national approaches. These shared bases for quality assurance are described in detail within the 'Standards, Procedures, and Guidelines' being developed by the European Network for Quality Assurance in Higher Education (ENQA), with the European University Association, (EUA), European Association of Institutions in Higher Education, (EURASHE) and European Students Union (ESU), under the mandate of the Ministers and presented in their Berlin Communiqué. Within the Berlin Communiqué, the Ministers committed themselves to have national quality assurance systems in place by 2005 meeting four minimum criteria. National quality assurance systems should include:

- A definition of the responsibilities of the bodies and institutions involved;
- Evaluation of programmes or institutions, including internal assessment, external review, participation of students and the publication of results;
- A system of accreditation, certification or comparable procedures;

- International participation, co-operation and networking.

7.5.2. Criteria and Procedures for Verifying the Compatibility of Frameworks with the Framework for Qualifications of the EHEA

The following criteria are proposed for verifying that national frameworks are compatible with the EHEA framework:

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

It is important to consider a process by which each country will certify the compatibility of its own framework with the overarching framework.

Accordingly, building on this rationale, the following procedures are proposed for self-certification of compatibility:

- The competent national body/bodies shall self-certify the compatibility of the national framework with the European framework
- The self-certification process shall include the stated agreement of the quality assurance bodies in the country in question recognised through the Bologna Process
- The self-certification process shall involve international experts
- The self-certification and the evidence supporting it shall be published and shall address separately each of the criteria set out
- The ENIC and NARIC networks shall maintain a public listing of states that have confirmed that they have completed the self-certification process
- The completion of the self-certification process shall be noted on Diploma Supplements issued subsequently by showing the link between the national framework and the European framework.

Only following the self-certification process should any link be made between section 8 of the Diploma Supplement "Information on the Higher Education Systems" and the overarching framework for qualifications of the EHEA. The framework of qualifications has been identified as a key tool for the realisation of the European Higher Education Area.

According to **Article 12 of the Decree,**

Each qualification in the National Framework should be compatible with the related qualification from the European Framework for Higher Education Qualifications (FQ-EHEA).

The procedure of verifying the compatibility of the National Framework with the European Framework for Higher Education Qualifications (FQ-EHEA) is carried out at least every five years.

8. Conclusion and Future Aspects in Implementation of the NF-HEQ

All countries of the European Higher Education Area have committed to develop national qualifications frameworks compatible with the overarching framework of the European Higher Education Area by 2010. This commitment was undertaken in 2005, and the 2007 stocktaking report reasonably showed that this is an area where considerable work remains to be done.

National qualifications frameworks encompass all education qualifications – or all higher education qualifications, depending on the policy of the country concerned – in an education system. They show what learners are expected to know, understand and be able to do on the basis of a given qualification (learning outcomes) as well as how qualifications within a system articulate, that is how learners may move between qualifications in an education system.

National qualifications frameworks for higher education are developed by the competent public authorities in the country concerned. While this is ultimately the competence and

responsibility of the public authorities responsible for the country‘s higher education system, however, the participation of a broad range of stakeholders – including higher education institutions, students, staff and employers – is necessary for the framework to be successful. The development of national qualifications frameworks should therefore include broad consultations to ensure the trust among various stakeholders and confidence in the integrity of the resultant framework.

The last few years, there are a number of important changes taking place in the qualification system in the Republic of Macedonia. The most significant is the introduction of the National Framework of Higher Education Qualifications, the NF-HEQ. It puts the needs of the learner first and supports the national objective of moving towards a “higher education society’. The transparent nature of the NF-HEQ should allow learners to compare and contrast qualifications and to plan their education and training and career progression. It should help employers in recognizing and understanding the level and standard of qualification, acting as a tool for identifying “appropriate fit” qualifications for specific roles. The international dimension of this development is important from both an individual and an economic perspective.

The process of developing national qualifications frameworks may be summarized in 10 essential steps, APPENDIX 3. The sequence of steps need not be identical in all countries.

Once the national qualifications framework has been developed, it should be tested and then self certified. The self certification is a process by which the competent authorities of the country concerned verify that the national qualifications framework is compatible with the overarching EHEA Framework. The self certification process should also include input from foreign experts.

Once the self certification process has been completed, self certification reports should be published so that partners in the European Higher Education Area could have access.

