

# Results

Work Package 4 Implementation and realization initial  
vocational training

Work Package 5 Implementation and realization of  
further vocational training

Work Package 6 Implementation and realization of  
higher education

## Examination Regulation and international Recognition

### Content

1. Examination Regulation
2. Evaluation in the Qualifikation Framework and international Recognition
  - 2.1 Qualifikation Framework “Baltic Sea Region”
  - 2.2 Structuring and Evaluation
    - 2.21 Structuring and evaluation of additional qualifications in the context of initial vocational training
    - 2.22 Structuring and evaluation of further vocational trainings
    - 2.23 Structuring and evaluation of higher education trainings

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



This work is licensed under the Creative  
Commons Attribution 4.0 International License.

## 1. Examination Regulation

The training programmes developed and implemented can each be examined alternatively:

- On the basis of an official examination regulation leading to a state-recognised degree. The following examination regulations fulfil this purpose.
- As an internal audit, which is also carried out on the basis of the following examination regulations, but does not lead to a recognised degree. In this case, the participants will receive a certificate and attestation showing the overall examination grade.

### Work Package 4 Initial vocational training

Six additional qualifications are developed and implemented within the framework of initial vocational training. The initial vocational training will be examined in accordance with existing national regulations and concluded with a recognised vocational qualification. The additional qualifications are examined on the basis of the following examination regulations, and a recognised further vocational training qualification is obtained by bundling the successful completion of these examinations (see Chapter 2.21).

### Work Package 5 Further Vocational Training

Six training programmes are developed and implemented, each of which is examined in accordance with the examination regulations below and concluded with a recognised further vocational training qualification (see Chapter 2.22).

### Work Package 6 Higher Education

Four comprehensive study modules are developed and implemented, which alternatively

a) be integrated into existing Bachelor's degree programmes. An examination with a recognised Bachelor's degree will be based on the existing examination regulations of the respective college or university.

b) are carried out as further education courses and are each examined with the following examination regulations and concluded with a recognised professional further education degree (see Chapter 2.23).

## Official Examination Regulation

### § 1 Purpose of the examination and designation of the degree

1) The examination is intended to determine whether the candidate possesses the necessary knowledge, skills and experience required in management and technologies of Water, Wastewater, Waste and Circular Economy.

2) A successful pass in this examination leads to a recognized degree in .....  
(see Chapter 2.21 – 2.23).

## § 2 Requirements

The examination is to admit those who have:

- 1) Successfully completed vocational training and have at least five years' professional experience
- 2) Further to Paragraph 1, admission to the examination may also be granted on presentation of certificates or otherwise, as proof that the requisite knowledge, skills and experience have been acquired in previous activities and can justify admission to the examination.

## § 3 Structure, content and duration of the test

### 1) Theoretical fundamentals

In the first part of the examination, basic knowledge in the following fields of activity must be demonstrated:

- a) Analysis of operational conditions with regard to the current and future management and technologies of Water, Wastewater, Waste and Circular Economy.
- b) Submission of economically justified proposals for the anchoring of workplace innovation measures.
- c) Activities for the implementation of innovation measures in management and technologies of Water, Wastewater, Waste and Circular Economy in the company.
- d) Examination of the company suitability of the innovation measures.
- e) Development of optimisation proposals to improve the innovation measures.

2) Planning, implementation and evaluation of innovation measures in management and technologies of Water, Wastewater, Waste and Circular Economy.

In the second part of the examination, the candidate should prove that he/she is capable of planning, implementing and evaluating a company-related innovation project in management and technologies of Water, Wastewater, Waste and Circular Economy. This includes:

- a) the identification of workplace innovation fields of action in SMEs
  - b) the planning of innovation activities in management and technologies of Water, Wastewater, Waste and Circular Economy in the company
  - c) the presentation of advantages and disadvantages in the implementation of workplace innovation activities in the company
  - d) the anchoring of workplace innovation activities in the company as a project
  - e) Measures to check the suitability of innovation activities in management and technologies of Water, Wastewater, Waste and Circular Economy in the company
- 3) Project work

3) The third part of the examination is in the form of a project work, which is to be prepared as a written, extra-occupational term paper. The scope start and processing time of the project work is determined by the examination board.

