



## The Project EQF Predict – A Contribution to Overcome the Fragmentation of EQF Implementation

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### Abstract

There was always a wide consensus among all stakeholders that a European Qualifications Framework should be used in order to *identify learning outcomes wherever they have been acquired*, but at the same time a lot of differing point of views have existed up to now with regard to the question *how the EQF should be properly used resp. how educational key instruments* to be related to the EQF in the future should be designed or modified. This situation (that has not yet changed substantially) delivered the starting point for the project EQF Predict: Taking in account former experience with standardisation in the area of education, it was already at that time not too pessimistic to be afraid of versions of EQF use where the original approach is diluted in a way which does not deliver advantages in comparison with the situation before the arise of the EQF, and the main objective of the project was therefore to help *to reduce the risk of fragmenting the EQF implementation*.

This paper provides an overview about the EQF Predict project and its key results. This includes an optimum model for the EQF-assignment of educational key elements such as occupational profiles, curricula and assessment procedures, but also general principles for EQF application in education practice. It furthermore describes results from piloting of these models in the context of two piloting initiatives implemented within a human resource development and a continuous training context and draws recommendations from the project findings on further actions to reduce the risk of EQF fragmentation within education practice.

### (1) The Project EQF Predict: EQF-adapted educational Elements in a predictable Framework of Change

There was always a wide consensus among all stakeholders that a European Qualifications Framework should be used in order to *identify learning outcomes wherever they have been acquired*, but at the same time a lot of differing point of views have existed up to now with regard to the question *how the EQF should be properly used resp. how educational key instruments*<sup>1</sup> to be related to the EQF in the future should be designed or modified. This situation (that has not yet changed substantially) delivered the starting point for the project EQF Predict: Taking in account former experience with standardisation in the area of

<sup>1</sup> In the framework of the project *EQF Predict*, this has been introduced as a common term for occupational profiles/qualifications, curricula, assessment and quality assurance measures

education, it was already at that time not too pessimistic to be afraid of versions of EQF use where the original approach is diluted in a way which does not deliver advantages in comparison with the situation before the arise of the EQF, and the main objective of the project was therefore to help *to reduce the risk of fragmenting the EQF implementation*.

With regard to this objective the EQF predict project consortium investigated a number of research questions:

- (a) What is the current status of EQF implementation in the investigated countries and how do these countries deal with EQF implementation in their education practice?
- (b) What means „proper EQF implementation“ and what does this mean for educational key elements in general and in the countries investigated?
- (c) How might EQF application look like in future and under different scenarios?
- (d) How can „proper EQF application“ at different levels be supported through consultation services?

In order to investigate these questions different approaches have been applied. The current status of EQF implementation in the investigated countries Austria, France, Germany, Greece, Italy, Romania, Spain and the UK has been researched by means of desk research conducted by the national EQF Predict consortium partners and has been regularly updated throughout the overall course of the project between March 2009 and August 2011. In the framework of this desk research also EQF application approaches with regard to the adaptation of occupational profiles, curricula and assessment procedures have been investigated. These investigation results about the situation in the partner countries, but also some studies dealing with the above mentioned key educational elements (occupational profiles, curricula and assessment procedures) were evaluated in order to develop a first draft of the optimum model(s) of EQF-assignment. A series of interviews and consultations with key stakeholders in the countries involved have been conducted by the EQF Predict project partners in order to seek stakeholders' point of view with regard to the optimum model(s). Furthermore the optimum models have been piloted in order to test their practical applicability. This has been done in cooperation with a multimedia training provider in the UK and with VW Service Deutschland (DE) on the example of initial and continuous vocational education and training courses for web content managers and car mechatronics. Consultation and piloting results have been integrated in the final optimum models as they are presented in this article. Further questionnaire surveys and brainstorming sessions with stakeholders and experts have been conducted in order to further elaborate the research questions stated above.

The article at hand provides an inside view in some of the major results of the different data collection, analysis and development steps implemented in the projects framework. Based on the preliminary considerations (chapter 2) it describes and reasons the optimum model(s) (chapter 3) and provides basic information about the results of the two piloting initiatives (chapter 4). The final chapter describes the conclusions and recommendations drawn from the overall project findings in terms of proposed steps and actions in order to help *to reduce the risk of fragmenting the EQF implementation*.

## (2) Preliminary Considerations

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A project like EQF Predict is not in a position to change the world; project work can only support sensible solutions, but not create them. Considered from the point of view of the project consortium, this impact of project work is dependent upon a *balance between the realism of suggestions and its innovative character*: These suggestions should *exceed current practice, but not ignore it*.

With regard to the project *EQF Predict*, this rule is obeyed the following way:

- Suggestions are embedded in a *predictable framework of change* encompassing expectable developments all over Europe. It shall be thereby ensured that suggestions imply a relationship to ongoing discussions and are not placed beyond ongoing debates.
- Suggestions deal with *references of educational key elements* (as occupational profiles, qualifications, assessment procedures) *to the EQF*. It is understood that these educational key elements as such will play their specific role in national educational systems also in the future, but will be affected by EQF implementation.
- In order to give suggestions the perspective of usability, the *embedding of partners in networks with involvement of stakeholders* (competent bodies, social partners, etc.) is used: Partners are either themselves competent bodies/social partners or have collaborated with them for a long time.
- Suggestions encompass *optimum models of EQF assigned educational key elements*, and these are based on an analysis of *existing approaches to identify learning outcomes*.
- *Stakeholders* were asked to *comment the suggested optimum models* which should help to refine them and to adapt them to not yet considered specific needs having arisen in national environments.
- Optimum models were tested within *piloting activities* linked to already available training measures that were redesigned according to EQF requirements.
- An *EQF Predict portal* was provided to guarantee a continuous link between the strategic world of basic EQF discussions and the (more) operational world of EQF adaptation, thereby enabling transfer of information to appliers as well as their feedback to strategically working organisations.