Pursuant to **Article 12** of the *Decree on the National Framework for Higher Education Qualifications*, *the procedure of verifying the compatibility of the National Framework with the European Framework for Higher Education Qualifications (FQ-EHEA) is carried out at least every five years.*

According to **Article 14,** *the HE institutions should prepare specific descriptors of the qualifications, which determine learning outcomes for the individual study program from the corresponding cycle of studies, submit them to the Ministry of Higher Education, as well as publish them on the websites. The implementation of the activities foreseen in Article 14, should start after six months from the date of adoption of the* ***Decree****.* (**Article 15)**

The following extract from Qualifications Frameworks Working Group Report, 2007, [12] presents the most important recommendations to be considered by countries in undertaking the verification process. Complete list of the procedures and criteria are those referred in APPENDIX 4. The following are recommendations for successful implementation of the procedures and criteria given by the Working group:

Procedures:

- *In developing their National Frameworks, countries should have an eye on the need to align the National Framework to the Bologna Framework while noting that the Framework development process and the subsequent alignment are separate processes;*
- *Countries should ensure that there is some element of testing or implementation of a national framework before the process of aligning it to the Bologna Framework is completed;*
- *It might be helpful for small groups of countries to co-operate in undertaking alignment processes;*
- *While some countries have qualifications recognition agreements with other countries, sometimes outside of*

Europe, and the Working Group suggests that consultation be undertaken by a country aligning a national framework to the Bologna Framework with any such country with which it has a qualifications recognition agreement. Furthermore, countries with a tradition of having award holders move to other (perhaps neighboring) countries may also wish to discuss any alignment process with those countries or perhaps involve peers from such countries in their alignment process;

- *The small steering group model, together with consultation with stakeholders on a transparent basis is a good model for all countries. At the same time, the Working Group recognises that different models may work well for other countries;*
- *It is important that there is clarity on the arrangements for requiring the stated agreement of certain stakeholders of the verification when a verification process is initiated;*
- *The manner in which Scotland and Ireland have involved international experts in their work through membership of the steering group has been exemplary;*
- *There are issues that will need to be addressed in the future about the availability and financing of experts to assist countries in their verification processes. There will be linguistic challenges, particularly where a verification process is undertaken in a national language whose use is not widespread across Europe and, certainly at this stage in the development of national frameworks, there is not a significant number of potential experts available. One option which the working Group suggests could be explored is that the Council of Europe might assist some countries in the identification of potential international experts for national verification processes;*
- *The format of the Scottish and Irish reports can act as exemplars for the formats of the reports of other countries;*

- *There is a need for two outcomes from each self-certification process:*
    - *The first is the detailed verification document analysing in detail all issues and addressing each of the criteria and procedures*
    - *The second is a simple summary of the outcomes for communication to the general public*
- *All future alignment processes should take note of any alignment that has been completed.*

Criteria (Note the working group made no recommendations regarding criteria 3, 4, 6 or 7):

- *Criterion 1 – The national framework for higher education qualifications and the body or bodies responsible for its development are designated by the national ministry with responsibility for higher education*
    - *That while there were not any particular issues arising for Ireland and Scotland in relation to the designation of the body with responsibility for the Framework in each country, this could be an issue for other countries. For such countries, the national actors who initiate Framework development may not be the same as the body ultimately responsible for the Framework. This is a natural development and does not undermine the ultimate legitimacy of the Framework which will eventually need to be adopted in a formal way in each country.*
- *Criterion 2 – There is a clear and demonstrable link between the qualifications in the national framework and the cycle qualification descriptors of the European framework*
    - *That the work of the ENIC and NARIC networks in examining issues relating to the concept of substantial difference be informed of issues arising*

in the verification process and that consideration be given to the development of formal linkages to this work;

- *That in making report all countries should seek to address progression issues;*
- *That there will be issues for many countries in terms of having more than one level in a National Framework relating to a Bologna cycle and of having intermediate qualifications and levels and that the approaches undertaken in the Scottish and Irish Reports, in terms of identifying these can act as examples for other countries which have intermediate qualifications/levels;*
- *The Working Group recommends that countries should identify intermediate qualifications in their verification processes and examine the possibility of aligning any first cycle intermediate qualifications with the Joint Quality Initiative's descriptor for the higher education short cycle;*
- *The concept of 'best fit' is a crucial one. It is not expected, nor is it desirable, that there will be an exact match between descriptors of different frameworks, which will have different purposes and contexts. The pilots showed that many qualifications will have elements which fit to a higher or lower level of the framework than the level at which the qualification as a whole is placed. The purpose of frameworks is to help understand both similarities and differences between different qualifications which do not have exact matches or equivalences;*
- *There is a need to ensure that national verification reports address the issue of labour market relevance of first cycle completion;*
- *The working group notes that it has been very difficult for Scotland and Ireland to address such*

recognition issues [i.e., recognition by higher education institutions in other countries of Scottish and Irish qualifications and of other country qualifications by Irish and Scottish institutions] given the state-of-play in the implementation of the national frameworks incorporating the Bologna cycles. Nevertheless, the Group considers that given that this is one of the key aims of the Bologna Framework, it is important that all countries endeavor to seek appropriate information in this regard as part of their verification work. The Group considers that this is an area where the ENIC and NARIC networks can be of assistance;

- *That all countries should provide for the review of the verification of the alignment of their National Framework to the Bologna Framework where there have been any major amendments to their National Framework;*
- *That it is important that legacy awards (awards that will no longer be made but which are important as there will continue to be many holders of such awards) are included in, or related to, National Frameworks as they are being developed and implemented and that these are taken into account in the verification of the alignment with the Bologna Framework.*

