



Country Report

Inclusion of Non-formal Sector Qualifications in the NQF in CROATIA

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Foreword

This report is the result of the work carried out by the University of Split project team in cooperation with partners from the NQF-in international project: *Developing Organisational and Financial Models for Including Non-Formal Sector Qualifications in National Qualifications Frameworks*. The aim of the Report is to create a mutual understanding of the process of validation of non-formal and informal learning, certification of such achieved qualifications, and their linkage to the National Qualifications Framework in Croatia.

The NQF-IN Project refers to developing organisational and financial models for the inclusion of "non-formal sector qualifications" in NQFs. It corresponds with policy learning initiatives aimed at providing evidence-based support to national governments, EU agencies and key stakeholders in developing lifelong learning and VET policies.

Information about the Project and its deliverables are provided by its website: www.nqf-in.eu.

Within the NQF-in Project, the experiences of seven European countries have been collected. These countries are in different stages of NQF implementation, namely: Croatia, Czech Republic, France, Hungary, Ireland, Poland and Scotland. Each partner in the NQF-in Project prepared a country report describing the systemic solutions used to include qualifications in the NQF, with a particular focus on solutions regarding the inclusion of qualifications achieved through non-formal and informal learning. Based on the analysis of the country reports, organisational and financial models of these qualifications' inclusion in NQFs will be developed.

In order to ensure that the country reports refer to the same set of thematic topics in a comparable way, a methodology of preparing country reports consisting of basic terms and concepts as well as report structure have been agreed. Each of the seven country reports are structured as follows:

- Chapter 1. Historical Context
- Chapter 2. National Qualifications Framework – Basic Premises
- Chapter 3. Institutional Setting
- Chapter 4. Types and Legal Status of Qualifications Included in the NQF
- Chapter 5. Procedures of the Inclusion of Qualifications in the NQF
- Chapter 6. Quality Assurance of Qualifications Included in the NQF
- Chapter 7. Costs of Including Qualifications in the NQF, and
- Chapter 8. Current Debates on Further NQF Developments.

This report was prepared by experts from the University of Split, who are experienced in the development and implementation of the qualifications framework, Bologna process and different forms of learning, including non-formal and informal.

Development and implementation of the National Qualifications Framework in Croatia is a response to the need for a national framework of qualifications, encompassing all qualifications from all education and training sub-sectors into a single comprehensive qualifications framework. After the first initiative of the Ministry of Science, Education and Sports of the Republic of Croatia in 2006, the Croatian Government established the National

Committee for Development and Implementation of the NQF, gathering all relevant stakeholders and an Expert Team to assist the Government Committee in this endeavour. The development of the NQF was based on consultations with all relevant stakeholders.

In 2011, groups of experts and stakeholders gathered together with the objective to adopt the Law on the Croatian Qualifications Framework.

The CROQF has been referenced and self-certified to the EQF and QF-EHEA in 2012, and has been implemented, in general, through the development of occupational standards, qualifications standards and implementation of learning outcomes.

Croatia has started to develop a system for the validation of non-formal and informal learning through the development and implementation of the NQF. The NQF Act envisages adoption of regulations for all elements of the validation process. After the discussions with relevant stakeholders, the Rulebook is envisaged to be adopted in 2018. The validation of non-formal and informal learning in Croatia is based on qualifications standards that clearly outline the learning outcomes and conditions under which they can be acquired. The idea is that the validation process in Croatia is not just the certification of public documents for learning outcomes, acquired in a formal way of learning, but rather an instrument providing additional motivation for lifelong learning, by means of all forms of learning. The structuring of the validation system and its implementation are extremely slow processes. Education and training institutions, from schools to universities, are already preparing and creating mechanisms for the validation process. Institutions, intending to participate in the validation process, must have competent professionals in the field of validation for all four phases, either as employees or as external consultants.

Abbreviations and acronyms

CROQF	Croatian Qualifications Framework
ECTS	European Credit Transfer and Accumulation System
EQF	European Qualifications Framework for lifelong learning
ESCO	European Classification of Skills/Competences, Qualifications and Occupations
ETTA	Education and Teacher Training Agency
EU	European Union
IT	Information Technology
NCEEE	National Centre for the External Evaluation of Education
NCP	National Coordination Point
NQF	National Qualifications Framework
OS	Occupational standard
QF-EHEA	Qualifications Framework for European Higher Education Area
QS	Qualifications standard
LOU	Learning outcomes unit
VNFIL	Validation of non-formal and informal learning

Preparation of the report

In the preparation of this report, various available resources relating to the development of the education and qualifications system in Croatia, including outcomes from relevant projects were used. The resources refer to legal documents, reports of related projects and research publications and the EQF National Referencing Report.

Basic terms

Qualification – refers to a set of integrated learning outcomes units of a given level, volume, profile, type and quality. It shall be proved by a certificate, diploma or other public document, issued by an accredited legal entity.

Full qualification – refers to a qualification complying by itself to conditions for access to the labour market and/or further education, respectively.

Partial qualification – refers to a qualification that does not comply by itself to conditions for access to the labour market and/or further education, respectively. It complies to conditions only if accompanied by a respective full qualification, or by one or various respective partial qualifications, according to a full qualifications standard.

Competences – refers to knowledge and skills, as well as relevant autonomy and responsibility.

Learning outcomes – refers to competences acquired by an individual through learning and proved after a learning process.

Learning outcomes unit – refers to the integral unit of interconnected learning outcomes of a respective level, volume and profile.

Key competences for lifelong learning – refers to competences of a respective level required by an individual to be included into the community life. These are fundamental for acquiring competences in the course of life for all personal, social and professional needs, and include communication in the mother tongue, communication in foreign languages, mathematical competence, basic competences in science and technology, digital competence, learning how to learn, social and civic competence, initiative and entrepreneurship, as well as cultural awareness and expression.

Qualifications standard – refers to a content and structure of a given qualification. It includes all the data required for setting its level, volume and profile, as well as data required for assuring and promoting high quality of a qualifications standard.

Occupational standard – refers to a list of all tasks performed by an individual engaged in a given occupation, as well as a list of competences required for their successful implementation.

Formal learning – refers to an organised activity by an accredited legal entity or an individual, carried out according to accredited programmes, aimed at acquiring and upgrading competences for personal, social and professional needs. It shall be proven by a certificate, diploma or other public document issued by an authorised legal entity.

Non-formal learning – refers to an organised learning activity aimed at acquiring and upgrading competences for personal, social and professional needs. It is not proved by a public document.

Informal learning – refers to an unorganised activity for acquiring competences from daily experience, and other influences and resources from one's environment, referring to personal, social and professional needs.

Lifelong learning – refers to all forms of learning during one’s lifetime, aimed at acquiring and upgrading competences referring to personal, social and professional needs.

Validation of non-formal and informal learning – refers to the assessment of acquired competences, including issuing the certificate by an accredited entity, according to previously defined criteria and standards.

1. Historical Context

1.1. General aspects

Although the idea was conceived earlier, the development of the comprehensive Croatian Qualifications Framework (CROQF) officially commenced in March 2006 when the Ministry of Science, Education and Sports formed the Committee for the Introduction of the CROQF, chaired by the Minister.

Following consultations with relevant stakeholders, the Ministry sent the Baseline of the Croatian Qualifications Framework to the Government for adoption at the beginning of 2007. Proposed work on the development and the implementation of the CROQF continued and in July 2007, the Government adopted the Baseline of the CROQF. In September 2007, the National Committee for Development of the CROQF was established, and a set of documents were developed within the process. National Committee for the Implementation of the CROQF, afterwards promoted in National Council for Development of Human Potentials, was established in May 2010 (www.kvalifikacije.hr).

The first phase of the development of the CROQF has been denoted as:

- Orientation - stating that Croatia is committed to the development of the CROQF in the given period.

So far, the following phases of the development and implementation of the CROQF have been implemented:

- development of conceptual understanding,
- design of key elements of the CROQF,
- testing the implementation of the CROQF,
- implementation,
- review of progress and further development and implementation of the CROQF.

The last two phases of this process, following the initial implementation, include – *implementation* and *review of progress* – and should be constant phases of coordination and further development of the CROQF at the institutional level. To maximize efficiency, these phases overlap in practice.