It shall not be concealed that these arrangements have not yet met all expectations. The reasons seem to be:

- Reference of educational key elements to the EQF describes a necessary step of EQF concretion that in many cases had not yet been done when the project had been applied for, and even today it cannot be claimed that a full-fledged set of EQF-related educational key elements is available all over Europe. Nevertheless, it should be considered that in many national environments meanwhile attempts have been made to establish links between national educational systems and the EQF via setting up or updating national frameworks and even by describing learning outcomes of qualifications; this has created a situation that is rather different from the time when

the project was applied for. Progress has been achieved, but in *national environments separated from each other*. This is not a good condition for an attempt to provide for *real overall comparability of EQF application*.

- A consideration of the enquiries of stakeholders' opinions about the suggested optimum models should clarify this issue: Although all stakeholders addressed by the enquiries were willing to answer the questions and gave valuable comments, it could sometimes be felt that there was only limited interest to take suggestions in account as an option for an update of established EQF adaptations. The more educational stakeholders have succeeded to find national solutions after a debate that only could be closed after *negotiations between organisations intending to defend or to enhance their position*, the less arguments can have a strong impact that are based on a *systematic approach* not taking in account necessities of compromises between diverging interests: It could be that updates sometimes are felt to be inconvenient since they can be considered to threaten the results achieved within negotiations not finished long ago, in particular, if stakeholders have not yet worked together on the subject. (This is the case for the European Qualification Framework).

In spite of these assumptions which shall document an insight into the limited possible impact of the suggestions developed within the project EQF Predict, it can be said after the enquiries that the features of the proposed optimum models have been accepted at least by the majority of stakeholders, and most of the features are supported by all of them. This does not necessarily mean that the ideas reflected in the sequence of optimum models have already been considered practically everywhere, and it also does not mean that this will have practical consequences in the near future within all national environments. Nevertheless, it can at least be expected that the suggestions of the optimum models will fulfil the function of *orientation points*, in particular usable for countries where full-fledged educational systems do not yet exist, but also for countries needing no substantial change or completion of their system: They are assured that they are on the right way and they can possibly better judge which adjustments of their systems still are necessary.

Against this background, it should already be visible what is said in the following chapter: Conditions of EQF implementation differ a lot from country to country. This has consequences for the way how the optimum models are formulated: They must not be too detailed in order to be applicable everywhere; therefore they have the character of *recommendations to be followed in various ways*, depending upon the specific situation of a country. This implies, of course, the risk that the suggestions might be meaningless due to lack of commitment. But this argument can only be refuted by those who are able to come up with more concrete ideas – the partnership as a whole is not in a position to substantiate this for all partner countries.

However, the suggestions made in the sequence of optimum models were concretized by the pilots carried out within the project. Unlike the results of the stakeholders' investigations that were integrated into the recommendations now described as sequence of optimum models, these pilots will be below documented separately in order to demonstrate how the relatively abstract optimum models can be applied.

### **(3) Optimum Model of EQF-assignment**

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Developed within the project *EQF Predict* in order to demonstrate how *educational elements* in various European countries could be best adapted to the needs of appropriate EQF use, then presented to an audience of stakeholders who were asked to confront it with their experience in national/sectoral educational debates and their ideas how EQF implementation/reference could be established/continued in various countries, the *sequence of optimum models of EQF assignment* was elaborated on the basis of a comparison of partially strongly differing approaches to prepare, carry out, and assess (vocational) education, according to national/sectoral traditions of various origin. The objective of this work was to create optimum models for the EQF assignment of key educational elements, using the experience of various countries/sectors with establishing and maintaining educational systems before the introduction of the EQF, but also in the course of the EQF debates.

The following assumptions were made on the basis of the review:

- There is no undoubtable, single way to reference national/sectoral educational systems to the EQF.
- This delivers space for various understandings, often following the specific interests of stakeholders.
- This is not a good starting point for the development of “zones of mutual trust”; it is therefore important to get to a *common understanding of issues crucial for EQF assignment* which exceeds the very generic level of assigning qualifications to EQF levels.
- This could be achieved by an agreement on *principles of assigning educational key elements to the EQF*.

#### **(3.1) General Principles of EQF Assignment**

The principles, referring to the above mentioned sequence of optimum models, shall be described in the following.

##### **Principle 1: Interrelations between different key education elements and the consequences resulting from these interrelations when assigning one of them to the EQF**

There are three key educational elements which are considered crucial for EQF assignment:

- Occupational profiles
- Curricula
- Assessment and quality assurance procedures

It is obvious that these elements should not be dealt with separately; they are closely related to each other. Therefore the first requirement of proper EQF assignment is to provide for *accordance of these elements with regard to EQF reference*. It makes no sense if one element is adapted to the EQF without reflection about the consequences for other elements

which are linked to it:

- Curricula intended to lead to a qualification should agree with the occupational profile which describes the profession which the qualification refers to.
- Assessment and quality assurance measures refer to performance and results of training and education. It is therefore self-evident that their features have to mirror the EQF orientation of curricula and occupational profiles.<sup>2</sup>

We should be aware that the stated interrelations actually exclude to set up optimum models for occupational profiles, qualifications, and assessment procedures separately from each other: There should be one optimum model that integrates all specifications for the mentioned three areas. Against this background, it would be more than unwise to go too much into details; this would be more or less the same as to suggest the replacement of a total national educational systems by an ideal one.

