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NATIONAL QUALIFICATIONS FRAMEWORK FOR TERTIARY EDUCATION IN THE CZECH REPUBLIC



PART 1

NATIONAL DESCRIPTORS

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INVESTMENTS IN EDUCATION DEVELOPMENT

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INTRODUCTION

The main objective of this publication is to present the emerging qualifications framework for tertiary education in the Czech Republic (hereinafter as "Czech Qualifications Framework"). The aim of introducing qualifications frameworks is to improve structure and hence permeability of educational systems in both the national and international context. Qualifications frameworks focus on **learning outcomes**, that is, on the actual knowledge, skills and general competencies of graduates, unlike traditional descriptions of educational systems, based on listing formal indicators, such as the length of study or compulsory courses.

THE NATIONAL QUALIFICATIONS FRAMEWORK FOR TERTIARY EDUCATION IS A TOOL FOR IMPROVING AND ENSURING THE QUALITY OF QUALIFICATIONS IN TERTIARY EDUCATION BY DEFINING THE LEVEL OF PROVEN KNOWLEDGE, SKILLS AND GENERAL COMPETENCIES OF GRADUATES.

Qualifications frameworks based on learning outcomes meet the needs of teachers, students and employers. For teachers, qualifications frameworks bring a shift from formal indicators towards the actual content of education and study; for students, it brings information about what knowledge, skills and general competencies they shall acquire from their studies. Finally, qualifications frameworks provide clear information about graduates' real knowledge and skills to employers, who often mention the fact that the preparedness of graduates for the labour market is far from ideal. From the perspective of educational policy and educational institutions, qualifications frameworks represent a set of criteria for an improved and a more transparent management of quality in tertiary education. Expected knowledge, skills and general competencies of graduates gradually become the common language of educational theory, policy and practice.

Developing National Qualifications Framework will make the Czech tertiary education more comprehensible for the area of the Czech Republic as well as for the European Higher Education Area. The National Qualifications Framework based on the European Qualifications Framework, which was developed under the Bologna process, will also simplify international comparisons of similar qualifications.

Like elsewhere in Europe, the preparation of the qualifications framework in the Czech Republic is based on a discussion involving all stakeholders in tertiary education – representatives of schools, teachers and learners, graduates, employers and the government. The qualifications framework is being prepared by a team of approximately one hundred experts who represent individual stakeholders. The involvement of all the stakeholders ensures that the content of

individual qualifications complies with particular professional standards as well as rapidly changing social needs.

The proposed National Qualifications Framework for Tertiary Education operates on two levels of detail. The so-called national descriptors reflect the generally expected knowledge, skills and general competencies of graduates at various levels of tertiary education representing the standard which is binding across the varied spectrum of educational activities in higher education and tertiary vocational education in the CR. Descriptions of subject areas shall gradually complement the language of national descriptors. Their objective will be to specify these general principles for the groups of factually related study programmes and educational programmes.

A detailed description of the emerging Czech Qualifications Framework in the context of historical development as well as with regard to the current situation in higher education is dealt with in Chapter 3. The first two chapters position the Czech Qualifications Framework in a broader international context. The first chapter outlines the development of qualifications frameworks globally, including their terminology and typology. The second chapter deals in detail with qualifications frameworks for tertiary education in Europe, particularly with regard to their role in the Bologna Process.

1 GENERAL BACKGROUND

1.1 QUALIFICATIONS FRAMEWORKS AS A GLOBAL PHENOMENON

The idea of education has been undergoing significant changes over the last two decades – a simple statement that has, unusually, been agreed upon by both the proponents and the critics of new approaches. The newly established paradigm takes a greater account of both the interests of certain groups that have been considered rather marginal to date and attributes more or less new roles to traditional stakeholders. The student (learner) is becoming the central focus playing an absolutely crucial role. It can be a "traditional" student making their way through the formal education system, a person returning to the education system with acquired professional experience they wish to develop further, or an individual interested in requalification. If training is carried out in a school (which should not be the only option), it is expected that the central focus is no longer the education conceived as a transfer of knowledge from a teacher to a student, but the learning as an active process in which the teacher plays the role of "manager". The mission of an educational institution is to develop a creative environment and methods to support students in their learning rather than to communicate specific knowledge and skills. As students may take different paths to achieve one goal, and progress through a rigidly defined curriculum is no longer a main criterion for success. Attention has shifted from inputs to learning outcomes.

The **qualifications framework** (Qualifikationsrahmen, cadre de qualifications...) is one of the tools which has become increasingly discussed in this context. Despite the fact that intense debates about the possibilities and limitations of its use internationally have been taking place over the past couple of years, the emergence of the concept itself is much older as well as its first practical applications. According to theorists, the period of more than two decades of existence of qualifications frameworks can be divided into three quite specific stages.

The **first generation** of qualifications frameworks included those whose development began around the mid-1990s. The geographical location of the pioneering countries is highly varied: Europe's first qualifications frameworks were developed in the UK (particularly for Scotland), while New Zealand, Australia and South Africa are among the pioneers outside Europe. Aside from the fact that the pioneers were Commonwealth countries, the main feature shared by these early projects was the effort by the countries to use this tool for resolving their internal problems. Given the experimental nature of these initiatives, it is not surprising that the success of their application is evaluated as rather inconsistent from today's perspective. The ambitious proposal of the South African qualifications framework, which aimed at overcoming the consequences of apartheid in education, is currently considered as a project whose implementation has been brought to a standstill. In contrast, the Scottish framework is often mentioned as an example of a successful and viable project.¹

¹ ALLAIS S., RAFFE D., STRATHDEE R., WHEELAHAN L., YOUNG M. Learning from the first qualifications frameworks (Geneva: ILO, 2009).

The second generation of qualifications frameworks, which began to emerge at the turn of the 21st century, helped to expand the concept to other African, Latin American and European countries. In designing and implementing educational policies, the creators attempted to make the most of the experience of their predecessors and learn lessons from their mistakes. The Irish solution, which continues to inspire other countries seven years after its inception, is considered a model example in both the European and the global context.

The **third generation** is generally considered to include frameworks whose preparation began approximately after the year 2005. Besides the establishment of other national qualifications frameworks, the period covering our present is characterised, among other things, by the fact that the first frameworks with a multinational scope have begun to appear. These international projects also include two overarching qualifications frameworks with a European scope of application, a detailed description of which can be found in the second chapter. Intense debates on problems related to qualifications frameworks in this last phase naturally lead to the fact that the emerging qualifications frameworks usually draw inspiration from their predecessors. The converse relationship equally applies, which means that the emergence of new national and mainly multinational qualifications frameworks leads to the review of earlier projects, particularly the first generation frameworks. For example, the New Zealand framework is currently being reviewed. The development of qualification frameworks influences other initiatives as well, such as the International Standard Classification of Education ISCED, which is to reflect a finer differentiation of qualifications in tertiary education as of 2011.

Approximately 70 countries are experienced in developing and implementing qualifications framework, a recent study by the International Labour Organization showed. It is no exaggeration to say that the very idea of qualifications frameworks can be characterized as a phenomenon of a global reach. As in the case of other global phenomena, we are witnessing the fact that a single concept in different contexts inevitably produces different results. In practice this means that despite the fact that a few basic features are similar, the purpose, the form and the understanding of basic concepts of qualifications frameworks often differ depending on the cultural, political and economic contexts. Even in Europe, where development in this area has been recently observed and coordinated by the Bologna Process stakeholders (or, by the European Commission in the case of the EQF), there are clear signs of different traditions of educational systems when creating frameworks at national levels. The two European initiatives aim mainly at ensuring the transparency and comparability of European education systems, not their homogenization. Qualifications frameworks can thus be likened to a common European language, which, however, describes a different reality.

1.2 KEY TERMS: QUALIFICATIONS FRAMEWORK – QUALIFICATION – QUALIFICATIONS SYSTEM

The extensive range of initiatives in the field of qualifications frameworks causes a lack of clarity. The purpose of this chapter is to place the emerging National Qualifications Framework for Tertiary Education in a broader theoretical system. A strong attention needs to be paid to the key terms, the definition of which is required for understanding the content and functions of these tools.

QUALIFICATIONS FRAMEWORK

As a working definition of the term **qualifications framework**, which largely covers a wide range of national and multinational approaches in different parts of the world, we may accept the definition provided in the Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for Lifelong Learning. This recommendation defines the Qualifications Framework as "a tool for the classification of qualifications according to a set of criteria for specified levels of achieved learning". The definition provided by the OECD and in other related documents is close to this statement.² A qualifications framework is thus primarily a tool assigning a certain level of the qualification system to individual qualifications, or possibly setting the criteria for this assignment. In individual cases of implementation, this basic definition takes on new dimensions; a separate subsection analyses these approaches (cf. Section 1.3) in order to achieve clarity.

The classification of qualifications, which is done by dividing the qualification system into **levels characterized by advancement**, is a fundamental and a widely shared role of qualifications frameworks in the qualification systems. However, this not the only role of qualifications frameworks. In this context, newer frameworks in some countries explicitly emphasize their roles as instruments for developing qualifications (e.g. Malaysia), interconnecting the qualification system with society and the social relevance of qualifications awarded (Mauritius), a strong link to the system of quality assurance and accreditation (Hong Kong, Saudi Arabia) or their role in ensuring the consistency of academic standards (Oman). Some qualifications frameworks also include rules for determining workload through credits, as well as accumulating and transferring credits, and thus represent an integrated qualifications and credit framework (Scotland, Rwanda). Therefore, it is clear that the traditional concept of the qualifications framework as "tools for classification" does not cover the full range of its role and functions in contemporary systems of tertiary education, and this trend is also becoming gradually reflected in the definitions of qualifications frameworks.

THE CONCEPT OF QUALIFICATION

The concept of qualification, the definition of which strongly influences the approach, the structure and the content of individual qualifications frameworks, offers a wide range of interpretations. However, in this context it should be noted that many qualifications frameworks recognised throughout the world do not offer any explicit formal definition of the concept of qualification. Most contemporary definitions available in connection with qualifications frameworks understand qualification emphasizing the elements of form and content as a formal certification of attained learning outcomes. This concept occurs literally all over the world, for example:

- The Australian qualifications framework defines qualification as "a formal certification issued by a competent authority as recognition of an individual's achievement of the learning outcomes required in relation to individual, professional, vocational or societal needs"³;
- the qualifications framework of the Virtual University for the Small States of the

² COLES M., WERQUIN P. Qualifications Systems – Bridges to Lifelong Learning (Paris: OECD, 2007), p. 22.

