



# Vocational Education and Training in the Baltic Sea Region (BSR) - Considerations towards a Qualification Framework for the Baltic Sea Region.

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## 1. Introduction

With the Maastricht´ declaration in 2004, the Lisbon Strategy from 2000 and several other initiatives the European Union is giving attention to geographical and job mobility, as well as lifelong learning, in order to increase and ensure employment occupation and economic growth in the EU countries. Lifelong learning has become a necessity in handling with rapid social, technological and economic changes and ageing population. As a result education is one of the key components to cover so as to reach the ambitious Lisbon goals. The European Commission has therefore initiated the development of a European Qualification Framework (EQF) and the establishment of National Qualification Frameworks (NQF) by 2010. The modelling of NQFs will be done by national authorities. The EQF, which is a meta-framework, is seen as central by the EC to the fulfilment of the European objectives in the Lisbon Strategy.<sup>1</sup>

The main purposes and functions of a Qualification Framework (QF) are to increase the transparency, quality and comparability of vocational and academic qualifications across different educational systems and European countries.<sup>2</sup> One of Europe’s assets is the enormous diversity of educational and training systems. A precondition to turn these assets into profit is to increase transparency. Transparency can be seen as an essential precondition for recognition of, in particular, vocational learning outcomes which are linked to qualifications. Quality is one of the preconditions for establishing centres of excellence and human capital development. Comparability among countries, however, can be seen as a crucial element to increase labour mobility and to ensure penetrability between qualifications. Moreover, it allows vocational education and training providers to compare their vocational and education profiles across countries and between qualifications. Penetrability, however, is a precondition for lifelong learning because it allows individuals to achieve qualifications in a cumulative way.

In the near future QFs have to satisfy these criteria with concrete and well-designed concepts. A QF is an adequate instrument for the development and classification of qualification outcomes according to a set of criteria for levels of learning which will be achieved by a specific person.<sup>3</sup> Also the absence of transparency of qualifications across different education and training systems will be covered by this instrument. We want to

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<sup>1</sup> Cf. European Commission (EC) (2006): *Implementing the Community Lisbon Programme. Proposal for a recommendation of the European Parliament and of the Council on the establishment of the European Qualifications Framework for lifelong learning*. COM (2006) 479 final, 2006/0163 (COD), Brussels.

<sup>2</sup> Cf. *Ibid*; and cp. European Commission (EC) (2005): *Towards a European Qualifications Framework for Lifelong Learning*. Commission Staff Working Document. SEC (2005) 957, Brussels.

<sup>3</sup> Cf. *ibid*.

support this constructive and fruitful discussion at the European level with an own Baltic Sea Region-Qualification Framework (BSR-QF) model. This BSR-QF has to be seen as a complement and contribution to the ongoing discussion and it is not a substitute for the current modelling of NQFs. We are aware that bilateral agreements on this subject could result in complex and intransparent structures at the European level. However, the BSR is a region with 9 EU and EAA Members. These countries share common problems and they are facing similar economic and demographic challenges. The Baltic Education project therefore provides opportunities for consultation and development. The project Baltic Education wants to enforce and intensify this education theme especially in the context of vocational education and training (VET). The Baltic Education project wants to test the compatibility of professional training programmes within such a QF. With the BSR-QF the testing and experimentation phase of professions will be more plausible because it is now possible to categorise them. The BSR-QF should furthermore contain a reference to the Europass documents which are tools for labour market mobility and transparency in united Europe.

## **2. The Baltic Sea Region Qualification Framework**

The BSR-QF has eight competence (or reference) levels (0-7) which are based on educational qualifications and on a modified framework for qualification of the European Higher Education Area (EHEA). Four levels of vocational education and three levels of university education are covered by this BSR-QF. This concept is in line with the 8-level reference structure of the European Commission.<sup>4</sup> The project Baltic Education has its focus on competence level 2. Within this competence level, the profession “painter and wallpaper hanger” is used as a test case by the project team. Table 1 shows our proposal for a BSR-QF.

