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## (1) Introduction

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The report at hand shall give an overview of the activities having taken place within Workpackage 3 *Legal Regulations*. In order to deliver a clear picture of the *way how the final results have been achieved*, understandable also for those who have not been involved in project work, only the basic elements of the whole process are shown in this report, mirroring the methodological approach of work within this workpackage. The basic steps having been done, arranged in a logical sequence, are the following:

- **Typology of legal regulations – Basic version**  
A comparative analysis of country-typical approaches to deal with legal regulations (occupational profiles/standards) was undertaken in order to identify the aspects relevant for designing an optimum model of EQF-assigned legal regulations. The results deliver a synoptic view on the partner countries, considered under the *Form and Legislation of Description of Occupational Standards, Relevant Actors, Concept of Learning Outcomes / Competencies, Consideration of Learning Outcomes in Occupational Standards, Consideration of Work Process Descriptions in Occupational Standards, Status of NQF Development*. This first version of the typology was used as a starting point when the *Optimum Model of Legal Regulations* was set up; after the optimum model had been presented in the framework of interviews with stakeholders, the typology had to be complemented and modified, and the optimum model had to be refined (see below).
- **Principles of proper EQF assignment**  
Although educational key elements described within workpackages 3-5 should be considered independently from each other as they are not necessarily always part of an educational sequence that encompasses all of them, they are in practice very often related to each other in a way that it makes sensible to set up principles of proper EQF assignment valid for all of them.
- **Optimum model of EQF-assigned assessment**  
This model, set up on the basis of the typology indicated above, foresees information about work processes that specify the occupation or specialisation, about the required abilities described by knowledge, skills, and competences, education and training pathways related to this occupation, the assessment related to occupational profiles. It is important that the model is considered in the light of the *principles of proper EQF assignment*.
- **Questions to be addressed to stakeholders**  
These questions are related to the optimum model of legal regulations.
- **Summary of stakeholders' comments**  
This summary is based on the answers of stakeholders on the questions related to the optimum model of legal regulations. They confirmed basically the optimum model presented in the framework of the interviews, but they revealed some up to then undiscovered aspects that had to be considered within a *refined version of the optimum model of legal regulations, related to some thoughts about a revised typology*.
- **Revised Optimum Model / Recommendation Based on the Interview Findings**  
This revised model is not intended to replace the version presented in interviews; it adds, however, some critical points to be considered with regard to assignment in the future..
- **Revised Typology of National Approaches to Occupational Profiles – Initial Thoughts**  
These thoughts are oriented to streamlining the typology according to the results of the interviews, analogously to the revision of the optimum model.

## (2) Typology of Legal Regulations – Basic Version

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### (2.1) A typology of Legal Regulations – an introduction

The aim of this typology of national regulations is to identify key factors in the description of national occupational standards (NOS)<sup>1</sup> that positively influence the adaptation process to the European Qualifications Framework (EQF) and to highlight good practice examples from different nations that might ease the process of adaptation of educational standards towards EQF compatibility. This typology intends to outline how specific elements of national occupational standards can ease the shift towards EQF-compatibility of national educational and occupational standards whilst other elements might make it more difficult to achieve EQF-compatibility.

The process of adapting national qualification systems towards the EQF is a complex one that spans all aspects of a nation's education and qualification system. EQF-compatibility cannot merely be characterised through the adaptability of occupational standards, other aspects of qualification systems such as training programmes and content, assessment and validation, the recognition of non-formal and informal learning, quality assurance, etc. ought to be considered in this process. The issues of adaptability of educational content, assessment and quality assurance are also being examined in the framework of the Predict project. This typology addresses occupational standards as one element of qualification systems that needs to be considered in the process of adaptation to the EQF.

It could be argued that the adaptation process of educational elements to the EQF is work to be carried out within national environments. In principle, this is true: ultimately, the process of making national occupational standards comparable to the EQF is in the hands of the respective decision-makers in the member states who are responsible for devising a National Qualifications Framework (NQF). The recommendation of the European Parliament and the Council are for member states to relate their national qualifications systems to the EQF by 2010, where appropriate, through the development of an NQF. By 2012, all qualification certificates are to bear a clear reference to the NQF and thereby to the EQF. So ultimately, the gap between occupational standards and the EQF is to be bridged by the respective NQFs. The project consortium does, however, hold the opinion that certain existing elements of national occupational standards may ease this process whereas others are not so well-suited to smooth referencing to the EQF. Also, the process of devising NQFs and referencing national occupational standards to those can positively or negatively influence the ultimate appropriateness of such referencing tools. Hence, the national processes surrounding the development / revision of the NQFs is also relevant to the question of EQF-adaptability of national occupational standards and is therefore considered in this typology. The recommendations in form of good practice examples of EQF-compatible occupational standards (or elements thereof) are aimed at stakeholders involved in the process of developing NQFs.

The objectives of this typology are to:

- Compare national occupational standards of selected countries and identify key factors which can facilitate the shift to an EQF-compatible design of educational elements (occupational standards)
- Create recommendations in form of good practice examples for complementing national procedures without compromising them in order to aid EQF compatibility
- Establish common grounds for determining the concept of "EQF compatibility" in order to minimise the spectrum of construing EQF descriptors

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<sup>1</sup> The term *occupational standard* refers to occupational or qualification profiles, i.e. any form of official description of qualification / job profiles. It was chosen since it is a broad definition that takes into account the countries' traditions of describing occupational profiles.

National occupational standards were analysed with regard to their EQF-compatibility in order to identify key factors which can facilitate the shift to an EQF-compatible design of educational elements. In order to establish in how far occupational standards are EQF-compatible, they were examined in terms of their description. The analysis of occupational standards and their form of description in the relevant countries (see below) highlighted the fact that there are two main factors which positively influence the EQF-adaptability of national occupational standards. Those are: (1) orientation towards learning outcomes; and (2) reference to work processes. This issue will be discussed in-depth in the analysis of factors inhibiting or positively influencing EQF-adaptability.

Beyond this, it is important to consider the process of development of NQFs in the respective countries since this work involves the very process of EQF-adaptation of national occupational standards.

## (2.2) National occupational standards in Europe

The following countries' systems of describing occupational standards were examined:

- Austria
- Greece
- Germany
- United Kingdom
- Spain
- Romania
- France

The countries examined are characterised by stark differences in their tradition of describing occupational standards. The differences identified are found in: (1) the role of description of occupational standards, i.e. do they have an impact on the design of training programmes; (2) degree and extent of official descriptions ranging from highly standardised systems such as are found in Germany and Austria to highly flexible systems where there is no official description of occupational and educational standards such as can be found in the UK; (3) form of description of national occupational standards, including the extent of official description of learning outcomes, referencing to work processes etc; (4) the referencing of occupational and qualification standards to qualifications frameworks or other official referencing tools.

It should be noted from the outset that it is highly difficult to compare European qualification systems for those very reasons. Occupational standards differ widely from country to country to such an extent that they become almost "un-comparable". This again stresses the importance of a clearer definition of learning outcomes and work processes in direct reference to national occupational standards as this is the only way to achieve transparency and comparability of European qualifications.

Each country's system of occupational standards/profiles was examined in terms of form of description, reference to learning outcomes and work processes, and the process of development of NQFs and its specific characteristics in the respective country.

The essential questions in the examination of the countries' systems of describing occupational standards were the following:

- How are occupational standards, i.e. occupational and qualification profiles described?
- Is the current description compatible with the EQF, i.e. outcome-oriented?
- Which steps must be taken in order to adapt profiles so they become EQF-compatible?
- Do work process descriptions exist as a basis for job profiles?
- What is the current stage of development of the NQF?

The following table gives an overview of the outcomes of this analysis.