³ Australian Qualifications Framework Implementation Handbook (AQF Advisory Board, 2007, Fourth Edition). p. 5.

Commonwealth, which applies to the tertiary education systems of 29 smaller member states of the British Commonwealth in Africa, Asia, America, Europe and Oceania, defines qualification with an emphasis on the process of evaluation as "the formal outcome of the assessment and the validation process, which is based on the findings of a competent authority stating that an individual has achieved learning outcomes in compliance with the required standards"⁴;

- similarly, the South African qualifications framework defines qualification as "formal recognition and certification of attained learning outcomes recognized by an accredited institution"⁵, but also underlining an explicit link to the quality assurance system.

The Lisbon Convention on the Recognition of Qualifications concerning Higher Education in the European Region of 1997 ("The Lisbon Recognition Convention"), one of the pillars of the Bologna Process, defines the concept of qualification entirely in accordance with these approaches:⁶

"[Qualification means] any degree, diploma or other certificate issued by a competent authority attesting the successful completion of a higher education programme."⁷

The National Qualifications Framework for Tertiary Education also includes the concept of qualification in this sense, although this definition has not been clearly applied in Czech legislation (cf. Chapter 3).

QUALIFICATION PARAMETERS

As we mentioned above, the purpose of qualifications frameworks is, among other things, to classify qualifications. This process is taking place in line with a number of interrelated criteria. Most qualifications frameworks sort qualifications according to the following typical criteria:⁸

- **The qualification level**, which expresses the hierarchical position of a qualification within the education system and, at the same time, the level of intensity. The level of qualification may result from legislation or other types of regulation, including education system methodologies, but may also be informally recognized in social perception. These perspectives may differ. For example, the applicable methodology of the National Qualifications System of the Czech Republic ranks the tertiary vocational education level among undergraduate degree programmes; however, the predominant perception in society is that the hierarchical position of a bachelor's degree programme is higher than that of tertiary vocational education. Defining qualification levels is also important for movement through the education system. Achieving a lower level qualification is typically grounds for access to education to attain the subsequent higher qualification level.
- **The workload necessary to gain qualifications. Workload is expressed in terms of time; traditionally, it was done mainly by determining the required or expected years of study (cf. Sections 45-47 of the Higher Education Act). However, defining workload using standard**

⁴ Transnational Qualifications Framework for the Virtual University for the Small States of the Commonwealth (Commonwealth of Learning/South African Qualifications Authority, 2008), p. 29.

⁵ The Higher Education Qualifications Framework. Government Notice No. 928, Staatskoerant No. 30353, 5.10.2007, p. 6.

⁶ BERGAN S. Qualifications – Introduction to a Concept (Strasbourg: Council of Europe, 2007), p. 29.

⁷ Article 1 of the Lisbon Convention on the Recognition of Qualifications concerning Higher Education in the European Region.

⁸ The Higher Education Qualifications Framework. Government Notice No. 928, Staatskoerant No. 30353, 5.10.2007, p. 6.

units of time (hours, months, years) is subject to significant limitations that arise from differences such as the organization of the school or the academic year or the organization of training (mainly various lesson lengths) when comparing different countries and their educational systems, which has become problematic in terms of developing mobility. Furthermore, a simple expression of the workload according to the extent of education is problematic in itself, as it can express direct educational activities carried out by an institution, but not the actual individual student workload, including self-study. Self-study and independent creative activities such as research or artistic activity are important components of training that lead to qualifications in tertiary education, particularly higher level qualifications.

To overcome this problem, credit systems were developed (first in the U.S.) at the turn of the 20th century as instruments for quantifying study units, the accumulation of which leads to the fulfilment of a certain curriculum requirement and leads to the acquisition of a qualification. Generally, credit systems may play this so-called accumulation role, but they also play a transfer role supporting horizontal mobility (transition among programmes of study at similar levels) or vertical mobility (transition from a lower level study programme into a higher-level study programme). **The European Credit Transfer System (ECTS)**, which was based on the need to provide the transfer function and which was adopted as a common credit system under the Bologna Process, is deemed to represent the "common currency" of the European Higher Education Area. To a certain extent, it is based on the a priori assumption that the workload for an average student studying (full-time) is 1,500 - 1,800 hours a year, i.e. 1 ECTS credit represents 25-30 hours of workload.

- **The qualification profile** defines the identity of certain qualifications in the education system from the perspective of the purpose of qualification, its general educational objectives and target groups for which the qualification has been designed (in terms of interests and expected future jobs). The qualification profile always refers to a particular qualification and was traditionally derived primarily from the type of school (university or tertiary vocational school), in Czech conditions, due to the low diversification of public tertiary education, more often by the type and the focus of a faculty (e.g. without further specification, it was always obvious that the study of mathematics at the faculty of education has a different profile than the study of mathematics at the faculty of science). Contemporary development in tertiary education has led to the emergence of social and political expectations in the sense that institutions must provide clear information about the profile of qualifications on offer, including information not only on the specialist focus of a programme of study, its theoretical and methodological base and broader educational objectives, but also on personality characteristics of graduates and their future career perspectives.
- **Learning outcomes represent an explicit expression of knowledge, skills, and other general competencies that students must demonstrate in order to be awarded a relevant qualification. Learning outcomes are derived from all other components of qualifications. The qualification profile defines educational objectives, whose operationalization (converting into an observable and measurable form) is implemented by learning outcomes. Credit value (the full range of workload allocated to a study programme leading to a certain qualification) determines the number of learning outcomes which can be realistically mastered. The level of qualification expresses expectations regarding the intensity of learning outcomes.**

Learning outcomes can be defined at many levels. In addition to the level of qualification (programme of study), what matters is the level of the education system as a whole, in which learning outcomes are defined mostly generically, but also the level of the module, the area of study, or another unit of learning. Generally, as the unit becomes smaller, the definition of learning outcomes is more precise and detailed. Furthermore, the definition of learning outcomes under the standards used for evaluation (e.g. evaluation criteria for examination) is more detailed than in the case of simple information about the content of a programme of study or the area of study.

- **Qualification quality** is determined by all the aforementioned features. Above all, the level of qualification says a lot about its qualitative nature or the expectations existing in this respect (the term 'level' has a strong semantic context in this sense). On the other hand, specific learning outcomes are the decisive element in assessing whether a certain qualification meets the expectations relating to the level at which it ranks according to its profile and other characteristics. It is not only about the method of defining learning outcomes, the success of students in the completion of studies or individual student performance expressed in the form of grades, although these elements attract the most attention typically devoted to the topic (the first one mentioned within the community in tertiary education in connection with the introduction of learning outcomes, which is often done by applying a technical and formalistic approach, the other two by the general public and by political authorities).

Qualification quality is secured mainly through the so-called **constructive alignment** of specified learning outcomes, forms and methods of teaching and learning and methods of evaluation. The point is that the forms and methods of teaching and learning should be designed so as to best support the achievement of the expected outcomes (e.g. if a student is expected to demonstrate the ability to formulate and express arguments, a lecture will not be the most appropriate form of teaching); methods of evaluation should also verify the required outcomes a student could have actually learned depending on the selected training forms and methods (e.g. the ability to work on a team can be promoted by using a combination of a seminar and a high degree of autonomous learning, including a group project as a basis for evaluation). However, appropriate methods of teaching and assessment may not be enough if learning outcomes are not defined properly (e.g. the intensity of some outputs is lower or higher than the level of qualification, or mastering some outputs is simply unrealistic given the workload allocated to the total credit value for a particular qualification).

National qualifications frameworks generally influence one another in terms of concept, architecture and content; inspiration is drawn mainly from older qualifications frameworks and qualifications frameworks of English-speaking countries (Australia, Ireland, South Africa, New Zealand, Scotland). There is a strong influence of multinational qualifications frameworks, sometimes also called “overarching”; these include the EQF (e.g. the Malaysian qualifications framework was built upon the EQF and declares EQF as its benchmark, some EU Member States such as Estonia utilized the EQF descriptors as descriptors of the national qualifications framework), the 'Bologna' Qualifications Framework for the European Higher Education Area (Qualifications Framework for the European Higher Education Area - QF-EHEA) and the Transnational Qualifications Framework for the Virtual University for Small States of the Commonwealth. However, while building upon international experience and examples of good practice in developing qualifications frameworks is understandable and correct, our approach must not be over-simplified and uncritical. The form of the national qualifications framework is a significant factor influencing the form, objectives and

criteria for evaluating the results of tertiary education in the country and should thus reflect the political decision or consensus of the tertiary education community and other relevant stakeholders. For example, although the simple takeover of a transnational qualification framework can be perceived as an attractive idea due to simplicity, it is extremely problematic due to the fact that these overarching frameworks such as the QF-EHEA (based on the so-called Dublin Descriptors) offer only selected functions that qualification frameworks must have, which affects their architecture as well as definition.

QUALIFICATION SYSTEM

All qualifications are part of a **qualification system**, which can be defined as "the summary of all activities in a state leading to the recognition of learning achieved."⁹ In this sense, it is more than just an equivalent of the concept of an education system emphasizing outputs (qualification). A qualification system defined this way refers not only to the education system seen as (in terms of initial training) a system of institutions implementing formalized education or programmes of study, but also to the processes of the recognition of knowledge, skills and general competencies that were acquired outside the initial training, i.e. within further education (naturally, it is impossible to provide a closed definition of further education).

1.3 TYPOLOGY OF QUALIFICATIONS FRAMEWORKS

As already indicated in the previous text, basically every qualifications framework is a unique tool characterized by a specific combination of parameters. At the end of this chapter we attempt to outline the differences of these variations in key areas, which, in the case of qualifications frameworks, include the scope, functions, ambitions, the methodology used and the anchoring in the education system. This brief typology allows us to better understand the specifics of the Czech Qualifications Framework.

