



# **A PROPOSAL FOR THE CONCEPT, STRUCTURE AND PROCESSES OF THE NATIONAL QUALIFICATION FRAMEWORK**

Drafted by the NQF team

Prague, April 2007

This project is funded by the ESF and the State Budget of the Czech Republic



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Národní ústav odborného vzdělávání  
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## Contents

<b>Introduction</b> .....	2
<b>1. Objectives of the NQF</b> .....	4
<b>2. Basic NQF Elements</b> .....	4
<b>3. Qualifications</b> .....	5
3.1 Qualification Requirements.....	5
3.2. Complete Qualifications.....	6
3.3. Partial Qualifications .....	6
<b>4. NQF Levels</b> .....	7
<b>5. NQF Standards</b> .....	12
5.1 Qualification Standards .....	12
5.2 Assessment Standards .....	14
<b>6. NQF Links</b> .....	15
6.1 Internal and External NQF Links .....	15
6.2. Relationships among Partial Qualifications, Occupations, Typical Positions and Work Activities .....	16
6.3 Relationship between Complete and Partial Qualifications .....	17
6.4 Relationships among Complete Qualifications, Professions and Educational fields... ..	21
<b>7. NQF Processes</b> .....	25
7.1 Processes Governing the Creation, Updating and Administration of the NQF .....	25
7.2 Processes Governing NQF Implementation .....	27

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### **A Proposal for the Concept, Structure and Processes of the National Qualification Framework**

Drafted by the NQF team

Issued by National Institute for Technical and Vocational Education

Prague, April 2007

## Introduction

The importance of lifelong learning is constantly increasing. This learning takes increasingly complex forms, which presents problems in keeping employers and employees informed. There is only one element which provides us with information about it – learning outcomes. With their help we can compare various forms of learning and education. In addition, these outcomes are the essential information for every employer about what a job applicant knows. The description of qualifications in terms of learning outcomes should be one of the basic criteria for **recognition of people’s vocational knowledge and skills, regardless of how they were obtained.**

It is necessary to project learning outcomes into a clear and unambiguously described system so that learning outcomes may be understandable by everyone. The National Qualifications Framework (NQF) will fulfil this purpose. The NQF should enable us to identify and classify learning outcomes and to set up conditions for their recognition and certification. The NQF will not replace the present qualification and educational systems, but will strive to make them interconnected, more transparent and coherent. It will create an integrating framework for initial and continuing education.

The development of national qualifications frameworks is based on a wide range of activities at national and international levels. The following activities are particularly important for the NQF in the Czech Republic:

- OECD activity: **The Role of National Qualifications Systems in Promoting Lifelong Learning** (2000–2005) with the participation of 23 OECD member states and international organisations, especially CEDEFOP (European Centre for Development of Vocational Training), ETF (European Training Foundation) and ILO (International Labour Organisation). Since 2003 the Czech Republic through the Ministry of Education, Youth and Sports (MŠMT) and the National Institute of Technical and Vocational Education (NUOV) has participated in the thematic group “Development and Use of Qualification Frameworks as a Means of Reforming and Managing Qualification Systems”
- EU activity: **A European Qualification Framework for Lifelong Learning**, implemented within the EU programme “Education and Training 2010”. The EQF will serve as „meta-framework“ enabling qualification systems at national and sector levels to relate and communicate with one and other (not replacing them or trying to harmonise them). The main concept on the basis of which qualifications are classified is formed by learning outcomes, i.e. an individual’s knowledge and skills regardless of how they were obtained.
- Act No.179/2006 Coll. on the Verification and Recognition of Continuing Education Outcomes, which **sets up legislative conditions for the recognition of qualifications and the development of lifelong learning in the Czech Republic.**

The submitted proposal of the NQF is based on materials, which have been already developed within the project and on discussions conducted about individual NQF issues.

# 1. Objectives of the NQF

The aim of NQF is to create a system environment that will support:

- comparability of learning outcomes acquired by various learning forms which make it possible to recognise real knowledge and skills independently of how they were acquired;
- the transfer of world of work requirements into education and training;
- public awareness of all nationwide recognised qualifications;
- comparability of qualification levels in the ČR and in the EU.

The National Qualification Framework can be viewed as a public accessible register of all complete and partial qualifications which are recognised, confirmed on the territory of the Czech Republic. The NQF is being developed in compliance with the law on the recognition of continuing education outcomes. The NQF aim is to put this law into effect.

On the contrary, the aim of the NQF is not:

- to replace existing qualification and educational systems  
*the NQF should strive to make them interconnected, transparent, coherent and to complete them with missing system tools, e.g. qualification and assessment standards.*
- to be complication for citizens (from the administrative point of view)  
*People should not be hampered by the NQF but on the contrary the NQF should offer them possibility of proving qualifications if an employer will ask for it. In addition, it should enable people to take examinations leading to complete qualifications without an obligation of attending a previous course of which duration is mostly several years.*

## 2. Basic NQF Elements

The NQF should create a common framework for all types of learning and education. Learning outcomes are the most suitable means for comparing all types and forms of learning and education. That is why learning and education outcomes represent the NQF's building blocks.

To create the NQF as a manageable and easily understandable system and to make it possible to compare and recognise learning outcomes, the outcomes should be described:

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

If the NQF is to allow transferring requirements of the labour market into education, fundamental part of learning outcomes must be clearly formulated. The decisive source for their formulation should be the world of work.

NQF architecture is created by

- NQF units – these units are qualifications of two types:
  - o **a complete qualification** – the ability to perform a certain occupation (possibly several occupations);
  - o **a partial qualification** – the ability to perform a certain work activity or a coherent set of work activities enabling to perform a profession.
- NQF standards – describe qualifications in a standardised way. There are two types:

- **qualification standards** – the structured description of requirements for a certain qualification;
- **assessment standards** – a set of criteria and procedures for the verification of qualification requirements
- NQF levels – (divide the NQF in the vertical direction) taking into account the levels which are defined by the Czech educational system; they are related to the levels which are defined by the European Qualification Framework;
- Qualification fields (groups of fields)– divide the NQF in the horizontal direction (i.e. from the vocational viewpoint) taking into account the division into educational fields used in the Czech educational system;
- Links within the NQF– links between the aforementioned units and standards;
- Links between the NQF and its environment – links between the NQF and the world of work and the NQF and the sphere of education.

## 3. Qualification

### 3.1 Qualification Requirements

Every qualification is defined by individual qualification requirements. These requirements are called abilities, or competencies – two terms that correspond to the same issue.

A qualification is an ability to perform a certain profession, i.e. it consists of individual competencies (abilities). There are two types of abilities (competencies):

- **Vocational competencies (abilities)** determine what an individual should know as regards vocational skills and knowledge (e.g. diagnosis of vehicle defects, electrical quantity measurement, double entry bookkeeping, etc.);
- **General competencies (abilities)** (cross-sectional, transferable, interdisciplinary) determine what an individual should manage beyond his or her qualification, that is the ability to cope with a certain complex of activities regardless of vocational qualification (e.g. work in a team, decision making, problem analyses, people management, etc.).

**Vocational competencies (abilities)** represent what a worker should know as regards his or her vocational qualification (e.g. to be well versed in technical documentation, to know and choose work procedures, tools and technological conditions, measurement of surface quality, fixing and adjustment of weighting equipment, operation of woodworking machines etc.).

Every vocational competence (ability) also involves an activity aspect and a knowledge (subjects) aspect. For example vocational competence (ability) – repairs of woodworking tools involves both the aspect of repairs (i.e. activity) – consisting in coping with the procedures used in technical repairs as well as the knowledge of woodworking machines, especially their construction and functions. Naturally, all this is expressed in a somewhat simplified way because the knowledge of other vocational disciplines is necessary as well, e.g. machine parts, machine mechanism, and fundamentals of electronics. One vocational competence (ability) can draw knowledge from across professional boundaries and thus it is an application of this knowledge.