From this point of view, the procedure to present the optimum models is especially justified: It starts from general principles reflecting the overall linkage of the three areas, and it proceeds to area-specific recommendations that should be seen in the light of the general ones.

#### Principle 2: A holistic view on the work process as the starting point for EQF application

This common EQF orientation of educational key elements is based on a common objective which has existed long ago before the EQF was invented: Training and education is no end in itself, but serve goals of the individuals which, as a rule, are situated *beyond* learning. *Occupational profiles* reflect that it is *work* for which learning processes shall enable, but there are, of course, other issues which play a role in this context: *scientific interests, citizenship, ethical questions*, and all issues which can be considered moments of *individual development*.

These “soft” objectives are sometimes understood to contradict to *fitness for the labour market* as a goal of training and education, but this is not necessarily the case: Within *work, individual development* is not excluded, but takes place, taking in account *ethical issues and citizenship’s requirements*, and might even refer to *science* which is also a kind of work.

A *holistic view* on the work process should therefore be the starting point for designing educational key elements and determining the reference to the EQF. This should not be understood as a plea for some overall approach which does not clearly determine what in detail is considered; it should deliver a systematic view on the work process as a set of actions carried out by individuals in a context structured according to the expected results of work. This includes and does not prevent a functional view on work, and at the same it prevents a “freezing” of partial work processes from which sets of learning outcomes are derived that have to be replaced at short notice due to technical progress: According to the *function* of partial work processes in relationship to the *goals* of work they will be not described in an empirical, but *conceptual way*.

It is obvious that national educational systems do not value all these aspects of training and education to the same degree, this was also confirmed by the results of the interviews with

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<sup>2</sup> For example, it makes no sense if a curriculum shall provide for learning outcomes described in terms of *abilities*, and assessment only checks *knowledge*.

stakeholders. However, it makes sense to demand that proper EQF assignment should keep the perspective of considering the mentioned aspects under the umbrella of an integrative concept; this does commit nobody, but it prevents a-priori-reductions.

### Principle 3: Determining learning outcomes in a holistic way vs. fragmentation through learning outcome orientation

*Learning outcomes* have from the very beginning of EQF implementation been considered crucial: If national educational systems shall be judged which differ considerably in terms of organisation, structure, and generally in the way how they deal with educational content, learning outcomes deliver the only criterion which makes systems *comparable*. This pragmatic issue, however, should not disguise that since years there has been a strong tendency to learning outcome orientation of educational key elements *intrinsically* motivated by needs of various national educational systems, EQF implementation has only strengthened this trend, not originally caused it.

The reason for this is certainly the growing *request to make educational systems fit to agree to the needs of the labour market*, and it is not a secret that the specific position of the demand side has influenced the way how requests were formulated, and how this – at least to a certain extent – has been mirrored in design and use of educational key elements. Following the argumentation above, there is no need to reduce work processes to lists of separately taking place operations, and the *abilities* to carry out work processes should analogously not be understood as learning outcomes to be introduced into occupational profiles, curricula, and assessment/quality assurance procedures without reflection on their systematic coherence.

In order to *avoid fragmentation of learning outcomes* (which in some educational contexts already has become a reality), and at the same time to make sure that *changing requirements coming from outside educational systems* can always smoothly be considered, it should therefore be reflected how learning outcomes can be described in a way which brings the available anchoring points of the EQF – *knowledge, skills, and competence* – in a systematic order which overcomes all ambiguities and delivers guarantees for the sustainability of occupational profiles, curricula, assessment and quality assurance measures without the necessity to change these elements totally according to changes in the (mostly technically defined) state of the art: Learning outcomes should encompass the ability to adapt work processes to these changes.

This exceeds the mere appeal to leave input orientation of educational key elements in favour of learning outcome orientation. It is demanded that learning outcomes are determined in a holistic way, according to the model which is suggested for the understanding of the work process.

### Principle 4: Developing trust in learning outcomes achieved outside the institutional context of certifying bodies

Following the first debates about the EQF, this framework was *not* planned to be an instrument of educational reform, but a *translation machine* which shall allow stakeholders all over Europe to judge properly (and to measure against the own background) what learning

outcomes have been achieved by learners coming from abroad. It was explicitly said that the introduction of the EQF would not touch the autonomy of member states to determine themselves how their educational systems should look like.

This is only true in a formal sense. There was, of course, no EU directive to which national law had to be adapted as this is the case in other fields of policy. The introduction of the EQF, however, caused reaction in national fields which already becomes visible by the establishment resp. update of national frameworks related to the EQF and the debates which are connected to these processes: It can be easily grasped that this sometimes leads to a renewal of or even to a launch of reform discussions, especially there where the EQF discussion makes visible that there are some *gaps in the own system*. The results of interviews with stakeholders confirm empirically that there is a relationship between the introduction of the EQF and reform debates; they show clearly that the *degree of interest in debates of this kind differs from country to country according to reform necessities*

Among others, this concerns the topics *recognition of prior, non-formal, and informal learning*. Mechanisms to assess these learning results exist, but in many countries they are not very popular, at least as far this concerns bodies currently responsible for certification. Ways have to be shown how trust in learning results can be ensured that have not been achieved in the institutional context of certifying bodies; this has to be reflected when the EQF assignment of educational key elements is discussed.