The fundamental documents arising during the development and implementation of the CROQF are:

- *Baseline of the CROQF*¹ (including appendices²) – the document defining the main aims of the CROQF, the guiding principles for its development, and the key elements of the CROQF design including the Outline of the CROQF by reference levels;
- *Action Plan 2008-2012*³ – a multi-annual and annual action plan for the development and implementation of the CROQF by 2012;

¹ The Baseline of the Croatian Qualifications Framework, The Croatian Government, July 2007, Zagreb, available at: www.kvalifikacije.hr

² See www.kvalifikacije.hr

- *CROQF Concepts*⁴ – vital concepts for understanding the CROQF development process, qualification’s elements and their basic properties;
- *Sectorial Councils (SC)* – working groups for the validation of occupational standards and qualifications standards; 25 sectorial, one interdisciplinary and one for horizontal harmonisation of all qualifications;
- *CROQF – Introduction to qualifications*⁵ - a theoretical basis of the CROQF for experts, providing fundamental information, guidelines and explanations necessary for understanding of key concepts – qualification and learning outcomes units/modules and their characteristics;
- *Law on the CROQF*⁶ - drafted in January 2011, reviewed in July 2011, and adopted in 2013, including bylaws;
- A set of standards and guidelines for the institutional implementation of the CROQF (www.kvalifikacije.hr);
- Examples of occupational standards and qualifications standards.

Currently, bylaw for the Validation of non-formal and informal learning is in the final phase of its development. There are some deep discussions on the fundamental profiles of qualifications in the higher education sector (academic and professional), as well on the levels and sub-levels of qualifications.

The Croatian Qualifications Framework is a platform for coordination and integration of key stakeholders in the qualifications system of Croatia, paying attention to the needs of the labour market, individuals and society. The CROQF introduces a set of criteria for transparency, access, progression, award (including assessment and recognition) and reliability of qualifications.

The CROQF has been developed for:

1. Efficient communication between stakeholders;
2. Reflection and classification of the present system, including the description of “old” qualifications and facilitating the recognition of foreign qualifications;
3. Motivating authorities dealing with the national qualifications systems, influencing modernisation, improving effectiveness of education and training, promoting the full use of learning outcomes, application of comprehensive quality assurance systems, and development of the validation of non-formal and informal learning.

Reforms include implementation of learning outcomes, assessment criteria and procedures, transparent validation, registration of providers and awarding bodies. It also relates to the development and implementation of a system for the validation of non-formal and informal learning outcomes, as well as full implementation of a quality assurance system, including the reaccreditation processes.

The principles guiding further the implementation and development of the CROQF are:

- Respect for the Croatian educational tradition and transition of the existing educational system to the more flexible one;

³ Action Plan, available at: www.kvalifikacije.hr

⁴ CROQF Concepts, available at: www.kvalifikacije.hr

⁵ CROQF – Introduction to Qualifications (Croatian and English)

⁶ (Draft) Law on the CROQF, available at: www.kvalifikacije.hr

- Stimulation of lifelong learning and professional mobility for development and competitiveness of individuals and society;
- Development of existing qualifications and introduction of new qualifications, based on well-defined learning outcomes and interests of the labour market, individuals and society;
- Transparency of qualifications, equal access to education, multi-directional progression and mobility, reliable awards, recognition and quality of qualifications;
- Improvement of the process of European integration while respecting guidelines of the EQF and the QF-EHEA, European Union directives and international regulations on creation of the competitive economy and social inclusion;
- Consideration of other countries experiences in their national qualifications frameworks development;
- Partnership between state institutions, employers, unions, educators and trainers, labour market institutions, civil society organisations, students and other stakeholders.

The general aim of the CROQF is the development of a knowledge-based society and social inclusion, the growth of a competitive economy and harmonised social development, the maintenance of democratic citizenship by promoting and facilitating lifelong learning, and the general mobility of citizens during their acquisition of qualifications and employment.

The specific aims of the CROQF are:

- Understanding different types and classes of “old”, existing and new qualifications and their interrelations;
- Cooperation enhancement among various stakeholders;
- Lifelong access to the education for all individuals;
- Provision of a clear outline of educational achievements for employers and other individuals;
- Creation of a common quality assurance system for existing and new qualifications;
- Sustainable employability;
- Set up of the system for validation of non-formal and informal learning;
- Simple and fair recognition of foreign qualifications in Croatia and Croatian qualifications abroad;
- Promotion of lifelong learning in Croatia.

Regarding non-formal and informal learning, the validation and inclusion in the Framework, the Croatian Qualifications Framework has defined basic theoretical elements for the validation of non-formal and informal learning already in the first phase of development. Still, before full implementation, there is a clear need for a set of examples, practical guidelines and detailed procedures, including testing.

It is expected that after implementation of the validation system for non-formal and informal learning, all main stakeholders in the Croatian Qualifications Framework – policy makers, quality assurance bodies, education institutions, employers and employees will benefit greatly. Education institutions can easily improve access to non-traditional learners and efficiency in the formal education. The labour market can become more flexible and innovative. Validation and recognition can be used to address needs in different economic sectors, at the same time helping individuals to develop their potential as well as for socially excluded persons to reintegrate into the labour market and society.

1.2. Legal and strategic framework of the NQF

Through the participative development process, started in May 2006, the Republic of Croatia developed two key legal documents relating to the Qualifications framework, as follows:

- Act on the Croatian Qualifications Framework (adopted in February 2013) defining:
 - Better labour market and educational system coherence through the introduction of Sector Skills Councils, qualifications standards and occupational standards;
 - Introduction of partial qualifications for all levels (at least 10 ECTS);
 - Key elements for the validation of non-formal and informal learning, with regulations under development;
 - Introduction of a National Council for the Development of Human Potential aimed at generating policies to foster the educational system in becoming a basis for developing more competitive human resources and to propose the distribution of available national funds in respect to development priorities;
 - Regulations on the CROQF register, introduced in May 2014, defining all standards, criteria and procedures for the inclusion of qualifications in the CROQF Register;
 - Accreditation procedures for occupational standards, qualifications standards, and related programmes, that will be accepted and introduced to the CROQF;
 - Mandatory elements and submission forms for qualifications standards (QS), occupational standards (OS) and learning outcomes units (LOU's);
 - Quality Assurance principles for qualifications standards inclusion, occupational standards and learning outcomes units in the CROQF Register.

National Council for Development of Human Potential has been already formed and the Sector Skills Councils have been currently formed for all sectors.

In order for the full implementation of the CROQF, all Sector Skills Councils should be formed and operative. Rules, in respect to program accreditation and quality assurance, should be implemented in the existing laws on different educational levels in order to amend the positions of agencies acting in education. There are 4 agencies with demarcation linked to the level and type of education, while only one agency is responsible for higher education. The IT support system for the Register of the CROQF has been developed and will be operational soon.

When the implementation of validation of non-formal and informal learning (VNFIL) is analysed in its wider environment, the CROQF should be considered as its primary enabler. Still, the VNFIL in Croatia could be implemented in a formal sense only when legislation on the VNFIL is introduced by the Ministry, which is expected to be adopted in 2018.

Other fostering elements supporting the VNFIL development in Croatia should also be considered, on top of the aforementioned formal prerequisites. A recent development relevant for Croatian Higher Education (HE) and VNFIL implementation is the Strategy of Education, Science and Technology. In a nutshell, the Strategy sets a roadmap for the development of higher education and science, as well as other areas and supports the financing of projects in HE from EU structural funds.

The Strategy strongly supports the development of new study programmes in accordance with the CROQF, and introduces validation of non-formal and informal learning as one of the strategic objectives in both higher and adult education.

2. National Qualifications Framework – Basic Premises

2.1. Occupational standards

Key documents, introduced through laws on the Croatian Qualifications Framework, define the development, review and registration of occupational and qualifications standards, including their learning outcomes units. The occupational standard is defined by the Law on the CROQF as: “a list of all tasks performed by an individual engaged in a given occupation, as well as a list of competences required for their successful implementation”.

Employers and their representatives usually develop occupational standards, which should be expressed by using appropriate terms, i.e. key functions within the occupation and competences or required learning outcomes. These required learning outcomes should be written in a clear way, representing their complexity and context.

The occupational standard is used primarily as a document with a list of knowledge and skills that an individual should acquire in order to be able to work within the specific occupation. Employees often, in the same occupation (e.g. a lawyer), do slightly different jobs, depending on the employer for whom they work. For this reason, the descriptions of occupational standards have been produced through surveys and interviews with a number of different employers, possibly from a number of different areas, from different economic sectors and different sizes.

In the bylaw on the CROQF Register, it states that the Register contains lists of competences required for an occupation, grouped appropriately. In the CROQF, the occupation standard has the following elements:

- Code of the occupation
- Title of the occupation
- Classification in the National classification of occupations
- Links to the European classification, if relevant
- Description of competences
- Name of the Sector council and a link to the document with the evaluation of the standard
- List of key tasks within the occupation
- List of grouped competences
- Working conditions
- Date until the standard is valid
- Some other key information on the evaluation of the standard.