Every vocational competence (ability) will be matched to a certain qualification level (see NQF levels). The reason for it is the fact that the difficulty of individual competencies (abilities) creates the difficulty of the qualification as a whole. If the qualification is to be

classified into a certain qualification level, it is also necessary to classify individual competencies (abilities) into qualification levels.

**General competencies (abilities)** determine what a worker should manage beyond his or her qualification; in other words – it is the ability to cope with a certain complex of activities regardless of vocational specialisation (e.g. work in a team, decision making, problem analyses, personnel management, etc.).

General competencies (abilities) for various professions are not required at the same level of difficulty. There are three levels:

- elementary
- advanced
- expert

The necessity of comparability, transparency, updating, further specification and extending competencies (abilities) requires for the NQF to be a real system and not only a database. That is why both vocational and general competencies have their **classification structures**. They use the classifications, which have been already used and verified in the Integrated System of Typal Positions, based on a detailed study and analysis of similar models used abroad.

### 3.2. Complete Qualifications

A complete qualification is **person's ability to perform an occupation, possibly several occupations** (e.g. *confectioner, hairdresser, plumber, economist, architect*). In the future all these occupations will be included in the National System of Occupations.

Three ways of acquiring complete qualifications are planned:

- by training within initial education, i.e. successful completion of education (secondary school, tertiary technical school) or a higher education programme enabling entry into the labour market (present situation);
- by acquiring partial qualifications which are a subset of an appropriate complete qualification followed by passing the examination that is required by the School Act (a new way within the intention of Law 179/2006 Coll.).

After submitting certificates of these partial qualifications an applicant will be able to take the prescribed examination (e.g. final examination topped with an apprenticeship certificate) without taking part in school education.

- by acquiring a partial qualification or partial qualifications enabling performance of a certain occupation in combination with acquiring a level of education in other educational field (a new way within the intention of Law No. 179/2006 Coll.) It is the case when, for example, a bricklayer with the apprenticeship certificate acquires the partial qualification leading to the complete qualification of upholsterer). Complete qualifications for which there are no study programmes or training belong to this item as well.

### 3.3. Partial Qualifications

A partial qualification is **the ability to perform a certain work activity or several work activities** which provides the opportunity for applying for a job (e.g. production of cold meals, gingerbread, hats, casting and retouching of figural china, etc.). These activities are

narrow segments of work. A single activity demanded by the labour market would also fall under this heading.

A partial qualification can be acquired by passing an examination in conformity with the assessment standard of the particular partial qualification. At present a wide range of qualifications (in accordance with various regulations and standards) have been recognised (e.g. welding examinations, overhead crane operation, low pressure boiler operation, etc.). These qualifications will be recognised in conformity with particular regulations and become a part of the NQF.

While the system of complete qualifications is based on the system of training, study fields and programmes, the system of partial qualifications will be a new product. This system should make the large number of various certificates awarded to graduates of continuing education courses more transparent as well as make it possible to compare these certificates. When a person is seeking a job at the labour market and he or she has the certificate of a partial qualification, this certificate will provide guaranteed information for employers about the particular jobseeker, especially about his or her ability to perform work.

The system of partial qualifications will not be isolated but it will be interconnected with the system of complete qualifications and they will set up together one system.

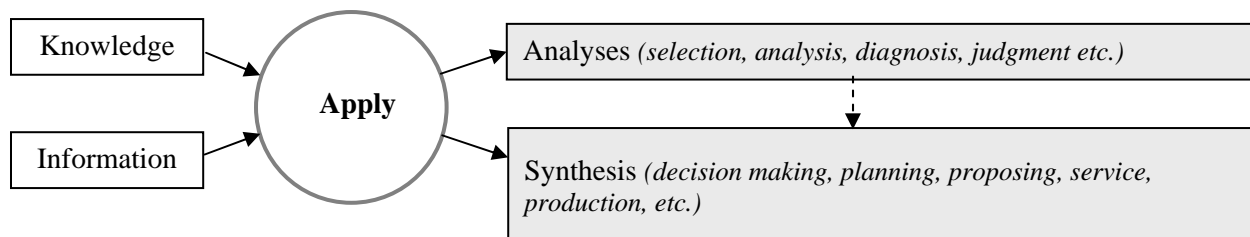
## **4. NQF Levels**

Every complete and partial qualification in the NQF has a certain qualification level.

The levels of complete qualifications correspond to the level of education defined by the School Act. The NQF must enable complete qualifications to be interconnected with partial qualifications. The levels of education are not only defined for initial education and that is why it is necessary to have a universal scale of levels allowing to classify all partial and complete qualifications as well as set up a common framework for initial and continuing education.

The proposal for levels stated below takes into account two main aspects:

- the scope and theoretical difficulty of necessary knowledge;
- the difficulty and complexity of problem addressing (knowledge application); problem solution always has its analytical and synthetic part – see the following chart:



The proposal contains 9 levels altogether. The lowest level is marked Z and corresponds with completed elementary education. That is not the qualification in the sense of job performance; it only applies to initial education, if applicable to other forms of education leading to acquiring or development of general literacy. Levels 1-8 are described through competencies enabling entry into the labour market. They are relevant for all forms of lifelong learning.

The proposal of NQF levels also contains their relations to other important “scales”:

- level of education in accordance with the School Act;
- educational category in conformity with the KKO V classification contained in every code designating educational field.

NQF levels		Levels of education (according to the School Act)	Educational category according to KKO V
Z		Elementary education	C
1	To distinguish occupational tools, raw materials, etc. Carry out work according to assigned simple constant procedures.	Secondary education	D
2	To be well versed in supporting documents containing work assignment. To choose from various alternatives occupational tools, raw materials, etc. for a certain procedure, method. To assess the quality of own products (services) When applying particular procedures and methods, problems and their origin are to be identified. To apply particular procedures in standard conditions with minimum possible changes.	Secondary education completed by an apprenticeship certificate	E
3	To be well versed in documentation, standards usually applied in a particular field. To choose from various alternatives, work	Secondary education completed by	H

	<p>procedures, methods, means, raw materials, etc. according to conditions and requirements for the outcomes.</p> <p>To assess the quality of own products (services) and determine the reasons for possible shortcomings and consequences for further progress.</p> <p>When applying particular procedures and methods, problems and their origin are to be identified as well as the reasons and consequences for further progress are to be determined.</p> <p>To determine the reasons for non-standard functions, behaviour and situations occurring at work objects.</p> <p>To apply chosen procedures depending on various conditions and requirements for the result as well as take into account social viewpoints.</p>	an apprenticeship certificate	
4	<p>To be well versed in documentation, standards and legal regulation usually applied in a particular field.</p> <p>To choose from various alternatives work procedures, methods, means, raw materials, etc. according to the conditions and requirements for the outcomes.</p> <p>To assess the quality of own products (services) and determine the reasons for possible shortcomings and consequences for further progress.</p> <p>When applying particular procedures and methods problems and their origin are to be identified as well as the reasons as well as consequences for further progress are to be determined.</p> <p>When problems occur the links of social aspects to problems are to be identified.</p> <p>To determine the reasons for non-standard functions, behaviour and situations occurring at work objects.</p> <p>To assess the relevancy of professional information.</p> <p>To assess the outcomes of other work from the viewpoint of their usage in procedures and methods.</p> <p>To apply and modify the chosen procedures depending on various conditions and requirements for outcomes as well as take into account social viewpoints.</p> <p>To integrate professional information from various sources into problem solving.</p> <p>To propose the ways of result improvement.</p> <p>To propose less complicated, analogical procedures and products.</p> <p>To work out proposed procedures and products.</p> <p>To manage smaller teams working on the application of chosen procedures depending on various conditions and requirements for the outcomes.</p>	Secondary education completed by the Maturita examination	K, L, M