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<sup>4</sup> Cf. *ibid.*

**Table 1: Baltic Sea Region-Qualification Framework (BSR-QF)**

Level	Education Degree	Framework EHEA*
0	<i>Basic Education</i>	-
1	<i>No Vocational Graduation</i> (graduation/training after/for 1-2 years, and work and apprenticeship preparation phase (access with a qualified school leaving exam after nine compulsory school years, at the age of 15/16))	First cycle VET** area
2	<i>Lower Vocational Graduation</i> (certificate of apprenticeship (in 2 - 5 years; access with a secondary school graduation or after finalising Competence Level 1), and no/limited professional or experience (certificate of apprenticeship + < 5 years of profession experience); Finalising Level 2 is a precondition for Competence Level 3 and 4)	Second cycle VET area
3	<i>Middle Vocational Graduation</i> (long profession experience as skilled worker (certificate of apprenticeship + ≥ 5 years of profession experience); comprehensive further education; “young master craftsman” with no/limited professional experiences (< 3 years of profession experience); Finalising Competence Level 3 gives (limited) access to Competence Level 5)	Third cycle VET area
4	<i>Upper Vocational Graduation</i> (master craftsman with long profession experiences as master (≥ 3 years); “master craftsman plus”; long profession experiences and further education (certificate of apprenticeship + ≥ 8 years of profession experience); Finalising Competence Level 4 gives access to Competence Level 5; introductory study period)	Fourth cycle VET area and short cycle academic area
5	<i>Bachelor</i> (academic bachelor’s degree)	First cycle academic area
6	<i>Master</i> (academic master’s degree)	Second cycle academic area
7	<i>PhD</i>	Third cycle academic area

\* Framework for Qualification of the European Higher Education Area

\*\* Vocational Education and Training

- *Competence level 0 - Basic Education*

Competence profiles which have been reached in this level are neither counted to vocational education and training nor to academic education. Basic or General Education is seen as necessary to get access to the qualification levels. The development of learning skills requires further structured support. In general it is not possible to relate this level to a domain.<sup>5</sup> Therefore these qualifications are not domain specific.

<sup>5</sup> A domain is a relatively clear cut area of operation or field of activity. As an example, it is possible to categorise the profession brick layer within the domain of construction and building.

- *Competence level 1 – No Vocational Graduation*

An adjusted EHEA framework helps to categorise competence level 1 within the first cycle VET area. Qualifications at this level are limited because knowledge and skills are in a very early stage. Methods and social competences are still not domain specific although qualification after 1 to 2 years will be covered by this level as well as work and apprenticeship preparation phases. Within the first cycle VET area it is possible to get access with a qualified school leaving exam after at least nine compulsory school years, at the age of 15 or 16.

- *Competence level 2 – Lower Vocational Graduation*

Competence level 2 covers VET measures over a period of time of 2 to 5 years. Also it covers the certificate of apprenticeship. The access to the lower vocational graduation is only given to people with a secondary school graduation or after finalising Competence Level 1. It is possible to identify vocational competences although the degree of expertise is still small. The graduate has therefore no or limited practical vocational experiences. Qualifications at this level recognise broad general knowledge and some field-specific knowledge. Therefore only specific parts of a domain are covered by individual competences at this level. The second cycle of the VET area meets this competence level. Finalising Level 2 is a precondition for Competence Level 3 and 4.

- *Competence level 3 – Middle Vocational Graduation*

Compared to level 2 this qualification describes a higher level of vocational competences. Certificate of apprenticeship, comprehensive further education, “young master craftsman” and long work experiences are covered by this competence level. The individual level in a domain is relatively high and all parts of it are covered. Qualifications at level 3 indicate significant field-specific knowledge and skills. The individual can be called a specialist who has knowledge as well as skills and who can solve problems in a relatively independently way. Finalising Competence Level 3 with comprehensive further education gives (limited to people with superior qualification) access to Competence Level 5 even without a graduation at a grammar school. Pupils (individuals) who want to get access to competence level 5 also have to be examined closely. Therefore, pupils who have passed the examination will be accepted within level 5.

- *Competence level 4 – Upper Vocational Graduation*

Individuals who reach this level have already achieved a master craftsman and/or they have long occupational experiences and hence they have acquired a high degree of expertise. Every part of a domain is covered on a high level with the exception of scientific knowledge. Autonomous learning, broad theoretical and practical knowledge are included by this level. Academic introductory study periods are tangent to this relatively high competence level. Finalising Competence Level 4 with comprehensive further education or “master craftsman plus” gives limited access to Competence Level 5 also without a graduation at a grammar school. It is possible to take already achieved credits into account (max. 120 credit points). Nevertheless, individuals who aim for access to competence level 5 still have to be tested in a close examination or they have to complete an individual counselling interview. In reference to the framework for qualification of the European Higher Education Area competence level 4 covers the short cycle academic area. Students who achieve approximately 120 ECTS credits are within this competence level 4.<sup>6</sup>

- *Competence level 5 – Bachelor*

This qualification signifies the completion of the first cycle qualification of the EHEA. The academic bachelor’s degree is reached by students who have typically obtained 180 to 240 ECTS credit points.<sup>7</sup> Qualifications at level 5 recognise advanced theoretical knowledge and skills. The individual has no work experience in practice. An academic specific domain is only partially covered by this competence level. Precondition for the access to Competence Level 5 is a graduation at a grammar school. But finalising Level 3 and 4 gives also few limited access to Competence Level 5. Finalising Level 5 is a precondition for Competence Level 6.