Competences within occupational standards are grouped into well-defined units, also registered for easy use within other occupational standards, if relevant.

A detailed description of the procedures used in designing occupational standards is presented further in this document. This is a very important part in the development of qualifications standards, in cases when these qualifications are being developed mainly for labour market needs.

2.2. Qualifications standards

A qualifications standard is defined by the Law on the CROQF as “the content and structure of a given qualification. It includes all the data required for setting its level, volume and profile, as well as the data required for assuring and promoting the high-quality of the qualifications standard”.

Qualifications standards serve to define the key learning outcomes an individual is expected to achieve, after the certification of the qualification. Qualifications standards also define other key characteristics of a qualification, such as the level, volume, profile, type, class of the qualification, and other key elements relevant for quality assurance mechanisms. There are two key parts of quality assurance. One relates to the standards and criteria, which should be fulfilled by institutions intending to deliver the qualification. The second part relates to the quality of an individual’s achievement of the learning outcomes.

The Qualifications Framework in Croatia defines three key groups of purposes for qualifications:

1. Qualifications primarily focused on the needs of the labour market (to be employed)
2. Qualifications primarily focused on further education (according to entry requirements)
3. Qualifications of any other purposes for individuals and society.

The basic idea of the National Qualifications Framework in Croatia is the transparent expression of learning outcomes within important qualifications as well as the quality assurance of these qualifications. This idea will affect study programmes because not only will their content and compliance with learning outcomes in the qualification be scrutinized, but also the requirements of quality assurance relating to the level of the qualification.

By using the Croatian Qualifications Framework, the qualifications system has an additional element, which refers to qualifications mostly required by the labour market to more clearly define occupational standards and required competences. This mechanism includes linking the competences in the occupational standards to the appropriate level of qualifications. This approach is used to illustrate the link between occupations and qualifications with the indicated use of qualifications standards and occupational standards by using the concept of learning outcomes.

Although occupational standards and qualifications standards are new documents formally non-existent in Croatia before the development of the CROQF, it was clear in practice that there are differences between occupations and qualifications. Prior to the development of the CROQF, some educational institutions surveyed employers to seek the required competences in order to develop learning outcomes and study programmes. Still, since Croatia as a society had not developed detailed descriptions of the occupational standards and qualifications standards, two significant problems occurred:

1. Employers and potential employees in general did not have publicly available lists of competences required for certain occupations.
2. Study programmes were often developed without real research on required competences and even when such a step was included, qualifications of the same name contained different learning outcomes and even sometimes there were some qualifications, which had almost the same set of key learning outcomes but a different title of the qualification.

Such practices made it difficult to use and understand these qualifications fully for any stakeholder: employees, employers, educational institutions, quality assurance agencies, students, parents, funding bodies, etc.

2.3. Learning outcomes units

Qualifications are built from the list of expected learning outcomes grouped within logical and coherent groups. Such groups are called learning outcomes units and they should be developed as logically connected, coherent groups of learning outcomes placed in the CROQF register.

A typical learning outcomes unit contains a set of learning outcomes formed within a narrow field that should have at least 1 credit, for example, ECTS, ECVET. It is possible to have larger learning outcomes units. The idea behind this recommendation is that qualifications should be built by reusing, when possible, already existing units, instead of developing new units with elements overlapping with existing units.

According to the legislation, a learning outcomes unit consists of the following components:

- Code of the learning outcomes unit
- Code(s) of the qualifications standard which the unit belongs to
- Title of the learning outcomes unit
- Level of the unit in the CROQF
- Volume (in credit points)
- List of learning outcomes
- Requirements for achievement
- Criteria for the achievement of the listed learning outcomes
- Criteria for the assessment of the listed learning outcomes
- Procedures for the assessment of the learning outcomes and examples.

According to the Law on the CROQF, a minimal volume of a single learning outcomes unit should be one credit point.

During the accreditation process, according to the CROQF legislation, the institutions proposing new qualifications standards should contact other providers and partners to ask about their interest in the same qualification. If the institution has not followed this rule, the Ministry should contact all interested providers in order to obtain their comments. The idea behind the request to contact other potential providers is to ensure that the key elements of the qualification are provided within the qualifications standards.

2.4. Basic characteristics of qualifications

There are several key characteristics of qualifications and other groups of learning outcomes: workload, level, profile and quality in the CROQF.

The workload/volume of a learning outcome is described as the effort an average learner would need to acquire a given competence. It is agreed that for qualifications in higher education, the relevant time unit (1 ECTS) needed for the acquisition of certain learning outcomes, which includes organised classes, independent learning and assessment, is a minimum of 25 hours (60-minute hours). Since an individual student may in practice take either more or less time for the acquisition of these learning outcomes, the term “average

successful student” was introduced. In other words, the time that an average student takes is estimated, taking into account only those students that have successfully acquired the given learning outcomes.

In vocational education and training, another credit system unit is introduced: 1 ECVET, which also represents a minimum of 25 hours for the acquisition of certain learning outcomes. Along the same lines, a credit system for learning outcomes acquired through general education (i.e. primary and secondary school general education) has also been introduced (Croatian Credit for General Education (CROGE), or *Hrvatski bod općeg obrazovanja*, in Croatian (HROO)).

For original research activities within PhD studies, the use is recommended of “a year of research” as a measure for an average full-time PhD student, although the volume of the taught part of the PhD programme can be described using ECTS credits.

The profile of both, unit and qualification, is described by learning outcomes and expressed by the appropriate title named by sectorial working groups. In order for the names of the qualifications to be transparent, their title reflects all of the profile dimensions of the qualification, as well as its level.

Reference levels express the complexity and scope of acquired learning outcomes. In the CROQF there are 8 levels for learning outcomes units (1 through 8) and an additional 2 sublevels for qualifications (at levels 4 and 8).

Levels and sublevels have been set out for the classification of qualifications, full and partial, resulting in a total of 10 qualification reference levels and sublevels. The reference level of a qualification is defined as the common level of all learning outcomes of a given qualification.

3. Institutional Setting

3.1. National Coordination Point

According to the legislation on the CROQF, the main institutions and bodies for the implementation of the CROQF are:

- the ministry responsible for education,
- the ministry responsible for labour,
- the National Council for the Development of Human Potential,
- sector councils (25+1),
- quality assurance agencies,
- providers.

The National Coordination Point (NCP) for the CROQF is the ministry responsible for education. Its tasks are the coordination, implementation and further development of the CROQF, and it is also the NCP for the EQF and QF-EHEA.

The tasks of the NCP include:

1. Referencing levels of qualifications within NQFs to the EQF levels;
2. Ensuring that a transparent methodology is used in the referencing process;
3. Providing access to information and guidance to stakeholders about how other NQFs relate to the EQF;
4. Promoting the participation of all stakeholders, including higher education and vocational education and training institutions, social partners, sectors and experts in the comparison and use of qualifications at the European level.

Sectorial Councils ensure the harmonisation of the Croatian qualifications system with labour market needs and key standards for the quality of qualifications. The operation of the sector councils is coordinated by the ministry responsible for education. The work of sector councils includes cooperation with sectoral ministries, bodies of government administration and agencies, other stakeholders responsible and accredited to perform tasks relating to the labour market – professional chambers, including the Croatian Employers' Association, the Croatian Chamber of Economy, the Croatian Chamber of Trades and Crafts, etc., as well as those relating to education – the ministry responsible for education, science and scientific research institutions engaged in formal education, national councils, agencies, national centres, etc. The work of sector councils also includes non-governmental associations, trade unions, stakeholders representing legal entities or individuals with an interest in respective qualifications.

Sector councils play an important role in bringing together all relevant stakeholders from each respective sector, namely representatives of education, the labour market, NGOs, employers, unions and society in general. They insure the development of the Standards of Occupations and the Standards of Qualifications as the basis for referencing national qualifications to the CROQF and, indirectly, to the EQF. The Standards of Occupations and the Standards of Qualifications, as approved by the relevant bodies, form the essential part of the CROQF Register.

3.2. Governing bodies for primary education

The Ministry of Science and Education is the policy body responsible for planning, funding and monitoring the primary education system. The Ministry is responsible for administrative and other activities relating to primary education, securing finances and other resources for its work.

Public schools are entirely financed by the state budget while private schools are co-financed by the State Budget in accordance with the criteria prescribed by the minister of education and the results of external evaluation. Private schools providing alternative education programmes are co-financed up to 80% by the state budget.