The scope ranks among the most discernible parameters, since it is usually already reflected in the title. The simplest and most widely used type of qualifications framework describes the education system of a country. In such a case, it is commonly dealt with as a **national qualifications framework** despite the terminological inaccuracy. In some cases, there are parallel education systems within one country; these systems are described by using specific qualifications frameworks. Belgium may serve as a model example; separate education systems are used by the Flemish and the French communities. Other qualifications frameworks may overarch several different education systems, as mentioned above in the introduction section. The emergence of these so-called **regional or multinational qualifications frameworks** has been a major worldwide trend in recent years. Their typical representatives include the Caribbean Vocational Qualifications Framework - CVQF, which is introduced in the framework of the Caribbean Community (CARICOM), the Qualifications Framework for the SADC, which is under preparation (the South African Development Community) as well as the two overarching European qualifications frameworks, which are dealt with in detail in the second chapter.

Qualifications frameworks also vary depending on whether they cover **the whole qualification system** or only its **certain segment**. It seems that more common solutions are currently offered by qualifications frameworks whose scope is limited to either a certain level of qualification (typically tertiary education), or just one sector of the education system (typically vocational

⁹ COLES M., WERQUIN P. Qualifications Systems – Bridges to Lifelong Learning (Paris: OECD, 2007). p. 22.

education). The growing efforts of states to provide for better permeability among levels and sectors of education, however, reinforce the importance of frameworks that are able to overarch the entire qualifications system and also determine the criteria for the recognition of non-formal and informal learning.

A typical qualifications framework in Europe has 8 levels of qualifications (if it is a qualifications framework for the whole qualification system), of which 3-4 levels are applicable for tertiary education. In contrast, a typical national qualifications framework outside Europe has as many as 12 levels, including 4-5 levels applicable for tertiary education.

The two **main functions** of most qualifications frameworks:¹⁰

- **Communications function** - ensures clarity of the qualifications system, provides its systematic interpretation and defines links among individual qualifications, or possibly also across separate sectors of a qualification system. While all qualifications frameworks carry out this function, it stands out dramatically in multinational frameworks such as the EQF and the QF-EHEA, whose purpose is to provide a reference point for national qualifications frameworks.
- **Regulatory function** - defines the standard of knowledge, skills and general competencies expected at different levels of qualifications. In a broader sense, this function of a qualifications framework means that the framework sets the national policy of a state and defines educational policy objectives expressed in terms of quality assurance.

To some extent, most qualifications frameworks seek to fulfil both functions. Depending on the importance attributed to these functions in specific projects, we may basically distinguish two ideal types of qualifications frameworks in terms of **ambitions**:

- qualifications frameworks **describing the status quo**, whose scope is based on valid adjustments and whose mission is basically filled by streamlining qualifications systems by means of methodology of learning outcomes and which allow the comparison of specific qualifications in different education systems;
- **reform** qualifications frameworks, which instead describe the ideal target and can thus serve as an important reference framework for the implementation of reform visions. Some of these are highly prescriptive and often openly pursue political objectives (for example, the South African Qualifications Framework created after 1990 was openly declared an instrument of promoting social justice in access to education and employment opportunities).

In terms of **methodology**, qualifications frameworks can be divided into two basic types depending on methods of processing qualifications:

- Older qualifications frameworks or projects of smaller countries were often based on classifying individual qualifications existing under a system into required qualifications levels. Strictly speaking, these frameworks did not include explicit criteria for classification, but would implement it directly and authoritatively. These include the so-called **qualifications-based**

¹⁰ Among international qualification frameworks, only the Caribbean Framework of Professional Qualifications has some regulative functions, caused by the fact that the framework mostly applies to smaller countries without their own national qualification frameworks and on the tertiary education level to the regional University of West Indies with campuses in Barbados and Trinidad.

frameworks (equating frameworks); the Australian Qualifications Framework is the most important contemporary example.

- The prevailing contemporary approach, which has become a standard in Europe, is represented by qualifications frameworks based on defining qualification levels using learning outcomes - so-called **descriptor-based frameworks**. **Some countries (particularly Pacific region states such as Fiji and Vanuatu) combine both approaches.**

Descriptions of learning outcomes on which most contemporary qualifications frameworks are built may have **varying degrees of validity** in different cases. These descriptions are usually seen as **minimum standards**, the achievement of which is guaranteed by the education provider and which must be verifiable. Descriptions that do not see learning outcomes as a minimum standard but rather relate to a **typical graduate** should be added to this basic model under certain circumstances. The British Subject Benchmark Statements represent the most sophisticated system.

Contemporary qualifications frameworks are characterized by levels of qualifications contained therein expressed by learning outcomes, mostly in terms of knowledge, skills and other qualifications (general competencies). Terminology, as well as the number of categories in qualifications frameworks, varies by state and by multinational frameworks; however, the aforementioned classification is becoming generally recognized (especially under the influence of the EQF).

The great variety of qualifications frameworks is also reflected in their **anchoring**. Some national qualifications frameworks are wholly or partially contained in the legislation for reasons of securing the necessary level of obligatory force (e.g. the Flemish Community of Belgium, Sweden and the Seychelles). However, such an approach is not prevalent and national qualifications frameworks tend to take the form of a policy or a guideline document, although in many countries a specific authority is authorized to establish them and often a government agency is responsible for the development, implementation and revision of a national qualifications framework (national qualifications authority).

The regulatory function of a qualifications framework is based on its **provision of a unified national standard for individual levels of qualifications**. Its implementation is usually controlled by means of a quality assurance system, which is based either on the principle of accreditation or evaluation, or a combination of both.

Qualifications frameworks having a communication function (especially multinational qualifications framework) serve as a reference point for national qualifications framework (or qualifications gained under educational systems without their own qualifications framework). For full functionality, national qualifications frameworks having a regulatory function¹¹ require a broader set of rules that express conditions for progression through a qualification system, detailed standards (binding or indicative) for individual disciplines or

¹¹ Adapted from B. MAGUIRE, "Issues arising from qualifications frameworks in Europe", p. 5.

broader education frameworks (disciplinary frameworks, subject benchmark statements, national curriculum statements, etc.) and quality assurance, or links to the labour market (e.g. conditions enabling access to the performance of a regulated profession).

2 QUALIFICATIONS FRAMEWORKS IN EUROPE

2.1 DEVELOPING THE EUROPEAN HIGHER EDUCATION AREA

The European Higher Education Area was officially launched at the Conference of European ministers responsible for higher education in Budapest and Vienna in March 2010. This concluded the first decade of reforms of national systems of higher education. The idea of a European area for higher education has taken a more specific form after more than fifty years since the start of economic and political integration of Europe. Although the European Community has tried to promote this idea since the very beginning of its existence, options were rather limited in this respect for a long time and the practical impact began to appear to a greater extent after the second half of the 1980s following the adoption of the Erasmus Programme. However, not even that meant a significant increase in powers; the main tools for implementing the EU educational policies are still based on soft instruments such as recommendations, aid programmes or published examples of best practices.

Therefore, it is typical that the revolutionary changes in European higher education, whose keystone is the idea of the European Higher Education Area, are not implemented under EU policy, but as the fulfilment of voluntary commitments of individual states, just over half of which are EU Member States. This initiative is now generally known as the **Bologna Process** after one its founding documents.

This process was initiated based on the relatively general Sorbonne Declaration, signed in Paris in May 1998 by the French, British, German and Italian ministers responsible for higher education, under which the countries committed to harmonizing their higher education systems. A great response to this initiative in other parts of Europe led to the fact that in June 1999, representatives of 29 countries signed the so-called Bologna Declaration in the continent's oldest university town. By signing the declaration, the countries declared their common objective to develop the European Higher Education Area by 2010 and set a concrete roadmap to achieve it, including:

- adoption of a system of clear and comparable qualifications in higher education;
- adoption of a system based on two main education cycles – undergraduate and postgraduate;
- development of a system of credits as an appropriate tool for promoting multilateral student mobility;
- promoting mobility of students, teachers, researchers and administrative staff;
- promoting European cooperation in quality assurance in higher education.

However, the agenda has been expanded and innovated over the years. It has developed, among other things, towards extending the scope of competence to a third cycle of studies

consisting of doctoral degree programmes, and later towards enriching the three-level structure by adding a so-called short cycle under the first cycle. Emphasis was put also on other important aspects of higher education, such as its social dimension, its relation to the concept of lifelong learning, the importance of graduate employability, creating synergies among education and research activities and increasing the attractiveness of the European Higher Education Area externally.

Synergies between the objectives of the Bologna Process and EU policies began to take greater effect; the most important of these was the Lisbon Strategy aimed at increasing the competitiveness of Europe as a knowledge-based economy. The Bologna Process also used some of the tools originally developed within the EU, such as the European Credit Transfer System (ECTS). Development in the area of qualifications frameworks, dealt with in the following section of this chapter, may serve as an example of links between the Bologna Process and the EU education policy.

2.2 QUALIFICATIONS FRAMEWORK FOR THE EHEA AND THE EQF AS EU META-FRAMEWORKS

Although the original commitment in 1999 to streamline the different systems of the EU higher education qualifications was the overall objective of the Bologna Declaration, the following developments ascribed a central position to qualifications within the area of reforms of European higher education and qualifications still held this position at the start of the second decade of the Bologna Process beyond 2010. Despite the indicated expansion of the reform agenda, it is the concept of qualification in which most key issues and priorities intersect, whether in terms of reciprocal understanding and the transparency of national education systems, quality assurance and education quality assessment, recognition of study or its parts, mobility, etc.

Quite soon, the Bologna Process stakeholders came to the conclusion that qualifications frameworks may become tools of vital importance for harmonizing education systems and strengthening mutual trust among signatories. Qualifications frameworks became a much debated topic, especially after 2003, when their role was explicitly mentioned in the communiqué of the Berlin Conference of ministers responsible for higher education. One of the most important conclusions of the following ministerial conference, held in Bergen, Norway, in 2005, was the adoption of an **overarching qualifications framework for the European Higher Education Area** (sometimes abbreviated as "QF-EHEA") along with the commitment of each country to describe their tertiary education systems using compatible **national qualifications frameworks**, by 2010. The QF-EHEA was built on the so-called Dublin Descriptors, a general description of three main cycles of higher education based on learning outcomes. These descriptors define separately for each cycle what output general competencies graduates must be able to demonstrate. These outputs are divided into five categories:

- knowledge and understanding;
- applying knowledge and understanding;
- formation of judgement;
- communication;
- further education capacity.