4) The first part of the examination is oral and should not take longer than 30 minutes in total.

5) The second part of the examination is conducted in writing and should not exceed 60 minutes.

6) On the basis of the examination performances in the project work, a technical discussion is to be held in which the candidate is to show that he/she can demonstrate the technical connections underlying the project work, justify the course of the project work and present technical problems associated with the project work and their solutions. The technical discussion should not last longer than 15 minutes.

#### § 4 Consideration of previous examinations

1) The examinee can apply for exemption from the examination in individual areas of action, if he/she has passed a previous examination before a competent authority, a public or state accredited educational institution or before a state examination board whose content requirements correspond to the respective fields of activity.

2) A complete exemption is not allowed.

#### § 5 Passing the written and oral examinations

1) The examination results in the parts stipulated in § 3 must be assessed separately.

2) The number of points obtained in the three papers for the oral and written examinations should be summarized into a total score. The final grade is therefore:

15% from the first part of the examination,

25% from the written examination in the second part of the test,

40% of the project work in the third part of the test and

20% of the technical discussion in the third examination.

3) The written examination of the second part of the examination must be supplemented by an oral examination if this can be decisive for passing the examination. The oral examination should not last longer than 15 minutes per examination.

4) The examination is passed if at least sufficient performance has been achieved in each examination part.

5) A certificate is to be issued on passing the examination, which must show the overall examination grade.

#### § 6 Retests

(1) An examination which was not passed can be repeated twice.

(2) If the candidate has passed individual sections of the examination but has not performed at least adequately in sections in accordance with §3, the parts successfully passed must not be repeated on further application, provided that the candidate has filed for reassessment within two years from the date of the declared result of the failed examination. The assessment of the examination will be made with regard to this factor.

### § 7 Application of other provisions

For all craft and non-craft occupations, the respective training examination regulations apply in their currently valid version.

## **2. Evaluation in the Qualification Framework and international recognition**

### **2.1 Qualifications Framework “Baltic Sea Region”**

A qualifications framework for the Baltic Sea Region was designed under the Project Leonardo “Baltic Education”<sup>1</sup>. By means of the European Credit Transfer System of Vocational Education and Training (ECVET), this “BSR-QF” provided the basis for the evaluation of two craft occupations – “carpenter” and “painter”. ECVET is a system which allows to characterize qualification (knowledge, skills and competence) by transferable and accumulable learning units and to assign credit points to the learning outcomes. The BSR-QF and the applied ECVET process for the two named occupations formed the basis for the evaluation of the three advanced training programmes developed “Workplace Innovation”.

#### **EQF and BSR-QF – an introduction**

The Maastricht Declaration of 2004, the Lisbon Strategy of 2000 as well as several other European Union initiatives, and in this context specifically dedicated funding to raise the geographical and labour market mobility and to promote lifelong learning, will yield increased employment and economic growth across EU countries. Rapid social, technological and economic changes along with an aging society make lifelong learning a necessity. For that reason, education is a major component to meet and to achieve the ambitious Lisbon goals. Hence, the European Commission has induced to develop a European Qualifications Framework and to establish National Qualifications Frameworks (hereinafter: NQF) by 2010. The modelling of National Qualifications Frameworks lies in the competence of national authorities, whereas the EU-Commission has recommended that the EU Member States implement NQFs. The European Qualifications Framework represents a meta-framework and is considered by the European Commission as crucial in meeting European objectives, set out in the Lisbon Strategy.

The main purpose of a qualifications framework is to improve transparency, quality and comparability of professional and academic qualification levels across differing education systems and European countries. The EQF itself does not constitute a formal recognition of occupational qualifications. A special feature of Europe is the enormous diversity of educational systems. A prerequisite to make this specificity an asset is to foster transparency.