3.3. Governing bodies for secondary education

The Ministry of Science and Education is the policy level body responsible for planning, funding and monitoring the secondary education system. The Ministry is responsible for administrative and other activities relating to secondary education, securing finances and other resources for its work.

The Education and Teacher Training Agency (ETTA) is a public institution responsible for the provision of professional and advisory support in the area of general education in Croatia.

The Agency for Vocational Education and Training is a public institution founded in 2005 by the Decree of the Government of the Republic of Croatia, responsible for the planning, development, organisation, monitoring and evaluation of school and non-school systems in the area of VET. The Agency's work is governed by a steering committee in accordance with the Vocational Educational and Training Act. This Agency merged with the Agency for Adult Education into one agency in February 2010, as the result of adopting the Act on the Agency for Vocational Education and Training and Adult Education.

The National Centre for the External Evaluation of Education (NCEEE) – The Law on the National Centre for the External Evaluation of Education entered into force in January 2005, thereby entrusting the NCEEE with the preparation of National Exams and the *State Matura* as a permanent system of external evaluation of work and achievement in secondary education. The *State Matura* is administered at the completion of secondary education. The *State Matura* examination is organised centrally and administered to all candidates at the same time. The primary condition for the administration of the *State Matura* and of other external and parallel exams is to ensure a fair, valid, and reliable evaluation of students' achievements and competences. The *State Matura* should stimulate important developmental processes that may significantly improve the quality of Croatian education. Pursuant to the Primary and Secondary School Education Act (OG 87/08, 86/09; 92/10; 105/10, 90/11, 5/12, 16/12), secondary education for gymnasium programmes is completed passing the *State Matura* exam. According to the Act, students who spent four years at vocational and art schools also have the option of taking the *State Matura* exam, as do adult learners. Provisions for taking the *State Matura* exam apply to pupils who had enrolled in the first year of a Gymnasium or a four-year vocational or art school in the 2006/2007 school year.

3.4. Governing bodies for higher education

The Ministry of Science and Education is the national authority responsible for the planning, funding and monitoring of the entire education system. The Ministry provides administrative and other activities relating to: the higher education system, securing financing and other resources for work, all issues relating to student welfare, and the legal supervision of higher education institutions.

The National Council for Science, Higher Education and Technology Developments is an expert and advisory body of the Croatian Parliament responsible for the strategic development and quality assurance of higher education in the Republic of Croatia.

The Rectors' Conference includes all public university rectors who make decisions on common interest issues for the development of the universities.

The Council of Polytechnics and Colleges includes all deans of polytechnics and colleges. The Council decides on common interest issues for the development of polytechnics and colleges.

The Agency for Science and Higher Education is an independent national body responsible for the assessment of scientific activities and quality assurance in higher education, recognition of diplomas and qualifications through the ENIC/NARIC, and since 2009, for collecting information on Croatian higher education and science, providing support for the implementation of the State Matura (*Državna matura*) – national exams for graduates from secondary schools, and the administration of centralised applications and admissions to higher education.

The Agency for Mobility and EU Programmes, as well as the National Agency for Lifelong Learning Programme and the Youth in Action Programme provide support for ECTS coordinators at higher education institutions.

3.5. Involvement of stakeholders

Involvement of relevant stakeholders, including international and national experts, has been the strategic basis for the successful development and implementation of the CROQF. National stakeholders and experts provide all key expertise, economic and institutional settings, while international experts provide additional experience on best international practices and lessons learnt.

From the very beginning of the development of the CROQF, all relevant stakeholders have been involved, from governmental institutions, unions, providers and students to private businesses.

3.6. CROQF Register

The Register of the National Qualifications Framework in Croatia contains all endorsed occupational standards, qualifications standards and their learning outcomes units. It contains also study programmes based on registered qualifications standards and all education institutions who provide these programmes.

The qualifications standards are also a basis for the validation of non-formal and informal learning.

The ministry responsible for labour endorses occupational standards after validation by sector skill councils, while the ministry responsible for education endorses qualifications standards after validation by the same skill councils.

4. Types and Legal Status of Qualifications Included in the NQF

The Croatian education system includes the following education sub-systems: preschool, primary, secondary and higher education, including primary and secondary education and training for adults. Attention is also given to the principle of lifelong learning, with the aim of including adults and the unemployed in flexible educational and training programmes to qualify them for participation in the labour market.

As shown in Figure 1, the existing education and training system in Croatia consists of:

- Preschool education;
- Primary education;
- Secondary education, with:
 - General education in secondary schools (Gymnasium);
 - Education in art schools;
 - Vocational education and training through:
 - Special or adjusted programmes;
 - 1-year programmes;
 - 2-year programmes;
 - 3-year programmes;
 - 4-year programmes, including 5-year programmes for regulated occupations in the health sector;
- Postsecondary (non-higher education) professional education and training programmes;
- Higher education, with the following structure:
 - University study:
 - Undergraduate university study programmes;
 - Graduate university study programmes;
 - Graduate university study programmes – specialist;
 - Postgraduate university study programmes;
 - Professional study:
 - “Short cycle” professional study programmes;
 - Undergraduate professional study programmes;
 - Specialist professional graduate study programmes.

Besides the usual initial education, as indicated above, there are also primary and secondary education and organised training for adults.

There are various types and classes of qualifications in the CROQF. Any legal entity registered as an education and training provider is entitled to apply for the inclusion of their programmes in the CROQF register. All education/study programmes for the achievement of qualifications have to be evaluated by quality assurance bodies according to the respective qualifications standards and their learning outcomes units. The Law on the CROQF defines three types of programmes in the CROQF:

- Programmes for the achievement of qualifications,
- Programmes for the achievement and assessment of learning outcomes,
- Programmes for the assessment of learning outcomes.

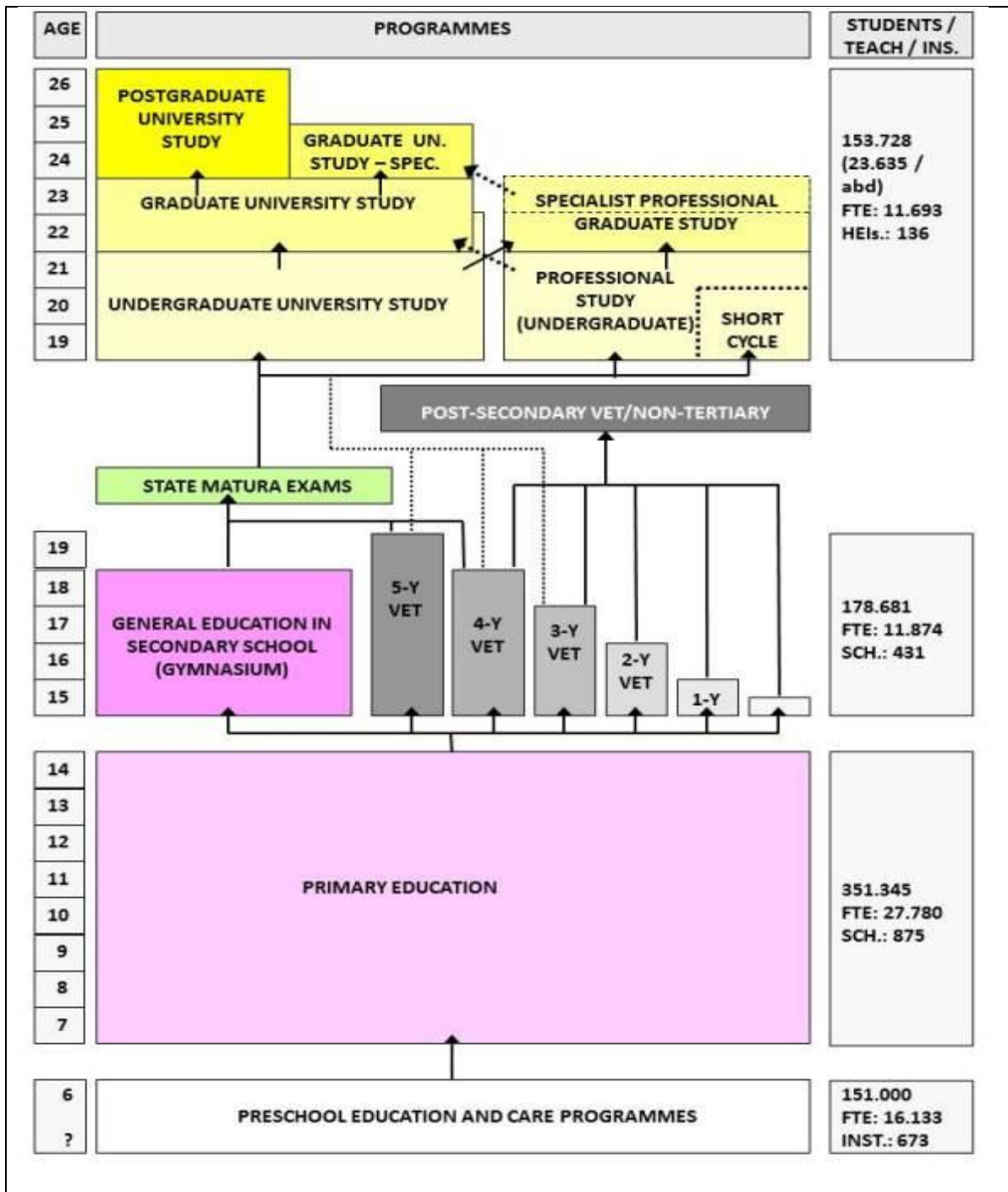


Figure 1. Education and training system in Croatia (Source: the Ministry of Science and Education, EQF Referencing).