5	<p>To be well versed in documentation, standards and legal regulation usually applied in the particular field.</p> <p>To choose from various alternatives work procedures, methods, means, raw materials, etc. according to conditions and requirements for the outcomes.</p> <p>To assess the quality of own products (services) and determine the reasons for possible shortcomings and consequences for further progress.</p> <p>When applying particular procedures and methods problems and their origin are to be identified as well as the reasons and consequences for further progress are to be determined.</p> <p>When problems occur the links of social aspects to problems in question are to be identified.</p> <p>To determine the reasons for non-standard functions, behaviour and situations occurring at work objects.</p> <p>To analyse less complicated systems, phenomena and processes.</p> <p>To assess relevancy of professional information.</p> <p>To assess the outcomes gained in other projects from the viewpoint of their usage in procedures and methods.</p> <p>To apply and modify the chosen procedures depending on various conditions and requirements for the outcomes as well as take into account social viewpoints.</p> <p>To solve more complicated tasks, for which procedures and methods have not yet been developed.</p> <p>To solve problems linked with the necessity of generalization.</p> <p>To integrate professional information from various sources into the problem solving.</p> <p>To integrate more solutions into a complex solution.</p> <p>To propose system improvements.</p> <p>To propose new and more complicated procedures and products.</p> <p>To manage teams when addressing complicated professional activities under unpredictable conditions.</p>	Tertiary professional education	N
6	<p>See level 5 plus:</p> <p>To be well versed in documentation, standards and legal regulation applied to a particular field.</p> <p>To choose work procedures, methods, means, raw materials, etc. from various alternatives according to the conditions and requirements of the task.</p> <p>To assess the quality of his or her products</p>	Bachelor Programmes of Higher Education	R

	<p>(services) and determine the reasons for possible shortcomings and their consequences for further progress must be identified.</p> <p>When applying particular procedures and methods the origin of the problem must be identified and the reasons and consequences for further progress are necessary to be determined</p> <p>When problems occur the links of social aspects to problems in question are to be identified</p> <p>To analyse the reasons for non-standard functions, behaviour and situations occurring at work objects as well as their context.</p> <p>To analyse complicated systems, phenomena and processes.</p> <p>To assess the relevance of professional information from other scientific fields.</p> <p>To assess the outcomes of other complicated projects from the viewpoint of their further application in procedures and methods.</p> <p>To apply and modify the chosen procedures in dependence on various conditions and requirements for the outcomes as well as take into account social viewpoints.</p> <p>To complete more complicated tasks, for which procedures and methods have yet to be developed.</p> <p>To cope with the problems which are to be generalised.</p> <p>To integrate into problem solution professional information from various sources and knowledge from various scientific fields.</p> <p>To integrate more solution into a complex solution.</p> <p>To propose fundamental system changes.</p> <p>To propose and implement complicated new procedures and products.</p> <p>To cope with problems linked with the application of extensive theoretical and highly specialised knowledge.</p> <p>To manage and plan complicated and extensive processes in unpredictable conditions including a conceptual and strategic decision-making.</p>	<p>Master Programmes of Higher Education</p>	<p>T</p>
<p>8</p>	<p>See level 7 plus</p> <p>To complete tasks linked with innovations significant for the whole field. To contribute to discovering new scientific knowledge.</p> <p>To manage extensive research and development projects.</p>	<p>Doctor Programmes of Higher Education</p>	<p>V</p>

The NQF must allow users to determine the relations between Czech qualifications and the levels of the European Qualifications Framework (EQF). The EQF comprises 8 levels that are defined by learning outcomes (knowledge, skills and competencies). These outcomes are described rather generally.

The basic criterion for the determination of each qualification in a particular country is the level of required competencies (abilities). In spite of the individual approach to every qualification, it is necessary to determine relationship among individual EQF levels (even for all levels and categories of education in a particular country). After reviewing descriptions and information on individual levels which EQF contains, the following alternative (stated in the table below) seems to be the best. In addition, the table contains all relations respective scales.

NQF level	Levels of education according to the Schools Act	Category of education according to KKO V	EQF level
Z	Elementary education	C	1
1	Secondary education	D	2
2	Secondary education completed by an apprenticeship certificate	E	3
3		H	4
4	Secondary education completed by the Maturita examination	K, L, M	5
5	Tertiary professional education	N	6
6	Higher education with bachelor's degree	R	
7	Higher education with master's degree	T	7
8	Higher education with doctoral degree	V	8

Secondary education in the fields of J category is missing – i.e. the fields of study provided by secondary technical schools which are not completed by a Maturita exam. With respect to different nature, difficulty and also the level of acquired competencies (abilities) it is not possible to classify these fields into one level. They will be very likely ranked differently.

## 5. NQF Standards

Qualifications must be described in a standardised way in order for NQF to fulfil its determined aims. Qualification requirements are described in qualification standards; criteria and verification procedures for learning outcomes in assessment standards.

### 5.1 Qualification Standards

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

Qualification standards are **a structured description of vocational abilities** for the performance of a certain work activity or work activities in a particular occupation. This structured description will be implemented through the NQF basic elements, that is to say competencies (abilities).

From the above mentioned facts it follows that qualification standards represent a set of competencies (abilities) which are required for a particular qualification.

Standards for complete and partial qualifications do not play the same role as far as the legislation is concerned:

- a qualification standard for partial qualification represents a legal regulation for partial qualifications;
- a qualification standard for complete qualifications is a starting point for the development of VET curricula (framework educational programmes, amendments of educational aims). In addition, it serves as a basis for the determination of relationship between a partial qualification and a respective complete qualification. This relationship can be based on equivalency of competencies (abilities) in qualification standards of respective partial and complete qualifications.

Qualification standards for partial and complete qualifications have a common core in vocational competencies (abilities) which are based on work activities carried out in particular occupations, if need be in narrower segments of work operations.

Qualification standards have the following structure:

### **Qualification Standards for Partial Qualifications**

- Vocational competencies (abilities) that are necessary for the performance of activities relating to an appropriate partial qualification  
They state what an individual should know (from the professional point of view) to manage work activities relating to an appropriate qualification. These competencies can be e.g.: *to be well versed in technical documentation for machining operations, choosing correctly work procedures for period furniture restoration, operation of bake house ovens, doing water-wave and permanent wave, hair dying and bleaching, market analysis, making statement of account, the management of cellulose production, etc.*
- The determination of relation to an appropriate complete qualification with the aim to put together a complete qualification from partial qualifications.

### **Qualification Standards for Complete Qualifications**

- Vocational competencies (abilities) which are necessary for the performance of work activities of a particular occupation.  
These stipulate what an individual should know (as regards his or her vocational knowledge and skills) to cope with work activities of an appropriate occupation. The competencies considered here are of the same type as those of partial qualifications.
- Vocational competencies (abilities) which are necessary for further professional development and for starting the lifelong learning process.  
These need not lead directly to success in the labour market but serve as a starting point for further education and professional development. They usually extend the vocational base. This applies primarily to higher level qualifications.
- General competencies (abilities)  
They are minimally dependent on the specialisation within the field. They are beyond the given expertise level, transferable into more qualifications (e.g. language skills, computer literacy, ability to work in a team, work with information, negotiation, people management, etc.). Generally, it can be said that their proportion and significance increases with increasing qualification levels.
- The definition of partial qualifications from which a complete qualification may be put together. The description of the way of putting it together, giving an indication of other

qualifications that are related to this complete qualification and the definition of these relationships.