	Germany	Austria	Greece	Spain	France	UK	Romania
FORM AND LEGISLATION OF DESCRIPTION OF OCCUPATIONAL STANDARDS	Occupational standards in VET are described through two documents, the <i>Ausbildungsordnung</i> and the Framework Curriculum for vocational schools. Together, they define the job profiles. The <i>Ausbildungsordnung</i> is developed equally by social partners and the relevant ministries, the Framework Curriculum is developed by the Standing Conference of the federal Ministers of Education.		Occupational profiles form a comprehensive description of a profession following an official form of structure including the following: Title - definition of the profession and / or the specialisation · history and development of the profession · current legislative framework · analysis of the profession and / or specialisation · necessary knowledge, skills, competences to practise a profession · proposed routes for the acquisition of professional qualifications · illustrative ways of assessing knowledge, skills, competences	The National Qualification Catalogue is the official document containing the descriptions of all qualifications. Currently 731 qualifications are completely described. It is developed by the National Institute of Qualifications (INCUAL).	All French "référentiels de diplôme" are official forms which describe for each diploma : - The context of the work - The professional profile - The competencies linked to the tasks and activities describing the profile - The part "referential de certification" describes the modalities of the examination so that certification is not only a training certificate. Its objectives are that the trainee is <i>able to perform the job</i> .	National Occupational Standards (NOS) are the primary units formulated to identify skills and to inform construction of vocational qualifications. Regulation takes place at a national level, that is, England, Scotland, Wales and Northern Ireland. Each country has a separate educational legislation but in some instances common processes and common UK bodies advise the independent national assemblies.	Occupational standards are documents that define in terms of competences the necessary requirements for efficient performance of activities in an occupation. The occupations are listed in the Classification of Occupations in Romania – COR, coordinated by the Ministry of Labour, Family and Social Protection.
RELEVANT ACTORS	Ministry of Education and Research and the Ministry of Economy, the German Federal	Federal Ministry for Education, Arts and Culture (BMUKK) Federal Minister of	Ministers of: a) Economy and Finance, b) Education, Lifelong Learning and Religious	Ministry of Education and Ministry of Labour in collaboration with Employer's	Certificative authorities and social partners	Qualifications and Curriculum Authority (QCA), the Scottish Qualifications Authority	Ministry of Labour, Family and Social Protection.

	Institute for Vocational Education, social partners	Economy, Family and Youth (BMWFJ) Federal Minister of Labour, Social affairs and Consumer Protection (BMASK)  The social partners develop and provide expertise concerning VET and participate in the BU-BAB and the regional L-BABs.	Affairs and c) Employment and Social Protection, social partners and the Organisation for Vocational Education and Training (OEEK)	Associations, Trade Unions and INCUAL (Qualifications National Institute)		(SQA), the Qualifications, Curriculum and Assessment Authority for Wales (ACCAC), the Council for the Curriculum Examinations and Assessment (CCEA), the Sector Skills Development Agency (SSDA) and up to six employer representatives represented by the Sector Skills Councils. (Employers are an increasing influence on the education system including its legal structure). In addition as qualification designers, Awarding Bodies are consulted on qualification related legislation. Trade Unions have direct connections with government on education issues and are often actively engaged with Sector Skills Councils.	
CONCEPT OF LEARNING OUTCOMES / COMPETENCIES	Learning outcomes are expressed in the various formulations of standards of <i>Kompetenz</i> that have been developed in particular for VET, where a concept of <i>Handlungskompetenz</i>	Austria is moving to strengthen the learning outcome approach in all parts of the education and training system as it will be central to the positioning of qualifications onto the NQF.	There is a move towards outcome-orientation in the formulation of occupational profiles. Creation of job profiles is now based on learning outcomes. This common methodology is an	The concept of "learning outcome" is part of the methodological approach adopted in the National System for Qualifications and VET (Organic Law 5/2002).	LOs concern non formal, informal and formal learning and the descriptions of the LO are made in the same manner whatever the type of learning is.	The learning outcomes approach underpins the English and Northern Ireland qualifications systems. Actively promoted since the 1980s, this perspective is broadly accepted and implemented.	Romanian concept of "LO includes the components of: "Knowledge" "skills" and "competence" as they are described in the EQF recommendation.

	(action skills) has gradually assumed a key role in qualifications definition, alongside clear input requirements about place, duration and content of learning.		innovative development for VET in Greece as it changes the traditional input orientation to a learning outcomes approach.				
CONSIDERATION OF LEARNING OUTCOMES IN OCCUPATIONAL STANDARDS	The German qualification system is traditionally input-oriented, though there is an increasing trend towards learning outcome orientation. However, learning outcomes are clearly defined in each occupational profile through the <i>Prüfungsverordnung</i> which is linked to the occupational profiles ( <i>Ausbildungsordnung</i> ) and states the expected learning outcome	Many occupational standards are already formulated in a learning outcome-oriented manner, but the approach has not been applied consistently across all sectors and institutions.	A new common methodology for the creation of job profiles based on learning outcomes was created by Ministerial Decision No 110998/2006. This common methodology is an innovative development for VET in Greece as it changes the traditional input orientation to a learning outcomes approach. The methodology applied in the practical training of the IVET exams, operated by OEEK, is mainly based on the learning outcomes approach.	Spanish occupational standards are defined in an outcome-oriented manner. There is a clear link between training modules and competence units, each training module is associated to pre-defined competencies.	Learning outcomes descriptors refer to the single <i>qualifications</i> following a "standardised typology" ( <i>«knowledge, skills and competences»</i> ). Learning outcomes of a <i>qualification «can be listed in a catalogue of units, a qualification standard or any other memorandum on qualification»</i> . Preference is given to the <i>units</i> . The description of learning outcomes units <i>«can vary according to the qualifications system and the procedures of the competent body»</i> .	NOS are derived from workplace competence requirements and therefore linked to work processes. It is a requirement of vocational qualifications developers to identify and record learning outcomes for each qualification created.	Occupational standards are documents that define in terms of competences the necessary requirements for efficient performance of activities in an occupation. The Learning Outcomes approach has been more developed in IVET
CONSIDERATION OF WORK PROCESS DESCRIPTIONS IN OCCUPATIONAL STANDARDS	Descriptions of work processes are included in the Framework Curricula for vocational schools in the form of fields of activity which structure the learning process.	Descriptions of work processes are included in the Framework Curricula for vocational schools in the form of fields of activity which structure the learning process	In certified occupational profiles there is a clear link to work processes and learning outcomes.	Work processes are taken into account through taking on board competence requirements set by the work process in the design of qualifications.  At the NQF qualification structuring process there is a link to work processes which is guaranteed by the participation of companies experts	Work process descriptions are included in all French "référentiels de diplôme"	National Occupational standards are derived from workplace competence requirements and therefore linked to work processes.	

				<p>representatives at every qualification profile description.</p> <p>However there is no official model that ensures the matching of recognised qualifications and industry work profiles demand.</p>			
<p>STATUS OF NQF DEVELOPMENT</p>	<p>An overarching national qualifications framework for lifelong learning based on learning outcomes (<i>Deutscher Qualifikationsrahmen – DQR</i>) is currently being developed in Germany. The draft version is in the process of being tested and finalisation is expected in 2010. The shift to learning outcomes is supported by major stakeholders. One important aim of the DQR is to support the use of learning outcomes in standard setting, curricula and assessment.</p>	<p>The development of the NQF is in progress. Completion is expected in 2010. All qualifications (formal, non-formal and informal) will be related to the NQF.</p> <p>A NQF is as structure which did not at all exist in Austria and cannot be implemented without overcoming big obstacles and open or hidden scepticism.</p>	<p>The Greek NQF will consist of 8 levels. Due to a delay in the work on the NQF, it now follows the logic of the EQF in terms of descriptors and ways of thinking. Completion is expected in 2010, vocational education is mostly located at level 4. The finalisation of the NQF will be followed by the development of occupational profiles accordingly.</p>	<p>The NQF has been finalized. There are 5 levels implying a progress route allowing for LLL. "Qualification" as a term refers to occupational competence units profiles which are divided into competence units. Each qualification is consists of individual modules and can be acquired through any form of learning, formal, non-formal and informal. There is an official procedure of assessment, recognition, evaluation and accreditation.</p>	<p>A national qualification framework already exists.</p>	<p>An NQF has existed for quite some time, it includes 9 levels (1 entry level), the application of the NQF to the EQF is to be finalized by 2010.</p> <p>There is also one Qualifications and Credit Framework in place, consisting of units and credits, based on a mix and match principle, enabling progression and LLL.</p> <p>National vocational qualifications (NVQs) are embedded in the National Qualifications framework.. The NQF is regulated and consistency of application maintained by the Qualifications and Curriculum authority.</p>	<p>There will be one NQF for each form of learning (VET, adult training, HE). Currently, a qualifications framework with 5+ levels exists, however, it does not receive much recognition. The NQF which was to replace the existing one could not be legislated as it was judged to be unconstitutional, therefore, the process will continue. The NQF for HE is already in place.</p>

### (2.3) Findings of the analysis of national systems of developing NOS

The professional bodies involved in the development of NOS such as governmental bodies, social partners, sometimes end users are consistent throughout the examined countries. However, the degree to which and the stages within the process at which they are involved varies between countries and sub-systems but they are always involved in defining the professional competencies for the standard, often in collaboration with training providers and relevant authorities.