The programmes for the assessment of learning outcomes are the basis for the validation of non-formal and informal learning.

Furthermore, the legislation defines the process for the accreditation of programmes.

As a principle, all types and classes of qualifications at all levels, following the process of accreditation, can be registered in the CROQF register. Some of these qualifications, including their learning outcomes units, can be achieved by non-formal and informal learning, and the validation of non-formal and informal learning.

Such a possibility is not open to all kinds of qualifications and all learning outcomes units, within all profiles and levels. The possibility to achieve such qualifications by the validation of non-formal and informal learning is defined by the respective qualifications standards and their learning outcomes units.

Programmes can be registered only after the evaluation by quality assurance bodies, internal and/or external, according to qualifications standards (for example, quality assurance agencies, internal quality units, etc.).

5. Procedures of the Inclusion of Qualifications in the NQF

All qualifications proposed for the inclusion in the CROQF should be analysed in terms of their learning outcomes, as they present the key elements in the CROQF.

The procedures for the inclusion of qualifications in the national qualifications framework are described in the Law on the CROQF. All the existing qualifications and newly formed ones should pass through the procedures for inclusion in the Register of the CROQF.

The CROQF introduces a new Register, with the following structure:

- Learning outcomes units;
- Standards of occupations;
- Standards of qualifications;
- Programmes for the unit's validation (including assessment providers);
- Education/study programmes (including awarding institutions).

The Register is the basis for:

- A common and robust quality assurance system;
- Non-formal and informal learning validation, of equal value to formal learning;
- Transparency, access and progression (including mobility).

5.1. Occupational standard development process

As already described previously in this report, occupational standards provide a task description within an occupation, as well as a description of the learning outcomes required for performing these tasks. They are defined within the legislation on the CROQF Register in several articles. More precisely, Article 2, Paragraph 2 states:

Occupational Standards' sub-register contains occupational standards and sets of competences required for each particular occupation.

The abovementioned implies that, beside the lists of jobs and required competences, the competences have to be additionally classified in units of competences.

Furthermore, while developing the application form for the occupational standard sub-register entry, the legislation on the Register in Article 13 defines the necessary elements of occupational standard as defined further.

The second part of the application form for occupational standards and their competences units contains sections where an applicant provides the following data:

- Description of the occupation or sets of competences that will be registered;
- Estimated qualification level according to the CROQF;
- List of key tasks for one or more jobs that define the occupation and related competences lists for each job;
- Set of competences and related competences lists required for working in one or more jobs;
- Working conditions;

- Suggestion of the deadline for proposing the qualifications standard and learning outcomes units based on the occupational standard.

This implies, considering the occupational standard, that the following need to be defined:

- Description of the occupation;
- Key tasks list and the list of related competences to perform these tasks;
- Set of competences and related competences' lists;
- Occupation-related working conditions.

The aforementioned is clearly visible in the specified submission form for the occupational standard proposal, requiring *inter alia*:

B. OCCUPATIONAL STANDARD PROPOSAL		
Description of the occupation or set (one or more) of competences that will be regulated by the standard		
Estimated qualification level according the CROQF that will be created based on the standard		
List of key tasks of the job and related competences' list necessary for working in one or more jobs	Key task 1	- Competence no. - Competence no. - Competence no. - ...
	Key task 2	- Competence no. - Competence no. - Competence no. - ...
	Key task 3	- Competence no. - Competence no. - Competence no. ...
	...	
List of sets of competences with related competences	Set of competences 1 name	- Competence no. - Competence no. - Competence no. - ...
	Set of competences 2 name	- Competence no. - Competence no. - Competence no. - ...
		-
Working conditions		

With all the above-mentioned occupational standard elements, additional data are needed to justify the entry of the occupational standard into the CROQF Register in this template.

This justification and proof with answers to the set of questions are introduced because the occupational standard entry procedure is very complex and expensive for the state, whereas for the applicant, it is free. This way the State protects itself from unjustified and unnecessary demands, which would lead to needless procedures in the Ministry of Labour as well as the sector councils and Ministry of Education.

Additional data, justifying the grounds of the demand, are requested according to the legislation (Paragraph 1, Article 12 of the bylaw) as follows:

(1) The applicant proves the grounds for the new occupational standard, i.e. the competences units, by giving an explanation on **strategic**, **sectorial** and **analytic** grounds of the demand, according to the Methodology under Paragraph 3 of this Article.

Three types of the above-mentioned basis are defined as follows:

- The applicant proves strategic grounds of demand by referring to the relevant sectorial strategies and other important strategic documents;
- Sectorial grounds are explained using the sector profile where the proposed occupation or standard belongs and, exceptionally, by other relevant documents.
- Analytic ground is expressed by analysis of the current and existing education offers and labour market demand.

Further in this part of the report, the method of occupational standard development is described using the above-mentioned Methodology of the Ministry of Labour and the method for preparing proof of grounds for the demand.

The methodology for individual needs research, on which the occupational standard is based, contains a questionnaire regarding the required competences for the occupation.

The questionnaire is conducted through an on-line survey, sent to employers, with obligatory direct communication and support when filling it in. The aim of the survey itself is to get the answers from employers to all questions necessary for inputs to part B of the submission form for the occupational standard, whereas part A, which refers to the grounds, is filled in using the publicly available strategy and other documents.

Filling in the first part (A) of the submission form for the occupational standard provides key references to the strategic and other documents used as the basis for explaining the grounds for the demands. The only exception in this process is the analytic ground, which should be either read from the sector profile, or use publicly available data from the Croatian Employment service "On line statistics", from a portal such as moj-posao.net or other sources. The sector profile is available from a document developed by the Ministry of Labour, where all conditions within the sector are described.

Data from private employment portals are not publicly available and they can normally be used for a certain fee. For the majority of occupations, the data from "On line statistics" will be sufficient since the Croatian Employment Service monitors the demand for most jobs. For some jobs in some sectors, where recruitment is mostly done through private portals, not through a public employment service, Croatian Employment Service statistics are irrelevant and insufficient for actually proving long-term past trends.

As mentioned in the legislation, answers referring to the analytic grounds should be given regarding the following issues:

- analysis of the current and existing supply for these and similar occupations in the labour market,
- analysis of the current and existing demand for these and similar occupations in the labour market,
- 5-year projection of supply for these and similar occupations in the labour market,
- 5-year projection of demand for these and similar occupations in the labour market.

The easiest way to find the answers is to read the sector profile for the occupations for which the occupational standard is being proposed, but if such a document is not available, the analysis needs to be done using publicly available data.

The main tool for information on the aforementioned supply and demand can be found at the Croatian Employment Service's on-line statistics, available at <http://statistika.hzz.hr/>

Part B of the submission form can be filled in based on an analysis of answers provided by the on-line survey. After the finished survey, more data on the survey's organisation and use of the official survey's infrastructure can be given by the Ministry of labour and pension system. Results are provided to the occupational standard developer in the form of raw table data.

In order to have adequate data for the analysis, it is useful to rename some components of the survey for a better understanding of the answers. According to the experience of developing numerous occupational standards, using official survey results, it is recommended that additional columns be added in order to provide a better organisation of the results. Titles of the already existing columns B and C should be: "key jobs/activities", and "required competences".

