



Matching Frames

Matching Qualifications with Qualification Frameworks – a Guideline



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Project Summary

One of the greatest challenges for the implementation of the national and the European Qualification Frameworks (EQR) is the assignment of qualificational profiles to the individual levels according to comparable principles. This should be envisaged in a way to safeguard comparability and transparency of differently structured qualificational profiles. Therefore the main target of the project is to develop practical methods and tools which can be easily applied by the respective institutions. The results will then be tested, made applicable and used in the partner countries (in companies, in training institutes, by the social partners). The developed tools and methods will be made available in a way that they can be easily handled.

They should be suitable to assign qualifications and training regulations/curricula defined by the member states to the respective national qualifications framework (NQR) and to assign them to the individual levels. The methods and tools should help to reach comparability in order to better assess the quality of European qualificational profiles. More or less a “networking” of the individual qualifications frameworks should safeguard mutual transparent relationships.

At the same time the project aims to shed light on the advantages of result-oriented, sector-related qualifications frameworks which may help to meet the assignment tasks.

First and foremost transparent instruments for operationalization must be developed and applied which can also be used for concrete cases within the sectors worked on in the project and which can be transferred to other sectors.

The project work focuses on the metal and electrical sector as core sectors. The metal sector includes the automotive sector. Work process orientation is the overall basis for all project work as it is structurally identical throughout Europe.



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1 What is to be compared

Due to the development of differently structured qualification frameworks, the question arises how these frameworks can be compared and which instruments should be made available to stakeholders.

At a national level, the question arises how to compare:

- a) national qualifications frameworks with the European framework and
- b) sectoral frameworks with national and European frameworks.

For example, if sectoral frameworks are designed in a work process-oriented manner, the question arises whether the descriptors are defined completely differently from those of the national or European frameworks, or if they are similar.

Furthermore, the question arises whether work-process-related or otherwise defined descriptors are the link between sectoral and national frameworks and where potential differences may lie.

More specifically, the following questions arise concerning:

- the equivalence of qualifications regarding the individual levels of the different qualifications framework and
- the heterogeneity of skills.

Qualifications may be dissimilar, but they can be assessed as equivalent if their outcome is the same or of comparable quality.

For example in the German Qualifications Framework equivalence is shown in the description of the requirement structure for the respective level, which enables the assignment of disparate qualifications to the same level. In the requirement structure, a dualism of learning and working areas is formulated, which runs consistently through all levels. It is said, for example, at level 6: “[One should possess] competencies to process comprehensive technical tasks and problems as well as to independently control processes in sub-areas of a scientific discipline or a professional activity”. The dualism of “learning and working areas” also allows assigning practical knowledge and skills to the various levels (i.e. skilled work).

2 The problem of mapping processes

The German Qualifications Framework offers no precise information on how a statement from a professional or scientific point of view is to be evaluated when discussing an autonomously controlled process in a scientific field or profession. The same applies to knowledge acquired at universities as well as on the job¹. It was up to the experts in the workgroups to evaluate these issues on the basis of the importance of skill profiles. A closer analysis of the descriptions of the descriptors at the various levels reveals more difficulties in its practical application. For example, in the context of knowledge one often speaks of a “scientific discipline” (or “scientific area”) and in the context of skills of a “learning field” (or “study area”). This example shows that in universities, a subject classification system is still upheld, whereas it was abandoned in further training for the sake of learning fields. This fact alone makes it nearly impossible to directly compare the qualifications in different educational programs. In the German Qualifications Framework workgroup on metal-electric issues, a consensus could be reached after a thorough discussion concerning the equality of Bachelor graduates with master craftsmen and state certified technicians (all are to be assigned to level 6). This could be justified by comparing the different profiles with the duties expected in work life. For all three profiles these tasks were defined: perform management functions, assuming responsibility, guiding others, shaping work processes, applying knowledge (scientifically, professionally), dealing with interfaces in other areas, mastering methods (scientifically, professionally). As noted above it turned out, however, that in any case the acquired knowledge structures, the applied methods, skills, and also the abilities gained in training and by academic education differ significantly.