The analysis also aimed at exploring the extent to which learning outcomes are considered in NOS:

Most NOS are described in relation to the profession. Professional competencies are the defining factors for specific learning outcomes of a given profession. These professional competencies are often expressed in terms of what a learner is able to do, i.e. in the form of learning outcomes and often span the EQF categories of knowledge, skills and competencies but are rarely categorised explicitly. However, the existence of any form of description in terms of learning outcomes does not mean that NOS are to be considered outcome-oriented. In spite of the inclusion of learning outcomes in NOS, there is still a strong input-orientation prevalent in most systems (the most notable exception being the UK).

The inclusion of learning outcomes in one form or another in NOS exists in all the countries examined. However, the definition of learning outcomes differs between countries. Moreover, the fact that a description of learning outcomes is in some way included in occupational standards does not imply that its development is based on learning outcomes or that there is a real tendency towards outcome-orientation in the systems. In spite of the use of learning outcome descriptions, most systems are still predominantly input-oriented. There is a need to find a way of incorporating transversal competencies into learning outcomes whilst describing NOS independent of the learning pathway (input).

Many systems remain more concerned with learning pathways rather than the outcome. The reason for this is often a fear of losing quality. In many countries, specifically highly standardised ones, the institution in which learning takes place is regarded as a quality-assurance mechanism. Hence, there is a level of reservation to say the least, to switch to a more outcome-oriented approach.

### (2.4) Factors positively influencing EQF-adaptability

#### **Learning outcome orientation**

As described above, two main factors positively influencing EQF-adaptability become apparent: the clear reference to learning outcomes of occupational standards on the one hand, and the inclusion of work process descriptions on the other.

As the EQF builds upon learning outcomes, an outcome-oriented system can define clearer references to the EQF than a certificate-based one. The EQF builds upon learning outcomes, i.e. it matters what an individual knows, is able to do, is competent at, not how this individual has achieved that given level of knowledge, skills or competencies. Occupational standards that bear a clear link to the learning outcomes that come with it can more easily be referenced to the EQF. A clear definition of learning outcomes is the first step towards EQF-adaptability.

As a matter of fact, most European countries are still input-oriented in that they base qualifications on the form of learning and not the learning outcomes. This becomes apparent in predominant assessment structures that do not allow for the recognition of informally or non-formally acquired learning outcomes. This applies particularly to IVET but is also still the case in many CVET qualifications. The vast majority of European countries still have a long way to go to achieve true learning outcome orientation. True outcome orientation implies that the question of where, how and for how long an individual acquired outcomes becomes redundant. However, in recent years, all

countries that were examined have made a noticeable move toward the inclusion of clearly defined learning outcomes that relate to specific occupational / qualification standards. This means that despite the lack of true outcome orientation as described above, learning outcomes are clearly defined in direct connection to the occupational standards they refer to. This is a first and major step towards EQF-adaptability. However, especially with regard to the recognition of informal and non-formal learning, most countries still have a long way to go.

The most notable exception to this trend is the UK. The learning outcome approach underpins the English and Northern Irish education systems and has done so since the 1980s. This is also reflected in the nature of the NVQs. NVQs are work-related, competence-based qualifications. They reflect skills and knowledge needed to do a job effectively and show that a candidate is competent in the work area represented by the NVQ. NVQs are based upon occupational standards that are statements of performance that describe what competent people in work roles are expected to do. NVQs do not have to be completed in a strict time frame, they can be taken by full time employees, part time or college students with no age restrictions or entry requirements. NVQs are achieved through assessment and training. Assessment is normally through, on the job, observation and questioning supported by a portfolio of evidence demonstrating competence. Approved assessment centres, including company workplaces provide the environment in which assessment takes place. Trainers and verifiers within this system are required to be “qualified”.

Some countries are undertaking efforts to redefine their occupational standards in a more EQF-compatible way, defining clearly the learning outcomes in terms of EQF descriptors. Germany, for example, is currently running pilot projects to reformulate the occupational profiles of two professions as well as defining a model process for future EQF-compatible formulation of occupational profiles.

#### Work process descriptions

The second factor of importance is a transparent reference to work processes. Occupational profiles, i.e. official qualifications and the respective surrounding systems hereto differ so widely from country to country that it makes little or no sense to rely on them in order to achieve greater comparability of such throughout Europe. At the same time, it becomes clear that the work processes and therefore the work contents are more or less the same throughout Europe, a “web designer” in Greece has more or less the same work processes as a “web designer” in Spain or the UK. It is therefore much more viable to use the similar work processes as a basis for deriving competencies and / or abilities, therefore making European qualifications comparable throughout. If there is common ground for determining the required learning outcomes (this also implies a common understanding of the work process to which certain abilities are related), this should narrow the spectrum of construing EQF descriptors.

The comparison of countries has highlighted, that all countries have included some form of reference to work process descriptions in their occupational standards. What is apparent is the lack of regulated processes to ensure that work processes and the competence requirements derived from those are continually monitored and updated.

It is for those reasons that a clear link between occupational standards and work processes relating hereto is crucial in the process of EQF-adaptation of national standards and profiles. This becomes even more relevant in lieu of the debate of risks of fragmentation of occupations through the sole focus on learning outcomes in the EQF. This debate has taken place especially in Austria and Germany, where the dual system has brought about a holistic understanding of occupational profiles as professions that cannot merely be characterised through isolated learning outcomes. The totality of *berufliche Handlungskompetenz*, a holistic amalgamation of professional competence that can also be characterised as professional identity was in the focus of this debate. The risk of fragmentation of such holistic competence approaches seems evident in a mere addition of isolated learning outcomes divided into knowledge, skills and competencies. Defining the work process, as the subject of work in which professional competence unfolds, could avert such fragmentation.

## (2.5) Recommendations

1. *Improving mutual trust through increasing transparency of national processes of developing occupational standards (transparency at national level).*

The ways in which elements of qualification systems in Europe have been described differ a lot from country to country. This spans all aspects of those systems, applying to categories, granularity of designs, involvement of organisations, etc. A review of approaches used in some of the EU member states could help to identify some of the key characteristics that can best support that adaptation of systems towards EQF-compatibility, providing for a maximum degree of unambiguousness, thereby preventing mutual mistrust. Shared methodologies do not exist in Europe. The question is whether there is enough understanding of the design and make-up of occupational standards in other systems in order to create the level of trust required in the process of referencing national systems and frameworks to the EQF. This does not imply the replacement of national traditions with one European model but the suggestion for complementing national procedures with definitions that can be read and understood throughout Europe. A precondition for mutual trust is the knowledge and understanding of different systems' processes of developing NOS (and other elements of qualification systems such as training contents, quality assurance standards and the like which are addressed in other EQF Predict documents).

2. *Improving mutual trust through more in-depth definitions of and information about concepts and indicators of the EQF (transparency at European level)<sup>2</sup>*

There is a lack of common understanding about underlying concepts and descriptors of the EQF, in particular in relation to the concept of learning outcomes. Professionals involved in qualification design and development of qualifications are often less familiar with the LO approach to qualification design and more familiar with describing qualifications in an input-oriented manner.

Whilst the concept of LO orientation appears to be widely adopted, there does not seem to be a shared or universal understanding of it. When broken down to its components of knowledge, skills and competencies. Other concepts and terms identified in the process of definition and development of NOS such as the concepts of "qualification", "validation" and "recognition" also appear to require further explanation according to specific national contexts in order to develop a common understanding of a European definitional context. There is a lack of in-depth information available on qualification processes and processes of development of NOS which may explain the different translations and understanding of various terms and concepts used in the European context.