#### Principle 5: The role of stakeholders and their specific interests and positions

There is a common understanding that the *involvement of stakeholders* into the process of setting up and maintaining educational systems has a positive influence on the quality of training and education. Success stories, mostly dealing with the common activities of *social partners*, are sometimes considered to be useable as models which can be easily transferred to countries where comparable structures of collaboration in the field do not (yet) exist.

In this context, it should not be forgotten that success is always dependent on the specific content of the agreement which can be achieved among stakeholders, and that it cannot be taken for granted that this always fits to 100% the needs of all involved parties: Not only social partners (organisations of entrepreneurs and trade unions), but also individuals and single enterprises as well as public and private educational bodies can claim interests, and it is not clear from the very beginning that the result of negotiations between politically acting stakeholders will cover all needs: This works only if the basic common understanding can be achieved that, at least in the long run, the needs of all interested parties are covered if the interests of individuals - to be flexible to fulfil the requirements of various work places - , and the interests of enterprises - to get a workforce able to match their specific requirements as soon as possible – are integrated into an overarching model as it was suggested above.

This might be difficult if there is no rough idea how this “focal point” of common interest (as “profession” in central Europe) could look like. But even if there is some tradition of common understanding, the involvement of stakeholders always leads to some *political compromise* which is certainly not oriented to conceptual reflections, but to protection or extension of an acquired position. As results of interviews suggest, this does not only concern stakeholders representing different societal areas, but also those who come from different educational subsystems.

This attitude, of course, is not only typical for the behaviour of stakeholders *within a national environment*, it influences also *their relationships to stakeholders abroad*, in particular during the currently taking place NQF/SQF/EQF debates. There should be found ways how can be made sure that this kind of thinking does not threaten the whole EQF implementation process. Suggestions to deal properly with this issue will be made in the chapter *General Recommendations* following the chapters describing optimum ways to assign occupational standards, qualifications, and assessment procedures to the EQF.

### **(3.2) Optimum Assignment of Occupational Standards/Profiles**

Occupational standards should ideally comprise the following elements for EQF adaptation apart from title and definition of the occupation:

1. Description of the work processes that specify the occupation
2. Required abilities expressed in the EQF descriptors *knowledge, skills and competencies*
3. Education and training pathways related to this occupation
4. Indications on the assessment of the required abilities

1. For the *description of the work processes that specify the occupation*, two aspects are relevant that sometimes seem not to be in accordance with each other: the participation of *stakeholders* and the *application of scientific methods for work analysis*. Some fear that the involvement of stakeholders “automatically” leads to *bargaining* which undermines science-based work process descriptions, others fear that the description of work processes that is only based on scientific analysis might suffer from the lack of some information that only stakeholders can deliver (e.g. most current technical developments). It seems that there are ways to set up models of collaboration that take in account both aspects. They should be developed on the basis of national conditions.

2. In order to create best conditions for defining abilities in EQF terms, the following steps should be done:

- Work processes are described and identified for assignable to a certain profession (see above)
- The occupational profile is structured into *fields of activity* oriented to the described structure of work processes. This is crucial especially for the recognition of prior learning since it allows for reference of learning outcomes to more than one occupational profile.
- Learning outcomes are determined for the fields of activities in terms of the EQF descriptors. As already mentioned under the general principle 3, knowledge, skills, and competence have to be brought into a systematic order that reflects their interdependency, and this will probably lead to a redefinition of competence as it is demanded from various interviewed stakeholders. A holistic understanding of abilities is also suggested by the results of the *pilots*: A comparison of both piloting activities shows that the second activity is more coherent as *all parts* of a curriculum can be assigned to the EQF because knowledge and skills

are derived from overall competences to which the curriculum as a whole refers. At this point, it should be also repeated what was already mentioned under the general principle 2: “*Soft*” *learning outcomes* referring to ethical and societal issues, at first glance not related to the work process, should as far as possible be considered when an occupational profile is set up; in order to avoid mere “moral appeals” it shall be investigated how far issues of this kind can be concretised in real life situations arising within work processes.

- Learning outcomes are arranged according to fields of activity and according to the systematic order of knowledge, skills, and competences mentioned above.

3. As recognition of prior learning is ensured on this basis, it should not be a major problem to provide for permeability to other profiles/levels of education. For the description of these profiles/educational levels, of course, the same principles have to be applied.

4. Assessment procedures will be dealt with more specifically in another chapter. At this point, it shall only be mentioned that assessment should be structured according to the *fields of activities* since it should record *ensembles of learning outcomes* oriented to *abilities* that cover all parts of a work process that are directly linked to each other.

### **(3.3) Optimum Assignment of Curricula**

Curricula are often understood as key instruments in adapting education and training to changing requirements<sup>3</sup>. This is certainly true if curricula are not considered separately, but in connection with instruments to identify and determine *work requirements*, and with *assessment procedures* which are based on these statements. With regard to the EQF, curricula actually only play a secondary role: The “classical” user of the EQF wants to know what an individual is able to do within work processes, and he is *not* interested in the *way how these abilities were acquired*.

Curricula describe ways how this happens within *institutionalised learning sequences*, but this is not the only possibility how abilities can be developed: They might also be the outcome of *non-formal* and *informal learning*; this is explicitly mentioned in the relevant EQF document.