- *Criterion 5 – The national quality assurance systems for higher education refer to the national framework of qualifications and are consistent with the Berlin Communiqué and any subsequent communiqué agreed by ministers in the Bologna Process*
  - *That in the implementation of the verification process countries should demonstrate that their national systems – at institutional and agency level – are deliberately seeking to implement the*

Standards and Guidelines for Quality Assurance in the European Higher Education Area and that the state-of-play in relation to reviews in line with the Standards and Guidelines should be set out while at this time such review need not to been undertaken. The working group notes that it is the intention of many countries to implement the standards and guidelines within the next four years and considers that any verification report should be added to and the Council of Europe notified where a review in line with the Standards and Guidelines has been completed. Additionally, the Working Group recommends that for any self-certification process underway after 2010, it should be a requirement that agency reviews in line with the standards and guidelines are completed in a satisfactory way prior to the completion of any self-certification process.

The strength of the European higher education is the cultural richness and diversity, as represented by the 47 participating countries in the Bologna Process. Diversity is one of the great strengths of Europe, and one of the key functions of the overarching framework of the EHEA is to make sense of that diversity. This is an advantage for European students and an attraction for students from outside Europe. The Bologna Framework and the development and implementation of national frameworks of qualifications are central to removing the barriers to mobility and the creation of a common language for qualifications.

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Appendix 1

SHARED DUBLIN DESCRIPTORS FOR SHORT CYCLE, FIRST CYCLE, SECOND CYCLE AND THIRD CYCLE AWARDS[1]

The FQ-EHEA has generic qualification descriptors for each cycle, known as the 'Dublin descriptors'. These have been developed as a set and are intended to be read with reference to each other. They are primarily intended for use in the alignment of qualifications and hence national frameworks. National frameworks themselves may have additional elements or outcomes, and may have more detailed and specific functions.

The Dublin descriptors were built on the following elements:

- knowledge and understanding;
- applying knowledge and understanding;
- making judgments;
- communication skills;
- learning skills.

The Dublin descriptors offer generic statements of typical expectations of achievements and abilities associated with qualifications that present the end of each of a Bologna cycle. They are not meant to be prescriptive; they do not represent threshold or minimum requirements and they are not exhaustive;

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

similar or equivalent characteristics may be added or substituted. The descriptors seek to identify the nature of the whole qualification. The descriptors are not subject specific nor are they limited to academic, professional or vocational areas. For particular disciplines the descriptors should be read within the context and use of the language of that discipline. Wherever possible, they should be cross-referenced with any expectations/competencies published by the relevant community of scholars and/or practitioners. Further elaboration of the existing elements and/or introduction of new elements will be part of their evolution as reference points to the FQ-EHEA.

The Dublin descriptors are listed below and may be used by higher education providers as an additional reference point, [5].

Qualifications that signify completion of the higher education short cycle (within the first cycle) are awarded to students who:

- have demonstrated knowledge and understanding in a field of study that builds upon general secondary education 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.

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, and is typically at a level that, whilst 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[2] approach to their work or vocation, and have competences[3] 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 judgments that include reflection on relevant social, scientific or ethical issues;
- 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.

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

[2] The word 'professional' is used in the descriptors in its broadest sense, relating to those attributes relevant to undertaking work or a vocation,and that involves 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

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

provides a basis or opportunity for originality in developing and/or applying ideas, often within a research[4] 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 judgments with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments;
- 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.

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;

[4] 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 accomodate the range of activities that support original and innovative work in the whole range of academic, professional and technological fields, including the humanities, and the traditional, performing, and other creative arts. It is not used in any limited or restricted sense, or relating solely to a traditional 'scientific method'

- 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 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.

The Joint Quality Initiative has also compared the descriptors and identified the step changes found between cycles in each of these elements. The differences/'step changes' between the respective Dublin descriptors from 1st cycle (e.g. Bachelors) to 2nd cycle (e.g. Masters) to doctorates are presented in Table A.1.

Table A.1. Differences/'step changes' between the respective Dublin descriptors

knowledge and understanding …	
short cycle	... in a field of study that builds upon general secondary education and is typically at a level supported by advanced textbooks
1st cycle	[that is] supported by advanced text books [with] some aspects informed by knowledge at the forefront of their field of study…
2nd cycle	provides a basis or opportunity for originality in developing or applying ideas…often in a research context…
Doctorates	[includes] a systematic understanding of their field of study and mastery of the methods of research associated with that field…

application of knowledge and understanding…	
short cycle	often in occupational context
1st cycle	[through] devising and sustaining arguments…
2nd cycle	[through] problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts...
Doctorates	[trough the] ability to conceive, design, implement and adapt a substantial process of research with scholarly integrity…[that has] made a contribution that extends the frontier of knowledge by developing a substantial body of work some of which merits national or international refereed publication...
ability to make judgments…	
short cycle	to identify and use data to formulate to well-defined concrete and abstract problems
1st cycle	[through] gathering and interpreting relevant data…
2nd cycle	the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete data…
Doctorates	[through] critical analysis, evaluation and synthesis of new and complex ideas…
ability to communicate…	
short cycle	their understanding, skills and activities, with peers, supervisors and clients
1st cycle	information, ideas, problems and solutions...
2nd cycle	their conclusions and the underpinning knowledge and rationale to specialist and non-specialist audiences…
Doctorates	with their peers, the larger scholarly community and with society in general about their areas of expertise...