It is recommended that a specific glossary be developed and included in the European Recommendation. This glossary ought to provide a description of each of the key concepts according to the specific context of each country. Provision of such information should help to ensure mutual trust.

3. *Exchange of experience in the process of development of National Qualifications Frameworks and their referencing to the EQF*

An exchange of practice and experiences made in the process of developing and testing NQFs will highlight factors positively and negatively influencing EQF adaptability which will necessarily differ from country to country. The experience made with overcoming and / or utilising those factors through the consideration in the respective NQF will provide important information to other countries. The fact that countries are at different stages in the

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<sup>2</sup> As recommended by the EQF Network Testing Project (Call proposal DG EAC/22/06)

development and testing of their respective NQF further highlights the benefits of such exchange of information. Moreover, an increased understanding of different nations' NQFs will positively influence mutual trust.

#### *4. Creating transparency through the inclusion of clearly defined work processes and learning outcomes in occupational standards.*

It is evident that most countries still have a long way to go in the process of EQF-adaptation of their national qualification systems. This applies not only to the description of occupational profiles in an EQF-compatible way but spans the entirety of education systems including the continuation of the process of developing NQFs. With regard to the formulation of occupational profiles, the recommendation is consequently to include clear definitions of learning outcomes in order to create a direct and visible link between national occupation profiles and the logic of the EQF.

The referencing of occupational standards with work processes is another important step towards EQF-adaptability. In spite of the facts that most countries have include some form of reference to work processes in their occupation standard, there is no sufficient guarantee that these work processes and especially the competence requirements derived thereof continue to be relevant. A well-regulated monitoring process through stakeholders of each sector should ensure that work processes are continually updated and that competence requirements derived from those are interpreted and implemented in a meaningful way. Within this process, it ought to be borne in mind that occupational profiles are more than just the mere accumulation of units of learning outcomes.

It makes little sense to attempt to achieve greater European transparency and comparability through solely relying on the comparison of occupation standards. One necessary step for EQF-compatible occupational profiles is thus a clear definition of learning outcomes as well as the incorporation resp. consideration of work processes in the formulation of official profiles.

#### *5. Promoting the EQF's principal aims at national level – revision of approaches and priorities*

Last but not least, decision-makers and stakeholders should not lose sight of the principal aims of the EQF: to promote citizen's mobility between countries and to facilitate their lifelong learning. With regard to occupational standards, these aims can be better achieved through a review of national traditions and approaches. It is not sufficient to merely list the learning outcomes for each qualification or occupation as has been done already in most countries. In order to achieve the mobility and permeability that is intended in this process, countries need to make a greater effort to implement the logic behind outcome orientation, meaning the opening of occupational standards to individuals who have attained the learning outcomes relating thereto, independent of how they were acquired.

### **(3) Principles of proper EQF assignment**

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*Preliminary Remark:*

*These principles concern work within Workpackages 3 – 5. They have been used as a basis of the discussion about the development of optimum models as well as basic guidelines for interviews with stakeholders. Since the specific optimum model of the workpackage at hand should be considered against the background of these*

*principles, they are included in the report at hand, too, although this report deals with the specific work within this workpackage and the principles have been also described at another place.*<sup>3</sup>

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. For this purpose, contributions of project partners were collected which delivered necessary information about the situation in the partner countries, but also some studies dealing with the above mentioned key educational elements were evaluated.

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*.

These principles, referring to the above mentioned sequence of optimum models, shall be described in the following. The results of interviews carried out with stakeholders are considered, as well as the results of pilots carried out to practically test the approaches presented in the sequence of optimum models.

#### 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.

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<sup>3</sup> Within Deliverable 88

- 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>4</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 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

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<sup>4</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*.

*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.

### (4) Optimum model of EQF-assigned legal regulations

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#### (4.1) Basic reflections

The term occupational standard refers to occupation or qualification profiles, i.e. any form of official description of qualification / job profiles. It was chosen since it is a broad definition that takes into account the different countries' traditions of describing occupational profiles.

European countries vary strongly regarding their application of occupational standards<sup>5</sup>. The countries examined are characterised by strong differences in their tradition of describing occupational standards. The differences identified are found in: (1) the role of description of occupational standards, i.e. do they have an impact on the design of training programmes; (2) degree and extent of official descriptions ranging from highly standardised systems such as are found in Germany and Austria to highly flexible systems where there is no official description of occupational and educational standards; (3) form of description of national occupational standards, including the

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<sup>5</sup> cp. CEDEFOP (2009). *The dynamics of qualifications: Defining and renewing occupational and educational standards*. <http://www.cedefop.europa.eu/EN/publications/5053.aspx>

extent of official description of learning outcomes, referencing to work processes etc; (4) the referencing of occupational and qualification standards to qualifications frameworks or other official referencing tools.

From the projects findings occupational profiles or equivalent instruments are necessary to ensure proper EQF application. Such an instrument ideally covers the following elements for EQF adaptation:

- Title and definition of the occupation or specialisation
- Description of the work processes that specify the occupation or specialisation
- Required abilities expressed in the EQF descriptors knowledge, skills and competencies
- Education and training pathways related to this occupation
- Indications on the assessment of the required abilities

#### (4.2) Diving into principles and points of action of EQF-adapted occupational profiles

This part of the optimum model of EQF-adapted occupational profiles further elaborates the points of action and the general principles in EQF assignment outlined before. It highlights the crucial points of action and reflects them in terms of the postulated principals for proper EQF assignment.

#### **Description/Identification of the work processes that specify the occupation or specialisation**

The development process of this point of action is one of the crucial steps to ensure a profile's orientation towards work and business processes. Two aspects have to be considered

(1) Application of scientific methods for work analysis<sup>6</sup>

Different approaches are applied in practice to analyse work based on scientific methods. These methods range from interviews with expert workers, to observations of the actual work process, to large scale surveys. The elements that were identified as being of major importance for EQF-adaptation are an objective and transparent approach when analysing work and an approach likewise referring to up-to-date work requirements and future skill needs.

(2) Participation of stakeholders<sup>7</sup>

Stakeholder involvement is an integral part of this optimum model in order to ensure relevance of the occupation and the link between labour market and education. A challenge to be mastered within this optimum model are nevertheless additional interests stakeholders have in qualifications such as classification into different wage groups when it comes to EQF-adaptation<sup>8</sup> because those jeopardise objectivity and neutrality of the process and can have a strong influence on the assignment of qualifications to an NQF level.

It can be concluded that in an optimum model of EQF-adaptation the description of profession has to be based on participative trans-disciplinary research rather than on negotiation processes between stakeholders. This conclusion applies likewise to all following elements of occupational profiles.

#### **Required abilities expressed in the EQF descriptors knowledge, skills and competencies**

The process of developing EQF descriptors and the actual phrasing of these descriptions is of relevance within this point of action. These steps directly build on the analysis of work discussed above and inherit the same principles as outlined in the principles of proper EQF assignment.

<sup>6</sup> cp: CEDEFOP (2004). *European perspectives on learning at work*. [http://www.cedefop.europa.eu/EN/Files/3033\\_en.pdf](http://www.cedefop.europa.eu/EN/Files/3033_en.pdf) and CEDEFOP (2009). *The dynamics of qualifications*. <http://www.cedefop.europa.eu/EN/publications/5053.aspx>

<sup>7</sup> cp: CEDEFOP (2009). *The dynamics of qualifications*. <http://www.cedefop.europa.eu/EN/publications/5053.aspx>

<sup>8</sup> cp: CEDEFOP (2009). *The dynamics of qualifications*. <http://www.cedefop.europa.eu/EN/publications/5053.aspx>

The *process of developing EQF descriptors* and transferring them into occupational profiles can follow steps such as the following<sup>9</sup>:

(1) Identification of work and business processes

The basis for the formulation of learning outcomes is the identification of work and business processes that can be assigned to a certain profession. The required abilities are always related to occupation-typical work and business processes.

(2) Partition of fields of activity

The occupation profile is structured into fields of activity which are based on the work and business processes identified in step 1. (See an example from the European core occupation Car Mechatronic in the annex to occupational profiles.)