Nevertheless, the majority of qualification processes still takes place on the basis of curricula, and if we reflect how the learning outcomes defined in EQF categories can be best achieved, it is certainly sensible to consider how curricula can *facilitate* this:

- First and utmost, curricula should include a description of these *learning* to be achieved *outcomes* (which have to be derived from work processes), and they should clarify *how* learning sequences foreseen in the curriculum contribute to achieving these learning outcomes.
- It should also be noted which *assessment procedures* are available and how these refer to the specific quality of the abilities to be assessed.
- Moreover, the curriculum should include information about *career paths*, also showing which alternative ways are possible, in particular, if parts of training/education are useable in the context of various professional activities. As a consequence, the

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<sup>3</sup> See e.g. CEDEFOP, Learning outcomes approaches in VET curricula, A comparative analysis of nine countries, p.136.

curriculum should be *structured in a modular way*, this enables learners to *combine learning units according to their career objectives*. But it should be reflected that this only works if modularisation mirrors *structures of real work* and does not primarily follow organisational requirements of the curriculum. This requirement is met if the subdivision of a curriculum agrees with the separation of work process units: These partial work processes can take place independently from each other<sup>4</sup> and prove their relative independency by usability in various professional contexts, and modules representing these work process units are independently assessable as elements of a *chain of abilities* that refers to a profession or at least some kind of ensemble of capacities which allows for using the results of the assessment as steps on a career path.

There are further topics which could play a role in the context of curricula design and maintenance:

- The didactic methods applied for training and education and the personnel initiating, supporting, and supervising learning processes
- The kind of organisations designing and updating curricula

There are a lot of curricula which include hints for the right methods to be used for training and teaching. If this is sensible, then it is taken in account that there are specific conditions for teaching and training in differing institutional contexts (as work places or schools), and that didactic methods have also to reflect the specific character of the target groups to be taught, trained, and or coached. This has, however, nothing to do with the main requirements of a *learning outcome oriented* curriculum; learning outcomes can steer didactics only insofar as training and education should preferably bring to mind the *application* of the abilities to be developed (by simulating, training on the job, etc.), and the degree to which this is possible depends upon the above mentioned conditions under which training and education takes place. At any rate, there are *no specific didactic requirements* which have to be considered substantial with regard to EQF adaptability.

This is also true for the selection of training/teaching personnel: It is of course an advantage if a teacher/trainer can carry out her/his activity against the background of personal experience, but this is not a condition *sine qua non*; and it might even be insufficient to work only with practitioners if these are not able for theoretical reflection.

With regard to the selection of bodies responsible for design and updating of curricula, it can be argued similarly: It is certainly an advantage if practical experience supports design work, but as such this does not deliver a guarantee that curricula are elaborated in a way which helps to achieve EQF-described learning outcomes easily. This will work if the designing organisations take in account the *structural requirements* described above (learning outcome description, derivation of content from learning outcomes, modularisation according to work structure), and it should not play an essential role if the designing body is a public organisation, an organisation of social partners, or an educational institution.

Following this argumentation, a curriculum ideally covers the following elements facilitating reference to the EQF:

- Title and definition of the curriculum

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<sup>4</sup> Although one process might refer to the other as a condition

- Reference to the work processes<sup>5</sup> via occupational profiles or equivalent instruments<sup>6</sup>
- Learning outcomes derived from the requirements of work processes, described in terms of abilities expressed in the EQF descriptors knowledge, skills and competencies
- Education and training pathways to which the curriculum refers
- Indications on the assessment of the required abilities

### **(3.4) Optimum Assignment of Assessment Procedures**

Assessment rules are traditionally closely linked to curricula, this sometimes gives the impression that they belong necessarily together. In most cases, this was even not true for the past: Regulations for the performance of examinations (the traditional ways of assessment) have always been formulated independently from curricula. Today's EQF requirements imply even a still stronger emphasis on this separation: The shift to *learning outcomes* opens doors for the acknowledgement of learning results which have been achieved via *non-formal and informal learning* that has not been structured in a way which is comparable with curricula.

Assessment delivers the basis for *certificates* which *entitle* individuals to work at a specific work position or at least make it appear reasonable. Thus assessment is the *interface between the world of work and the world of education and training*, marking a delicate position between stakeholders with sometimes considerably differing background. *Mutual trust* of these stakeholders is not as self-evident as it might seem according to experiences with some national traditions of collaboration; and it is certainly a big challenge to achieve a comparable *common understanding* among stakeholders all over Europe.

The more it is important to reflect the essentials of assessment procedures which shall meet the requirements of trans-nationally acknowledged measures:

- Descriptions of assessment rules have to specify the learning outcomes to be achieved (which are derived from work processes).
- *The way how individuals have to prove that they possess the abilities to be achieved* should be oriented to their specific character and demonstrate, as far as possible, the *application* of these abilities. There are certainly limitations for procedures of this kind: A simulation of a real world scenario will not very often be possible, and if we consider the three columns of EQF descriptors, we can easily discover that *knowledge* can be controlled without big efforts, it becomes more difficult with *skills* (which normally requires a work environment), and it becomes even more challenging with *competence*. Nevertheless, it should not given up from the very beginning to make assessment procedures more "reality-oriented" ; at any rate assessment procedures should not "disappear" behind certification degrees, but be described in

<sup>5</sup> In this context, it should be reflected that traditional studies in Higher Education implicitly or explicitly refer to scientific work.