The general wording of the Dublin Descriptors corresponds to the intended function of the QF-EHEA as a meta-framework whose mission is primarily to create a broad platform under which the national qualifications frameworks shall develop using a similar methodology (and thus a similar "language") to describe the actual reality of different tertiary education systems. The overarching

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qualifications framework for the European Higher Education Area can be understood also as a tool by means of which it is possible to better understand the diversity of national systems of higher education.

As the key stakeholders of the Bologna Process were preparing the Dublin Descriptors, proponents of the idea of an overarching qualifications framework began to emerge in the European Commission, too. The second European meta-framework began to develop within the European Union at the same time; its ambitions were high from the beginning: to develop a tool for comparing qualifications in individual EU states, thus promoting labour and study mobility as well as lifelong learning, including non-formal and informal learning. A long period of negotiations and consultations officially ended in April 2008, when the European Parliament and the Council issued a recommendation on the establishment of the European Qualifications Framework for Lifelong Learning (abbreviated as the EQF, or the EQF-LLL). Its structure is in many ways similar to that of the QF-EHEA; however, the two meta-frameworks differ in many aspects. Besides the different contexts of their creation and the arising differences in their formal anchoring, the most visible difference is its scope. While the QF-EHEA uses 3 levels to describe only qualifications corresponding to the tertiary education level, the EQF is a framework for lifelong learning that is also meant to be relevant for validating non-formal education and informal learning. Likewise, the EQF was created based on learning outcomes, which it describes in terms of knowledge, skills and general competencies.

Since the beginning of the coexistence of the two European meta-frameworks, most attention was logically devoted to areas where these two overlap, i.e. the levels corresponding to qualifications in higher education. Although under both frameworks these levels are described using somewhat different learning outcomes, both the Bologna Process signatories and the EC representatives have repeatedly declared that these two meta-frameworks are compatible. In addition, in recent years it has been emphasized that national qualifications frameworks should be constructed so that the result is compatible with both the QF-EHEA and the EQF. The frequently cited case of Malta clearly proved that this procedure is not just a theoretical possibility.

Comparing EU Qualifications Meta-Frameworks¹²

	QF-EHEA	EQF
Adopted	2005	2008
Liability	The commitment of ministers responsible for higher education	Recommendation of the European Parliament and of the Council
Geographic scope	47 signatory countries of the Bologna Declaration	33 countries
Architecture and Scope	3 levels of tertiary education; defined by descriptors based on learning outcomes and supplemented by the values of ECTS credits	8 levels encompassing lifelong learning, including general, vocational and tertiary education, defined on the basis of learning outcomes classified into categories of knowledge, skills and general competencies.

2.3 NATIONAL QUALIFICATIONS FRAMEWORKS IN EUROPE

The purpose of the QF-EHEA or the EQF is not to homogenize diverse educational traditions; due to their nature, these frameworks are not suitable to describe the existing education systems. The two European qualifications meta-frameworks are primarily tools for comparing qualifications across different education systems, and it is logical that they can play this role appropriately only if the education systems are described using a similar methodology. Individual states are to meet this objective by creating national qualifications frameworks.¹³ These should be compatible with both European qualifications frameworks, which the states are to demonstrate in the form of written reports. This process of demonstrating compatibility of national qualifications frameworks with the EU meta-frameworks in relation to the QF-EHEA is called “self-certification,” in the case of the EQF, it is called “referencing”. As shown in the aforementioned case of Malta, both processes can be successfully completed by preparing a single report. The completion of referencing or self-certification is in any case an important indicator of the development of national qualifications frameworks. Creating a formal qualifications framework is not enough for the successful implementation of the process; the report should also reflect the extent to which the relevant qualifications framework was put into practice.

¹² The commitment to create a National Qualification System was explicitly formulated by the states of the Bologna Process. The recommendation of the European Parliament and the Council talks about introducing national qualifications systems in accordance with EQF, which does not necessarily assume the creation of qualification frameworks on the national level. Development of qualification frameworks is recommended “where appropriate” and “in accordance with national legislation and practice”.


¹³ Recommendation of the European Parliament and of the Council of 23 April 2008, on the establishment of the European Qualifications Framework for lifelong learning.

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Only 8 states out of the total of 47 signatories of the Bologna Process have completed the process of self-certification of national qualifications frameworks in relation to the QF-EHEA.

Ireland (2006)
Scotland (2006)
Germany (2009)
The Netherlands (2009)
England, Wales and Northern Ireland (2009)
Belgium - Flemish Community (2009)
Denmark (2009)
Malta (2009)

Therefore, it is obvious that most EU states are at the beginning of the process of creating national qualifications frameworks; moreover, different countries are in various stages of this process. The main stakeholders in the Bologna Process are aware of this asymmetric development across Europe and regularly monitor the development of qualifications framework and co-operate through a network of national correspondents as well as a special working group. Similar initiatives also work well within the European Commission, which coordinates the process of implementing the EQF with the aid of an advisory board and a network of national coordinators.



NATIONAL QUALIFICATIONS FRAMEWORK FOR TERTIARY EDUCATION IN THE CZECH REPUBLIC

3.1 QUALIFICATIONS SYSTEM FOR TERTIARY EDUCATION IN THE CZECH REPUBLIC

The Concept of Qualification

Although the concept of qualification is one of the commonly used terms in tertiary education, no clear legal definition of this term has been introduced to date. There are very few references to this term in the applicable Higher Education Act (Act No. 111/1998 Coll.); moreover, it is mentioned in various contexts, without providing a precise definition:

- According to Section 1(b) of this Act, one of the main roles of universities is to allow for acquiring appropriate professional qualifications.
- Sections 72 and 74 govern the verification of scientific or artistic qualifications of applicants for appointment as a professor or associate professor (Section 82(4) then sets out the procedure which the Accreditation Commission applies to verify the eligibility of a university to manage the process of appointing associate professors and professors);
- Sections 89 and 90 shall apply to the recognition of foreign higher education and qualifications.

The National Qualifications Framework for Tertiary Education deals with the concept of qualification as it is common internationally, i.e. in terms of proven and formally validated learning outcomes. The existing legislation distinguishes qualifications by the type of study programme, the awarded degree and the specifications resulting from the specific title of a study programme and the field of study completed by a graduate who gained the qualification. A qualifications system is formed by qualifications existing in compliance with the aforementioned criteria.

The National Qualifications System represents the qualifications system in the Czech Republic; it is controlled by the government under the Act on the Recognition of Further Education Results (Act No. 179/2006 Coll.). The National Qualifications System includes all bachelor's, master's and doctoral degree programmes under the Higher Education Act, as well as accredited education programmes at tertiary vocational schools in compliance with the Education Act (cf. Section 4(1) of the Act on the Recognition of Further Education Results).

The National Qualifications System, which relates to the European Qualifications Framework for

Lifelong Learning¹⁴ (EQF), does not serve as a national qualifications framework in the sense of the EQF or in the sense of a general definition of a qualifications framework. The existence of a qualifications system does not necessarily require the existence of a qualifications framework, which is an optional (although now standard) part of a country's qualifications system. A similar approach is applied by the EQF rules, under which a national qualifications framework (see EQF Annex 1) may be (but need not be) part of a national qualifications system.

The current qualification structure in Czech tertiary education is a result of the intersection of at least four different educational traditions. The qualification heritage of the 1st Czechoslovak Republic (based on the Austrian system) persisted for a long time even after the Sovietization of universities in 1948, as well as after the radical changes in the higher education system in the early 1990s. The development of academic degrees, shown in **Annex No. 2**, may serve as a perfect example. Despite the fact that the labelling of graduates is not very simple, the Czech tertiary education system is relatively easy to read. The Czech tertiary education system was based on 4–6 years of study until 1998, which corresponded in many parameters to today's "long-" master's degree programmes. Clear links can also be seen in the case of postgraduate education. The key system changes include the institutionalization of tertiary vocational education (as a practical alternative to the academic curriculum) and in particular the transition to the model of a structured university study, which has been applied over the last 10 years. Act No. 72/1990 Coll. also provided universities with the option of implementing shorter programmes of study as the so-called "comprehensive university studies," the graduates of which could have been awarded a bachelor's degree. Act No. 111/1998 and subsequently the Czech Republic's pro-active participation in the Bologna Process has contributed to a deeper structuring of study into two cycles, which provided at least formally clearer anchoring of bachelor's degree programmes.

3.2 PREPARATION OF THE CZECH QUALIFICATIONS FRAMEWORK

The Ministry of Education, Youth and Sports of the CR has been closely monitoring development in the area of qualifications frameworks in Europe and with the aid of its representatives also contributed to the formation of the concept at the European level. One of the reasons was that the Czech Republic was among the first signatories of the Bologna Declaration as well as a pro-active participant in the Bologna Process. Since 2005, when the overarching qualifications framework for the EHEA was adopted at the ministerial meeting in Bergen, increased attention has been devoted to the issue in domestic debates. In addition to the ministry, debate participants also included tertiary education professionals, employers, as well as universities. The first scientific studies¹⁵ began to emerge, and the ministry organized two conferences dealing with the topic in 2008, targeting in particular the academic community, while simultaneously launching consultations with other stakeholders.¹⁶ All stimuli arising from this preparatory phase were

¹⁴ KOHOUTEK J. – ZÁVADA J. "Tvorba národních kvalifikačních soustav ve vybraných evropských státech a v ČR v návaznosti na Evropský rámec kvalifikací pro celoživotní vzdělávání a kvalifikační rámec Evropského prostoru vysokoškolského vzdělávání", *Aula* 15 (2007), no. 3, p. 30–60; ŠŤASTNÁ V. – ROSKOVEC V. – SKUHROVÁ Š.: *Národní soustava kvalifikací pro terciární vzdělávání. Úvod do diskuze* (Praha: MŠMT, 2008).

¹⁵ Materials are available at: <http://www.bologna.msmt.cz/?id=K080108> (8 January 2008); http://www.csvs.cz/csvs_konference.shtml (2 and 4 December 2008).

¹⁶ TROW M. *Problems in the Transition From Elite to Mass Higher Education* (Berkeley: The Carnegie Commission on Higher Education, 1973).

For a case study of the Czech Republic using Trow's typology of higher education systems, see PRUDKÝ L. PABIAN. P and ŠIMA K. *České vysoké školství. Na cestě od elitního k univerzálnímu vzdělávání 1989–2009* (Praha: Grada, 2010).

utilized in the spring of 2009 in preparing the project plan, which resulted in the launch of the National Qualifications Framework for Tertiary Education. The financing of the project, which was launched on 1 August 2009 under the acronym Q-RAM in addition to its full name, was made possible under the Operational Programme Education for Competitiveness.