learning skills…	
short cycle	To undertake further studies with some autonomy
1st cycle	needed to study further with a high level of autonomy…
2nd cycle	to study in a manner that may be largely self-directed or autonomous...
Doctorates	expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement...

Appendix 2

DECREE ON THE NATIONAL FRAMEWORK FOR HIGHER EDUCATION QUALIFICATIONS ("OFFICIAL GAZETTE" NO.154, 30.11.2010)

According to Article 99 paragraph 2 of the Low on Higher Education („Official Gazette of Republic of Macedonia" No. 35/08, 103/08, 26/09, 83/09, 99/09 and 115/10), the Government of the Republic of Macedonia, on its session held on 17.11.2011, adopted

D E C R E E
On the National Framework for Higher Education Qualifications

Article 1

This Decree determine The National Framework for Higher Education Qualifications that closely define the profile, objectives and initial creation of the curricula of the first, second and third cycle of studies and curricula for vocational education shorter than three years.

Article 2

The National Framework for Higher Education Qualifications (hereinafter: the National Framework) is the only internationally recognized description, at the level of national higher education system, which describe all interconnected higher qualifications and learning outcomes and determine relationships between higher education qualifications.

The National Framework is mandatory national standard regulating the methods of acquisition and use of higher qualifications in the Republic of Macedonia.

The National Framework is an instrument for the establishment of higher education qualifications acquired in the Republic of Macedonia which provides the basis for visibility, access, passable, acquisition and quality of qualifications.

Article 3

The objectives of the National Framework are:

- to enable higher education institutions, employers, parents, prospective students and others to understand the achievements and characteristics of acquired title and the way qualifications are interlinked;
- to provide support to higher education institutions, students and others in the elucidation of potential routes for progression and transfer of credits especially in the context of wider participation in lifelong learning;
- to maintain comparability of norms, standards and methodology, especially those accepted in the only space for higher education, to ensure international competitiveness and to facilitate mobility of students and graduates;
- to help higher education institutions in the process of external quality assessment through the adoption of the starting points for the establishment and determination of academic standards.

Article 4

The National Framework has four levels and six sublevels as follows:

Level in the National Framework for Higher Education Qualifications		Higher Education	Level in the European Framework for HE Qualific.
VIII		III cycle Doctoral Studies	8
VII	VIIA	II cycle Academic studies for Master Degree	7
	VIIB	II cycle Specialist Degree	
VI	VIA	I cycle University Studies 240 credits Professional Studies 240 credits	6
	VIB	I cycle University Studies 180 credits Professional Studies 180 credits	
V	VA	Professional Studies from 60 to 120 credits Short cycles within the first cycle	5
	VB	Vocational education associated with the first cycle of studies by 60ECTS	

Article 5

Qualification descriptor in terms of this Decree represents a description i.e. measurable indicator of learning outcomes and achievements for which the student has been assessed and which the student should be able to demonstrate for the qualification that is awarded.

The National Framework has general descriptors of the qualifications of each cycle of studies that reflect the usual skills and accomplishments of the student and relate to the qualifications that indicate completion of a specific cycle of studies.

Specific descriptors of qualifications that determine learning outcomes for individual study program from the corresponding cycle of studies are prepared by the higher education institution.

Data on skills and accomplishments acquired by the student, as well as the use of qualification are disclosed in the Diploma supplement.

Article 6

The description of learning outcomes for a given level of qualification is expressed with the following descriptors of qualifications:

- knowledge and understanding,
- applying knowledge and understanding,
- making judgment,
- communications skills, and
- learning skills.

Article 7

The titles of qualifications are defined in a way that allows their inclusion in the National Framework to be understandable to

all stakeholders and they are in accordance with the Classification of scientific-research areas, fields and areas under the International Frascati Classification, which is given in addition to the Decree on the norms and standards for establishment of higher education institutions and for performing higher education activities.

A Register for the higher education qualifications in the Republic of Macedonia is kept by the Ministry of Higher Education.

Article 8

Determining the level of existing and new qualifications in the National Framework is based on learning outcomes specified for the given qualification.

A group of different qualifications acquired in different scientific areas of study, can be placed on the same level in the National Framework if they meet the general criteria for learning outcomes for that level.

The curricula can be of different or same scientific field, performed with different subjects, but such to allow the student to acquire the knowledge, skills and competencies specific to a given cycle, which prepare the student to enter the next cycle or provide him/her the opportunity for employment on the certain professional jobs.