<sup>6</sup> Since not in every country exist occupational profiles, there might be other ways to determine the reference of curricula to *work processes*. Be that as it may, it is crucial that *learning outcomes* steering curricula refer to the work process as an *ensemble of actions following common aims*, and not only encompass a list of not connected abilities which have been collected on the basis of an empirical analysis of the (mostly only technically understood) status quo. Otherwise *fragmentation of work* (which at certain levels is certainly a reality) will become the leading principle for all training and education under the flag of EQF appropriate learning outcome orientation.

certificates, thereby showing the value of assessment by the degree of “realism”. This creates *transparency*, an indispensable condition of mutual trust.

- *Subdivision or separation of assessment measures* should mirror the structure of work processes and not primarily be oriented to bureaucratic or organisational issues. This should on the one hand provide for enough *flexibility to make the same learning outcomes usable for differing career paths* if the same partial work process appears as a part of different professions (or ensembles of professional activities) , on the other hand it should be ensured that these partial work processes are independent enough from others that they allow for an assessment of overarching abilities.
- Since in spite of all efforts to provide for transnational comparability of assessment procedures there will always be a certain spectrum of differing understanding, it is important that a *commitment* of stakeholders responsible for assessment in national and sectoral environments is achieved who will in the future collaborate transnationally and by practice create *zones of mutual trust*.
- Assessment procedures should, as far this is relevant, refer to European quality assurance standards as defined by EQAVET and EQAR.

Following these reflections, descriptions of assessment procedures should cover the following issues:

- Title and definition of assessment measure
- Reference to work processes via occupational profiles or equivalent instruments
- Learning outcomes derived from the requirements of work processes, described in terms of abilities expressed by the EQF descriptors *knowledge, skills and competences*
- Education and training pathways to which the assessment procedure(s) refer
- Description of the way(s) how assessment is carried out
- References to European quality assurance standards
- Responsible bodies and their role in national/sectoral environments

#### **(4) Piloting Experiences**

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Piloting within a project such as EQF Predict suffers from limitations: It is not possible to test the whole range of applying models of EQF assigned regulations/curricula and their assessment within a project which is restricted in terms of time and money.

Under these conditions, piloting has been carried out in the framework of a human resources development programme of VW Service Deutschland (*Car Mechatronic*) and a transnational training activity based on training providers' and other project partners' collaboration (*Web content manager*). It was understood that this kind of procedure should be embedded into already existing structures and be based on already available experience to a high extent. This is crucial for achieving test results which get their value by being related to real VET practice.

On the other hand, dilution of innovative approaches had to be avoided: Piloting had to be more than reproducing current practice under a new label. It had to be ensured that the planned piloting activities really test the practicability of *EQF assignments to educational key elements*. It can basically be doubted if this makes sense. What actually can be piloted – and this means *applying EQF* assigned educational elements - , are training and assessment activities based on *curricula* and *valorisation procedures*, and it could be argued that curricula, since describing *how* learning outcomes are achieved, are not in the scope of the EQF: They should not be considered with regard to EQF assignment since the ways how learning outcomes arise can differ considerably – from country to country, but also in terms of informal, non-formal, and formal learning.

If we would follow this consideration, we could limit piloting to testing assessment procedures. This would mean that we only would search for answers on the question: How far support suggested procedures the identification of learning outcomes described in terms of required abilities formulated by the EQF? If we agree that the same learning outcomes can be achieved in the various ways mentioned above, with no preference for institutional frameworks (like educational/VET institutions), then it makes sense to provide assessment procedures which are not totally embedded in the structures of traditional educational institutions. Therefore it makes at any rate sense to pilot assessment procedures *independently* from courses offered by these institutions which might be useable for achieving learning outcomes to be assessed. This is not a problem if the project consortium can provide for an own environment for piloting assessment which is the case for the *ICT/Multimedia Profession* where no institutional environment exists – project partners themselves were able decide how they want assessment to be carried out and test it following the criteria they have determined.

The situation is different in the case of the *Car Mechatronic* where training and also assessment have been embedded in pre-existing structures of the German dual system of initial training. This implies that assessment procedures are clearly related to the *training* having taken place before testing – in other words that learning outcomes are tested as far as they have been explicitly formulated in the *training programmes*. These programmes are indeed based on legal regulations which are, at least to a certain extent, learning-outcome-oriented, but it is nevertheless obvious that there is no tradition of testing these learning outcomes beyond training carried out within the borders of the current national VET system which provides a strong relationship between training and assessment (also during the actual training phase). This delivers bad conditions for testing assessment procedures related to learning outcomes formulated in another way as it has been done up to now, and from this point of view it appears necessary to provide for EQF assignment already within the design of training programmes, in our case within the module which shall be used for piloting.

#### **(4.1) EQF assignment of “Volkswagen Technology for Trainees”**

The official description of occupational standards in Germany is highly standardised. As in this case – for the apprenticeship scheme car mechatronics – there is a framework curriculum in force Germany wide. The qualification programme examined in this pilot - the “Volkswagen Technology for Trainees” (VTA) - is directly related to this framework curriculum and deepens the general content with Volkswagen specific topics. Like the existing national wide

framework curriculum for car mechatronics the qualification program is also not explicitly learning outcome oriented. But: both are in their core already learning outcome oriented. This fact was the key for developing an EQF-compatible description of this in-company training programme and the pilot has been limited to the definition of learning outcomes for the chosen training elements.