The actual project is being implemented in several key activities, which in addition to the preparation of the Czech Qualifications Framework (i.e. the national descriptors and education descriptors) also cover the proposal of its anchoring in the Czech tertiary education system, pilot testing of its functions at selected institutions, supporting educational activities and publicity (cf. diagram in **Annex 1**). The project has been unique since its launch, in particular in terms of the number of professionals who are involved in it. The project involves more than a total of 100 experts – key stakeholders in tertiary education in the Czech Republic (universities and tertiary vocational schools, employers, accreditation commission, public administration) – in the management of the project and in nine industry-focused working groups. On the basis of methodologies, the aforementioned studies and indirect international experience, the working groups contributed to the final draft of national descriptors and a substantial role has been attributed to them in defining individual subject areas and preparing sector-specific descriptors for these areas. Selected experts shall also participate in the preparation and pilot implementation of the Czech qualifications framework in the next phase, and at the end of the project, they will communicate their experience through training to a wide audience of academic workers and other specialists, for whose activities the qualifications framework shall create a system of key reference points.

3.3 THE CONCEPT AND ARCHITECTURE OF THE FRAMEWORK

The development of tertiary education in the Czech Republic after 1989 can be characterized as a period of quantitative expansion, particularly in terms of the number of university students (as well as students of tertiary vocational schools), which increased more than three-fold in 1989-2009. In contrast to the commonly held belief in Czech society, this period was not characterized by a dramatic growth in the number of higher education institutions. Apart from the sector of private universities established after 1999, which represents a significant minority of students, we find that compared to 22 universities and 5 separate faculties of education in 1989, there are currently 26 public universities, many of which were established by transformation of originally independent faculties of education, and 2 state public universities (a merger of three military universities took place in the public university sector). Therefore, it is clear that in terms of institutional structure of higher education (or the tertiary education), the state-implemented policy was rather cautious over the past 20 years. System changes were induced in particular by the growth in the number of learners and their demographic structure.

These changes can be generally described using the concept of M. Trow¹⁷ as a shift from higher education, which is entered by a maximum of 15 % of the population in the relevant age cohort in order to prepare for an academic career or a relatively narrow range of specialized jobs, to a universal type of higher education, under which the majority of population in the relevant age cohort studies for some time and whose most important goal is to develop the ability to further learn and adapt to changes in society and in technology, because with a few exceptions (e.g. medicine) the range of

¹⁷ Cf. Section 45 (3), Section 46 (4) and (5), Section 47 (5) of the Higher Education Act.

professionally challenging occupations in society is so wide and varied that the role of university studies as preparation for a specific profession is becoming increasingly problematic.

The transformation of the nature of university education and the shift in its approach towards tertiary education, also comprising post-secondary professional training, is most visibly manifested in the number of students; however, there are also essential qualitative aspects. In addition to the social role and educational functions of tertiary education, what changes is especially the approach to curriculum, forms and methods of teaching. Fixed curricula at universities are unique these days; instead, students are gradually assuming greater responsibility for managing their own learning and for selecting its content; at some universities, these elements constitute the distinctive feature of their strategies, including marketing. What changes as well are the expectations concerning quality, which is no longer derived from a consensus within the academic community in a relevant field of study. We need to take into account that different stakeholders – as well as individual segments of the student population – have different expectations and ideas of provided education, and in order to define and assess quality standards, it is necessary to search for a broader social consensus.

As far as the qualifications system in tertiary education is concerned, we need to bear in mind the specific Czech situation in which fundamental changes took place after 1989 determining the current form and structure of qualifications in tertiary education, prior to the changes introduced on the European level via the Bologna Process. In particular, bachelor degrees were already awarded as the completion of "comprehensive university studies" under the Act No. 72/1990 Coll. Instead, the Bologna Process (1999) promoted the trends that already existed in the Czech Republic. This is probably the cause of generally advanced results of the CR in fulfilling its obligations under the Bologna Process.

There is a strong demand for a clear and comprehensible definition of the nature and the intensity of outputs of tertiary education in the general public as well as among individual stakeholders implementing the policy of tertiary education such as the state and the state administration bodies (in particular the Accreditation Commission assessing the quality of accredited educational activity), universities, students, prospective students and employers. The Qualifications Framework, which constitutes a general definition of outputs certified by means of individual qualifications in tertiary education, is also a response to legislative developments introduced by the Act No. 179/2006 Coll. on verification and recognition of further education results. The categorization of individual qualifications is not at the forefront of attention in the CR; the structure of qualifications has been quite clear traditionally, what matters most is rather the clear definition of requirements for gaining qualifications, streamlining the structure of disciplines under which educational activities take place, and defining the relationship between tertiary education and further education.

The Concept and Architecture

The National Qualifications Framework for Tertiary Education (hereinafter referred to as

the “Czech Qualifications Framework”) must take into account the two European qualifications frameworks (the EQF and the QF EHEA) as well as the relevant legal regulations corresponding to tertiary education. The Czech Qualifications Framework is to carry out these two functions of qualifications frameworks in equilibrium:

1) Communication Function

- Provides students with better information on study opportunities, making their choice of university or tertiary vocational school easier;
- Ensures comparability of studies, as well as permeability among schools, international mobility and employability of students and graduates;
- Informs employers and generally the tertiary education environment of the expectable knowledge, skills and general competencies of graduates, allowing for a better assessment of their opportunities when entering the labour market.

2) Regulatory Function

- Defines the national standard regarding the level of knowledge, skills and general competencies of graduates of study programmes in tertiary education;
- Designs the structure of tertiary education in the sense of types of programmes of study in relation to the ongoing reform of tertiary education;
- Determines the credit scope for various types of study programmes of Czech tertiary education in relation to the ECTS;
- Provides criteria for assessing accredited educational activities in tertiary education;
- Formulates criteria for the recognition of foreign education (or a part thereof) in tertiary education in the Czech Republic.

The Czech Qualifications Framework is a **methodological tool for improving and ensuring the quality of qualifications in tertiary education by defining the level of proven knowledge, skills and general competencies of graduates.**

Although many elements of the Czech Qualifications Framework naturally refer to the content of relevant legislation, it is a methodological tool helping to specify the statutory definition of programmes of study in relation to the EQF and the QF EHEA as well as to define the state's expectations in relation to exercising the responsibilities of the Ministry of Education, Youth and Sports when deciding about the accreditation of degree programmes from the perspective of whether the proposed degree programmes are in compliance with the legally defined study goals. The Czech Qualifications Framework also develops short-cycle study programmes useful for the transformation of the existing tertiary vocational education.

The Architecture of the Czech Qualifications Framework consists of two levels:

Level 1 - general descriptors of qualifications framework, also known as the **national descriptors**, which overarch the Czech Qualifications Framework and defining its concept. National descriptors define the structure of the tertiary education qualifications system in the Czech Republic by classifying different types of qualifications in relation to the QF EHEA cycles and the EQF levels. Additionally, they specify the workload the ECTS sets as necessary to gain different types of qualifications, and set the binding requirements concerning the difficulty level of mastering individual types of qualifications, in particular through generically designated learning outcomes (specialist knowledge, skills, general competencies).

Level 2 – **Education Descriptors**. A subject area means a coherent and interrelated section of tertiary education under which programmes of study are developed and executed. A subject area constitutes a legal institute,¹⁸ although it has not yet been further defined. Education descriptors indicate what range of **specialist knowledge and skills** must be included in a programme of study associated with the subject area, be it a programme that already exists or one that is only being planned. Education descriptors do not describe any particular profile of a specific programme of study, not even the recommended descriptors; **they do not aim at a detailed specification and national standardization of the tertiary education curriculum.**

A total of 39 subject areas (see **Annexes No. 4 and 5**) were proposed within the Q-RAM project as of 31 August 2010. It should be borne in mind that even the full implementation of the national qualifications framework does not imply that the number of subject areas must not grow in the future, as their development is (as well as the development of tertiary education as a whole) a continuous dynamic process which needs to be reflected in the Czech Qualifications Framework by performing periodic revisions.

National descriptors constitute the basis for the National Qualifications Framework, which is complete only in connection with the definition of subject areas and their descriptors.

The Structure of National Descriptors, Principles and Terminology

National descriptors define tertiary level qualifications through specialist knowledge, skills and general competencies that students in the relevant programmes of study must demonstrate upon graduation, using the ECTS credits, they define the workload corresponding to a standard period of study in relevant programmes of study and classify qualifications defined in this way into individual QF EHEA qualification cycles and EQF levels.

National descriptors implicitly also define the principle of progression through the tertiary education system. The interpretation rule contained in national descriptors assumes that graduates of a degree programme at a higher level will have acquired the knowledge, skills and competencies appropriate for degree programmes at a lower level. In connection with the rules defined by the Higher Education Act (Section 48 (1), (3)) this means that gaining lower-

¹⁸

level qualifications is a precondition for admission to programmes of study leading to a qualification of a higher level according to the qualifications framework. Bachelor's degree programmes as a qualification of the first cycle of the QF EHEA naturally does not require prior completion of a short-cycle programme; however, following admission to the bachelor's degree programme, the learning outcomes achieved in a short-cycle programme should be recognized in a corresponding credit value.

The ability to progress through the qualifications system of tertiary education and the mutual continuity of qualifications is vital. National descriptors determine what level of knowledge, skills and general competencies (in a relevant field of study/degree programme) graduates must demonstrate while these learning outcomes are designed to promote the balanced ability of graduates to immediately find an adequate job, but also continue their further education, including preparation for higher level qualifications. The ability to continue with further education ranks among general capacities required by national descriptors. Therefore, within its scope of application, the qualifications framework does not allow for any dead ends in terms of education.

The qualifications framework, as it is defined by national descriptors, refers to qualifications that are awarded under the valid legal scheme in compliance with the Higher Education Act. However, it also includes one projected qualification (the short-cycle programme). The framework does not apply to the existing accredited education programmes of tertiary vocational education under the Education Act that defy the logic and the concept of the Czech Qualifications Framework both in terms of comparability in relation to the QF EHEA criteria and the inability to guarantee the fulfilment of the principle of qualification continuity in terms of progress through the qualifications system. The tertiary vocational education programmes do not meet the characteristics of a short cycle, which is why they do not fall in this category. Under the applicable legislation, the completion of a tertiary vocational education programme does not authorize admission into the second-cycle programmes of study, and for this reason, these cannot even be attributed the position of first-cycle programmes of study (bachelor-level degree programmes), even though the National Qualifications System methodology shall, for its own temporary purposes, determine this equivalence and shall be using this classification in relation to the EQF.