The level of qualification is determined by meeting the requirement for the minimum number of credits for the given level, too. For each qualification, the total number of credits is clearly and unambiguously stated in the qualification.

Article 9

The study program for which the qualification is awarded allows comparison with other qualifications, define the target group for which the qualification was designed and determine the learning outcomes in the form of general descriptors of

qualification for the whole study program and specific descriptors of qualification for each subject within the study program.

Article 10

The qualifications consist of obligatory courses that define the essential knowledge and skills and elective courses in addition to the specific skills acquired by the obligatory subjects.

Optional courses that are deemed necessary for certain jobs are not necessary for the award of the qualification.

For each qualification, the structure of the proportion of courses is clearly stated.

Article 11

Qualifications that signify successful completion of the short cycle (60 – 120 ECTS) are awarded to a person who meets the following descriptors of qualifications:

knowledge and understanding	Demonstrate knowledge and understanding in area that builds upon general secondary education supported by advanced textbooks; Possess knowledge to support the field of work or vocation, opportunity for personal development and extension of additional studies to complete the 1st cycle.
applying k & u	Ability for practical and professional application of knowledge and understanding.
making judgment	Ability to search, identify and use data to formulate responses and solutions to well-defined concrete and abstract problems.

commun. skills	Capability to communicate about the specific abstract problems, skills and activities, with peers, supervisors and clients.
learning skills	Have the learning skills to undertake further studies with some autonomy.

Qualifications that signify a successful completion of the first cycle of study (180 – 240 ECTS) are awarded to person who meets the following descriptors of qualifications:

knowledge and understanding	Have demonstrated knowledge and understanding founded upon prior education and training within the main field of study, including knowledge about the range of theoretical, practical, conceptual, comparative and critical perspectives in the field within appropriate methodology; Understanding in a particular area and familiarity with current research issues and new sources of knowledge; Have demonstrated knowledge and understanding of various theories, methodologies.
applying k&u	Can apply their knowledge and understanding in a manner that indicates a professional approach to work or vocation; Have demonstrated competences for indentifying, analyzing and solving problems; Be able to devise and sustain arguments within their field of study.

making judgment	Ability to gather, analyze, evaluate, and present information, ideas, concepts from relevant data; Exercise appropriate judgment, taking into account relevant personal, social, scientific or ethical aspects; Ability to evaluate theoretical and practical issues, to explain the reasons and to choose an appropriate solution.
communications skills	Can communicate and discuss information, ideas, problems and solutions on the contexts where criteria for decisions and the scope of the task may be well defined to both specialist and non- specialist audiences; Take shared responsibility for collective results; Ability for independent participation into specific, scientific and interdisciplinary discussions, with a professional approach.
learning skills	Take initiative to identify and address learning needs for further knowledge and ongoing learning, with a high degree of autonomy.

Qualifications that signify a successful completion of the second cycle of study (60– 120 ECTS) is awarded to a person who meets the following descriptors of qualifications:

knowledge and understanding	Have demonstrated knowledge and understanding founded upon Bachelor level within the main field of study, implementing methodologies appropriate for solving complex problems, both systematically and creatively, that provides a basis or opportunity for originality in developing and/or applying autonomous ideas in a research context; Ability to use an expanded and deepened knowledge; Have demonstrated high levels of specialist competence in one or more specific fields Possess knowledge of one or more subject areas in the given scientific fields, based on the most renowned international scientific research in that field.
applying k & u	Ability to critically, independently and creatively solve problems with some originality in new or unfamiliar environments within multidisciplinary context related to their field of study.
making judgment	Ability to synthesize and integrate knowledge; Ability to deal with complex issues both systematically and creatively, make sound judgments even on the basis of incomplete or restricted information, but that include reflecting on the personal, social and ethical responsibilities linked to the application of their knowledge and judgments; Ability to assess and make selection of scientific theories, methodologies, tools and general skills in the subject areas, and to establish a new analysis and solutions on a scientific basis.
communication skills	Can communicate their conclusions and recommendations with the argumentation of the knowledge and rationale underpinning these, to both specialist and non-specialist audiences clearly and unambiguously; Take over significant responsibility for the collective results; lead and initiate activity.

learning skills	Ability to identify personal need for further knowledge and to operate independently, to acquire new knowledge and skills autonomously within the societal context; Ability to take responsibility for further professional development and improvement.

Qualifications that signify a successful completion of the third cycle of study are awarded to a person who meets the following descriptors of qualifications:

knowledge and under.	Have demonstrated a systematic understanding of a field of study and mastery of methods and skills of research within that field in accordance with the highest international standards.
applying k & u	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.
making judgment	Ability of critical analysis, evaluation and synthesis of new and complex ideas, having assessment competences; Ability to independently initiate and participate in national and international research networks and events with scientific integrity Ability to independently initiate research and development projects that will generate new knowledge and skills for development in the research field.
commun. skills	Can communicate with their peers, the larger academic community and with society in general about the scope of their expertise.

learning skills	Can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.