(3) Definition of learning outcomes related to the fields of activity

After the partition of fields of activity, learning outcomes are determined for each field of activity. These are formulated in an outcome-oriented manner (see also below).

(4) Transferring the fields of activity and learning outcomes into the occupational profile

The re-formulated fields of activity and learning outcomes are transferred into an occupational profile/standard that sets the different partitions in the framework of the overall profession.

Step (2) on partitioning the fields of activity plays a crucial role regarding recognition of prior learning/ learning that took place in- and non-formal learning situations because it allows the assessment and recognition of a specific set of learning outcomes within an occupational profile. For an optimum model it is even desirable to structure these sets in a way that allows the assignment of selected sets to more than one profile such as partitions that refer to basic work and business process that can lead to different occupations. Nevertheless the holistic understanding of a profession has to remain and partitions of the field to activity have to be assigned to a certain occupational profile which is itself assigned to a specific NQF/EQF level.

Within this overall process of developing and transferring learning outcomes the relation to work and business processes must be ensured.

The actual *phrasing of the learning outcomes* (see step 3 above) follows the EQF descriptors definition in an optimum model of EQF-adaptation. This means learning outcomes<sup>10</sup> are described in

- **Knowledge** *“means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual”*
- **Skills** *“means the ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments)”*
- **“Competences”** *means the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy”*

Please find an example for these descriptors below. It is based on the qualification “master craftsperson in motor vehicle mechanics” adapted for Austria<sup>11</sup>:

<sup>9</sup> based on Hensge, K., Lorig, B. & Schreiber, D. (2009). *Kompetenzstandards in der Berufsausbildung – Abschlussbericht*. [http://www2.bibb.de/tools/fodb/pdf/eb\\_43201.pdf](http://www2.bibb.de/tools/fodb/pdf/eb_43201.pdf)

<sup>10</sup> see *Recommendation of the European Parliament and of the Council from 23 April 2008 on the establishment of the European Qualification Framework for lifelong learning, Annex I.*

	Knowledge	Skills	Competences
<b>Unit 1: Inspection of a motor vehicle (incl. motorcycles and lorries) and its systems</b>			
He/she is able to inspect the electrical system of a motor vehicle (incl. motorcycles and lorries) and trailer.	He/she has knowledge in the following fields: <ul style="list-style-type: none"> <li>• Circuit diagrams and repair instructions</li> <li>• Diagnostic and measurement devices</li> <li>• Regulations on the inspection of electrical and electronic systems</li> <li>• etc.</li> </ul>	He/she is able to ... <ul style="list-style-type: none"> <li>• read and apply circuit diagrams and repair instructions.</li> <li>• correctly connect and use measurement and diagnostic devices.</li> <li>• correctly assess and apply measurement results.</li> <li>•</li> </ul>	He/she acts independently and on his/her own responsibility or has ultimate responsibility if he/she delegates this work to a team he/she heads or to employees.

### Education and training pathways related to this occupation

In order to implement the principle of openness to recognition of prior/ in- and non-formal learning the education and training path to acquire the learning outcomes as defined above may not be limited to a specific training scheme and has to be open for the option that relevant learning outcomes assigned to a specific occupation can also be acquired partially or totally through unknown learning paths. In an optimum model this should explicitly be included.

### Indications on the assessment of the required abilities

Assessment procedures as well as access to assessment need to be regulated in a way that they likewise allow the assessment of learning that took place in formal as well as in in-/non-formal settings.

Assessment criteria should e.g. be structured into fields of assessment which directly relate to the fields of activity defined before. The same applies for assessment procedures in order to allow the assessment and recognition of in- and non-formal learning that represents only parts of the learning outcomes assigned to the occupational profile.

### (5) Questions addressed to stakeholders

#### Questions related to *Basic Reflections*:

- (1) Which equivalent instrument do you see in our education system?
- (2) To which extent do these elements appear in this instrument? What option and what limitations do you see regarding the integration of these elements?

#### Questions related to *Diving into Principles and Points of Action of EQF-Adapted Occupational Profiles*:

- (3) How do you rate the aspects described in terms of their relevance for EQF-adaptation?
- (4) How would you describe the current approach in our education system in relation to the one proposed?

<sup>11</sup> example taken from the results of the ZOOM project [www.zoom-egf.eu](http://www.zoom-egf.eu), further examples for Austria, Bulgaria, France, Germany, Greece and Slovenia are available from this project and on the website as well

- (5) Which limitations and options do you see regarding their application in our education system?

Questions related to *Required Abilities Expressed by the EQF Descriptors knowledge, skills, and competences*

- (6) How do you rate the aspects described in terms of their relevance for EQF-adaptation?  
(7) How would you describe the current approaches in our education system in relation to the ones proposed?  
(8) Which limitations and options do you see regarding their application in our education system?

Questions related to *Education and Training pathways:*

- (9) How do you rate this aspect in terms of its relevance for EQF-adaptation?  
(10) How would you describe the current approach in our education system in relation to the one proposed?  
(11) Which limitations and options do you see regarding its application in our education system?

Questions related to *Indications on the Assessment of the Required Abilities:*

- (12) Which kind of recognition and validation of non-formal and informal learning do you consider to be feasible within our education system?  
(13) Which limitations do you see regarding recognition of non- and informal learning in our education system?

These questions were supplemented by *general interview questions:*

- (14) Do you consider all aspects necessary for proper EQF assignment as presented and described so far?  
(15) Do you have any suggestions of how to improve the optimum model(s) outlined before?  
(16) From your point of view, what are the main strength and weakness of the proposed model(s); what benefits/drawbacks would such a model(s) bring to our education system?  
(17) Based on the NQF implementation process in our country, which possibilities and limitations do you (still) see to further address the aspects discussed in this optimum model for EQF adaptation of occupation profiles / standards?  
(18) Could the elements of the optimum model(s) be a contribution to resolve problems of EQF referencing? Do you feel the optimum model could contribute to easing EQF referencing in our country?  
(19) Following the framework debates in your country/sector, which tie-ins do you discover for the discussion of the issues raised by the above delivered descriptions of optimum models?

## (6) Summary of interviews with stakeholders

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The purpose of the interviews was to assess and validate the project results developed to date with regard to models / criteria for EQF adaptation in Europe. The questionnaire incorporated project results from WP 3 (occupational profiles), WP 4 (curricula) and WP 5 (assessment). This report summarises the interview results for project results within WP 3. This includes the typology of different kinds of occupational profiles in the selected countries and the optimum model developed for proper adaptation of occupational profiles to the EQF. The

objective of the work carried out within WP 3 was to develop an optimum model for EQF assignment of occupational profiles, using the experience of various countries and sectors whilst considering and maintaining the specific pre-conditions of each individual system.

The following countries were involved in the interviews:

- Austria
- France
- Germany
- Italy
- Romania
- Spain

In order to ensure validity and applicability of the model developed and to allow for best-possible consideration of national specifics, interviews with national stakeholders were carried out.

#### Objectives of the interviews

- evaluation of the optimum model, criteria / principles applied
- identification of possible changes / amendments to adapt to / integrate in the models
- reflection of limitations and possibilities to implement such a model (along with criteria / principles) in the individual countries

#### Approach

- the approach to the interviews was designed flexibly. Interviews were conducted either as individual or group interviews.
- each partner (representing the involved countries) was asked to involve between five and ten stakeholders from the target groups specified
- the interviews were implemented in a flexible manner, i.e. the partners were asked to adapt the interviews to the target group, setting, specific expertise of the interviewee, etc. Partners had the ability to also focus on their national priorities in the interviews (e.g. specifics of the national system, the status of development of the NQF, problems that arose in this country, etc.)

#### Target groups

- interview partners should be relevant stakeholders among competent authorities, VET providers, employers' associations, trade unions, schools, etc.

This summary of interview results takes into account responses to interview questions 1-3, dealing with general principles of EQF assignment; and 4-16, dealing with principles of EQF assignment of occupational profiles.

#### (6.1) Initial remarks – general principles of EQF assignment

This section deals with the interview responses on the general principles of EQF assignment wherever the responses seemed relevant / had implications on the EQF assignment of occupational profiles.