The qualifications framework also does not apply to the appointment as professor or associate professor under the Higher Education Act. In the Czech environment, these concepts are often regarded as so-called academic qualifications, which is misleading and incomprehensible in an international context.¹⁹ The completion of a doctoral degree programme provides the highest attainable qualifications level under the EQF (level 8), which corresponds to the third cycle under the QF EHEA. The appointment as professor or associate professor can be deemed as a type of professional qualification at the EQF level 8, which is not part of tertiary education as a qualifications system, but is attached to organization of universities, the conditions of staffing at universities and the applicable special public regulation.

The Cycle and the Level

Vertical structure of a qualifications framework in national descriptors is determined by reference to the QF EHEA cycles and the EQF levels. This reference represents the state's attestation expressed in the form of qualifications framework, meaning that the qualifications match the characteristics

¹⁹ Moreover, compliance with QF EHEA is a direct political commitment of the Czech Republic while EQF is merely a recommendation made by bodies of the European Union towards member states.

associated with both European frameworks (see **Annex No. 3**). For this reason, the Czech Qualifications Framework does not apply to professional qualifications in the sense of eligibility to certain jobs or defined work activities, which can be assigned to any EQF qualification level, but which do not correspond to any QF EHEA cycle. (For example, a lawyer or a doctor registered with a relevant professional association performs a job at the EQF qualification level 7, a university professor performs a job at the EQF level 8. Their continuing professional education is at the same qualification level.) For the same reason, the Czech Qualifications Framework does not apply to existing educational programmes of tertiary vocational education, which were assigned to the EQF level 6 according to the methodology of the National Qualifications System; by characteristics and purpose, they would instead belong to a short cycle under the QF EHEA, though they do not have its external characteristics.

The reference of national descriptors to the QF EHEA and the EQF has one more significance - these EU frameworks become auxiliary means for interpreting the Czech Qualifications Framework. With regard to the fact that the Czech Republic declares (through self-certification, or referencing processes) that the Czech Qualifications Framework is in line with the QF EHEA as well as the EQF, the interpretation of national descriptors must be done within these frameworks. If the QF EHEA and the EQF disagree in the exact definition of a particular category, it is necessary to give preference to the QF EHEA viewpoint as the EQF itself declares compliance of defining its levels 5-8 with the QF EHEA descriptors for the first, the second and the third cycle of the "Bologna" structure of tertiary education.²⁰

Types of Programmes of Study

The national descriptors - based on the determined knowledge, skills and general competencies and their relation to the QF EHEA and the EQF - assign different types of programmes of study in tertiary education to the QF EHEA cycles and the EQF levels, which make up the qualifications levels under the Czech Qualifications Framework. These are the following programmes of study:

- 1) short-cycle programme as the projected type of a degree programme, the implementation of which will be made possible under new legislation;
- 2) bachelor's degree programme (Section 45 of the Higher Education Act);
- 3) master's degree programme (Section 46 of the Higher Education Act), which typically takes place under the second cycle, but can also be carried out as long-cycle master's programme integrating the requirements of the first and the second cycle;
- 4) doctoral degree programme (Section 47 of the Higher Education Act).

Programmes of study included in the Czech Qualifications Framework constitute sets of learning outcomes formulated by relevant tertiary education institution in order to meet a qualification profile (see general definition of the concept of qualification) and simultaneously meet the required qualifications level under the Czech Qualifications Framework. In order to achieve the determined learning outcomes, teaching and learning methods are used within the scope of the relevant workload, expressed as a credit value for a

²⁰ ECTS Users' Guide (Luxembourg: Office for Official Publications of the European Communities, 2009).

particular programme of study; the achievement of learning outcomes is then assessed.

From the perspective of the Czech Qualifications Framework, the form of a programme of study is not decisive, i.e. whether it is carried out as full-time, distance or combined study. National descriptors apply to all the aforementioned types of degree programmes regardless of their form. It should be noted that under the current legislation, the form of a programme of study does not impact the workload resulting from a standard period of study. The form of a programme of study covers the organization of training and its layout in terms of time and place, not the time scale of workload. Putting it more accurately, there are no part time programmes of study in the Czech Republic.

Awarded Qualifications

Qualification means a formal certification of achieved learning outcomes that were demonstrated in the prescribed manner in accordance with the required standards. Qualifications which are awarded according to the Czech Qualifications Framework thus attest the fact that a person has completed a relevant programme of study by fulfilling graduation conditions (Section 55 of the Higher Education Act). The fulfilment of conditions for completing studies by attaining the required learning outcomes can be achieved under a study programme as a whole, not only by passing a state exam, as the qualifications framework applies to programmes of study in their full credit value, or full workload.

Qualifications within the scope of the Czech Qualifications Framework are attested by awarding a diploma (Section 57 (4) of the Higher Education Act), to which a bilingual supplement (diploma supplement) is automatically issued.

The diploma as well as the diploma supplement certify the gaining of a relevant qualification, including the associated right to use the academic degree in compliance with a legally defined form (Section 45 (4), Section 46 (4) and (5), Section 47 (5) of the Higher Education Act), which **is the outward expression of the awarded qualification**. Also, it is possible to imagine the introduction of a tertiary education qualification independent of any academic degree (this solution would be feasible for a short-cycle programme if graduates were awarded a diploma exclusive of any degree).

Credit System

The Czech qualification framework is not designed as a credit framework, as it does not contain rules for determining student workload or for the allocation, accumulation and transfer of credits. Instead, the qualification framework incorporates the ECTS credit system, the rules of which are described in the manual from 2009.

- The solution of national descriptors related to credit values of study programmes above the scope of general ECTS methodology implies the following:
- the ECTS credit system can be applied for all cycles and levels of a qualifications framework, including the third cycle so that it is certified as a distinctive feature of tertiary education;

for master's degree programmes, there is a rule that the upper end of the credit value is acceptable

²¹ ECTS Users' Guide (Luxembourg: Office for Official Publications of the European Communities, 2009).

for programmes of study leading to qualifications in certain regulated professions (this note also applies to long-cycle master's degree programmes, which are an alternative to common master's degree programmes; however, it is not expressly repeated there).

3.4 NATIONAL DESCRIPTORS: KNOWLEDGE, SKILLS, GENERAL COMPETENCIES

The actual content of descriptors is made up by defining the nature of expected knowledge, skills and general competencies that graduates of individual programmes of study under tertiary education are to demonstrate in order to gain a corresponding qualification. The selection and the definition of three categories under which the descriptors are developed corresponds to the need to serve the perspectives applied in the QF - EHEA and the EQF - LLL. While the QF-EHEA includes five descriptor categories (knowledge and understanding, use of knowledge and understanding, the ability to make judgements, communicate, and continue with further education), EQF-LLL is broken down into three categories (knowledge, skills and general competencies). For the purpose of its descriptors, the Czech Qualifications Framework adopted the breakdown into specialist knowledge and skills, which are expected to be further specified in descriptors of individual subject areas as well as descriptors of general competence representing the expected degree of independence and responsibility of graduates at a given qualification level, which is common for all subject areas. Descriptors of general competencies include the ability to make judgements, communicate and continue with further education; however, the lines between these sub-categories are less clear-cut.

Specialist Knowledge

A qualifications framework constitutes a logically organized and coherent system. Individual categories, sub-categories and their formulation must be grasped in context. This context arises from the following links:

– **Horizontal**, i.e. within individual qualification levels.

Individual qualification levels are defined based on determining knowledge requirements as skills related to the use of this knowledge and general competencies in a context in which the knowledge and general competencies are applied. Therefore, the nature and the scope of knowledge must be appropriate to the function which this knowledge is to fulfil at a given qualification level in relation to the expected skills and general competencies.

- **Vertical**, i.e. among individual qualification levels.

What applies among individual qualification levels is that the follow-up level builds on the knowledge, skills and general competencies of the preceding level. The nature and the scope of knowledge must not only correspond to the function resulting from the expected skills and general competencies at a given qualification level, but also needs to further expand and deepen the outcomes of the previous qualification level.

The **characteristics of the breadth and the depth of specialist knowledge** arise from these basic principles.

Broad knowledge is based primarily on secondary sources of a field and its application is expected both in practice (outside the academic profession, which is naturally a certain kind of practice), and in continuing education (the capacity to continue with further education with the help of expert guidance is one of the general competencies acquired in the first cycle, for the definition of which the category of broad knowledge is essential).

Deep knowledge relates to a specific segment of a field/subject area in its breadth; it is assumed that it is based on secondary sources, as well as results of one's own creative activity (the ability to acquire new knowledge by using advanced research methods is one of the features of a second cycle, which is characterized by deep knowledge). While broad knowledge mainly presupposes simple understanding, the ability of immediate application, and possibly analysis, deep knowledge is characterized by the predominance of a higher degree of the ability to understand, i.e. analyse, synthesize and evaluate.

Systematic knowledge (which characterizes the third cycle) is based on the dominance of the ability to evaluate and relates to the ability to integrate a high degree of specialized knowledge (deep knowledge) with the available scientific findings and theories in general.

The category of understanding is used in connection with the knowledge and characterizes the requirement that the mastery of knowledge is at the level allowing for more than mere reproduction and thus culminates in the context of what is necessary for a functional use of horizontally related skills and qualifications.

Specialist Skills

Specialist skills are defined as **the ability to use specialist knowledge**. It is not, for example, about what research methods a graduate knows (in the meaning: knows about their existence, is able to describe them, explain the differences...), but what methods, to what extent and at which level a graduate is able to work with. (The mere knowledge of research methods falls into the category of specialist theoretical knowledge.)

Problem solving means the ability to identify the basic cause of a certain event (effect). It should be noted that starting from the bachelor's degree level, this skill adds a new subcategory - the ability to make use of some of the research methods in the discipline, which means mastering the scientific method of cognition. This is not expected at the short-cycle level, where the ability to solve problems (as well as the competence to retrieve information) relates to a relatively narrow range of problems within the field of specialized knowledge (i.e. it is assumed that specialist knowledge at the short-cycle level provides a reliable basis for problem solving at a particular level).