Article 12

Each qualification in the National Framework should be compatible with the related qualification from the European Framework for Higher Education Qualifications.

The procedure of verifying the compatibility of the National Framework with the European Framework for Higher Education Qualifications is carried out at least every five years.

Article 13

The degrees of higher education acquired before the entry into force of this Decree, compared with levels in the NF-HEQ correspond to:

Level in the NF for HE Qualifications	VIII	VII		VI		V	
		VIIA	VIIB	VIA	VIB	VA	VB
Former degrees	VIII	VII/2		VII/1		VI	

Article 14

Specific descriptors of the qualifications which determine learning outcomes for the individual study program from the corresponding cycle of studies are submitted to the Ministry of

Higher Education and are published on the websites of the higher education institutions.

Article 15

The regulation from Article 14 of this Decree will be applied six months from the date of enactment of this Decree.

Article 16

This Decree shall enter into force eight days after it is published the „Official Gazette of Republic of Macedonia“.

Nr. 51-6508/1	Vice President of the Government
17.November 2010	of Republic of Macedonia
Skopje	MA Zoran Stavreski, hand-signed

Appendix 3

10 STEPS IN DEVELOPING A NATIONAL QUALIFICATIONS FRAMEWORK

(REPORT BY THE BOLOGNA WORKING PARTY ON QUALIFICATIONS FRAMEWORKS, CONFERENCE OF MINISTERS OF EDUCATION OF THE BOLOGNA PROCESS, LONDON 2007)

The process of developing national qualifications frameworks may be summarized in 10 essential steps.

1. Decision to start: Taken by the national body responsible for higher education (Minister?)
2. Setting the agenda: The purpose of our NQF WG-Report nr. 1 (section 2.3)
3. Organizing the process: Identifying stakeholders; setting up a committee/WG
4. Design Profile: Level structure, Level descriptors (learning outcomes), Credit ranges
5. Consultation National discussion and acceptance of design by stakeholders
6. Approval According to national tradition by Minister/Government/legislation
7. Administrative set-up Division of tasks of implementation between HEI, QAA and other bodies
8. Implementation at institutional/programme level; Reformulation of individual study programmes to learning outcome based approach

9. Inclusion of qualifications in the NQF; Accreditation or similar (cfr. Berlin Communiqué)
10. Self-certification of compatibility with the EHEA framework (Alignment to Bologna cycles etc.); WG Report nr. 1; Pilot projects

The sequence of steps need not be identical in all countries.

Appendix 4

CRITERIA AND PROCEDURES FOR VERIFICATION OF FRAMEWORK COMPATIBILITY (EXTRACT FROM WORKING GROUP ON QUALIFICATIONS FRAMEWORKS REPORT, 2005)

Criteria for verifying that national frameworks are compatible with the Bologna framework are as follows:

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

7. The responsibilities of the domestic parties to the national framework are clearly determined and published.

Procedures for verifying that national frameworks are compatible with the Bologna framework are as follows:

1. The competent national body/bodies shall certify the compatibility of the national framework with the European framework;
2. The self-certification process shall include the stated agreement of the quality assurance bodies in the country in question recognised through the Bologna Process;
3. The self-certification process shall involve international experts;
4. The self-certification and the evidence supporting it shall be published and shall address separately each of the criteria set out;
5. The ENIC and NARIC networks shall maintain a public listing of States that have confirmed that they have completed the self-certification process [www.enic-naric.net];
6. The completion of the self-certification process shall be noted on Diploma Supplements issued subsequently by showing the link between the national framework and the European framework.

Appendix 5

GLOSSARY

There are a number of concepts associated with and essential to an understanding of national frameworks of qualifications, but there is unfortunately no widespread international agreement on the accepted use of such terms as level, cycle, workload, learning outcome, qualifications framework, etc. Differences in the use of these terms make an explanation of national frameworks and their coordinated development problematic. In order to overcome these difficulties the following definitions taken from the Bologna glossary, Tuning glossary and ECTS Users' Guide are employed in this guide:

Accumulation
The process of collecting credits awarded for achieving the learning outcomes of educational components or other learning activities.

Allocation of Credit
The process of assigning a number of credits to qualifications/programmes or to other educational components.

Assessment
The total range of methods (written, oral and practical tests/examinations, projects and portfolios) used to evaluate learners' achievement of expected learning outcomes.

Assessment Criteria
Descriptions of what the learner is expected to do, in order to demonstrate that a learning outcome has been achieved.

Benchmark – a standard used for comparison

Competences
A dynamic combination of cognitive and meta-cognitive skills, knowledge and understanding, interpersonal, intellectual and practical skills, ethical values and attitudes.

Credit (ECTS)
Quantified means of expressing the volume of learning based on the workload students need in order to achieve the expected outcomes of a learning process at a specified level.