In order to implement the pilot course different trainers and human resource development staff have been involved into the piloting activities in order to adapt parts of this in-company qualification scheme to EQF requirements. Among others the responsible for the elaboration of the VTA trainings has been strongly involved in the realisation of the pilot, but also VTA trainers have been involved in order to provide feedback and for the review of intermediate results. In order to limit and focus the pilots' area of work it has been agreed to focus pilot activities on one training element only: "Basic vehicle electrics".

An evaluation of the original VTA training guidelines showed that descriptions of the related learning outcome and curricular/ didactical aspects were strongly mixed within these guidelines and have not been presented separate from each other. It was therefore necessary to change the approach of structuring, but also developing these guidelines, especially in terms of separating related learning outcomes and curricular/ didactical aspects in order to apply the EQF learning outcomes approach:

The most important step was the change of the approach as it has been applied so far into an approach that clearly defines general competences to be achieved through the training. These general competences needed to be strongly based on the tasks performed by a worker in this profession and they needed to reflect the companies', but also others requirements on a competent performance of these tasks expected from professionals or in this specific case from the companies employees. These general competences gave the overall direction for all further steps to define learning outcomes in the different training areas. The work process/ task orientation as described in the optimum model of EQF-adaptation (see EQF adaptation support portal) has therefore been not only a recommended approach, but even an urgently necessary one because without it would not have been possible to define the learning outcomes although a general learning outcome orientation was already integrated into the training guidelines before. However, the already previously defined and available learning outcomes simplified the overall process of defining and assigning skills and knowledge to the competences and the description of the VTA trainings into EQF-compatible descriptions was possible without huge adjustments to the content.

But assigning the EQF learning outcomes approach has proven to be not only a formal process without added value for the company. It turned out that the overall adaptation process even helped to detect gaps within the training programmes. The EQF adaptation process revealed that customer orientation being one of the core targets of the Volkswagen sales and retail organisation, was so far not explicitly expressed within the training guidelines and therefore customer orientation was integrated into each of the defined general competences explicitly.

A training description with EQF compatible learning outcomes is a conclusive approach which gives an easy overview about the expected learning outcomes of a training programme. Especially due to this advantage an easier adaptation of the training seems be possible if there are any training amendments or new technologies that need to be integrated. And even

more: this new approach of defining learning outcomes starting from the tasks performed by professionals also supports uncovering gaps within the training programmes that need to be closed in order to develop the defined general competence.

The feedback of the trainers involved in the VTA training regarding the learning outcome oriented description of the “Volkswagen Technology for trainees” has been quite positive and they confirmed the advantages mentioned above. But further steps will be necessary and are already planned in order to implement and test this approach on a broader basis and within actual training settings. At this point in time also possible influences on the actual teaching/training practice such as requirements on trainers and training/teaching methods and on assessment procedures will be looked at. These aspects have not been integrated into this piloting activity in order to allow the involved practitioners to focus on the learning outcome description instead, since this turned out the first challenging step for EQF adaptation in the context of this in-company training programme.<sup>7</sup>

#### **(4.2) EQF assignment of a virtual course on web content management**

The web content manager pilot has been based on already existing EQF compatible job profiles and learning outcome descriptions that have been developed in the framework of previous projects. It was therefore possible to build on these results rather than focus on them as it has been done in the pilot described in the previous chapter.

Some major elements elaborated as crucial within the optimum models such as the work process reference via a job profile and learning outcomes definitions have therefore already been available prior to this pilot course.<sup>8</sup> Both elements have proven to be essential for all further considerations in an EQF application context. They enabled the development of a course design that is supposed to support participants to develop abilities that can easily transferred into a real working situation and the related assessment procedures assessing a variety of learning outcomes necessary to perform the related work tasks. This is especially important because current assessment practice reflects that learners within training measures normally learn and trainers/teachers often train/teach in order to cover the issues formulated within the curriculum/training programme. This means that the best way to provide for learning outcomes relatable to the EQF is to based curricula/ course designs but also assessment on previously defined learning outcomes drawn from the actual work tasks/ processes.

The experience from the pilot course underlines the necessity to work with a strongly learner-centred training approach and a variety of task- and problem-based training/teaching methods such as project work (as it has been the case within the pilot course) or e.g. work placement in order to enable participants to develop the whole spectrum of defined learning outcomes meaning knowledge, skills and competences. This cannot be reached with teacher-centred methods such as lecturing. The pilot, but also many other vocational training examples from different European countries and different institutional frameworks, show that it is possible to comply with these requirements. But it has high demands on education personal. They have to be subject matter and pedagogical experts at the same time in order develop and implement such learning environments for their learners or rather facilitate the learners learning process. It can therefore be concluded that, although this is not in the focus of the

<sup>7</sup> Please find further information on the pilot on [www.eqf-support.eu](http://www.eqf-support.eu).

<sup>8</sup> See the pilot description on [www.eqf-support.eu](http://www.eqf-support.eu) for further information.

EQF predict optimum models that focus on key educational elements (occupational profiles, curricula and assessment procedures), the EQF with its learning outcome orientation does have strong effects on the actual course/ training design in order to respond properly to the overall learning outcome approach. It needs to be further explored how big these effects are on educational practice in the different countries. The EQF Predict results already provide some starting points for further analysis work in this regard.

