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## The NQF in Practice – By the Example of the Electrical Sector

**T**he plan of preparing a National Qualifications Framework (NQF) in Austria by 2010 with an expected eight-level structure in which all qualifications will be referenced on the basis of learning outcomes has triggered many debates; they essentially focus on how learning outcomes can be defined and what reasons can be put forward for references of qualifications to different levels. The starting point for debates is the already existing European Qualifications Framework (EQF), which describes learning outcomes as knowledge, skills and competence. This project, which was commissioned by the Federal Ministry for Education, the Arts and Culture (BMUKK), aimed to analyse key issues of the NQF development discussion on the basis of specific qualifications from the electrical sector. On the one hand, it shows the different positions and opinions regarding the qualifications' referencing to levels by stakeholders from the education and business spheres, on the other, however, it also outlines approaches towards solutions and strategies that could be taken into account in the future NQF implementation.

### 1. Background

Austria has set itself the target of developing a **National Qualifications Framework** by 2010 in which all qualifications that can be acquired in Austria are to be classified and referenced on the basis of learning outcome-oriented descriptors. With the aim of supporting the NQF development process, BMUKK commissioned a **pilot project in the electrical sector** to help answer key questions of NQF-related debates with practical work on referencing specific qualifications.

### 2. Aim and design of project

The project **objective** was to reference specific qualifications from the electrical sector to NQF levels. This practical approach aimed to identify methods and strategies towards **describing learning outcomes** and **referencing qualifications to the NQF**. In particular, the project aimed to reveal whether existing **descriptors** from the EQF recommendation can be applied to the qualifications landscape of the electrical sector; whether any supplements (e.g. an additional description dimension) or explanations (e.g. illustrative examples) were needed; or

whether there should be a separate, Austria-specific table of descriptors at all.

Study results are first and foremost based on expert discussions held at **three workshops**. In the following the main outcomes of these discussions will be presented.

### 3. Qualitative project results

#### **General aspects**

- The majority of participants in the three workshops welcomed efforts for more transparency in the representation of Austrian qualifications. It was repeatedly stated that statistical comparisons (keyword: tertiary rate) showed a distorted image of the Austrian qualifications landscape. In addition, with international tenders, particularly in technology, it was often time-consuming to explain what was behind the various qualifications and what performance level was connected with these. Participants in discussions see the opportunity in the EQF of objectifying the comparability of qualifications.

- Against this background, discussions repeatedly addressed the issue that the NQF's main objective should always be borne in mind, with the focus above all on creating more transparency to promote the learners' and workforces' transnational mobility. Discussions related to access qualifications and credits granted at national level should not block the NQF development.
- Everyone welcomed learning outcome orientation to improve the representation of qualifications. In the operationalisation of the concept, the experience gathered in developing education standards and implementing relevant projects (e.g. VQTS) should be used. Another helpful aspect would be concrete guidelines to formulate and represent learning outcomes (e.g. a manual, format templates, examples).
- Regarding the procedure of referencing qualifications to the NQF it is proposed setting up "qualification-related cornerstones". These should be major (i.e. quantitatively important) qualifications – such as those obtained at engineering colleges (HTLs) and after apprenticeships – which are then rated as "reference or lead qualifications". In a subsequent step, smaller as well as non-formally acquired qualifications should follow, which are then put into relation with these reference qualifications. It is believed that in this process a certain "inner logic" should be considered that already exists in today's qualification system. Account should also be taken of classifications of qualifications that are very similar across Europe, such as the referencing of a secondary school for general education that serves to qualify graduates for access to higher education (corresponding to the AHS final certificate in Austria). For that purpose, debates held in other countries should be followed. It is considered particularly important to take note of classifications in Germany and Switzerland, as there are definitely parallels in these countries' education systems with Austria.
- Regarding the interpretation of descriptors, most of the workshop participants advocate "respectable generosity". Not every word should be seen as "written in stone", descriptions would not necessarily have to match 100%. The descriptions' abstract nature is considered necessary – because this is the only way all qualifications can be identified. Greater detail would narrow the scope of interpretation and make it more difficult to apply the descriptors.
- An Austria-specific table of descriptors is not deemed necessary. Such a table would also have to be abstract, because it should enable all qualifications to be described with it. It would be better to draw up an explanatory table that includes illustrative examples for the three description dimensions (knowledge, skills and competence) based on the reference qualifications. Therefore, first of all a (political) consensus about the classification of these reference qualifications was required, only then would it be possible to formulate an explanatory table. From the viewpoint of workshop participants, a more detailed formulation without relating it to reference qualifications is possible only with difficulty.
- In the competence column it is suggested to interpret it in the meaning of development of potential: It should be possible to reach the specified learning outcomes within a given period of induction training. It is thought difficult to specify this period in general terms, as there will always be a certain range. But it is deemed essential to base on average graduates.
- The workshops regularly address the learners' lack of previous qualifications (keyword: interface problem). This lack, among other factors, is the cause of lack of trust and the fear of the NQF's regulating effect. Participants expressed their wish that debates on NQF development should also lead to improvements in the education system overall. The educational institutions attended by learners later on and the labour market should be able to rely more on what knowledge, skills and competence learners have acquired at the institution where they were enrolled before. It is vital to create more reliability, honesty and sincerity.
- The best-fit principle (i.e. the referencing to the level that best matches the qualification) is thought to be a feasible method for classification. Precisely because education and training tracks impart knowledge, skills and competence to varying degrees and therefore qualifications cannot always be characterised unambiguously with one set of descriptors, experts see the best-fit principle as a welcome approach to referencing. Experts think that it would take the principle of "equivalence (parity of esteem) rather than equality" more into account.
- Against the background of the controversial debate regarding the referencing of VET qualifications to levels 5 to 8, one representative of the HE sector contradicts the "official HE position": he says in principle he does not see any problem in not referencing VET