Transparency can be considered as a fundamental prerequisite for the recognition of qualifications, and it improves comparability. Better comparability between countries

---

<sup>1</sup> Hanseatic Parliament: Baltic education, Hamburg 2008



is a decisive element to increase labour mobility and to ensure permeability of qualifications, whereby permeability constitutes a prerequisite for lifelong learning.

In the near future, qualifications frameworks must meet these criteria with concrete and well-designed concepts. A qualifications framework is an appropriate tool for the development and for classifying qualifications. The European Qualifications Framework was adopted in November 2007.

Under the project “Baltic Education”, constructive and fruitful discussions at European and national levels should be encouraged by a “Baltic Sea Region Qualifications Framework” (hereinafter: BSR-QF). This BSR-QF should be regarded as a supplement and contribution to the ongoing debate rather than a substitute for the shaping of National Qualifications Frameworks. The project “Baltic Education” has delivered a sizeable contribution to this strategy.

The Baltic Sea Region (BSR) is an area with a considerable number of different countries. These countries share common problems as they endeavour to cope with the same economic and demographic challenges and concerns. It is essential for this region to further develop vocational training, to improve quality and to establish transparency and recognition models. To solve these complex issues, the BSR-QF provides an orientation, allowing for classifications across the whole qualification range and also serving as a common ground for constructive discussions, conceptual considerations and individual progress.

## **The Baltic Sea Region Qualifications Framework**

The BSR-QF comprises eight qualification levels that take into account acquired skills from the European Higher Education Area (EHEA) plus vocational qualifications and competences.

This concept is consistent with the recommendations of the European Commission. Table 1 shows the elaborated proposal for the BSR-QF. The following presents a brief overview of the respective competence levels of the BSR-QF. The following section provides more detailed information on the methodology and descriptors that have been developed and used for the BSR-QF.

### Competence level 1 – Basic education

Skills profiles to be reached at this stage are general basic training skills and they will not be counted to vocational training or academic education. Basic training is a prerequisite to gain access to higher qualification levels. The development of learning skills still requires resolute continued guided support. It is not possible to assign this skills level to a specific domain. Therefore, qualifications in this level are domain-independent.

### Competence level 2 – No vocational training

Level 2 comprises the first level of vocational training (VET area). Qualifications at this stage are not specifically pronounced, since knowledge and skills are at an early

stage of evolving. Methods and social skills are not yet domain-specific. 1 to 2-year qualification programmes, training phases and vocational training preparation phases are covered by this stage.

Tab.1: Baltic Sea Region-Qualifications Framework

Level	Education Degree	Framework for Qualification of the VET* area and EHEA**
1	<i>Basic Education</i>	-
2	<i>No Vocational Graduation</i> graduation/training after/for 1-2 years, and work and apprenticeship preparation phase (at the age of 15/16)	First cycle VET area
3	<i>Lower Vocational Graduation</i> certificate of apprenticeship (in 2-4 years), and no/limited professional or experience (certificate of apprenticeship + <5 years of profession experience)	Second cycle VET area
4	<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)	Third cycle VET area
5	<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); introductory study period	Fourth cycle VET area and short cycle academic area
6	Bachelor (academic bachelor's degree) and other similar qualifications and competences	Fifth cycle VET area and first cycle academic area
7	Master (academic master's degree) and other high qualifications and competences	Sixth cycle VET area and second cycle academic area
8	PhD and other very high qualifications and competences	Seventh cycle VET area and third cycle academic area



### Competence level 3 – Lower vocational training

Level 3 covers complete vocational training from a training period of 2 to 4 years. Access to the competence level of a lower vocational training is possible after completion of a secondary school or after reaching the competence level 2. This involves professional skills, equivalent with an expertise level of an initial vocational training. The graduate has no or limited work experience. Qualifications at this level include a broad general education and an initial job specific expertise. Therefore, only specific parts of a domain will be covered in this qualification level. Completion of the skill level 3 is a precondition for achieving the competence levels 4 and 5.