It is also important that research practices within the category of skills include all learning procedures based on scientific methods, even if they are not used in the narrowly understood academic context. Therefore, it does not necessarily apply only to research and development as such, but also to the practical use of procedures such as diagnostic methods, etc. The adjectives "basic" and "advanced" need to be grasped in this context in relation to the function which a given skill is to perform at a particular qualification level.

The ability to carry out scientific research, including the creation and assessment of theories, concepts and methods, is expected at the third-cycle level; the degree of advancement of the mastered research methods, demonstrated at the end of second cycle, should be such as to enable the commencement of a third-cycle study.

General Competence

General competence shows in what context and with what degree of independence and responsibility the qualified person is able to apply specialist knowledge and skills. The adjective "general" defines the assumption that competence set out by national descriptors is shared by the individual skill levels for the whole of tertiary education, i.e. regardless of the subject area. General competence represents the category on which the profiles of individual qualifications are built when formulating the expected employability of graduates. Within horizontal links under a qualifications framework (connecting knowledge, skills and general competencies at a single qualifications level), general competence is at the forefront of importance due to the fact that it expresses context but does so in the form of independently observable learning outcomes, the fulfilment of which by means of curriculum is equally important compared to that of knowledge and skills.

In defining the expected learning outcomes, the development in national descriptors is reflected directly in their formulation - with the exception of language proficiency. This is justified in the function of expressing the context on which the concept of general competence is based. It is clear that the applied formulation of language competence cannot be interpreted in the sense that this competence does not gradually develop. If

it were so, a language competence would be defined only at the first cycle level (according to the principle that a higher qualification level implies the mastery of the lower level and that the non-developing knowledge, skills and competence is indicated only at the first qualification level where it is applied). If national descriptors require that graduates of programmes of study at individual qualification levels are able to draw on their specialist knowledge, skills and general competence in at least one foreign language, then it naturally relates to the use of the knowledge, skills and competence that is expected at the given qualification level. This means that the gradual development of language competence is implicitly defined by national descriptors. In addition, in this particular case, the concept of language competence goes beyond the simple communication role. If graduates of a bachelor's degree programme should be able to gain additional knowledge through independent study of theoretical knowledge in a particular discipline, then under the definition of linguistic competence according to the principle of gradual development, it is possible to imply that they must be able to do so in at least one foreign language.

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GLOSSARY OF TERMS

(Note: This glossary defines some key concepts in the sense in which they are used in the National Qualifications Framework for Tertiary Education.)

EQF – LLL – European Qualifications Framework for Lifelong Learning. The qualifications framework for the European Union, adopted by the Recommendation of the European Parliament and of the Council of 23 April 2008. It applies to 8 levels of education defined by learning outcomes and also includes common principles of quality assurance. Member States are to incorporate a reference towards the EQF-LLL in their qualifications systems (clear definition of qualifications corresponding to a certain level of the EQF-LLL), which can be done also by means of the National Qualifications Framework.

QF – EHEA – Qualifications Framework for the European Higher Education Area, adopted by the Conference of ministers responsible for higher education in Bergen on 14 May 2005. It is an overarching qualifications framework under the Bologna Process. It applies to three cycles of higher education (the first cycle also includes the so-called short cycle) which are defined according to the expected credit range under the ECTS and the corresponding learning outcomes. The states participating in the Bologna Process should adopt their national qualifications framework and undergo the so-called self-certification verifying compliance of their national frameworks with the QF-EHEA.

Qualifications Framework – generally a tool for classifying qualifications according to the generally defined learning outcomes. The Qualifications Framework is one of the components of a qualifications system. It performs the communication function (providing an overview of the qualifications system, a basis for comparison with other systems) and the regulatory function (defining requirements for awarded qualifications, the standard for developing new qualifications, as well as the basis for evaluating educational activities for quality assurance).

Qualification – proven and formally certified learning outcomes (e.g. in the form of a university degree). Qualifications are distinguished by a legally defined type of programme of study (bachelor's, master's, and doctoral), the awarded degree and the specifications resulting from a specific title of a programme of study as well as a field of study, completed by a graduate who gained the qualification.

Qualifications system - summary of all activities that lead to the demonstration and recognition of achieved learning, including non-formal and informal learning.

The National Qualifications Framework for Tertiary Education – the qualifications framework in the Czech Republic, whose scope corresponds to the QF-EHEA, respectively to levels 5 to 8 of the EQF-LLL, which is an instrument for developing and assuring quality in tertiary education based on the level of proven knowledge, skills and competencies of graduates.

The National Qualification System – a public registry listing qualifications that form the qualifications system in the Czech Republic under Act No. 179/2006 Coll. on verification and recognition of further education results. The National Qualifications System ensures permeability and continuity of initial and continuing education.

Learning outcomes – the definition of knowledge, skills and competencies that graduates should be able to demonstrate upon completion of a specific learning phase (especially at the end of study).

Knowledge – information acquired by learning. There is factual knowledge as a set of facts and theoretical knowledge as a set of theories, concepts and principles of a certain discipline, including methods of discovery and interpretation of knowledge.

Skills – the ability to apply knowledge. Generally, it is the problem-solving skill and specifically the mastery of research procedures as cognition methods characterizing the quality of tertiary education and occupation for which the attainment of a certain level of tertiary education is projected.

Competencies – the ability to apply knowledge and skills in a specific context, which is defined by the degree of independence and responsibility as well as the degree of complexity of the environment. The National Qualifications Framework for Tertiary Education distinguishes capacities regarding the ability to make judgements, communication skills and ability to continue with further education.

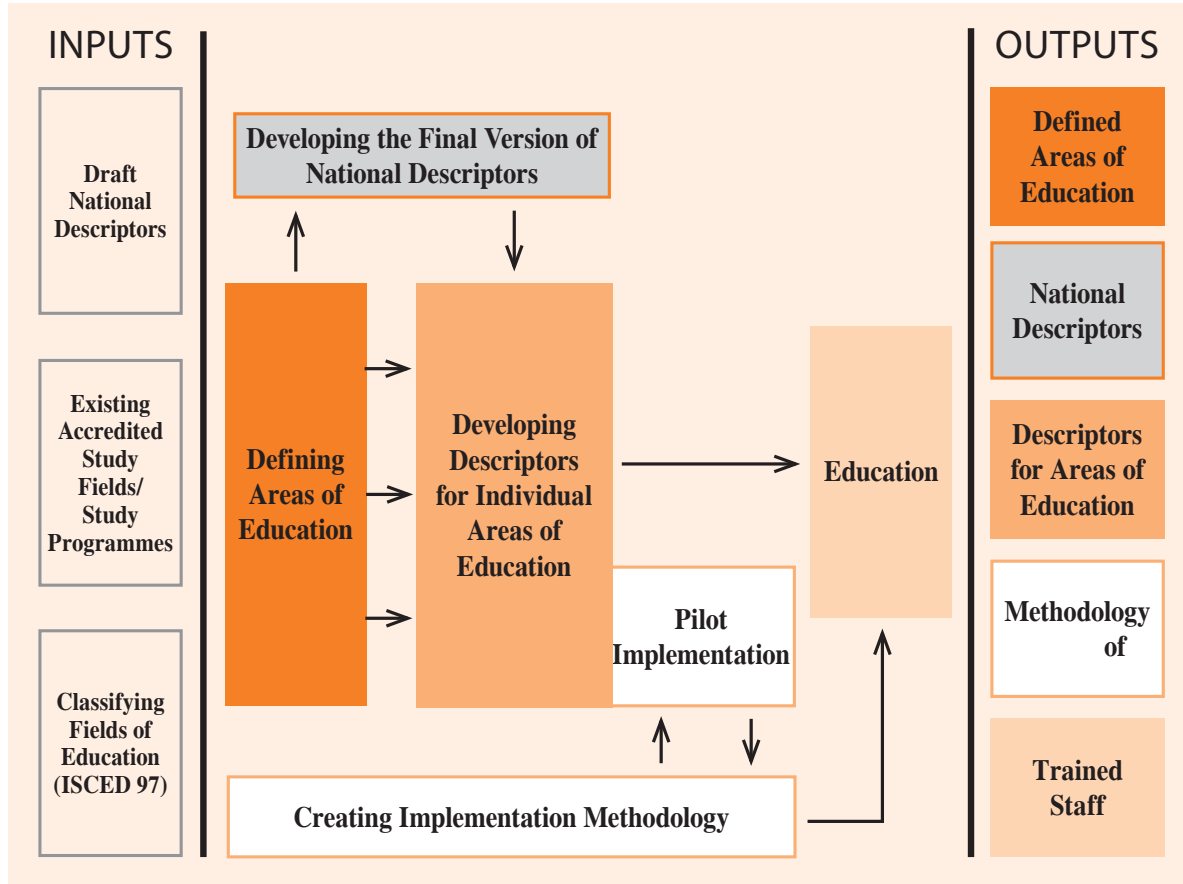
Subject area – a coherent and interrelated section of tertiary education under which programmes of study are developed and executed. The National Qualifications Framework for Tertiary Education describes subject areas by defining specialist knowledge and specialist skills which are typical for a specific subject.

Programme of study – a set of learning outcomes and the corresponding training and evaluation methods that are required within a specific credit range according to the ECTS for gaining a qualification in one or more fields of study.

Study Field – specification focus of a programme of study (individual fields under a programme of study may show partially different learning outcomes, especially in the category of knowledge), which corresponds to a certain scientific discipline, or which is derived from multiple scientific disciplines.