For better analysis, the following elements could be prepared for the occupation:

- a) job analysis, planning and organisation,
- b) preparation of workplace / business,
- c) operational tasks,
- d) administrative tasks,
- e) commercial tasks,
- f) communication and cooperation with stakeholders,
- g) quality assurance,
- h) health and environmental protection.

During this process, competences provided in the column "Competences" is reorganised in order to be:

1. clearly defined and stated singly without repeating,
2. detached from the competences, which are irrelevant for the occupation,
3. expressed in short and concise sentences for easy grouping later on.

Before completing the analysis of the list of competences and filling in the occupational standard form, two more steps are recommended.

The first step is to supplement the answers provided by the employers from the survey with additional data from other sources, such as:

- technology outlooks and global development guidelines relevant for the sector,
- focus groups with key experts in the sector,
- focus groups with employers discussing the provided results.

Desk research and stakeholders involvement in the consultations on the stated process result in a collection of the required competences and key jobs relevant for certain occupations, which will be further developed and enlarged with additional statements.

In order to fill in the submission form, each competence statement should be added to the corresponding group formed using an intuitive name and should include competences from the same logical competences units.

5.2. Qualifications standard development process

The qualifications standard, in accordance with the CROQF legislation (Article 16), contains a set of elements for the submission form:

(1) The second part of the form of HKO_SK contains sections where an applicant provides information on the following elements of the qualifications standard proposal:

1. Name of the qualification for which standard is proposed;
2. Name of the sector council to which the proposal is submitted;
3. CROQF level of the qualification for which standard is proposed;
4. Minimum qualification volume expressed in credit points (ECTS, ECVET and/or HROO), or in years of studies for level 8;
5. Qualification class code (full or partial);
6. List of learning outcomes units by the category code of "compulsory" or "optional";
7. Requirements for qualification acquisition access;
8. Deadline for the standard's review.

(2) The third part of the qualifications standard form contains sections where an applicant provides information on the following elements of the proposed learning outcomes units:

1. Name of the learning outcomes unit;
2. Level of the learning outcomes unit according to the CROQF;
3. Volume of the learning outcomes unit;
4. List of learning outcomes;
5. Requirements for the acquisition access to the learning outcomes unit;
6. Material and staff requirements necessary for the learning outcomes unit's acquisition;
7. Material and staff requirements necessary for the learning outcomes unit's validation;
8. Validation procedure and examples of all learning outcomes under the proposed learning outcomes unit.

(3) The Paragraphs 3 and 4 of Article 28 in the CROQF legislation define the elements of the qualifications standards, as follows:

1. Qualifications standard's code;
2. Qualification's name;
3. Level code of the qualification in the CROQF;
4. Level code of the qualification in the EQF;
5. Minimum qualification's volume expressed in credit points (ECTS, ECVET, HROO, or years of studies for CROQF level 8)
6. Qualification class code – full or partial qualification;
7. List of learning outcomes units by the category code of "compulsory" or "optional" learning outcomes;
8. Requirements for access to qualification acquisition;
9. Justification for the introduction and qualification's roles, link to further education, link to the occupational standard, needs of an individual and society;
10. Deadline for enrolment in the program for qualification acquisition;
11. Link to the document confirming the establishment of the competent sector council, which conducted the validation;
12. Link to the sector council expert's opinion on the register entry;
13. Link to the decision on the register entry;
14. Qualifications standard applicant;
15. Entry date into the Qualifications standard sub-register;
16. Link to the adequate programmes and list of the competent legal entities for awarding an obtained qualification certificate.

(4) Learning outcomes unit contains the following elements:

1. Learning outcomes unit's code;
2. Qualifications standard code that the learning outcome belongs to;
3. Name of the learning outcomes unit;
4. Level of the learning outcomes unit in the CROQF;
5. Volume of the learning outcomes unit;
6. List of learning outcomes;
7. Requirements for acquisition access to the learning outcomes unit;
8. Material and staff requirements for the learning outcomes unit's acquisition;
9. Material and staff requirements for the learning outcomes unit's validation;
10. Validation procedure and examples of all learning outcomes under the proposed learning outcomes unit.

The qualifications standard contains the list of the learning outcomes units, as follows:

Learning outcomes units list – EXISTING in the CROQF Register	Compulsory	Optional
Learning outcomes units list – NEW	Compulsory	Optional

Each learning outcomes unit in the list has to be precisely described by the learning outcomes defining the unit, as well as the quality assurance requirements for its acquisition, implementation of education, and assessment procedures to conduct the exam:

Learning outcomes unit's proposal name	
Level of the learning outcome unit in the CROQF	
Volume proposal	
Learning outcomes' list	
Requirements for acquisition access to the learning outcomes unit	
Material and staff requirements necessary for the learning outcomes unit's acquisition	
Material and staff requirements necessary for the learning outcomes unit's validation	
Validation procedure and examples of all learning outcomes under the proposed learning outcomes unit	

The quality assurance requirements which must be fulfilled for the qualification or learning outcomes unit's acquisition and/or validation, normally refer to two groups of requirements:

- A) Quality of input parameters, requirements to be satisfied by the institution that provides a qualification. These requirements are mentioned at the learning outcomes unit's level and refer to the material and staff requirements for acquisition and, separately, the learning outcomes unit's validation.
- B) Quality of learning outcomes indicating reliability and credibility of the statement on the public hearing or other documents. There are two quality dimensions – personal and institutional:
 - personal quality of learning outcomes describes the reliability of the presented learning outcomes at a certain level, volume and profile, as individual ownership and is expressed in grades, whereas
 - institutional quality includes the reliability of a particular institution in charge of acquisition and formal validation of the learning outcomes including issuance of a specific public document. This part is self-understandable as a system requirement.

If the qualifications standard is created for qualifications whose primary aim is relevance to the labour market, the basis is represented by one or more approved occupational standards. One needs to know that the qualifications standard does not need to be completely harmonised with the occupational standard (one or few). Generally speaking, it can be broader than the occupational standard and also narrower in some segments.

It is possible that within one occupational standard there could be some sets of required competences for which the appropriate learning outcomes units in the qualifications standard do not exist. This is especially the case with competences, which even employers themselves consider as gained not during education, but rather by experience in the labour market.

In normal cases, the following may happen in the relevant qualifications standard in relationship to a set of required competences in the occupational standard:

- There are no relevant learning outcomes units in the qualifications standard. This case is possible, for example, when there is a whole unit that is not possible to achieve during education.
- There is one relevant learning outcomes unit in the qualifications standard. In this case, learning outcomes units do not have to correspond to all required competences within the set for the occupational standard, but they have to be guided by the mentioned competences.
- Several learning outcomes units. In this case, a set of competences, for example "computer network design", represents, in fact, learning outcomes units: "basics of design in IT", "creation of network solutions according to user demands", "recording of network systems", etc.

It can be expected that a number of learning outcomes units may not be linked directly to a set of competences in the occupational standard, but exist within the qualifications standard. Here we come to specific knowledge and skills that might not be directly visible in the labour market, but are indispensable in order to achieve some clearly expressed competences.

It is important to prove that the example in the table of learning outcomes:

- Covers all stated learning outcomes;
- Really proves achievement of written learning outcomes in the list, by content and the level of complexity.

Once the entire table for all learning outcomes is completed, one should verify if the total number of points corresponds to the one required by the given qualification level (e.g. 180 ECTS). Moreover, while creating each learning outcome unit, the existence of such a unit in the register should be verified, and if the unit does exist, nothing needs to be written, but it is enough to make a reference to the unit.

It is important to stress that the link of all qualifications standards to occupational standards is not obligatory. There could be qualifications standards without any links to occupational standards. This should be the case for those qualifications that are less relevant for the labour market.

5.3. Education/study programme development process

Education/study program development process has several stages. There are three different types of education/study programmes that could be registered in the Croatian Qualifications Framework, but all should follow certain common development standards and guidelines.

They should be linked to:

- the learning outcomes concept,
- a transparent assessment system with assessment examples,
- use credit points,
- the proper structure of the contents of learning outcomes at certain levels of the Qualifications Framework,
- formal prerequisites that are in relation with the qualifications standards and quality assurance mechanisms for a corresponding educational level.

Educational/study programmes for qualifications awarding, programmes for achieving and assessing learning outcomes units or programmes for the validation of learning outcomes units should all be structured similarly as other programmes, with key differences in:

- Volume – in theory, programmes for assessing learning outcomes units could be linked to just one unit, with just one credit point. There could be programmes for partial qualification that could cover a minimum of 10 credit points, up to full qualification programmes with i.e. 180 credit points.
- Elements defining the teaching process – in programmes designed just for validation, there might be no teaching at all but just assessment – the validation of non-formal and informal learning programmes belongs to this group. On the other hand, programmes designed for qualifications awarding typically do have a teaching element intertwined with assessment elements because these processes are often parallel.