As principles of EQF assignment, the optimum model defined:

1. Interrelations between different key education elements and the consequences resulting from these interrelations when assigning one of the to the EQF
2. A holistic view on the work processes as a starting point for EQF application

3. Determining learning outcomes in a holistic way vs. fragmentation through learning outcome orientation
4. Developing trust in learning outcomes achieved outside the institutional context of certifying bodies
5. The role of stakeholders and their specific interests and positions

The vast majority of countries agreed with the principles of EQF assignment, this includes Germany, Austria, Greece, France and Italy. France noted that the principles of proper EQF assignment could also be interesting independent of the process surrounding the EQF. Romania did not agree with the entirety of the principles.

France states that it should be borne in mind that the EQF is just a tool. The proposition of a model could lead to misinterpretation of its function. Beyond this, France suggests that the collaboration of European countries on better definition / an improved common understanding of descriptors and levels would be an important part of EQF adaptation. This includes better communication about concepts and indicators which are interpreted differently from country to country. This is a point which will be discussed in more breadth in the recommendations resulting from the interviews.

Romania states that the general principles are relevant but cannot represent a valid general model. It suggests rating of principles of EQF assignment:

1. Learning outcomes
2. Three educational elements
3. Stakeholder involvement
4. Recognition of prior learning

Romania also suggests a sixth model, the forecasting of labour market needs for education providers.

## (6.2) Occupational profiles

The following points were formulated subject of the interview on proper EQF assignment of occupational profiles:

1. Form and content of occupational profiles in the specific countries
2. Description / identification of work processes as a basis of occupational profiles
  - a. Application of scientific methods for work analysis
  - b. Participation of stakeholders
3. Considering EQF descriptors in occupational profiles
  - a. Possible methodology of adapting occupational profiles to include EQF descriptors
    - i. Identification of work and business processes
    - ii. Partition into fields of activity
    - iii. Definition of learning outcomes related to the fields of activity
    - iv. Transferring the fields of activity and learning outcomes into occupational profiles
4. Consideration of education and training pathways in the occupational profiles
5. Indications on the assessment of the required abilities

Generally, all interviewees agree on the fact that the above-mentioned criteria are important in the adaptation of occupational profiles to match the EQF.

### Form and content of occupational profiles

All countries state that the occupational profiles of their country match the form and content as described in the questionnaire. Interestingly, Romania does not regard occupation profiles as educational element. This is seen rather in the labour market than in education.

### Description / identification of work processes as a basis of occupational profiles

With regard to the second point, the description and identification of work processes as a basis for the development of occupational profiles, all interviewees agree that this is an important criterion and state that this method is applied in their country. With regard to stakeholder involvement (esp. social, partners), most countries agree that this is central to assuring that occupational profiles are relevant, responsive to needs and advantageous for all parties concerned. Some countries, especially Romania and to some degree Spain regard the involvement of stakeholders in this process as critical. They see the risk of work processes being the subject to bargaining between social partners rather than the result of neutral “research”.

Some countries state that there is a lack of a system for updating occupational profiles regularly in order to ensure they are still in keeping with current requirements. This is the case in Greece, Romania and Italy.

It is noted by some countries (specifically Greece and Germany) that occupational profiles should reflect work processes and competence requirements thereof but that it should not be forgotten that they should consider other issues such as scientific interest, ethical questions and issues of personal development. It is also noted that although these “soft objectives” are often considered to be contradicting fitness for the labour market, they are actually essential not only for a person’s personal but also for their professional development.

### (Considering EQF descriptors in occupational profiles

With regard to considering EQF descriptors in the formulation of occupational profiles, all countries state that these methods (or similar ones) are being observed in their respective country in order to ensure the inclusion of learning outcomes in occupational profiles.

### Consideration of education and training pathways in the occupational profiles

Training pathways are included in all countries’ occupational profiles. However, the degree to which this is done differs widely. In Italy, this is only done in some cases. The development of occupational profiles in Greece has also observed the inclusion of training pathways.

### Indications on the assessment of the required abilities

With regard to the assessment of required abilities, all countries state that assessment procedures are an element of occupational profiles. However, all countries except France emphasise that problems exist in the field of validation of prior learning. Recognition of prior learning, e.g. work experience, is only considered in some profiles. In Greece, certification of non-formal learning was not subject to reliability and lucidity regulations. To date, there is no reliable system of validation and certification of non-formal learning, resulting in a highly fragmented market of certificates, titles and qualifications. Greece has identified this problem and is currently undergoing certain changes in this area but there are no results as of yet.

The main problem in all countries, with the exception of France, seems to be the recognition of prior (formal, informal and non-formal) learning. Many countries, e.g. Italy, Romania and Germany, state that one major obstacle in this respect is the lack of mutual trust between the different education systems. It can thus be observed that a lack of mutual trust is not only an obstacle between different European countries but also within national education systems, i.e. between different strains of education.

Italian interviewees state that the integration of formal and informal learning is a key issue which has been on the agenda for more than 10 years. However, no major results have been achieved so far which is mostly due to social, political and historical-cultural factors. Assessing the responses of interviewees of the other countries, it becomes clear that obstacles of this kind seem to be the main constraint in achieving better recognition of non-formal and informal learning throughout Europe. Based on the interview results, this can be identified as the main limitation with regard to EQF assignment of occupational profiles.

### (6.3) General remarks

France has suggested a few proposals which might help improving the impact that the EQF has had and will have in the future:

- there should be increased cooperation throughout Europe in order to work on the definitions, the concepts, the levels and descriptors of the EQF in order
  - to reach a better common understanding of learning outcome orientation, the definition of skills, knowledge and competences
  - to develop more precise qualification classifications and level descriptors
  - to better communicate about concepts and indicators which to date are understood differently from country to country
- to extend and better communicate about existing supports surrounding the EQF and other developments, e.g. the Europass support network
- to develop better and closer links between the EQF and other initiatives such as the Europass, ECTS and ECVET.

A number of countries highlight the fact that the EQF was not designed a tool for educational reform, this applies to France, Germany, Greece. However, with the exception of France, these countries also concede that it works as such de facto and that the impact of the EQF on national vocational education systems should thus not be underestimated and examined more closely. The reason for this might be that the EQF was easily absorbed by the French VET system.

France, as one of the countries which have already finalised the process of EQF referencing, observes that if a model is proposed now, other countries would have “other rules”, questioning the suitability of already finished NQF.

Many countries (specifically Germany, Greece, Romania and Italy) share problems in the area of recognition of non-formal and informal learning. The interviewees highlighted strong orientation towards formal learning and a lack of mutual trust between different educational sub-systems and education providers as possible reasons for this. Even more so, and this should not be underestimated, reasons of political, social and historical-cultural nature, as highlighted by Italy, are important obstacles to improving this situation. France and Spain do not share this problem.

WP 3 Occupation profiles: Limitations and options regarding the EQF assignment of occupational profiles