ANNEX 1

DIAGRAM OF ACTIVITIES OF THE Q-RAM PROJECT



ANNEX 2

TYPES OF QUALIFICATIONS IN CZECH HIGHER EDUCATION (1950-1998)

Higher education studies research or artistic internships thesis defence	Act No. 58/1950 Coll.; Government Decree No 60/1953 Coll. no titles, "graduate in Economics", "graduate in Medicine" CSc. DrSc.												Government Decree No. 60/1953 Coll.							
Higher education studies research internships thesis defence	MUDr.	MVDr.	ak. mal.	ak. soch.	ak. arch.	Ing.	Ing. arch.	bez titulu a označení				PhDr.	JUDr.	RNDr.	RSDr.	Act No. č 53/1964 Coll.				
Higher education studies research internships thesis defence	MUDr.	MVDr.	ak. mal.	ak. soch.	ak. arch.	Ing.	Ing. arch.	bez titulu a označení				PhDr.	JUDr.	PharmDr.	RNDr.	RSDr.	Act No. 39/1977 Coll.			
"compact part of higher education study programme" Higher education study programmes Postgradual study programmes thesis defence	MUDr.	MVDr.	Mgr.			Ing.	Mgr.			CSc.	Dr.	CSc.	DrSc.	Act No. 39/1977 Coll.						
Bachelor's study programmes Master's study programmes doctoral study programmes	MUDr.	MDDr.	MVDr.	BcA. MgA.			Ing.	Ing. arch.	Bc. Mgr.				PhDr.	JUDr.	PharmDr.	RNDr.	ThDr.	ThLic.	DiS.	Act No. 29/1984 Coll.; Act No. 561/2004 Coll.
Short cycle programmes Bachelor's study programmes Master's study programmes doctoral study programmes	MUDr.	MDDr.	MVDr.	BcA. MgA.			Ing.	Ing. arch.	Bc. Mgr.				PhDr.	JUDr.	PharmDr.	RNDr.	ThDr.	ThLic.	Ph.D.	Th.D.

ANNEX 3

COMPARING LEVELS IN THE CZECH QUALIFICATIONS FRAMEWORK AND THE EQF AND THE QF EHEA OVERARCHING EUROPEAN

QF - EHEA	Q-RAM		Levels in the National Qualifications System of the Czech Republic	EQF - LLL
3rd cycle	4	<i>doctoral study programmes</i>	8	8
2nd cycle	3	<i>Master's study programmes</i>	7	7
1st cycle	2	<i>Bachelor's study programmes</i>	6	6
short cycle	1	<i>programmes of the short cycle</i>	5	5
			4	4
			3	3
			2	2
			1	1

ANNEX 4

STRUCTURE OF ACADEMIC DEGREES BY SUBJECT AREAS

1	2	3	4	subject areas													
not expected	MUDr.		Ph.D.	General Medicine and Dentistry													
	MDDr.			Veterinary Medicine, Veterinary Hygiene													
	MVDr.			Art and Art Sciences													
	BcA.	MgA.		Economics													
	Bc.	Mgr.		Ing.	Civil Engineering	Electrical Engineering	Energetics	Information Technology and Cybernetics	Mechanical Engineering and Materials	Mining and Mineral Processing	Manufacturing	Agriculture	Forestry	Food Industry	Security Studies	Transport and Transportation Services	
				Ing.arch.	Architecture												
		Mgr.		PhDr.	Health Care												
				RNDr.	Psychology	Educational Studies	Pedagogy for Non-Teachers	Physical Education and Sports	Art and Art Sciences	Philosophical Sciences and Religious Studies	History	Philology	Anthropology	Social Work	Political Sciences	Media Studies	Sociology
				JUDr.	Mathematics and Statistics	Physics	Chemistry	Earth Sciences	Informatics	Biology and Ecology							
				PharmDr.	Law												
				ThDr.	Pharmacy												
				ThLic.	Theology												

Key to levels 1–4

- 1 – programmes of the short cycle
- 2 – Bachelor’s study programmes
- 3 – Master’s study programmes
- 4 – doctoral study programmes

ANNEX 5

SUBJECT AREAS AS OF 31 AUGUST 2010

Psychology

Educational Studies

Pedagogy for Non-Teachers

Physical Education and Sports; Kinanthropology

Art and Art Sciences

Philosophical Sciences and Religious Studies

History

Philology

Anthropology

Theology

Economics

Law

Social Work

Political Sciences

Media Studies

Sociology

Mathematics and Statistics

Physics

Chemistry

Earth Sciences

Informatics

Biology and Ecology

Architecture

Civil Engineering

Electrical Engineering

Energetics

Information Technology and Cybernetics

Mechanical Engineering and Materials

Mining and Mineral Processing

Manufacturing

Agriculture

Forestry

Veterinary Medicine, Veterinary Hygiene

Food Industry

General Medicine and Dentistry

Pharmacy

Health Care

Security Studies

Transport and Transportation Services

Cycle (QF-EHEA)	First cycle (including short cycle) ¹		Second cycle	Third cycle
Qualification level (EQF)	5	6	7	8
Qualification level (NQFTE)	1	2	3	4
Programme of study	Short cycle programme ²	Bachelor's degree programme Long-cycle Master's degree programme	Master's degree programme ³	Doctoral degree programme
Number of credits (ECTS)	120	180 – 240 240 – 360	60 – 180	180 – 240
Knowledge ⁴	Graduates of the relevant programme will demonstrate:			
	<ul style="list-style-type: none"> - a specialised and detailed knowledge and understanding of the area of study and of the scope of the field - a knowledge of the methods required for undertaking independent specialist activities in a limited range of specialised occupations - an overview of the theories and concepts underlying the area of study and the means of putting them into practice 	<ul style="list-style-type: none"> - a broad knowledge and understanding of the area of study and of the scope of the field - a broad knowledge of the theories, concepts and methods common in the discipline - an understanding of the possibilities and conditions for, and limitations on, the use of the theories, concepts and methods of the discipline in practice 	<ul style="list-style-type: none"> - a broad and/or deep knowledge and understanding of the area of study and of the scope of the field corresponding to the current state of knowledge - a broad and/or deep knowledge and understanding of the theories, concepts and methods corresponding to the current state of knowledge in the discipline - an understanding of the possibilities and conditions for, and limitations on, the use of findings in related disciplines 	<ul style="list-style-type: none"> - a deep and systematic knowledge and understanding of the area of study and of the scope of the field corresponding to the current state of knowledge - a deep and systematic understanding of the latest theories, concepts and methods in the discipline internationally - an understanding of the system of scholarly and scientific disciplines and research problems at the intersection of disciplines
Skills ⁵	Graduates of the relevant programme will know how to:			
	<ul style="list-style-type: none"> - draw on specialist knowledge in order to deal with routine practical problems in the discipline when presented with a specific task - select and make use of the information needed for dealing with a specific problem 	<ul style="list-style-type: none"> - draw on specialist knowledge in order to deal with practical problems in the discipline when presented with a broadly specified task - select, classify and interpret information relevant for dealing with a specific practical problem - employ some of the research methods common in the discipline to the extent needed for dealing with practical problems in the discipline 	<ul style="list-style-type: none"> - draw on specialist knowledge in order to work independently in delimiting, naming and, in a creative manner, devising a solution for a theoretical or practical problem in the discipline - deal in an independent and creative fashion with a complex problem through the use of selected theories, concepts and methods in the discipline - make use of some of the advanced research methods in the discipline in such a manner as to obtain new and original information 	<ul style="list-style-type: none"> - propose and use advanced research methods in the discipline in such a way as to extend existing knowledge in the discipline through original research - develop and evaluate theories, concepts and methods in the discipline including the demarcation of disciplines or their extension into broader areas
General competencies ⁶ The capacity to: • make judgments • communicate • continue with further education	Graduates of the relevant programme will be able to:			
	<ul style="list-style-type: none"> - act independently and responsibly in familiar contexts when given specific instructions - coordinate their activities with the other members of a team and take responsibility for the results, while following instructions and working with the resources assigned - grasp the ethical aspects of problems they are dealing with - explain their own expert views to the other members of a team in an intelligible and convincing fashion - communicate in at least one foreign language in areas touching on their specialist knowledge, skills and competencies - with the help of expert guidance, acquire further specialist knowledge, skills and competencies, particularly on the basis of practical experience and its evaluation 	<ul style="list-style-type: none"> - act independently and responsibly in somewhat unfamiliar contexts when given general instructions - coordinate the activities of a team and take responsibility for the results, while following general instructions and working with the resources assigned - consider the ethical aspects of problems they are dealing with - convey information on the nature of specialist problems and their views to specialist and non-specialist audiences in an intelligible and convincing fashion - sum up the expert views of other team members in an intelligible fashion - communicate in at least one foreign language in areas touching on their specialist knowledge, skills and competencies - work independently in order to acquire further specialist knowledge, skills and competencies, particularly on the basis of practical experience and its evaluation, but also through independent study of theoretical knowledge in the discipline 	<ul style="list-style-type: none"> - act independently and responsibly in unfamiliar or changing contexts or in a situation that is changing in a fundamental way, while taking into account the broader social implications of the relevant actions - issue instructions for specialist activities, coordinate these activities and take final responsibility for the results, while bearing in mind the changing situation and available resources - deal independently with ethical problems - present their professional views to specialist and non-specialist audiences in an intelligible and convincing fashion - communicate in at least one foreign language in areas touching on their specialist knowledge, skills and competencies - draw on theoretical knowledge in the discipline in order to plan, support and manage the acquisition of further specialist knowledge, skills and competencies by the other members of a team 	<ul style="list-style-type: none"> - evaluate new knowledge and ideas, taking into account the long-term social implications of their use - plan extensive activities of a creative nature and acquire and plan resources for carrying them out - deal independently with complicated ethical problems when carrying out creative activities or drawing on their results - inform other members of the academic community at the international level, as well as non-specialist audiences, about their findings in an intelligible and convincing fashion - communicate in at least one foreign language in areas touching on their specialist knowledge, skills and competencies - acquire new specialist knowledge, skills and competencies through their own creative activities and influence the conditions and contexts for the education of others
	<p><i>It is assumed that graduates of a degree programme at a higher level will have acquired the knowledge, skills and competencies appropriate for degree programmes at a lower level. The terms "research methods" and "research problems" also include artistic methods and artistic problems in the relevant disciplines. The term "social implications" is to be understood in the broadest sense, and includes the impact on the environment.</i></p>			

¹ Tertiary vocational institutions currently offer 1st cycle educational programmes under the Education Act 561/2004, as amended. Graduates are awarded a qualification which does not permit them to continue directly to the 2nd cycle.

² Short cycle programmes will require amendments to the Higher Education Act 111/1998.

³ The upper end of the credit range corresponds to programmes of study leading to qualifications in certain regulated professions.

⁴ Knowledge is described as factual and/or theoretical.

⁵ The ability to apply knowledge

⁶ The ability to apply knowledge and skills in a particular context with a certain degree of independence and responsibility