- *Competence level 6 – Master*

This competence profile describes a significant high level of academic qualification. The domain specific competence level is very high and the graduate is an academic specialist and expert. Qualifications at this level recognise self-directed and theoretical learning. The Master’s degree is a precondition for reaching Competence Level 7. The master’s degree is the second highest qualification within the EHEA framework.

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<sup>6</sup> Cf. also Ministry of Science, Technology and Innovation (Eds.) (2005): *A Framework for Qualifications in the European Higher Education Area*. Bologna Working Group on Qualifications Frameworks. Copenhagen.

<sup>7</sup> Cf. *ibid.*

- *Competence level 7 – PhD*

The PhD degree is the highest academic degree and the highest cycle within the European Higher Education Area. Within this competence level the individual is a specialist and expert. Qualifications at level 7 recognise leadership experience and the individual has a capacity for critical analysis, assessments and synthesis of very innovative and multifaceted ideas.

### **3. Methodology and descriptors**

The competence level measures the proven capacity to use knowledge, skills and other abilities in work or study situations, and in the context of a professional and personal development within a specific reference level. It is an instrument for the classification of qualifications. Qualifications have to be understood as a bundle of competences. Whereas “*a competence is defined as the ability to successfully meet complex demands in a particular context. Competent performance or effective action implies the mobilization of knowledge, cognitive and practical skills, as well as social and behaviour components such as attitudes, emotions, and values and motivations*”.<sup>8</sup> Competence is therefore more than school and work related. It is an inferential argument that competence includes social competence and personal competence. Competences as formulated in the EQF are not profession-specific but they are in fact aggregates.<sup>9</sup> The project team has therefore decided to use (formal) education degrees for the classification of competences. This could have more political legitimation by the social stakeholders and it seems easier to handle because it is more transparent and unbureaucratic.

Table 2 shows the descriptors for the competence levels of the BSR-QF. The descriptors “Expertise” and “Competence” are equivalent with the descriptors from the EQF.

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<sup>8</sup> Rychen, D. S. and L. H. Salganik (2003): *Key Competencies for a Successful Life and a Well-Functioning Society*. DeSeCo Project report Summary, OECD, Paris, p. 2

<sup>9</sup> Cf. Federal Institute for Vocational Education and Training (BIBB) (Eds.) (2005): *Fachlicher Prüfbericht zu den Grundbegriffen und Deskriptoren des Entwurfs für einen Europäischen Qualifikationsrahmen*. Bonn; and Hanf, Georg und Volker Rein (2005): *Towards a National Qualification Framework for Germany*. Federal Institute for Vocational Education and Training (BIBB), Bonn.

**Table 2: Descriptors for the competence levels 1 to 7**

Level	Expertise*	(Methodological) Competence *	(Formal) education degree	(Adjusted) Framework EHEA
	<i>In the BSR-QF, expertise is described as knowledge and skills (equivalent with EQF)</i>	<i>In the BSR-QF, competence describes the degree of responsibility and autonomy</i>	<i>The (Formal) education degree describes the degree which can be reached by an individual</i>	<i>The framework EHEA is a modified and extended framework</i>
0	Basic general Education; basic skills required to carry out simple tasks	Work under direct supervision in a structured context	-	-
1	Basic factual knowledge of a field of work or study; basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools	Work under direct supervision in a structured context with some autonomy	(graduation/training after/for 1-2 years, and work and apprenticeship preparation phase (access with a qualified school leaving exam after nine compulsory school years, at the age of 15/16))	First cycle VET area
2	Knowledge of facts, principles, processes and general concepts, in a domain; a range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information	Take responsibility for completion of tasks in work; adapt own behaviour to circumstances in solving problems	Certificate of apprenticeship (in 2 - 5 years; access with a secondary school graduation or after finalising Competence Level 1), and no/limited professional or experience (certificate of apprenticeship + < 5 years of profession experience); Finalising Level 2 is a precondition for Competence Level 3 and 4)	Second cycle VET area
3	Factual and theoretical knowledge in broad contexts within a domain; a range of cognitive and practical skills required to generate solution to specific problems in a domain	Exercise self-management within the guidelines of work contexts that are usually predictable, but are subject to change supervise the routine work of others, taking some responsibility for the evaluation and improvement of work activities	Long profession experience as skilled worker (certificate of apprenticeship + ≥ 5 years of profession experience); comprehensive further education; “young master craftsman” with no/limited professional experiences (< 3 years of profession experience); Finalising Competence Level 3 gives (limited) access to Competence Level 5)	Third cycle VET area
4	Comprehensive, specialised, factual and theoretical knowledge within a domain and an awareness of the boundaries of	Exercise management and supervision in contexts of work or study activities with unpredictable	Master craftsman with long profession experiences as master (≥ 3 years); “master craftsman	Fourth cycle VET area and short cycle academic area