GERMANY	AUSTRIA	FRANCE	ITALY	SPAIN	GREECE	ROMANIA
<p>The shift towards outcome-orientation in occupational profiles is now in progress. Limitations exist in so far as there is still no consistent use of terminology between occupational profiles, the German Qualifications Framework and the EQF.</p> <p>Occupational profiles allow for informal and non-formal learning through the “Externenprüfung”, however, overall the system is very exclusive in terms of recognition of prior, informal and non-formal learning.</p>	<p>Overall, Austria sees no limitations to EQF adaptability of their occupational profiles.</p> <p>Austrian occupational profiles have been re-formulated in order to fit NQF / EQF requirements in a similar process to that recommended in the optimum model.</p>	<p>France sees no limitations in the process of adaptation to EQF. This process has been finalised in France.</p> <p>France sees a general risk in the formulation of recommendations of EQF assignment of educational elements in that it might be a misinterpretation of the EQF as a mere translation tool which should not have an impact on national VET systems.</p> <p>France sees a risk in formulating universal recommendations for EQF adaptation since that could result in the fact that countries that have already finished the process might not qualify in those terms.</p>	<p>One major problem in Italy seems to be the lack of consistency between regional and central approaches.</p> <p>The integration of formal and non-formal learning is a major issue on the agenda, although all actors are committed to improving the situation, no major results have been achieved due to social, political and historical-cultural factors.</p> <p>Italy is lacking a proper system for updating occupational profiles in order to ensure that current needs are satisfied.</p> <p>Learning outcome-orientation requires fundamentally new ways of thinking.</p>	<p>Spain sees no major limitations in the application of the criteria developed for occupational profiles.</p> <p>Validation and recognition of prior (non-formal and informal) learning is no major obstacle, Spain applies principles of openness and flexibility, occupational profiles should draw on all avenues of learning and should be explicitly stated in the profile.</p> <p>Spain sees a risk in too much stakeholder involvement in the formulation of work processes; work process analysis should be based on interdisciplinary investigation rather than negotiation.</p>	<p>Greece notes that a proper system for updating occupational profiles is lacking. They see a problem in a lack of consistency between occupational profiles and curricula.</p> <p>Overall, Greece views its own system of developing occupational profiles as obsolete and bureaucratic. As a result, occupational profiles do not reflect the needs of contemporary society.</p> <p>Participation of stakeholders in the development of occupational profiles is crucial.</p>	<p>Romania is the only country examined where occupational profiles are developed solely by employers’ associations.</p> <p>Romania does not regard occupational profiles as an educational element but rather a labour market instrument.</p> <p>Romania also sees a lack of an interface between formal, non-formal and informal learning, strong orientation towards formal learning.</p> <p>There is a lack of mutual trust between educational sub-systems.</p>

## (7) Revised Optimum Model / Recommendation Based on the Interview Findings

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The interview results uncovered some aspects which can contribute to a revised optimum model and recommendations for EQF adaptation of occupational profiles.

There are certain limitations to the development of one optimum model for EQF adaptation of European occupational profiles. They can be summarised as follows:

1. Occupational profiles are always born out of different national systems of vocational education. They cannot and should not be generalised, therefore, there cannot be a one-fit-all approach
2. The nature of the EQF does not foresee an external influence on the individual national systems, it should merely be a translation instrument. However, most countries concede that it necessarily has an impact upon national VET systems.

The nature and character of occupational profiles necessarily mirror the national systems of vocational education that they originate in. This includes aspects of the nature of the vocational system, for example professional approach (e.g. Germany and Austria) vs. functional approach of qualifications (especially in the UK). Such approaches and differences resulting from those are explained in more detail in the revised typology of occupational profiles.

For those reasons, it is difficult to develop *one* optimum model for EQF assignment of occupational profiles that could be applied throughout Europe. The reasons for this mainly lie in the varied nature of occupational profiles and the VET systems they originate from and in turn reflect. We have therefore focused on the formulation of criteria which facilitate EQF adaptation and assignment of occupational profiles to the EQF. These are formulated in form of recommendations. The recommendations described here are an addition to those described in the initial optimum model.

1. Improved communication and cooperation towards a common understanding of EQF concepts, descriptors and levels

There should be increased and improved cooperation and communication among European countries on the concepts underpinning the EQF. This includes

- definitions and concepts underlying, for example the competence approach used in the EQF,
- understanding of outcome orientation
- the descriptors for the levels.

To date, there is a wide, varied and different understanding of the concepts and definitions of the EQF. This should be remedied through improved communication and cooperation. There should be more precise level descriptors.

This point also includes better communicate about and the extension of existing supports surrounding the EQF and other developments, e.g. the Europass support network.

2. Understanding of the EQF as not merely a translation tool.

In spite of the intention of the EQF being merely a translation tool between the different European qualification systems, all countries examined with the exception of France concede that the EQF does have an impact upon national VET systems. That is, the EQF does act as a motor of change with regard to outcome orientation, with regard to re-formulating occupational profiles, with regard to the classification of qualifications (through a framework per se at the least for countries where one has not existed before). As such, it has given impetus to national debates surrounding VET systems. In some

cases, this has contributed to welcome change of long-obsolete systems of occupational profiles, of a more clearly defined outcome-orientation and, last but not least, of improved recognition of prior learning. However, it does also create confusion and fear of change, sometimes resulting in a position of defense of respective national VET systems. The nature of the EQF as a motor of change should therefore be acknowledged and more seriously and widely discussed. This also includes the impact on issues such as how does levelling impact upon pay / salary.

### 3. Re-thinking of the underlying concept of competence within the EQF

Practice has proven that the concept of competence used in the EQF has resulted in much confusion among national stakeholders and the effect that many stakeholders have simply resorted to the concept of competence which they preferred. It is often argued that the narrow concept of competence results in confusion and redundancies in the formulation of outcomes in occupational profiles. This point could also be subject to recommendation 1.

### 4. Work process orientation in occupational profiles

All interviewees agree that work process orientation is an important criterion in the development of occupational profiles.

- Stakeholder involvement: With regard to stakeholder involvement in this process, there are two groups. Group 1 favours stakeholder involvement in the process of defining the requirements resulting from work processes as an important factor in assuring all parties concerned are heard and actual requirements are considered. Group 2 favours a more interdisciplinary and research-based approach to work process analysis over stakeholder involvement as they fear this might result in the fact that learning requirements based on work processes will be subject to bargaining / negotiations. This again highlights that there should be no one-fits-all approach, however, each group could benefit from checking whether their approach sufficiently takes into account the other side, i.e. Group 1 should check whether their work process analysis also involves neutral and scientific survey of work processes, Group 2 should check whether the parties involved in the process are actually heard.
- This also leads on to the second amendment resulting from the interviews in this section: Consideration of learning outcomes not linked to work processes. Greece and Germany both highlighted the importance of considering “soft” learning outcomes; such as learning to learn, ethical issues, personal development, etc. These factors should not be forgotten in the formulation of occupational profiles. Occupations should not merely qualify for the completion of certain work processes but also take into account personal and societal factors.

### 5. Installing systems of good practice for continuously updating occupational profiles

A number of countries stated that they see a major problem in the lack of proper systems for updating occupational profiles in order to ensure they are up-to-date and in keeping with the industry's requirements. More work should be done in this regard.

### 6. Learning outcome orientation

All countries agree with the methodology proposed for formulating learning outcome-oriented occupational profiles (see initial optimum model). This methodology could thus act as an optimum model for the formulation of learning outcome-oriented occupational profiles.

### 7. Improving systems of recognition of prior learning

The interviews highlighted that this issue is still the main problem of most countries. Although all countries have some form or another for allowing alternative access to occupational profiles, all countries except France and Spain state that they see a major problem in this area. It was observed that it is mostly down to social, political and historical-cultural factors. A main reason can thus be found in the deeply engrained traditions inherited by VET systems. It seems to be mostly down to national culture whether systems for the recognition of prior learning are successful or not. More specific reasons were seen in the lack of mutual trust between and within educational (sub-)systems. This leads on to the next recommendation. It should be accepted that this problem will take some time to be redressed, precisely because it is so deeply engrained in national systems. However, countries could benefit from good practice examples from countries which have already implemented successful systems for the recognition of prior learning (such as France or the UK). Beyond this, the next recommendation might be even more crucial to addressing this problem.

#### 8. Establishing mutual trust between and within educational sub-systems

This point seems to be one of the most crucial recommendations and ironically, it is the one which has received the least academic attention to date. More research and especially more cooperative initiatives between and within national VET systems are necessary in order to redress the lack of mutual trust. The interviews yet again uncovered that this issue does not only represent an obstacle to recognition of qualifications between European member states but also within them. In this respect, it represents a major obstacle in the process of recognition of prior learning due to a lack of trust between educational sub-systems (access to higher education) and forms (between formal and non-formal education). Initiatives in connection with recommendation 1 might also help to alleviate this problem. Increased transparency of national processes of developing occupational profiles (such as attempted in the typology of occupational profiles) can also contribute to improved mutual trust.

#### 9. Exchange of experience in the development process of NQFs

Finally, a closer exchange of experiences made during the development of National Qualifications Frameworks, also involving communication of concepts and definitions as described in recommendation 1 would benefit all countries as well as contribute to increased mutual trust and understanding.