### Competence level 4 – Intermediate vocational education

Compared to Level 3, this level specifies a higher degree of professional and technical expertise. Vocational training qualifications, extensive advanced training, “Young master craftsman”, and long work experience are covered by this stage. The level in this field is relatively high and all parts of a professional domain are covered. Level 4 qualifications indicate great job specific knowledge and skills. In this level, a person can be regarded as a specialist who has the knowledge and skills to relatively independently solve problems. Finally, achieving level 4 along with extensive advanced training, allows a limited number of candidates with ambitious and superb qualifications to access an academic bachelor level, without having previously obtained a general qualification for university entrance.

### Competence level 5 – Higher vocational education

At this stage, candidates already have a formal vocational qualification as a master craftsman, including follow-up trainings; they have long professional experience and thus a high degree of technical expertise. Each part of a domain is covered at a high level, but without scientific expertise. Knowledge acquired by candidates at this competence level comprise autonomous learning, broad theoretical and practical knowledge. At this relatively high level of competence basic academic studies are touched upon. Completing of the competence level 5 with comprehensive, previous vocational education and further training (e.g. as “Master Craftsman Plus”) gives access to competence level 6, without having a general qualification for university entrance. It is possible to obtain credits for university entrance, based upon previously acquired knowledge (maximum 120 credit points). Nevertheless, persons who seek access to the bachelor level, have to pass an individual interview. Competence level 5 covers the short academic cycle with regard to the European Higher Education Area (EHEA). University students with circa 120 credit points are within competence level 5.

2

### Competence level 6 – Bachelor and other comparable education and skills

Candidates within this qualification range have already completed the first cycle of the EHR and the 5th level of vocational training. The academic bachelor's degree is

---

<sup>2</sup> cf. MINISTRY FOR SCIENCE, TECHNOLOGY, AND INNOVATION (Eds.) (2005): *A Framework for Qualifications in the European Higher Education Area*. Bologna Working Group on Qualifications Frameworks. Copenhagen.

obtained by students who usually scored 180-240 credit points<sup>3</sup>. Level 6 qualifications feature advanced theoretical knowledge and skills. This also applies to individuals with completed vocational training and notably domain-oriented knowledge. Precondition for access to the competence level 6 is the general qualification for university entrance or similar sophisticated competences and skills within a domain-specific education. Completing the qualification levels 4 and 5 also opens up access to the competence level 6.

#### Competence level 7 – Master and other higher qualification and skills

Having an outstanding domain-specific knowledge, candidates are at a significantly high level within this stage. They are highly qualified professionals, with advanced training and skills in a most deeply specific domain. Qualifications at this level include self-determined and theoretical learning. The master's degree is one of the conditions for reaching the third level of the academic cycle. Competence Level 7 is the second highest qualification of the EHR and the second highest level of the vocational training cycle.

#### Competence level 8 – PhD and other first-rate qualifications and skills

A PhD title is one of the highest academic degrees and it is the highest level within the EHR system. An academic person at this proficiency level is a professional and expert. Competence level 8 is the highest vocational training cycle to be reached by individuals. These persons have outstanding expertise and intellectual abilities in a most highly specific domain field. Persons at qualification level 8 have leadership skills and experience as well as potential for critical, methodical analyses, assessments and presentations.

### **Methodology and Descriptors**

The proficiency levels measure professional, personal skills, abilities and competences within a specific domain. It is a method to classify and assess qualifications in levels. It is not the acquired diplomas but skills that are subject to assessment in levels. Qualifications are understood as a set of skills. A competence is defined as the ability to meet tough requirements in a specific context. Competent execution or effective actions involve the mobilization of expertise, cognitive and practical skills as well as social and behavioural components such as attitudes, emotions, values and motivations.<sup>4</sup> Skills are more than school and work-related knowledge. It is therefore a consistent argument that (professional) skills comprehensively include social and personal competence. Skills, as they are set out

---

<sup>3</sup> MINISTRY FOR SCIENCE, TECHNOLOGY, AND INNOVATION (Eds.) (2005): *A Framework for Qualifications in the European Higher Education Area*. Bologna Working Group on Qualifications Frameworks. Copenhagen.