The applied assessment approach has been strictly oriented on the previously defined learning outcomes by applying a mix of methods in order to assess the different learning outcomes categories. The most challenging aspect has been the assessment of learning outcomes other than knowledge. For this reason the assessment procedures have been developed by applying a problem-based approach simulating as far as possible a real-work environment. For efficiency reasons the assessment has been linked to the actual learning process, however, if it is agreed that the same learning outcomes can be achieved in various ways (informal, non-formal and formal), with no preference for institutional frameworks (like educational/VET institutions), then this is not recommendable for EQF application in practice. It makes rather sense to provide assessment procedures which are not that closely related to the learning context as it has been the case in this pilot. Therefore it makes at any rate sense to implement assessment procedures independently from courses. The applied assessment method that equals a portfolio approach with some additional assessment elements does, however, present a possible approach for EQF-adapted assessment procedures as it could be and is already applied in education practice as different examples show. Such as the learner centred methods in the course design also this kind of assessment does, however, require special competences from the assessors. They also need to be subject matter experts, but they also must be able to assess based on different categories of learning outcomes that require different kind of methods in order to be addressed and assessed properly.

## (5) Conclusions and Recommendations

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In terms of actual *content*, recommendations have already been given by formulating *optimum models of assigning educational key elements to the EQF*. It was clarified that these models cannot be understood as technically formulated structures; since specific national conditions of EQF implementation have always to be taken in account, optimum models cannot exceed the status of sets of general features. It is nevertheless considered sensible to add the general policy recommendations at hand because there are some general conditions which should be reflected if it is expected that the suggested optimum models can get some value:

The EQF is intended to be an instrument for understanding national systems abroad; a *common language based on the description of learning outcomes* shall be used for this purpose. If this shall work, ambiguities are not acceptable, otherwise *trust between stakeholders provided to use the framework* will not arise. There are only two ways how ambiguities can be avoided:

- Descriptors of the EQF do not allow for ambiguity since there is no space for differing understanding.

- Interpretation of the EQF is determined by competent bodies whose understandings are accepted everywhere.

Both ways are paved with considerable obstacles:

- The way how the levels of the EQF are described is not based on a homogeneous approach. It cannot be ignored that there are “sources” of EQF construction which traditionally have not been linked to each other – VET and Higher Education - and it is obvious that this has left traces: Unlike certificates acquired via VET qualifications, certificates of Higher Education can count to be placed at certain EQF levels: *Bachelor*, *Master*, and *PhD* are not described in learning outcomes, but for these academic degrees the levels 7 – 9 have been “reserved”. Under these circumstances, it must not surprise that there is space for various understandings of the EQF descriptors. The process of setting up the EQF model is characterised by negotiations that led to *compromises*, and criteria for compromises are delivered by *interests*, not by necessities arising from systematic approaches. This is a good condition for the arise of *grey zones of understanding*: The necessity to bridge the gap between diverging positions is more important than to provide for well-defined descriptors.
- There is *no* competent body “automatically” accepted all over Europe as an authority entitled to determine the right way of EQF understanding. This is excluded by the way how member states work together in the area of education and training: EU treaties do not allow for establishing rules to be observed in every member state, the implementation of the EQF is based on voluntary decisions of the member states, and it is therefore consequent that it is up to national competent bodies to determine how the EQF shall be understood resp. which levels shall be assigned to national qualifications/certificates.

If non-ambiguity shall be achieved this second way, it is only possible via *actions that ensure trust in the EQF assignment of national competent bodies abroad*. How shall these actions look like? Often enough, the ways how qualifications are assigned to the EQF are subject of debates among national stakeholders that first and utmost defend their interests against others<sup>9</sup>, and this reproduces the pattern described above: Systematic reflections do not have priority in this context. This may be irrelevant for the national stakeholders who after negotiations will be willing to deal with the achieved compromise in the near future, but it is a problem for those who have not been involved into the negotiations, look at the results from outside, and can only accept or reject them.

How to solve this problem? The first step to get out of this dilemma is to acknowledge that it exists: Stakeholders/decision makers should not already be happy if some agreement is visible at the horizon of further development; they should always ask if the envisaged agreement will really contribute to comparability of national educational systems. This is the only approach to achieve a common understanding of EQF implementation: To accept that the “normal way” to get solutions via compromises is at least not sufficient in order to provide for sustainability of the EQF i.e to guarantee that this framework is really used in order to judge certificates from abroad.

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<sup>9</sup> e.g. Higher Education against VET

For this purpose, forums have to be found where adequate discussions on the described topic can take place. The “natural” place for debates of this kind should be the EQF Advisory Group where stakeholders of various kinds from all European countries are assembled. However, discussions should not be devoted to political correctness as it is usual when stakeholders with political responsibility meet, this would prevent openness required for developing a common understanding as described above. It would therefore be wise to provide for the consideration of *innovative approaches* within these debates that try to achieve the same goals as the policy makers from a bottom-up perspective. This can be achieved by invitation of “bottom-up representatives” to the meetings of the EQF Advisory Group, but also long-term support from further sides could be foreseen, such as:

- the portal of the network Vocational Education and Training in the Automotive Sector (<http://www.vetas.eu>) offers a collection of innovative approaches of this kind,
- the EQF Adaptation Support Portal (<http://www.eqf-support.eu>), developed within the project EQF Predict, intends to open a similar perspective in future.

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For further information please visit [www.project-predict.eu](http://www.project-predict.eu) or [www.eqf-support.eu](http://www.eqf-support.eu) or get in touch with [EU-project.akademie@dekra.com](mailto:EU-project.akademie@dekra.com). Comments, remarks and questions are highly appreciated.