Another component (here is still necessary to decide whether it is to be a part of the qualification standard of a complete qualification) is:

- Competencies (abilities) which are determined by requirements for the level of education  
Requirements for general education and requirements made for democratic society citizens are here in question.

The four above mentioned components of a qualification standard should be projected into educational goals in the fields corresponding to appropriate complete qualifications. Qualification standards should describe complete qualifications, that is – they should be a starting point for the development of educational goals and curricula (framework educational programmes).

## 5.2 Assessment Standards

An assessment standard represents **a set of criteria, organisational and methodological procedures** for evaluation of professional ability for carrying out work activities in a certain occupation. Qualification standards stipulate competencies (abilities) required for a certain qualification, while assessment standards stipulate how to test whether a candidate for a particular qualification has appropriate competencies (abilities).

Assessment standards will be the most important NQF output from the viewpoint of their practical usage.

From the legislative point of view neither qualification standards nor assessment standards for complete and partial qualifications play the same role:

- An assessment standard of partial qualification is a legal regulation for recognition of partial qualifications. The examination of a partial qualification will be based on assessment standards.
- The Schools Act prescribes methods of examinations in educational fields (final examinations, Maturita examinations). The assessment standard of a complete qualification does not replace these examinations. It is a foundational document for the design of examinations, their amendment, development as well as amendments to curricula. Assessment standards are also used for comparing assessment criteria of partial and complete qualifications as well as outcomes of initial and continuing education.

An assessment standard has the following components:

- criteria for verification of individual competencies (abilities) of a qualification standard;
- instructions for the methods of evaluation;
- methodological and organisational instructions (only for AS of partial qualifications);
- partial qualification description from which a complete qualification can be put together; the description how to put together partial qualifications (only for AS of complete qualifications);

## **Criteria for Evaluation of Individual Competencies (Abilities) of Qualification Standards**

- Criteria are based on individual tasks which are to be fulfilled by examinees. Examinees must have a verified competence (ability) to manage these tasks.
- Criteria must specify in full detail what an examinee must manage in order to prove a evaluated competence.
- Criteria must focus on both the process (verifying how an examinee performs an assigned task) and the outcomes ( i.e. what an examinee has performed).
- There should be several criteria for every competence (ability). Their number cannot be determined; the reasonable number could be 3–8 criteria. It is very important for the criteria to be relevant for a particular competence (ability).
- In some cases, especially when criteria overlap to a certain extent, the fulfilment of criteria may be prescribed as necessary.

## **The Method of Evaluation**

It determines how a criterion is verified, how and what procedures are used (e.g. practical demonstration, verbally, in writing, practical demonstration with verbal explanation, using an appropriate documentation and verbal explanation or by acting a scene, etc.).

## **Methodological and Organisational Instruction**

- recommendation of procedures for criterion verification e.g. how to design assignments, what is needed to take into account, etc.;
- instruction for the determination of a final assessment;
- requirements for vocational competence of an authorised person;
- requirements for the composition of an examination board;
- necessary logistical support including documents, standards, catalogues, etc.;
- if necessary other instructions, recommendations.

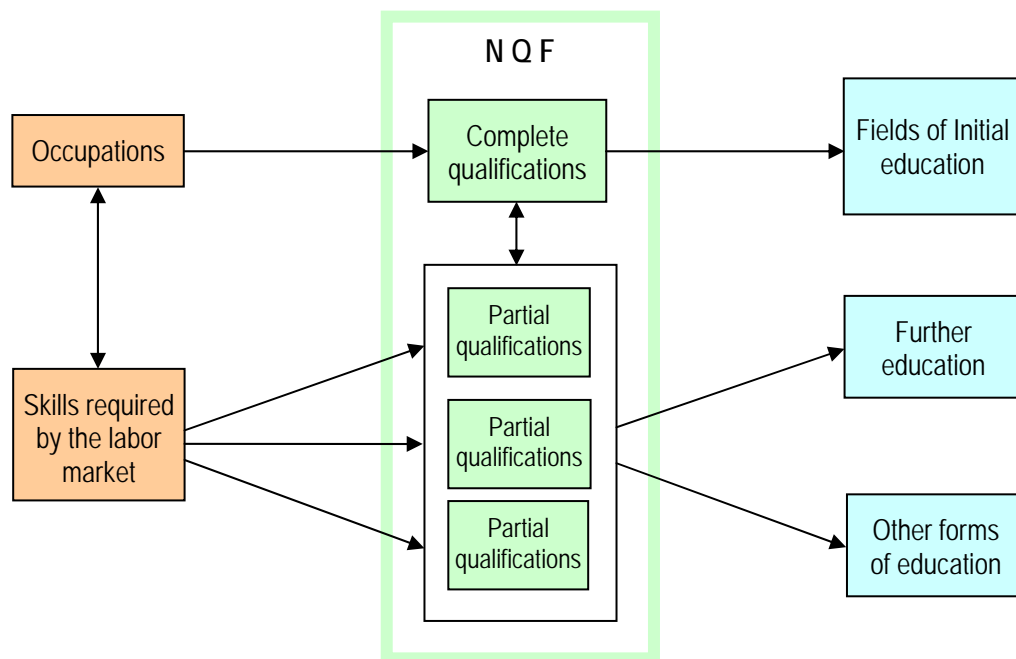
# **6. NQF Links**

## **6.1 Internal and External NQF Links**

When planning the concept and the structure of the NQF it is necessary to address the following issues:

- External links
  - o the relationship between the NQF and the world of work
  - o the relationship between the NQF and the educational sphere
- Internal links
  - o the relationship between complete and partial qualifications

Generally, NQF links can be expressed by the following chart:



## 6.2. Relationship among Partial Qualifications, Occupations, Typal Positions and Work Activities

A partial qualification is the basic NQF unit. When we describe qualification areas, we should always start with the enumeration of partial qualifications because the partial qualifications correspond to requirements from the world of work.

### Relationship between Work Activities and Partial Qualifications

This relationship is quite clear. Partial qualification is an ability to perform one activity or a coherent set of activities which enable an applicant to be successful on the labour market. This ability is a set of vocational competencies which are necessary for the performance of these activities.

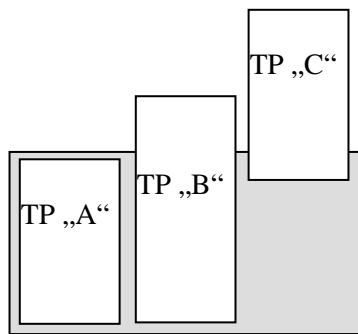
### Relations among an Occupation, Typal Positions and Partial Qualifications

Typal positions are work positions generalised on the basis of usual division of labour. They represent fundamental units of the Integrated System of Typal Positions.

There is a set of competencies (abilities) for every occupation, which represent a base for the determination of individual partial qualifications on condition that the defined qualifications

lead to a success on the labour market. If it is difficult to define partial qualifications on the basis of occupations it is also possible to define them on the basis of typical positions.

Typical positions are not usually a clear subset of an occupation. They very often contain a certain specialization which extends a particular occupation. The occupation to which several typical positions are assigned usually represents their intersection. The following chart shows the relationship between occupation and typical positions.



*Relation A means that the typical position is a part (subset) of an occupation (for example TP hand blacksmith is a part of the blacksmith occupation)*

*Relation B means that the typical position is largely a part of an occupation; however, it contains some activities which represent another specialisation (for example mine electrician is a part of the electrician occupation).*

*Relation C means that the typical position is first of all a specialisation which ties to an occupation (e.g. TP plasterer is assigned to the bricklayer and tiler occupation), or TP is rather artificially assigned to some occupations (e.g. TP interior designer is assigned to the architect occupation).*

A partial qualification can very often be an ability to perform the entire typical position. In cases “A” and “B” partial qualifications can be put together into a complete qualification; in case “C” partial qualifications have some overlap with a complete qualification.