Cycle
All qualifications in the European Higher Education Area are located within three cycles. One of the objectives indicated in the Bologna Declaration in 1999 was the "adoption of a system based on two main cycles, undergraduate and graduate." In 2003 doctoral studies were also included in the Bologna structure and referred to as the third cycle.

Dublin Descriptors
The Dublin Descriptors provide very general statements of typical expectations of achievements and abilities associated with awards that represent the end of a Bologna cycle.

ECTS
ECTS is a learner-centred system for credit accumulation and transfer based on the transparency of learning outcomes and learning processes.

Europe/European
Refers to those countries that are signatories to the Bologna Declaration, whilst 'national' is used to describe the contexts within each of those countries or education systems.

European Qualifications Framework for Lifelong learning (EQF-LLL)
A European Qualifications Framework (EQF) is an overarching framework that makes transparent the relationship between European national (and/or sectoral) educational frameworks of qualifications and the qualifications they contain.

Formal learning
Learning typically provided by an education or training institution, structured (in terms of learning objectives, learning time or learning support) and leading to certification. Formal learning is intentional from the learner's perspective.

Informal learning
Learning resulting from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning may be intentional but in most cases it is non-intentional (or "incidental"/random).

Learner
An individual engaged in a learning process (formal, non-formal or informal learning).

Level (cycle) descriptors
Generic statements describing the characteristics and context of learning expected at each level against which learning outcomes and assessment criteria can be reviewed

Levels
Levels represent a series of sequential steps (a developmental continuum) of learning, expressed in terms of a range of generic outcomes structured according to an agreed set of compatible descriptors, against which typical qualifications can be positioned.

Level Descriptor
Specifications of generic standards or intended learning outcomes with regard to a certain level in a qualifications framework or a multi-tier education system

Module
The term module has different meanings in different countries. In some it means a course unit, in others a module is a group of course unites. For clarity, here the ECTS definition is used. A course unit in a system in which each course unit carries the same number of credits or a multiple thereof.

Non-formal learning
Learning that is not provided by an education or training institution and typically does not lead to certification. It is,

however, structured (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner's perspective.

National Qualifications Framework

A national framework of qualifications is a single description, at national level or level of an educational system, which is internationally understood. The framework describes all qualifications awarded in the system considered and relates them to each other in a coherent way.

Outcome-based education (OBE)

OBE is a method of curriculum design and teaching that focuses on what students can actually do after they are taught.

Programme learning outcomes

A coherent set of 15 to 20 statements expressing what a learner is expected to know, understand and be able to do after successful completion of a degree programme.

Profile

Either the specific (subject) field of learning of a qualification or the broader aggregation of clusters of qualifications or programmes from different fields that share a common emphasis or purpose (e.g. an applied vocational as opposed to more theoretical academic studies).

Programme (educational)

A set of educational components, based on learning outcomes, that are recognized for the award of a specific qualification.

Qualifications (higher education)
Any degree, diploma or other certificate issued by a competent authority attesting that particular learning outcomes have been achieved, normally following the successful completion of a recognized higher education programme of study.

Qualification descriptors
Generic statements of the outcomes of study. They provide clear points of reference that describe the main outcomes of a qualification often with reference to national levels.

Qualifications Framework for the European Higher Education Area (QF-EHEA)
An overarching framework that makes transparent the relationship between European national higher education frameworks of qualifications and the qualifications they contain. It is an articulation mechanism between national frameworks.

Quality Assurance
The process or set of processes adopted nationally and institutionally to ensure the quality of educational programmes and qualifications awarded.

Reference points
Non-prescriptive indicators that support the articulation of qualifications, learning outcomes and/or other related concepts.

Student centred learning
An approach or system that supports the design of learning programmes which focus on learners' achievements,

accommodate different learners' priorities and are consistent with reasonable students' workload (i.e. workload that is feasible within the duration of the learning programme). It accommodates for learners' greater involvement in the choice of content, mode, pace and place of learning.

Teacher centred learning

The transmission of information from a knowledge expert (teacher) to a relatively passive recipient (student/learner) or consumer.

Workload

Indication of the time students typically need to complete all learning activities (such as lectures, seminars, projects, practical work, self-study and examinations) required to achieve the expected learning outcomes.

Appendix 6

APPENDIX 6:
SCHEMATIC COMPARISON BETWEEN MACEDONIAN AND DUBLIN DESCRIPTORS

Type of descr.	Qualif. cycle	MK cycle descriptors	Dublin Descriptors
Knowledge and understanding	Short cycle	Have demonstrated knowledge and understanding in area that builds upon general secondary education supported by advanced textbooks. Possess knowledge to support the field of work or vocation, opportunity for personal development and extension of additional studies to complete the first cycle.	Have demonstrated knowledge and understanding in the field of study that builds upon general secondary education and is typically at a level supported by advanced textbooks; such knowledge provides an underpinning for a field of work or a vocation, personal development, and further studies to complete the first cycle.
	Bachelor	Have demonstrated knowledge and understanding founded upon prior education and training within the main field of study, including knowledge about the range of theoretical, practical, conceptual, comparative and critical perspectives in the field within appropriate methodology. Understanding in a particular area and familiarity with current research issues and new sources of knowledge. Demonstrate knowledge and understanding of various theories, methodologies.	Have demonstrated knowledge and understanding in a field of study that builds upon and their general secondary education, and is typically at a level that, whilst supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study.