When developing study/education programmes, key elements should be additionally taken into account, in accordance with CROQF legislation and already existing recommendations in higher education, or set by the additional legislation in the education sector defining that area, as follows:

A) According to Article 5, point 6 of the CROQF Act, 1 ECTS point is defined as follows:

One ECTS should include 25 to 30 hours of study work in each session lasting 60 minutes, as required for respective learning outcomes acquiring. When calculating students' workload, all elements of the teaching and learning process should be taken into consideration, with the understanding that direct lectures, commonly organised in 45-minute classes, should be "recalculated" to a 60-minute denominator for ECTS points. It would be thus recommended that using a student survey or other relevant tool, the number of hours, each consisting of 60 minutes, are counted first and in order to calculate ECTS the number should be divided by 25 or 30.

B) According to an Article 7, point 2, the structure of a full qualification, regarding the level of learning outcomes, is strictly defined. For example, in higher education, 4 levels and 2 sublevels of full qualifications are relevant and are defined as follows:

- **Level 5** – a total workload for acquiring a qualification should be a minimum of 120 ECVET or ECTS credits, with at least 60 ECVET or ECTS credits at level 6 or a higher level of learning outcomes units, respectively. Entry requirement: previously acquired Level 4.1. or higher qualification.
- **Level 6** – a total workload for acquiring a qualification should be a minimum of 180 ECTS credits, with at least 120 ECTS credits at level 6 or a higher level of learning outcomes units. Entry requirement: previously acquired Level 4.2. or higher qualification in addition to completing the obligatory courses of the

State Matura (National Secondary School Leaving Exam in Croatia).

- **Level 7** – a total workload for acquiring a qualification should be a minimum of 60 ECTS credits at Level 7 or higher level of learning outcomes units. A total workload for the Level 7 qualification, in addition to a previous Level 6 qualification that is a precondition for access, should be at least 300 ECTS credits. A minimum of 180 ECTS credits should refer to Level 6 or a higher level of learning outcomes units, respectively, and at least 60 ECTS credits should refer to Level 7 or a higher level of learning outcomes units, respectively. Entry requirement: previously acquired Level 4.2. or higher qualification in addition to passing the obligatory courses of the State Matura or a previously acquired Level 6 or higher qualification.
- **Level 8.1** – acquiring a qualification should include at least one year of scientific or artistic research in full-time mode, resulting in at least one original published article with a relevant international peer review. Entry requirement: previously acquired Level 7 qualification.
- **Level 8.2** - acquiring a qualification should include at least three years of scientific or artistic research in full-time mode, resulting in original articles with a relevant international peer review. Entry requirement: previously acquired Level 7 qualification.

It is important to note that qualifications at level 6, for example, do not have to have all 180 ECTS points at that same level. It can, for example, have a minimum of 120 points at that level, and another 60 points can be gathered at a lower level (e.g. 5 or part thereof, even 4).

This is especially important when describing outcomes by using action verbs, since it is more correct to place single units at level 5 or even 4, if we know that we cannot achieve the higher one or higher one is not needed, and prepare validation examples accordingly, rather than to try to place all units at level 6, even though we know that for some of them that level is unreachable or unnecessary.

During the initial accreditation of higher educational qualifications, a review of the learning outcomes levels, and often their quality as well, has not been strongly insisted upon, but it differs regarding the knowledge and quality of reviewers appointed by the Agency for Science and Higher Education Accreditation Council. Through implementation of the CROQF, new qualifications further accredited as a part of the CROQF register, should pass a new, more coherent procedure in which the quality and level of learning outcomes are of utmost importance, both during initial accreditation as well as in reaccreditation of the study programmes. The validation of new study programmes will be based on registered qualifications standards. Only those study programmes will be registered in the CROQF Register.

This area is still not fully defined due to required changes in the Act on Quality Assurance in Higher Education and the lack of newly developed accreditation guidelines and procedures. This area will be developed and in place so the designers of the new CROQF qualifications should pay close attention to the new stated requirements.

Requirements for access to a single learning outcomes unit can be taken from the qualifications standard level, already defined legal provisions, or it is possible to state that one cannot access the acquisition of the unit "Advanced statistical analysis", if he/she has

not acquired the unit "Basics of statistical analysis", for example. All study programmes for achievement of a qualification with those units should implement those conditions.

The qualifications standard is the key document within the qualification system and its creation is more complex than creating an occupational standard. Creation of a study programme with the existence of the qualifications standard is simplified, as defined learning outcomes and validation examples within the qualifications standards can be used as they are written for all courses developed in accordance with described learning outcomes units. These are almost all courses, except those additionally relating to the qualifications standard, described and relating to the credit points group named "Undefined units of a certain level" as the example of qualifications standards.

C) According to an Article 7, point 3, the structure of partial qualifications in terms of their learning outcomes level is also strictly defined. For example, in higher education, only 3 levels of partial qualifications are relevant and defined as follows:

- The CROQF should have six levels of partial qualifications as follows: 2; 3; 4; **5; 6; 7**. A precondition for acquiring partial qualifications should be a minimum of 10 HROO, ECVET or ECTS credits, respectively, with a minimum of 50% at the level of a respective partial qualification.

It is possible to have partial qualifications in higher education that has not existed prior to the CROQF. They should have 10 or more credits while at least half of the points for a certain partial qualification should be at the same qualification level or higher. The remaining half of the credits could be at a lower level.

6. Quality assurance of Qualifications Included in the NQF

Quality assurance refers to the system and procedures certain institutions use to maintain and continually improve the agreed standards of its products and services.

Quality assurance can refer to any sector and any level of complexity. Within a qualifications system, it is the process of ensuring that education, assessment, and certification of qualifications enable the achievement of excellence as required by a set of standards.

Quality is one of the basic integral properties/characteristics of a qualification and units/modules, reflecting the reliability and cogency of all the other characteristics of a qualification and units/modules.

Qualifications standards ensure the transparency of relevant qualifications, which denotes the visibility and clarity of qualification content as a baseline for quality. The content of both qualifications standards and learning outcomes within study programmes has to be comprehensible and understandable to the wider public, rather than only to experts.

Quality assurance is the focus of the CROQF and includes the quality assurance of:

- Involvement of stakeholders and international and national experts;
- Fit to purpose like labour market needs, and other purposes of qualifications, by standards of occupation and qualifications, validation, and registration;
- Study programme;
- Assessment criteria and procedures;
- Awarding criteria and procedures.

Only the new study programmes in higher education, validated according to their respective qualifications standards, will be registered in the CROQF Register. This is a strategic part of the development of the quality assurance system in higher education.

6.1. Involvement of relevant stakeholders and experts

Involvement of relevant stakeholders, including international and national experts, has been the strategic basis for the successful development and implementation of the CROQF. National stakeholders and experts provide local insight into education, economic and institutional settings, while international experts lend their experiences with the best international practices and lessons learnt. From the beginning of the development of the CROQF, all relevant stakeholders have been involved, from governmental institutions, unions, providers, students to the private business sector. They participate in the development and validation of everything: occupational standards, qualifications standards and programmes.

6.2. Fit for purpose

In the Croatian Qualifications Framework, quality of fit to purpose – labour market needs, and other purposes – focuses on:

- Development of unit/module-based occupational standards;
- Design of unit/module-based qualifications awards – qualifications standards.

New occupational standards should reflect short- and long-term forecasts and current labour market needs. Participation of all of society and an extensive analysis of the current situation as well as future trends of the labour market are required for such a comprehensive and systematic approach to occupational standards development. Units/modules link qualifications awards and qualifications standards to occupations.

It is important to understand that not all qualifications, study programmes, have their purpose in the labour market. Thus their qualifications standards are not based on any occupational standards.

6.3. Study programmes

Development of curricula/programmes is based on qualifications standards and/or other similar documents, as the result of a clear overview of the needs for specific qualifications. These needs in general refer to labour market needs and other needs for employment or the continuing education of individuals and society.

The quality assurance of education is, in the first place, carried out through the regular validation of education institutions and accreditation/reaccreditation. The validation process includes the evaluation of the quality of study programmes for the qualifications an institution wishes to provide. The evaluation of study programmes establishes the quality of education, methods and instruments, activities and resources that an institution has in place to guide and support learners towards the achievement of qualifications awards.