Because typical positions are based on division of labour, they can also be a source of further segmentation, for the narrower determination of partial qualifications.

Generally, it can be said that a typical position is only a source of activities or competencies (abilities) for delimiting a partial qualification. A partial qualification can be, but need not be equivalent to a typical position. The existence of a relatively narrow set of competencies (abilities) enabling the performance of certain work (and being successful on the labour market) is decisive for delimiting of a partial qualification.

### **6.3 Relationships between Complete and Partial Qualifications**

The possibility of acquiring a complete qualification from corresponding partial qualifications must be defined explicitly in the National Qualifications Framework. The equivalence of their individual competencies (abilities) represents a criterion for it.

More complicated links than a simple tree type, where a complete qualification would be a set of partial qualifications, are also possible, because partial qualifications are not artificially created subsets from a complete qualification, but are real clusters of activities associated with labour market success. The mutual intersections of complete and partial qualifications and partial qualifications with one another can have different forms.

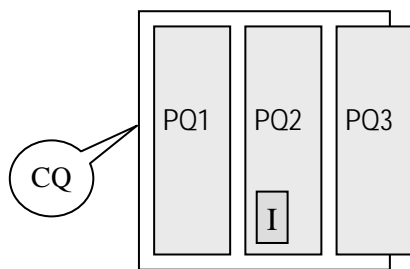
That is why the NQF is not a set of structured qualifications, as in the case of the system of educational fields. Various combinations of complete and partial qualifications, as well as partial and complete qualifications which are not linked to anything else, are considered.

As regards the content itself, it is possible to list the several basic types of relationships between a partial qualification and a complete qualification, depending on the type of intersection between individual competencies (abilities):

**Type A – PQ Integrated** – a partial qualification is a subset of a complete qualification, that is to say a set of PQ competencies (abilities) is a subset of CQ competencies. In some cases PQ competencies (abilities) can provide a deeper expertise level than complete competencies (abilities).

PQs integrated in a complete qualification can be equivalent (in certain combination) with this CQ. They then satisfy the conditions of Act 179/2006 Coll. on acquiring CQs through PQs. There are the following types of combinations:

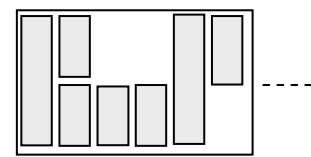
**Combination Composed of Several PQ** – in order to acquire CQ all



For example for the complete qualification gardener the following PQ are necessary:  
 PQ1: fruit grower  
 PQ2: nurseryman  
 PQ3: market gardener

PQ can overlap CQ - see market gardener that goes in some specialisations beyond the gardener job

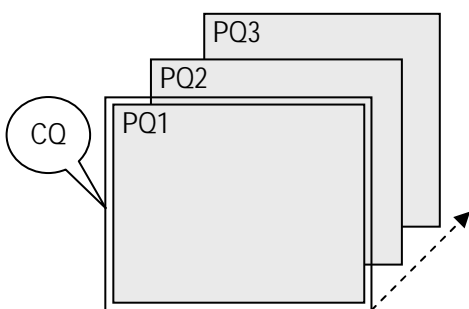
*All these PQs can have various levels. They may create various combinations which are also valid.*



$CQ = PQ1 + PQ2 + PQ3$

PQs which are subsets of other PQs are called PQs **Internally Integrated – Type I**.

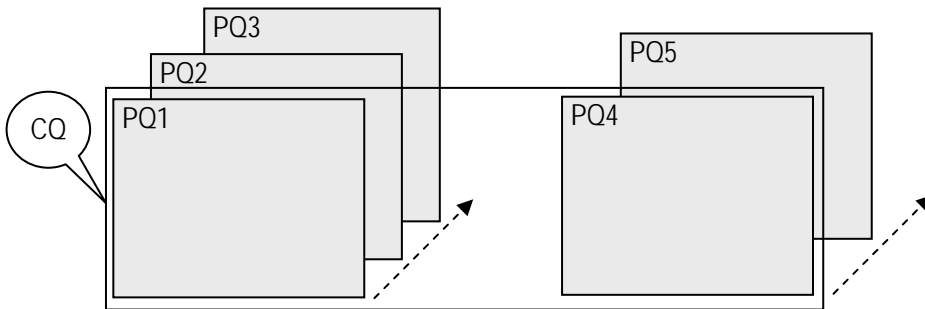
**Profiling Combination** (different “shades” of the same abilities). They are characterised by analogical competencies (abilities); sometimes they use analogical technologies as well. Any of PQs is sufficient for acquiring a complete qualification.



For example for the CQ tool maker the following PQs are in question:  
 PQ1: the production of cutting tools  
 PQ2: the production of tools for flat moulding  
 PQ3: the production of tools for volume moulding

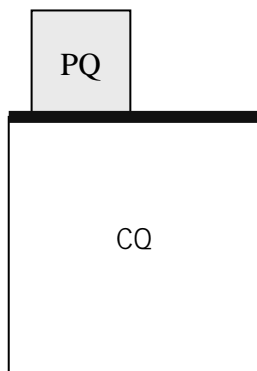
$CQ = PQ1 \text{ or } PQ2 \text{ or } PQ3$

**Profiling Combination/ Composed of Several PQs** - in this case, several profiling groups of partial qualifications are in question. Every partial qualification itself is composed of several elements. In order to acquire CQ it is necessary to acquire one of these PQs.



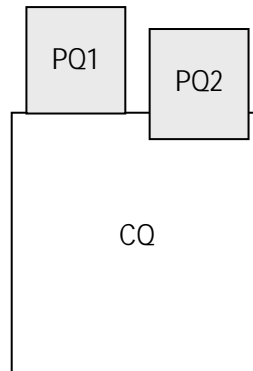
$$CQ = (PQ1+PQ2+PQ3) \text{ or } (PQ4+PQ5)$$

**Type N - PQ**



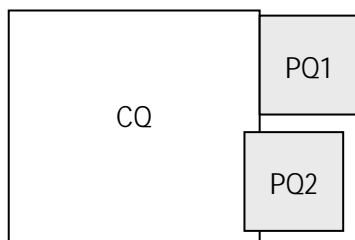
For example, partial qualification assembling and repairs of central heating systems cannot be acquired without obtaining CQ plumber.