According to the results of the experts’ discussion within the workgroup, however, you can identify all these characteristics and requirements at the workplace which are also tasks that should be - and are in fact - performed by the target groups mentioned above on the same level of quality. The experts agreed that equality was created in this manner. Nevertheless, they have stated that the tasks themselves were diverse and disparate. For example, Bachelor graduates may apply scientific methods whereas state certified technicians would apply practical methods originating from working life (work processes). Also, the mastery of skills at the same level differs. For scientific work, this means the selection of appropriate literature and

¹ Contributions to clarify such issues were made in various reports. However, primarily comparisons between various frameworks (such as higher education qualifications framework and the German Qualifications Framework) were made or the terms analyzed as such. The practical applications were not discussed to the same extent as in the workgroups.

quotation sources while for a master craftsman this means routinely recording and processing a warranty case. This diversity has been repeatedly discussed in the workgroup, despite their unanimity concerning the qualifications' equality. The final report of the DQR-workgroup on metalelectric issues states: "In order to represent the equality of qualifications on levels 6-8 in spite of their differences, the possibility of dividing them into A (higher education) and B (vocational education and training) has been discussed. However, the majority rejected a separation of descriptors." Ultimately, although such markings were not included in the assignment of qualifications to the levels, a consensus was reached to embed the difference between academic and professional qualifications when revising the descriptors more deeply.

3

How comparability can be established

The partners of the MatchingFrames project argued that national qualifications frameworks were less helpful. They recommend sectoral qualifications frameworks and a direct reference to the European Qualifications Framework (EQF), because it provides comparability across national borders. This means being able to compare sectoral frameworks with the EQF.

By so doing, and by comparing them directly with the EQF, national frameworks are consequently ignored and lose their referential and buffering function.

During the adjustment of differently structured frameworks the following conclusions can be drawn:

1. The matrix content of the different frameworks can be reconciled “one to one”.
2. The matrix content of the different frameworks can only partially be made to coincide.
3. The matrix content of the different frameworks can not be reconciled.

A first step in the direction of an alignment is to compare the descriptors on the basis of a matrix.

This is outlined in the following figure:

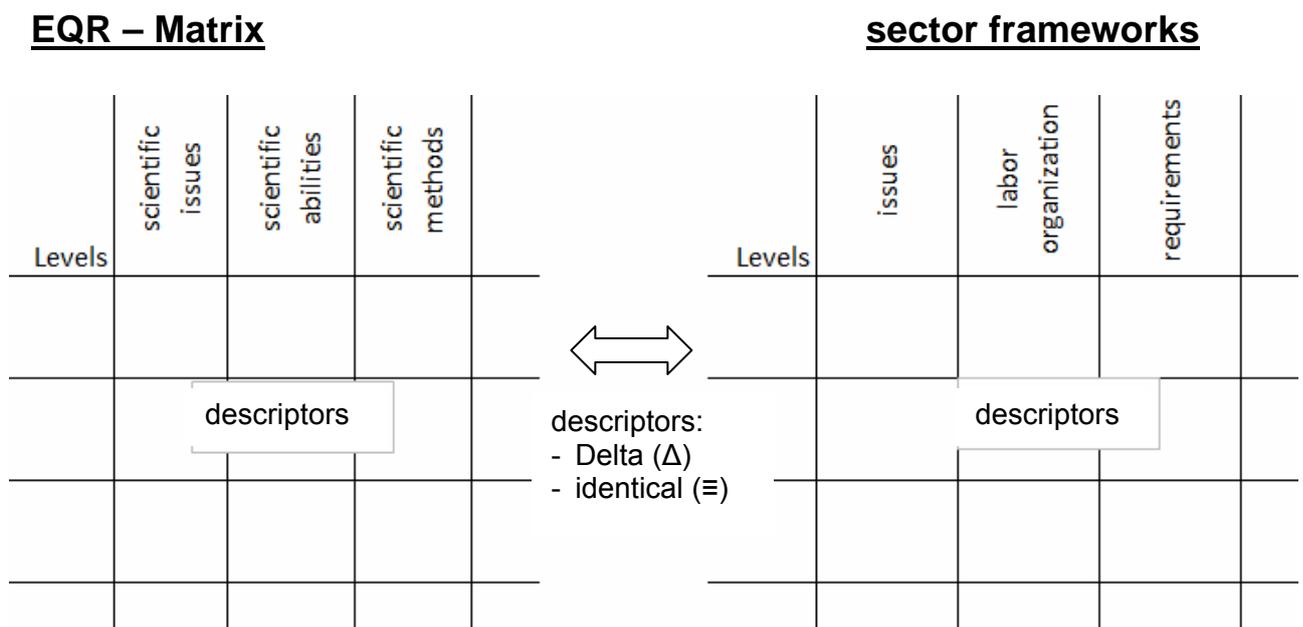


Figure 1: Sketch for a comparison of sector frameworks with the EQF

To perform the adjustment, a number of methods are conceivable. A very popular one used description. As a rule, the text in the individual cells of the matrix is examined and all cells of the matrix are compared with respect to their value. This leads to a considerable amount of text and its significance is often incomprehensible. We propose to rely on intermediary comparison categories. This will aim to implement a system based on comparing assessment procedures. The following category structure can be used to implement a system of assessment procedures based on comparisons.

The categories, however, may not only be of a formal nature, but must also take content into account. The following categories serve as basic comparison classifications:

- the objectives of the qualifications framework;
- the number of levels;
- the “level structure”;
- design principles of the Qualifications Framework: descriptors, the conceptualization of competence;
- content;
- contexts;
- work process references and
- professional references.

In a pragmatic procedure, one then checks whether there is a “match” or “no match” of the descriptor-related statements and evaluations of the respective qualification frameworks, on the basis of each category. The result is documented in a survey, as shown below.

Categories	EQF	SQF	Coinciding	Not coinciding	Partly coinciding
		For example automotive services			
Aims					
Number of levels					
Structure of levels					
Design principles					
Contents					
References to context					
References to work processes					
References to occupations					

EQF = European Qualifications Framework

SQF = Sectoral Qualifications Framework

Below, the categories which can be used for a comparison of qualifications frameworks are discussed. It is a selection of the most relevant categories that are always used in discussions on qualification frameworks. An empirical validation has not yet taken place. This will only ever be possible when the categories have been applied at least once and have thus been checked for their plausibility. Empirical validation is possible for plausible categories.

Categories	Contents of matrix coincide	Contents of matrix partially coincide	Contents of matrix do not coincide
Aims: Each of the compared Qualification Framework pursues the goal that all qualifications in question can be assigned.			
Number of levels: Each of the compared qualification frameworks has the same or a different number of levels.			
Structure of the levels: Within the qualification frameworks that are to be compared identical / different descriptors are used, leading to identical / different reviews.			
Design principles: Within the qualification frameworks that are to be compared the same / different design principles are applied, such as a consistent focus on learning outcomes and / or the use of comparable verbs.			
Contents: Within the qualification frameworks that are to be compared contents will be compared according to their matches / dissimilarities in the requirements / in quality. The claims can be read by the verbs used.			
Context references: When comparing qualifications framework one determines whether and which content reference is important. One should check whether one is dealing with working references, scientific references or references to other topics.			
Work process references: When comparing qualifications framework one should check whether the definitions of each level designate working process references or not.			
Professional references: When comparing qualification frameworks one should check whether the definitions of each level designate professional references or not.			

Example of a Comparison

The following table compares the European Qualifications Framework with a sectoral framework. The latter is a framework of the automotive sector with a focus on car service and repair.

Categories	comparison differences / accordance		Contents of matrix coincide	Contents of matrix do not coincide	Contents of matrix partially coincide
	EQF	SQF (Kfz)			
Aims	Aims to be accepted as a European reference framework.	Aims to give the sector an orientation about qualification levels in the "sector language" (similar to a reference framework).		X	
Number of levels	Eight (as meta-framework)	Eight (as a concrete sectoral framework)	X		
Structure of the levels	The EQF descriptors are knowledge, skills and competences.	The SQF uses work-related descriptors such as reference to objects, forms of work organisation, and work requirements.			X
Design principles	The framework clearly refers to learning outcomes and only to learning outcomes.	Competences are described with reference to work contents that are relevant for occupations.			X
Contents	The EQF does not include references to concrete contents.	Concrete work-related contents are specified which constitute a qualification profile.			X
Context references	In the EQF, the level descriptions are dominated by the scientific context and learning outcomes. Skills play a minor role.	The level descriptions of the sectoral framework refer to the influence of the scientific, technological and work contexts.			X
Work process references	References to work processes do not play a role in the definition of qualifications.	Core work processes are used to define the levels and learning outcomes in sectoral frameworks.			X
Professional references	The EQF descriptors rule out any definition of learning outcomes and levels in terms of occupations.	Relevant vocational learning outcomes are defined via references to work processes.			X