Educational quality is key task of the quality assurance of the formal education system, and within the CROQF there are no additional requirements. The CROQF also intends to integrate the validation of non-formal and informal learning, the focus of quality assurance within the CROQF is not on the education and learning itself, but on the learning outcomes achieved, indicating a shift in focus to the quality assurance of assessment and certification.

6.4. Assessment criteria and procedures

Quality assurance of assessment in the CROQF refers to the process of ensuring that assessments are:

- Fair,
- Valid,
- Reliable.

Fairness refers to assessments ensuring that a learner is neither hindered nor advantaged. Validity refers to assessments ensuring that they measure what they presume to measure. Reliability refers to assessments ensuring that decisions are consistent and not influenced by irrelevant issues and circumstances.

Appropriate assessment criteria and procedures, including methods and instruments, and appropriate profiles for assessors and institutions are determined during the development of learning outcomes units/modules. This includes:

- Appropriateness of assessment criteria and procedures;
- Profile of assessors and competent institutions;
- Assessment materials developed for the national database, if needed.

Analyses of learners' results per institution, which is a part of the quality assurance system in the CROQF, will assist in identifying weaknesses of institutional provisions and provide a basis for audits. They should also assist in determining the quality of the assessments and the quality of the qualifications awards. These analyses become the cornerstone of the entire quality system, where the inclusion of employers and other stakeholders is crucial.

6.5. Awarding criteria and procedures

The quality assurance of awards is mainly administrative. It ensures that the award is based on a fair, valid and reliable assessment. Efficient and accurate recording, archiving, and reporting systems about the learning outcomes achieved through assessments should be in place.

Awarding criteria and procedures, including appropriate profiles for competent awarding institutions/bodies are determined during the design of qualifications.

6.6. The CROQF Register

The CROQF introduces a new Register with 5 related databases:

- Learning outcomes units/modules;
- Standards of occupations;
- Standards of qualifications;
- Short assessment programs, including assessment providers;
- Study programmes, including awarding institutions.

The CROQF Register is the basis for:

- A common, robust quality assurance system;
- Validation of non-formal and informal learning, with equal value to formal learning;
- Transparency, access and progression, including mobility.

The CROQF Register represents the formal link between qualifications and the quality assurance system of the CROQF. It is envisaged that the Register encompasses all types of qualifications even those gained outside of formal education system, therefore good quality assurance system is the basis for the recognition of prior learning no matter how and where the learning has taken place.

6.7. The quality assurance in the VNFIL

For qualifications that are possible to achieve by the validation of non-formal and informal learning, the quality assurance mechanisms for the evaluation of programmes, including the quality assurance of learning outcomes assessment and the certification process, is equal to the quality assurance mechanisms for any other qualification achieved within formal education.

The validation providers of non-formal and informal learning are responsible not only for meeting the requirements set by legislation and any other regulatory requirements placed upon them, but also for developing their own internal quality assurance systems and procedures in order to quality assure the validation of the non-formal and informal learning process in line with formally introduced obligations and expectations, as well as in line with the guidelines developed by Agency for Science and Higher Education.

Croatia still does not have any of the formally developed and presented documents in the area of the validation of non-formal and informal learning quality assurance, therefore institutions can be provided with only general elements.

Principles concerning the quality assurance of the validation of non-formal and informal learning procedures are:

- Q1 – Validation should be quality assured by an internal QA system but providers should also be externally assessed through periodic external evaluations organised by a QA agency.
- Q2 – Transparent quality assurance measures in line with existing quality assurance frameworks should be in place to support reliable, valid and credible assessment methodologies and tools.
- Q3 – Validation of non-formal and informal learning should be provided only by providers accredited for validation, not automatically by educational providers accredited to provide corresponding formal programmes.

In order to be capable to apply and become a provider of non-formal and informal learning validation, a higher education institution should already have in place a documented and accredited internal quality assurance system that is valid and reliable.

In the process of acquiring accreditation, in order to become a provider for non-formal and informal learning validation, the agency for quality assurance should issue positive accreditation only for the learning outcomes units that the provider has requested accreditation for within the proposed programme, if all of the following three sets of criteria have been met:

1. The provider has already accredited programmes in the CROQF covering all learning outcomes units for which they requested to become a provider for non-formal and informal learning validation.
2. The provider has provided a valid programme for the non-formal and informal learning validation for learning outcomes units they would like to validate, which has been positively accredited by an external quality assurance agency. An accredited programme could be used here if it was initially prepared also for the validation process of the VNFIL.
3. The provider has proved that they have the minimal conditions as listed:
 - Have in place and formally approved a non-formal and informal learning validation policy and other strategic documents promoting the further development and institution-wide acceptance of the provision for non-formal and informal learning validation.
 - Set up a robust quality assurance system for non-formal and informal learning validation and demonstrate that separate processes creating the quality assurance system are:

- operated by individuals who are experienced in the relevant process, have subject expertise where this is required and are certified staff for the validation of non-formal and informal learning;
- supported by appropriate management structures and have a trained and formally appointed coordinator for the validation of non-formal and informal learning.
- Demonstrate that their internal quality assurance policy and quality assurance documents propose regular reviews and strives to improve and enhance its quality assurance system by:
 - carrying out internal reviews on all aspects of the quality assurance system for the non-formal and informal learning validation;
 - taking action on the outcome of such internal reviews.
- Ensure that its quality assurance system for the non-formal and informal learning validation will be subject to regular external reviews and provide evidence in their non-formal and informal learning validation policy and regulatory document of:
 - willingness to use the national non-formal and informal learning validation ICT system, to document all relevant non-formal and informal learning validation activities;
 - willingness to use the national survey system for non-formal and informal learning validation and to use its results for the further development of the non-formal and informal learning validation processes and their quality;
 - willingness to maintain contact with its non-formal and informal learning validation alumni in order to use information provided by them to further develop non-formal and informal learning validation provision and its quality;
- Ensure that its quality assurance system for non-formal and informal learning validation will promote equality and opportunity to use the non-formal and informal learning validation provision for each candidate irrespective of the group or groups to which they belong: sex, gender, nationality, disability, specific cultural background, location or age.
- Ensure that the assessment process is transparent, documented, valid and reliable, using learning outcomes set within the CROQF learning outcomes units and accredited programme for the validation of non-formal and informal learning as a reference for the required knowledge, skills and attitudes, maintaining and protecting academic rigor and thus the reliability of the national qualifications system.

Institutions interested in becoming validation providers are strongly suggested to incorporate quality assurance for non-formal and informal learning validation to its integral quality assurance system, which is already in operation and certified by national agencies.

7. Costs of Including Qualifications in the NQF

For any qualifications in the CROQF there are no application or inclusion fees.

Costs relate to the development and evaluation of standards and programmes; the major part of the costs are borne by applicants and their partners.

For the non-formal and informal learning validation within the CROQF there are some principles covering the costs of qualifications inclusion – among others, the principles concerning individual users of non-formal learning validation. Validation could be fee based and its price should be lower than the price of corresponding formal educational modules required to reach the same unit or qualification for which the validation is organised. If fee based, the validation cost should cover all the expenses of the validation process.

When defining non-formal and informal learning validation costs, as per that principle, it should include:

- staff preparation,
- certification and workload to provide support in informing,
- orientation,
- admission,
- assessment.

On top of these costs, part of the overall organisational costs of running the institution, running costs of used resources, marketing and advertising costs and cost of assessment materials should be added.

Validation could be fee based, but the price should be significantly lower than the price of corresponding formal educational modules, still covering all validation costs.

Costs for any steps of the validation process will be free for various vulnerable groups.

8. Current debates on further NQF developments

Further development of the Croatian Qualifications Framework includes the finalisation of the legislative and institutional framework for the further development and implementation of non-formal and informal learning validation.

A draft proposal of the legislation on validation is envisaged to be adopted by the end of 2018. Implementation of the legislation will further regulate the inclusion of qualifications in the Framework.

The IT tool for the CROQF Register, including learning outcomes units, occupational standards, qualifications standards, curricula/programmes and accredited institutions for assessment and certification, will be developed as a comprehensive tool, bringing together relevant data on competences required by the labour market and the relevant qualifications awarded by accredited educational institutions.

Finally, activities envisaged include a comprehensive information and promotion campaign of the CROQF, including education and training activities as well as further promotion of the CROQF at the national and international levels, most notably among the stakeholders in the education and the economy sectors.

Further development of the CROQF will be envisaged in synergy with various EU initiatives, most particularly the EQF/Ploteus portal, European Classification of Skills/Competences, Qualifications and Occupations (ESCO).

9. Literature

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10. About the Authors

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