**Type R - PQ**



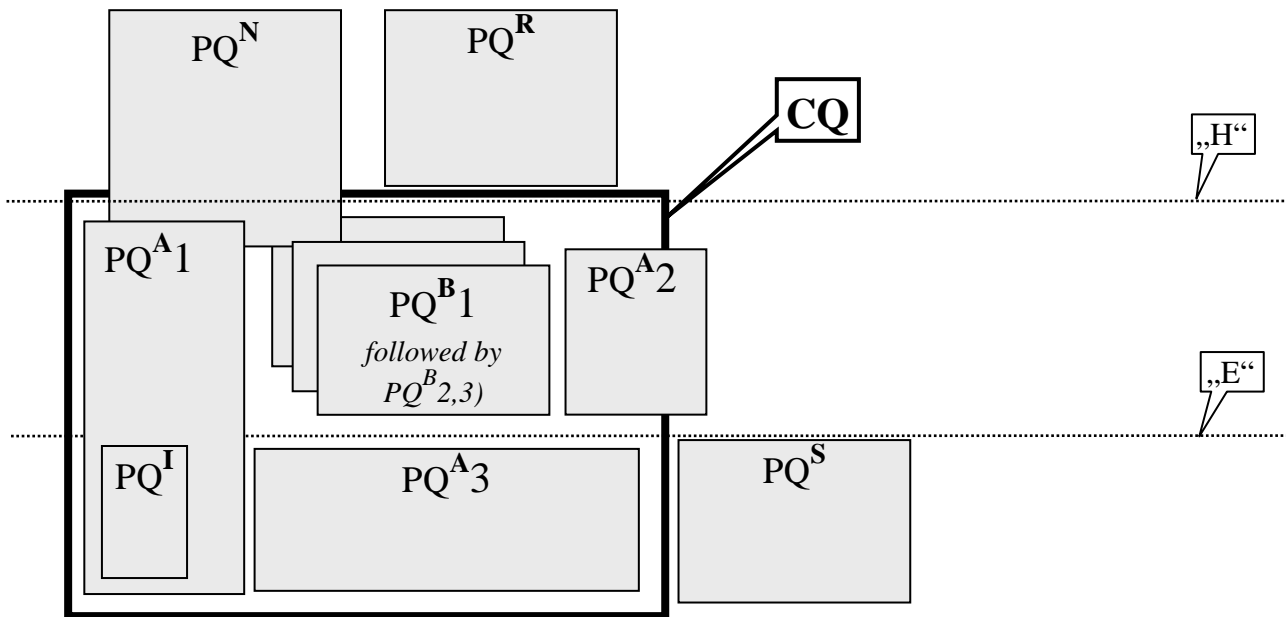
For example for CQ waiter is PQ barkeeper PQ develops CQ, extends the possibility for labour market success. It can be acquired without previous obtaining CQ. PQ can also overlap CQ.

**Type S – interconnected**



PQ1: for example for CQ tool maker is PQ knife sharpener; Relationship only to the similar assortment of production, if appropriate services, but competences are quite different.  
 PQ2: for example for CQ confectioner is PQ - the production of chocolate sweets.  
 There are certain relations, for example as regards the raw materials which are used for the production  
 But most competences are different (first of all work procedures). There is a small overlap but from the viewpoint of putting together CQ from PQs this overlap is irrelevant.

The final relationship between CQ and PQ can also be very complicated – see the following chart:



In the context of the relationships between PQs and CQ described in chapter 2.3 this chart can be explained in the following way:

Within CQ there are three PQs composed of PQ<sup>A1</sup>, PQ<sup>A2</sup>, PQ<sup>A3</sup> and at the same time PQ<sup>A2</sup> overlaps CQ, i.e. it contains some abilities which are not necessary for CQ. PQ<sup>A3</sup> is at the level corresponding “E“ category. Inside PQ<sup>A1</sup> is internally integrated PQ<sup>I</sup>.

Within CQ there are also three profiling PQs (with the different shades of the same abilities): PQ<sup>B1</sup>, PQ<sup>B2</sup> and PQ<sup>B3</sup>

The abilities of CQ are developed (deepened and specialised) in two PQs, that is in PQ<sup>N</sup> (a follow-up PQ, that is previous acquiring CQ is necessary) and in PQ<sup>R</sup> (developing, i.e. it is not necessary to acquire previously CQ)

There are also certain (but not much specified) relationships between PQ<sup>S</sup> and CQ (e.g. affinity of technologies and workplaces, etc).

A formula for CQ based on the above presented chart can be expressed in the following way:

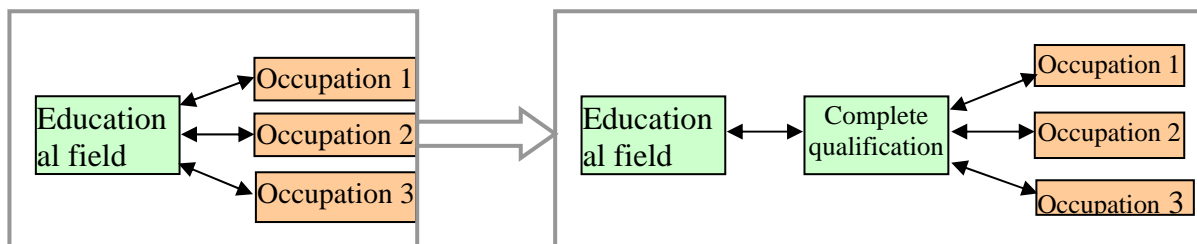
$$CQ = PQ^A1 + PQ^A2 + PQ^A3 + (PQ^B1 \text{ or } PQ^B2 \text{ or } PQ^B3)$$

It means that if a citizen would like to take an examination for acquiring CQ, he or she must submit PQ<sup>A1</sup>, PQ<sup>A2</sup>, PQ<sup>A3</sup> certificates and also one of PQ certificates – PQ<sup>B1</sup>, PQ<sup>B2</sup>, and PQ<sup>B3</sup>.

## 6.4 Relationships among Complete Qualifications, Professions and Educational Fields

A complete qualification is an ability to perform at least one occupation. A complete qualification is related on the one hand to occupation, on the other hand to the educational field. It represents a bridge between them as well.

The law stipulates that complete qualifications can be acquired by completing the educational field. One complete qualification can lead to several professions. It is assured that one educational field can train for more professions. It is not necessary for the educational field to be related to more complete qualifications (see the chart below). Thus, it will be assured that there will not be any discrepancy in the concept of a complete qualification.



It means that in those cases when a complete qualification can be acquired by completing prior (initial) education (this is the case of most complete qualifications) there is one framework educational programme (FEP) for every complete qualification.

When developing the qualification standard of a complete qualification and FEP, it is necessary to find a balance between two **requirements**:

- **educability** – it should be feasible to acquire competencies stated by the qualification standard of CQ in the conditions of a particular school or vocational school;
- **labour market success** – A CQ holder must have prospects for labour market success, i.e. the content of competencies should correspond to labour market requirements. Naturally, a CQ holder must take further courses and gain professional experience for demanding and highly specialised activities.

Remark: as regards partial qualifications, which enable to perform a certain work activity or more work activities enabling entry into the labour market, the linkage to the labour market is closer than in the case of a complete qualification. The holder of partial qualification should fully manage particular activities which are necessary for immediate entry into the labour market.

### Relationship between FEP and the Qualification Standard of a Complete Qualification.

As mentioned before, the educational field must correspond to a complete qualification. However, it does not mean that individual competencies of a FEP and qualification standard of CQ graduate must be identical. A graduate of a particular educational field (i.e. a school educational programme - SEP) should meet requirements stipulated in QS of CQ. Naturally, it

is not possible to demand from school to develop its own SEP in conformity with QS of CQ. FEP is a binding document for schools. That is why a set of competencies in FEP should be conceived in such a way that no competence of QS CQ can be omitted after its application within SEP.

Thus, the competencies of FEP graduates can be formulated either directly as QS of CQ or more generally, but in such way as to be able to put SEP in a concrete way resulting in an equivalent outcome. When FEP and QS of CQ are in contradiction (as regards their contents), it means that it is necessary to change either CQ or conceive the educational field in a different way, or change FEP.

Educational fields and FEP can be divided into two types:

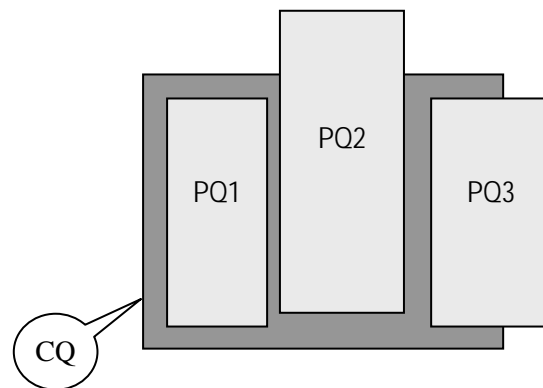
- sequential**
- ramified**

### **Sequential Educational Field**

The sequential educational field is directed towards a certain occupation. The graduate of this field is able to perform his or her occupation to a certain basic extent in various typical positions or at various workplaces (e.g. confectioner, bricklayer, gardener, hairdresser, mechanical engineering, clothing industry etc.).