Knowledge and understanding	
Master	Have demonstrated knowledge and understanding founded upon Bachelor level within the main field of study, implementing methodologies appropriate for solving complex problems, both systematically and creatively, that provides a basis or opportunity for originality in developing and/or applying autonomous ideas in a research context. Ability to use an expanded and deepened knowledge. Have demonstrated high levels of specialist competence in one or more specific fields. Possess knowledge of one or more subject areas in the given scientific fields, based on the most renowned international scientific research in that field.
Doctorate	Have demonstrated a systematic understanding of a field of study and mastery of methods and skills of research within that field in accordance with the highest international standards.

Have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with Bachelor's level, and that provides a basis or opportunity for originality in developing and/or applying ideas, often within a research context.	
Have demonstrated a systematic understanding of a field of study and mastery of the skills and methods of research associated with field.	

Applying knowledge and understanding	Short cycle	Ability for practical and professional application of knowledge and understanding.	Can apply their knowledge and understanding in occupational contexts.
	Bachelor	Can apply their knowledge and understanding in a manner that indicates a professional approach to work or vocation. Have demonstrated competences for indentifying, analyzing and solving problems. Be able to devise and sustain arguments within their field of study.	Can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study.
	Master	Ability to critically, independently and creatively solve problems with some originality in new or unfamiliar environments within multidisciplinary context related to their field of study.	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.
	Doctorate	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.	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.

Making judgment	Short cycle	Ability to search, identify and use data to formulate responses and solutions to well-defined concrete and abstract problems.	Have the ability to identify and use data to formulate responses to well-defined concrete and abstract problems.
	Bachelor	Ability to gather, analyze, evaluate, and present information, ideas, concepts from relevant data. Exercise appropriate judgment, taking into account relevant personal, social, scientific or ethical aspects. Ability to evaluate theoretical and practical issues, to explain the reasons and to choose an appropriate solution.	Have the ability to gather and interpret relevant data (usually within their field of study) to inform judgments that include reflection on relevant social, scientific or ethical issues.
	Master	Ability to synthesize and integrate knowledge. Ability to deal with complex issues both systematically and creatively, make sound judgments even on the basis of incomplete or restricted information, but that include reflecting on the personal, social and ethical responsibilities linked to the application of their knowledge and judgments. Ability to assess and make selection of scientific theories, methodologies, tools and general skills in the subject areas, and to establish a new analysis and solutions on a scientific basis.	Have the ability to integrate knowledge and handle complexity, and formulate judgments with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgments.

Making judgment		Are capable of critical analysis, evaluation and synthesis of new and complex ideas.
Communications skills	Short cycle	Can communicate about their understanding, skills and activities, with peers, supervisors and clients.
	Bachelor	Can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.
Doctorate		Ability of critical analysis, evaluation and synthesis of new and complex ideas, having assessment competences. Ability to independently initiate and participate in national and international research networks and events with scientific integrity. Ability to independently initiate research and development projects that will generate new knowledge and skills for development in the research field.
	Short cycle	Capability to communicate about the specific abstract problems, skills and activities, with peers, supervisors and clients.
	Bachelor	Can communicate and discuss information, ideas, problems and solutions on the contexts where criteria for decisions and the scope of the task may be well defined to both specialist and non- specialist audiences. Take shared responsibility for collective results. Ability for independent participation into specific, scientific and interdisciplinary discussions, with a professional approach.

Communications skills	Master	Can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously. Take over significant responsibility for the collective results; lead and initiate activity.
	Doctorate	Can communicate with their peers, the larger scholarly community and with society in general about their areas of expertise.

Learning skills			
Short cycle	Have the learning skills to undertake further studies with some autonomy.	Have the learning skill to undertake further studies with some autonomy.
Bachelor	Take initiative to identify and address learning needs for further knowledge and ongoing learning, with a high degree of autonomy.	Have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.
Master	Ability to identify personal need for further knowledge and to operate independently, to acquire new knowledge and skills autonomously within the societal context. Ability to take responsibility for further professional development and improvement.	Have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.
Doctorate	Can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.	Can be expected to be able to promote, within academic and professional contexts, technological, social or cultural advancement in a knowledge based society.

Contact:

Prof. Janerik Lundquist
Linkoping University, Sweden
Email: janerik.lundquist@liu.se

Prof. Elizabeta Bahtovska
University St. Kliment Ohridski, R. Macedonia
Email: elizabeta.bahtovska@uklo.edu.mk