qualifications to the upper levels. That would require, however, that they are not connected with access qualifications (keyword: the NQF's regulating function).

### **Suggestions regarding classification**

#### *Apprenticeship diploma*

Regarding the referencing of the **apprenticeship diploma** there are different views: some workshop participants advocate referencing this qualification to **Level 3**, mainly because they do not see the competence descriptor of Level 4 ("self-management", "supervising the routine work of other people") as fulfilled. Complete self-management is generally not possible immediately after completing an apprenticeship. In addition, it is argued that workers in the electro-technical sector in particular simply require a longer induction period to supervise others. Workshop participants who advocate classifying the apprenticeship diploma at **Level 4**, however, reason that an apprenticeship should in all probability enable skilled workers to carry out activities – as stipulated in every training profile – "in an appropriate, independent and responsible manner". In practice, they say, there will surely be varying degrees of autonomy and responsibility, depending largely on the respective activity field as well as on the company size. The referencing of qualifications is however not about details or particularities of practice, but rather about the "big picture". Therefore it is certainly legitimate to classify the apprenticeship diploma, also on the basis of the competence descriptor, at Level 4. It should additionally be considered that also regarding the other qualifications – such as those from the HE sector – graduates are not immediately capable of rendering the performance as specified in the EQF descriptors. Furthermore, the competence column in particular should be understood as "development of potential", i.e. the average graduate should be able to render the respective performance following a certain induction period.

#### *VET school qualification*

Regarding the **VET school qualification** the majority of workshop participants also advocate referencing it to **Level 4**. To them, the apprenticeship diploma and the VET school qualification are equivalent (full parity of esteem) though not equal qualifications. In an apprentice-

ship, the focus is on practical work, combined with a certain theoretical content, whereas in VET school the ratio is rather the reverse. Accordingly, based on the feedback from representatives of the business sphere, in practice VET school graduates are more frequently employed as white-collar workers, and apprenticeship graduates more often in workshops. Nevertheless the two qualifications are rated as equivalent (full parity of esteem). Also collective bargaining agreements in principle rate the two qualifications equally, which may be a good indicator for their identical referencing in the NQF.