A complete qualification is related to one occupation though it can involve several partial qualifications (they exist on the labour market and are identified and described). The qualification standard of CQ is conceived as a set of competencies which must be all met for acquiring CQ.

QS of CQ need not be identical with all partial competencies (PC can overlap CQ because they could be more vocationally oriented aiming at immediate success on the labour market (see below).



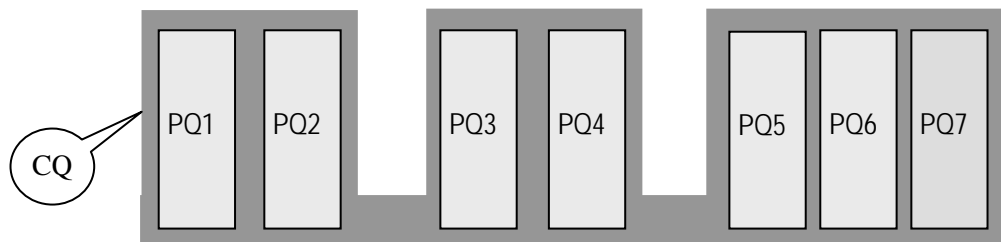
FEP is directed towards fulfilling competencies of CQ only.

### **Ramified Educational Field**

It is conceived for more occupations. It is not feasible for a graduate to manage everything, in other words the educational field cannot train every student (educational conditions do not allow it) for all possible jobs and specialisations. That is why the educational field is further ramified into specialisations. A graduate of the educational field (thus the graduates of SEP) is

ready to perform only one specialisation (an example of fields: instrument engineer, chemist, glass worker, ceramist, metallurgy, foundry industry, technology of foodstuffs, applied chemistry, etc.).

A complete qualification (QS of CQ) comprises a range of partial qualifications which can be gathered (based on common features); e.g. according to the subject of activities or their character, etc. This is the way to differentiate internally the CQ and orient it narrowly towards the labour market (various specialisations are created).



Two cases can occur:

- a) Individual specialisations differ in materials, work objects, products, types of customers or work means but work procedures as well as competencies are analogical and can be generalised (e.g. one specialisation is the production of cutting tools another is the production of moulding tools).

**Competencies in QS of CQ are formulated generally** in this particular case (e.g. generally for the production of tools). Differences in specialisations will be expressed in the criteria and procedures of assessment in an assessment standard (where various kinds of the above mentioned tools are specified). To get the CQ award all competencies must be acquired.

FEP is designed in a similar way that is to say graduate's competencies are also expressed generally (similarly as in QS of CQ). **Individual specialisations for a certain cluster of PQ are not stipulated in FEP**; they are developed in SEP, e.g. FEP for technology of foodstuffs, toolmaker, electrician, and shop assistant.

- b) Individual specialisations differ greatly (quite different procedures and technologies, e.g. one specialisation for hand production, other for machine production)

**Specialisations in QS are defined as clusters of competencies.** It is necessary to acquire one of them to meet CQ requirements. Besides these clusters QS can also contain a cluster of competencies which are common for all specialisations. (The list of competencies in QS states how these competencies are divided into clusters, i.e. the list of competencies for every specialisation).

FEP should be developed in the same way, that is to regulate the SEP development leading always to a specialisation (to one or more with a common base). That is **individual specialisations are determined by and separately described in FEP.**

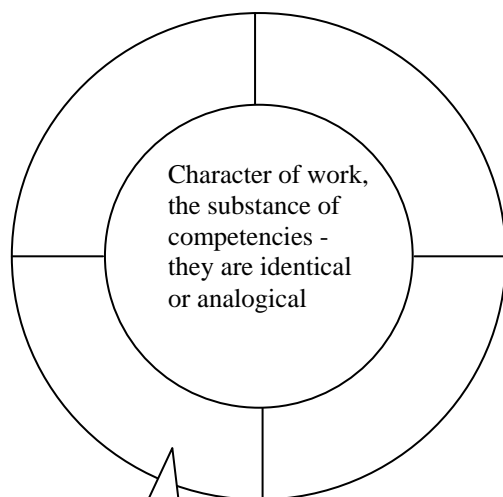
Every specialisation (except for a certain common base) has own competencies in FEP. These competencies are equivalent to PQ (PQ clusters) either fully or partially – without overlapping PQ (see the above mentioned PQ overlapping)

A common base can be created as a cross-section of PQ of all specialisations (the set of competencies which are common for all specialisations).

In this particular case, it is necessary to assess whether the educational field is not artificial, whether its individual specialisations should not become an independent educational field, that is to say an individual complete qualification. An analysis (from the viewpoint of requirements of educability and labour market success) of all partial qualifications involved in the educational field, or a qualification should be a criterion for this assessment. PQ descriptions must be based on real activities and requirements of the labour market and by no means on the description of the educational field (for example educational programmes).

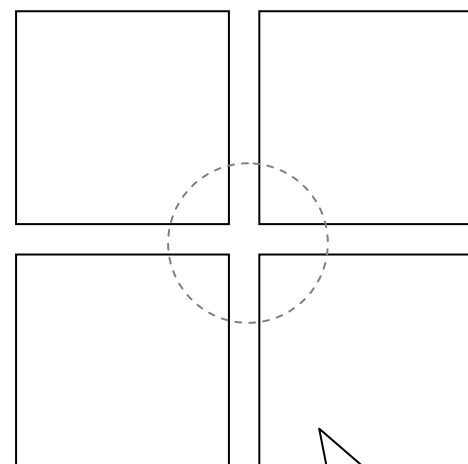
The differences between the ramified educational fields of type a) and type b) can be shown in a simplified manner as follows:

a)



An example of four specialisations which differ in raw materials, work objects, kinds of products, types of machines, types of customers, analogical technologies etc.

b)



An example of four specialisations which differ in character of work. The substance of competences is different, the competences of specific specialisations are not analogical. They can have a certain common base (e.g. materials)

## 7. NQF Processes

### 7.1 Processes Governing the Creation, Updating and Administration of the NQF

**The process of qualification determination, the development of qualification and assessment standards** can be divided into the following phases:

- 1) The creation of a primary proposal; this task is carried out by NUOV guarantors for the specific educational fields in cooperation with experts from the sphere of work;
- 2) The primary proposal assessment carried out by the representatives of the particular sphere of work performance; making necessary changes.
- 3) Approval procedures carried out by a particular awarding body, if necessary the incorporation of proposed amendments;
- 4) Approval procedures carried out by Ministry of Education, Youth and Sport (MŠMT), making necessary changes.

#### 1) **Creation of Primary Proposals Carried out by NUOV Guarantors for the Particular Educational fields in Cooperation with Experts from the Field of Work**

A primary proposal, as a rule, is developed by guarantors for educational fields in cooperation with experts from the world of work. When the development concerns the educational fields, of which qualifications have not been described yet, a self-contained block involving the complete qualification and appropriate partial qualifications is usually developed. When a development, a change, or the cancellation of qualification in the area where the NQF has already been described is in question, it is necessary to address the whole block (with respect to the mutual links). The creation is carried out on the basis of the established methodology.

The participation of the Ministry of Labour and Social Affairs (MPSV) in the development (which is based on valid legislation) is assured by the fact that the starting resource of information is the Integrated System of Typal Positions (ISTP) – the complex information system of MPSV on the world of work. In the future an elementary source of information will be the National System of Occupations which is now being developed under the auspices of MPSV.