	that knowledge; a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	change; review and develop performance of self and others	plus"; long profession experiences and further education (certificate of apprenticeship + ≥ 8 years of profession experience); Finalising Competence Level 4 gives access to Competence Level 5; introductory study period	
5	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles; advanced skills, demonstrating mastery and innovation required to solve complex and unpredictable problems in a specialised domain	manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts take responsibility for managing professional development of individuals and groups	Academic bachelor's degree	First cycle academic area
6	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking; critical awareness of knowledge issues in a field and at the interface between different fields; specialised problem-solving skills required in research and or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams	Academic master's degree	Second cycle academic area
7	Knowledge at the most advanced frontier of a field of work or study and at the interface between domains; the most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and or innovation and to extend and redefine existing knowledge or professional practice	demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research.	PhD	Third cycle academic area

\* European Commission (EC) (2006): *Implementing the Community Lisbon Programme. Proposal for a recommendation of the European Parliament and of the Council on the establishment of the European Qualifications Framework for lifelong learning*. COM (2006) 479 final, 2006/0163 (COD), Brussels.

#### 4. Conclusion and Perspective

The Baltic Sea Region-Qualification Framework contributes to the discussion and consultation of modelling a Qualification Framework. The concept is in line with concepts and methodology of other institutions like the central German Confederation of Chambers and Skilled Crafts<sup>10</sup> or the European Commission.<sup>11</sup> This BSR-QF should contribute to the development of the BSR economies because it is an instrument to reduce cross-border barriers which are restricting labour and occupational mobility and the productivity advantages they entail. But stakeholders must be convinced that a BSR-QF is needed and that it can guide professional training and learning in the BSR. Therefore the mutual recognition of the BSR-QF through competent bodies and authorities is of importance. The project Baltic Education has, however, raised questions<sup>12</sup> that have to be discussed for answers to be found during the project phase from March 2007 to end of February 2008:

- What is essential for the BSR-QF work in practical terms?
- Does the BSR-QF satisfactorily capture learning outcomes and is it necessary to modify the level descriptor?
- Does the 7 (8) level competence structure sufficiently capture all qualification which can be achieved by an individual in a lifelong learning process?
- Is it possible to develop a more adequate and structured scheme?
- How can the BSR-QF better contribute to the development of an ECVET system? And, is the developed BSR-QF applicable within the pilot project Baltic Education?
- Are there obstacles to mutual trust and if yes, how is it possible to manage it?
- How can the BSR-QF become a reference to improve the quality of learning and knowledge of all levels? Is it achievable to promote lifelong learning with this scheme?
- How is it possible to combine qualifications from different institutions and different countries?
- Is the fragmentation between educational and vocational education training acceptable and practicable?

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<sup>10</sup> Cf. Zentralverband des Deutschen Handwerks (ZDH) (2005): *Berufliche Bildung für Europa: Überlegungen zu einem Qualifikationsrahmen- und Leistungspunkte Modell*. Berlin.

<sup>11</sup> Cf. European Commission (EC) (2005): *Towards a European Qualifications Framework for Lifelong Learning*. Commission Staff Working Document, SEC (2005) 957, Brussels; European Commission (EC) (2006): *Implementing the Community Lisbon Programme. Proposal for a recommendation of the European Parliament and of the Council on the establishment of the European Qualifications Framework for lifelong learning*. COM (2006) 479 final, 2006/0163 (COD), Brussels; and Ministry of Science, Technology and Innovation (Eds.) (2005): *A Framework for Qualifications in the European Higher Education Area*. Bologna Working Group on Qualifications Frameworks, Copenhagen.

<sup>12</sup> Some of these questions are highlighted by the Commission Working Document SEC (2005) 957.

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Contributions, discussions and comments are warmly welcome. Please do not hesitate to contact the project team (Jan Wedemeier, Project Development, [wedemeier@hwwi.org](mailto:wedemeier@hwwi.org); or see <http://www.baltic-education.eu/>).