### (8) Revised Typology of National Approaches to Occupational Profiles – Initial Thoughts

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There have been some additions to the initial version of the typology developed previously within WP 3 of the EQF Predict project. These resulted from new findings in the process of the development of the initial version of the optimum model and the interviews. These are summarised here.

The objectives of the typology were to

- Compare national occupational standards of selected countries and identify key factors which can facilitate the shift to an EQF-compatible design of educational elements (occupational standards)
- Create recommendations in form of good practice examples for complementing national procedures without compromising them in order to aid EQF compatibility
- Establish common grounds for determining the concept of “EQF compatibility” in order to minimise the spectrum of construing EQF descriptors

The key factors and recommendations were tested in the framework of the interviews and extended by interview outcomes. They can be found in the revised optimum model for WP 3. The revised typology aims at integrating interview results and recommendations and providing a typology of different approaches to occupational profiles and how they can influence EQF adaptability.

Some characteristics that distinguish European VET systems in general and their approach to occupational profiles in specific include:

1. degree of regulation of VET system
2. degree of fragmentation of the initial and further training market
3. degree of status and relevance of occupational profiles within the VET systems

Hypotheses:

(1) Typically, systems with a high degree of regulation of the VET system have a more centralised vs. regional and / or sectoral approach and tend to have more state involvement over free market involvement.

(2) Typically, systems with a high degree of regulation have a *less* fragmented market. Systems which are highly fragmented tend to have more private-economy based qualifications than less fragmented markets. Typically, fragmented systems tend to alleviate the lack of order and structure of the VET system by installing qualifications frameworks.

(3) Systems in which the status of occupational profiles is an official one (correlation with degree of regulation) tend to be less fragmented, tend not to have qualifications frameworks by default.

Systems could be localised along two scales of

- state-centric approach vs. economy-driven approach
- profession-oriented approach vs. function-oriented (possibly job-oriented) approach

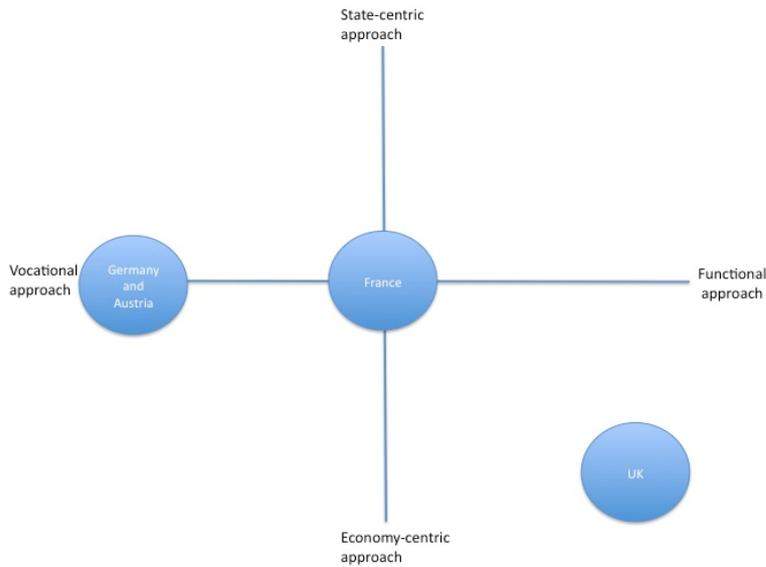
#### *State-centric approach vs. economy-driven approach*

The degree to which the state vs. the economy get involved in the process of formulating occupational profiles. For example, in most of the countries examined in the EQF Predict project, the impetus / competence to develop (new) occupational profiles is shared between the state and the economy by involving three parties: the state (i.e. competent ministries), the industry (i.e. employers' associations), and the workers (i.e. trade unions). This three-partite system is typical of Europe and shared by most countries investigated with the exception of the UK and Romania.

#### *Profession-oriented vs. function-oriented approach*

This qualifies the objective of the occupational profile. Does it aim to formulate learning outcomes required to fill in a holistic profession (e.g. carpenter) or does it aim to formulate learning outcomes required for completing a certain function / activity (e.g. building beds as a broader function or sanding wood as a narrow activity). The difference here is the priority of holistic vocational education vs. qualification to perform a job.

Example:



It must be emphasised that no correlation between the type of system and the ease of EQF adaptation could be proven. For example, there could be a hypothesis that more regulated systems would find it

- easier to adopt a qualifications framework
  - because the legislation process is more established, because actors are traditionally identified or involved
- harder to adopt a qualifications framework
  - because of the higher degree of rigidity, because a strongly-regulated system is less flexible.

Another hypothesis might be that a more market-driven system would find it

- easier to adopt a qualifications framework
  - because there is a more pronounced history of developing systems of structuring qualifications because of the high degree of fragmentation
- harder to adopt a qualifications framework
  - because the state as a motor of legislation would have less authority to get involved / less history of playing a role in this system

Other criteria important in classifying European approaches to occupational profiles are

- degree of openness to prior learning (be that formal, informal or non-formal)
- degree of outcome-orientation in occupational profiles

The reason that these are not included in the initial list, is that they have a clear correlation with EQF adaptability or rather success of EQF adaptation.

All countries examined within this work package are now in the process of shifting towards learning outcome orientation. Although some are further than others and some have a longer tradition of outcome-orientation, it can be observed that all countries have realised the need for this shift and are in the process of pursuing it.

With regard to the degree of openness to prior learning, countries examined are not as far. This aspect has been identified by most countries as a major obstacle to EQF adaptation. Some countries (France, the UK) have a long tradition of recognition of prior learning. Others (Spain) have used the shift in the framework of EQF adaptation to incorporate this. It will be interesting to see how successful Spanish reforms will be and in how far the other countries will manage to improve the status of recognition of prior learning within their systems.

It can be argued that these two aspects are main criteria for shifting towards EQF-adaptability, at the same time, these aspects are subject to deep and long traditions in VET systems and cannot be overcome so easily. It turns out that the shift towards outcome-orientation is conducted with much more ease and more successfully than the shift towards better recognition of prior learning. As mentioned in the revised optimum model, constraints of social, historical and cultural nature are tied to these concepts that cannot be removed so easily. Since this is a subject that is very closely interlinked with a lack of trust between and within educational (sub-)systems, it could be argued that the very nature of learning outcome orientation (transparency) is more easily absorbed by systems of different tradition than that of recognition of prior learning.

# Annex

## Identification of learning fields for the Car Mechatronic based on work and business processes

This example is taken from the European core occupation Car Mechatronic<sup>12</sup> and provides an example of the partition of fields of activity based on the identification of work and business processes.

Learning area (fields of activity)	Fields of activity and tasks
Orientation and overview knowledge	<b>Learning area 1:</b> <b>The car: the basic service</b> <ol style="list-style-type: none"> <li>1. Standard service</li> <li>2. Repair of basic wear and tear</li> <li>3. Vehicle care</li> <li>4. Administrative services</li> </ol>
Comprehensive system knowledge	<b>Learning area 2:</b> <b>The car and its architecture: services and supplementary installations</b> <ol style="list-style-type: none"> <li>1. Standard default extension and supplementary installations</li> <li>1. Main inspection including summer, winter and holiday check-ups</li> <li>2. Service tasks (emission control, periodical inspection)</li> </ol>
Detailed and functional knowledge	<b>Learning area 3:</b> <b>The car and its components: fault diagnosis and repair</b> <ol style="list-style-type: none"> <li>1. Repair of faults (chassis, body, steering ...)</li> <li>2. Trouble shooting and repair</li> <li>3. Special extensions and supplementary installations</li> <li>4. Repair of aggregates and components</li> </ol>
Specialized advanced knowledge	<b>Learning area 4:</b> <b>The car and its construction: expert diagnosis and repair</b> <ol style="list-style-type: none"> <li>1. Special diagnosis and repair</li> <li>2. Repair of collision damages</li> <li>3. Claims</li> <li>4. Checking measures in systems – alternatives</li> </ol>

These four vertical learning areas are filled with fields of tasks for skilled work, the key work tasks. The 15 key work tasks become objects of the competence development process. They may be understood as the “content dimensions” of a work process oriented curriculum.

<sup>12</sup> “Car Mechatronic”– An Open Approach for Designing a New European Core Occupational Profile, Georg Spöttl