Not only NUOV can initiate the determination of qualifications and the development of standards but also the representatives of employers (guilds, unions, associations, sector councils) can enter upon this activity. Special methodologies were developed for this purpose.

#### 2) **Assessment of Primary Proposal by the Representatives from an Appropriate Sphere of the World of Work Performance and Amendments following from it**

The participation of employers should contribute not only to the objectification of the described qualifications but it also helps the NQF be recognised by all employers and individual qualifications can really be accepted on the labour market.

The main subjects in this process are the unions of employers, guilds, associations and significant companies. There is an effort to establish **sector councils** composed of the relevant representatives of employers from individual professional areas. Sector councils assess the developed proposals of qualifications, recommend the development of new partial qualifications, address the content of the ISTP and the National System of Occupations. In addition, they should have a chance to submit standpoints on the authorisations for potential authorised persons.

The qualifications from the fields where sector councils do not exist are assessed by the representatives of employers from the particular area.

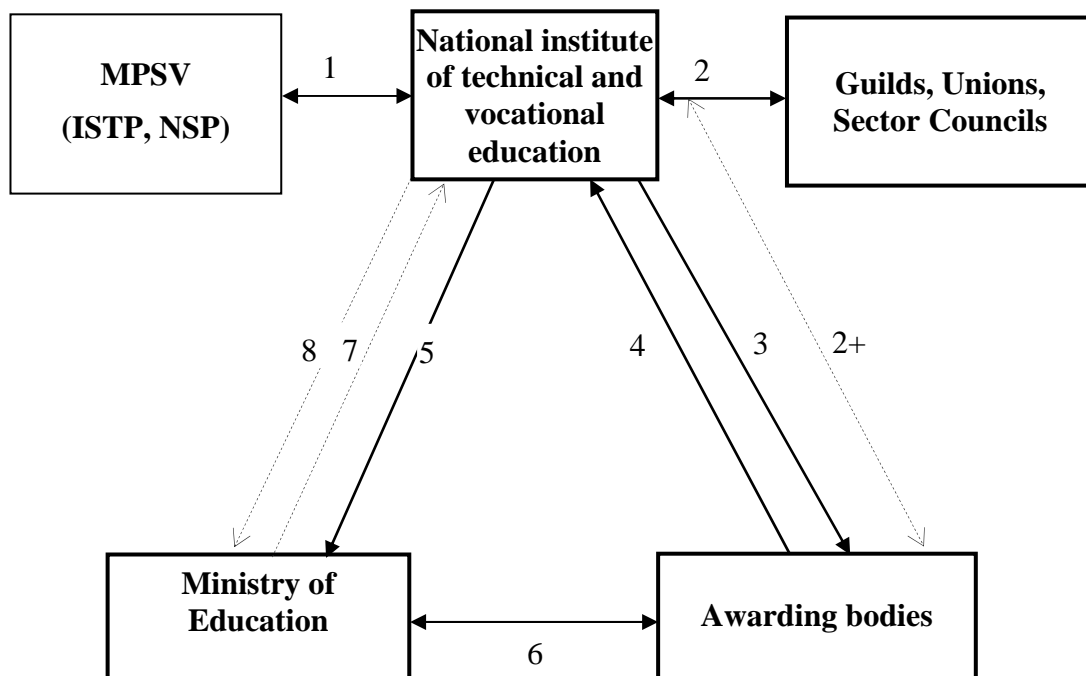
**3) Approval Procedures Carried out by Appropriate Awarding bodies, making necessary changes when needed**

Awarding bodies cannot approve standards (in conformity with law). The Ministry of Education (MŠMT) is responsible for standard approval in cooperation with the awarding bodies. The attitude of the awarding bodies are of crucial importance. That is why qualifications should be submitted to these bodies before they are submitted to Ministry of Education, Youth and Sport (MŠMT). The proposal is submitted by NUOV; a part of the proposal is the attitude of a sector council (if there is a sector council for the particular qualification), or key associations, unions, etc. The National Council for Qualifications should overtake the coordinating function, when qualification overlaps competencies of more than one awarding body.

**4) Approval procedures carried out by the Ministry of Education, Youth and Sport (MŠMT) and making required changes and amendments**

Ministry of Education (MŠMT) should supervise above all the system correctness of standards, relationships among qualifications and the compliance with the Act No. 179/2006 Coll. Awarding bodies have decisive role as regards the content.

The following chart shows the above mentioned processes in a simplified way (broken lines represent flows which can only occur in some cases).



The entire complex of these processes will be very demanding from the administrative point of view and will be supported by the NQF information system.

## Sector Councils

Sector councils represent a key element of the mechanism which is being developed. Sector councils are established after negotiations with the relevant representatives of employers. NQF team, Integrated System of Typal Positions (ISTP) administrator and National Framework of Occupations (NSP) team support them. Established sector councils are managed from the inside – by own sector councils which have their own chairmen, status. In the case of a broader professional field they also have their internal sections. In some cases awarding bodies are directly involved in sector council management.

From the organisational point of view Trexima, a private company, oversees activities of the sector councils. In addition, an employee of Trexima usually holds the post of sector council secretary. Sector councils have a varying number of members. The optimal number of members (from the viewpoint of successful work) is up to 15 members. Where there is a need to involve more experts, it is convenient to establish sections or to extend sector councils by other experts who are not the members of councils. In any case, it is appropriate to set up such an external network of sector council experts. Representatives of the sphere of education are members of sector councils as well.

Not all sector councils will be also established according to a common model. What is essential is for sector councils to be a platform for cooperation, aimed at the following activities:

- assessment and creation of occupation descriptions and smaller segments of work which stipulate potential partial qualifications;
- assessment and creation of qualification and assessment standards of complete and especially partial qualifications;
- cooperation in awarding authorisations and the supervision of authorised persons.

## 7.2 Processes Governing NQF Application

These processes as well as associated rules are not a part of the NQF, but they are necessary for the practical NQF usage. They are described in full detail by Act No. 179/2006 Coll.

This includes:

- the authorisation of legal entities and natural persons entitled to assess vocational competencies for individual partial qualifications and issue certificates – this will be carried out by awarding bodies ;
- assessment of acquired vocational competence (i.e. an examination of candidates for a partial qualification) and issuing certificates of successful completion of examinations – this will be carried out by authorised persons (examiners)

Both processes should be separated from the processes of NQF design and administration. Awarding bodies (responsible for the approval of qualifications and assessment standards) will be responsible not only for approving qualification and assessment standards, but also for awarding authorisation and for the supervision of authorised persons. Sector councils should also play a significant role.

## **Awarding Authorisations**

The rules for awarding authorisation are stipulated by the Act No. 179/2006 Coll.; the assessment standard of a particular qualification stipulates all their details. In addition, their detailed specification is also in competence of awarding bodies.

A key issue is the vocational competence of authorised persons. Assessment standards stipulate requirements for vocational competence of authorised persons as well as logistical support. The standards already developed specify requirements for the vocational competencies of authorised persons having, i.e. requirements for their level of education and length of practical experience. Awarding bodies have the right to determine further requirements. Generally, there are three variants:

### Variant 1

- Qualification prerequisites verified by submitted documents.

### Variant 2

- Qualification prerequisites verified on the basis of submitted documents.
- Knowledge proved by passing oral or written examinations which do not require material and technical support.

### Variant 3

- Qualification prerequisites which can be verified on the basis of submitted certificates.
- Knowledge proved by passing oral or written examinations which do not require material and technical support.
- Proving skills which can only be verified with appropriate material and technical support.

## **Supervision of Authorised Persons**

Procedures for the supervision of authorised persons will be the subject of an agreement among awarding bodies. The National Council for Qualifications could play a significant role here. An information subsystem on authorised persons can also be a very important tool.