#### *Master craftsperson qualification*

Regarding the **master craftsperson qualification**, sectoral experts who took part in the workshops advocate referencing the industrial master qualification as well as the master craftsperson with certificate of competence to **Level 6**. Even though these are two different "types of masters" the two qualifications should be referenced to one and the same level. Participants in the debates critically questioned whether a jump of two levels from apprenticeship to master craftsperson was justified. In principle, say the BMUKK's NQF experts, nothing speaks against such a level jump if it is justified by the learning outcomes on which qualifications are based. Experts compare the relationship between apprenticeship and master craftsperson with the AHS and Bachelor qualifications. Currently the AHS qualification is also being discussed at Level 4, whereas the Bachelor degree – i.e. the immediately following qualification – is already fixed at Level 6.

#### *Berufsreifepfprüfung*

Regarding **Berufsreifepfprüfung (BRP)** it is being discussed whether it is seen as a general education exam to obtain general HE entrance qualifications (and hence comparable with the upper secondary school-leaving certificate acquired at AHS, the "Matura") or whether it should be viewed in association with the previous vocational qualification, which is a prerequisite (including the apprenticeship diploma or VET school qualification), for which reason it should be classified at a higher level. Some panel participants see a level jump as justified, as graduates who pass the BRP also fully expand their specialist competence. Furthermore, the combination of

IVET and BRP is comparable with a VET college qualification (BHS double qualification: vocational training and HE entrance qualifications). This justifies their identical referencing to a regular VET college qualification, which will most likely be classified at **Level 5** of the NQF. This attitude is not shared by all workshop participants. To them, the BRP overall is more general education and rather comparable with an AHS qualification. This would speak for referencing to **Level 4**, the level which – according to the current state of discussions – the AHS qualification will also be referenced to.

In this connection, the fundamental question is raised whether **two qualifications**, both of which are at the same level when seen on their own, and where one qualification is the precondition for acquiring the other, should lead to a level jump, i.e. expressed mathematically, whether  $x$  (qualification # 1) and  $x$  (qualification # 2) equal  $x$  plus 1. The majority of discussion participants speak out against such a higher grading, as it would in their opinion create inconsistencies in the entire system. The combination of two qualifications does not represent a guarantee for reaching a higher level. As an example, completion of two different university study courses is named, such as electrical engineering and philosophy. Both qualifications by themselves are referenced to Level 7, their combination does not equal Level 8. The same applies to double apprenticeships, where two apprenticeship diplomas can be acquired within four years.

#### *HTL and HTL-Ingenieur qualifications*

In the discussion, the majority of experts hold the view that the HTL qualification should be referenced to **Level 5** of the NQF, the Ingenieur qualification to **Level 6**. Hence the Ingenieur qualification would be at the same level as the already fixed Bachelor qualification. In their argumentation, experts from the HTL field mainly stress the large number of job vacancies posted for highly qualified technicians in which very frequently either staff with an HTL Ingenieur degree or a Bachelor Fachhochschule or university qualification are sought. According to the experts, the overlapping of these qualifications in the perception of the economy speaks for an id-

ential referencing to Level 6 of the NQF/EQF. They also see it as proof of these qualifications' "equivalence (full parity of esteem) rather than equality".

The HE sector speaks out against this proposal for referencing. HE representatives put forward the argument that the fundamentals of the study of electrical engineering go far beyond what holders of the Ingenieur title learned at HTL before. It is precisely this comprehensive theoretical training that motivates many HTL graduates to enrol for a university study and take the Bachelor or Master degree. This is countered by HTL experts that, within the framework of three-year relevant practice that is a prerequisite for the acquisition of the Ingenieur qualification, any deficits in the cognitive field can be cancelled out. With practice, the already existing edge regarding skills can even be extended further. Seen from this angle, referencing to Level 6 would be truly justified.

Regarding the controversial point in current NQF discussions concerning the referencing of **VET qualifications to Levels 5 to 8**, one HE representative contradicts the official HE sector's position and pronounces himself for also opening these levels for non-academic qualifications. The precondition is however that the referencing is not connected with any access qualifications to the next higher (university) level.

#### *Engineering office (consulting engineers)*

Regarding the qualification **Engineering offices (consulting engineers)** workshop participants advocate an identical referencing to the civil engineer's qualification. Although different education tracks lead to these two qualifications, they are the same in terms of learning outcomes. Experts see the two qualifications at a very high level and speak out for their referencing to **Level 8**.

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