<sup>4</sup> D. S. RYCHEN/L. H. SALGANIK (2003): *Key Competencies for a Successful Life and a Well-Functioning Society*. DeSeCo Project report Summary, OECD, Paris, p. 2

in the BSR-QF, are not occupation-specific, but they are in fact aggregates.<sup>5</sup> Hence, educational degrees were used in the project to describe, illustrate and classify skills. This increases the legitimacy among stakeholders, builds on familiar ways of thinking and classification patterns and enables easy, transparent and unbureaucratic description and understanding.

Table 2 shows the descriptors for each skills level of the BSR-QF. The descriptors “expertise” and “competence” are equivalent to the descriptors in the EQF.

The Baltic Sea Region Qualifications Framework contributes to the discussion and advisory debate on the development of the National Qualifications Framework. The design is consistent with the structures and methods of the European Commission.<sup>6</sup> This BSR-QF contributes to the fostering of education and the economy of the Baltic States as it presents an instrument to reduce cross-border barriers, which limit the work-related mobility and productivity dependent thereon. Accordingly, the BSR-QF has been accepted by the members of the Hanseatic Parliament in the General Assembly on 8 November 2007 in Vilnius as a substantial support and development tool. In the further work of the present project, the BSR-QF ensures orientation for grading, structuring and evaluation of individual professions.

Tab. 2: Descriptors for competence levels 1-8 (Source: Own research)

Level	Expertise*	(Methodological) Competence*	(Formal) education degree	Framework for Qualification of the VET area and 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 VET area and EHEA is a modified and extended EHEA framework</i>

<sup>5</sup> cf. BUNDESINSTITUT FÜR BERUFSBILDUNG (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.

<sup>6</sup> cf. EUROPÄISCHE KOMMISSION (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.

1	Basic general Education; basic skills required to carry out simple tasks	Work under direct supervision in a structured context	–	–
2	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 (at the age of 15/16)	First cycle VET area
3	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 - 4 years), and no/limited professional or experience (certificate of apprenticeship + < 5 years of profession experience)	Second cycle VET area
4	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	Third cycle VET area

			profession experience)	
5	Comprehensive, specialised, factual and theoretical knowledge within a domain and an awareness of the boundaries of that knowledge; a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	Exercise management and supervision in contexts of work or study activities with unpredictable change; review and develop performance of self and others	Master craftsman with long profession experiences as master ( $\geq 3$ years); "master craftsman plus"; long profession experiences and further education (certificate of apprenticeship + $\geq 8$ years of profession experience); introductory study period	Fourth cycle VET area and short cycle academic area
6	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	Bachelor (academic bachelor's degree) and other similar qualifications and competences	Fifth cycle VET area and first cycle academic area
7	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	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	Master (academic master's degree) and other high qualifications and competences	Sixth cycle VET area and second cycle academic area



	problem-solving skills required in research and or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	strategic performance of teams		
8	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 and other very high qualifications and competences	Seventh cycle VET area and 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.

## 2.2 Structuring and evaluation

### Introduction

The objective of the Baltic Education Project was to develop, introduce and implement a system for mutual recognition of professional qualifications. This will be achieved by using the European Credit Transfer System of Vocational Education and Training (ECVET).<sup>7</sup> ECVET is a system that enables describing qualifications by

<sup>7</sup> EUROPEAN COMMISSION (EC) (2006): European Credit System for Vocational Education and Training (ECVET). A system for the transfer, accumulation and recognition of learning outcomes in Europe. SEC (2006) 1431, Brussels, p. 3



transferable and accumulable learning units (in the form of knowledge, skills and competence) and corresponding allocated credit units.<sup>8</sup>

ECVET also perfectly complements the European Qualifications Framework.<sup>9</sup> In its guidelines, the European Commission outlined the overall concept as follows:

- a) focus on learning outcomes expressed in terms of knowledge, skills and competence.
- b) based on a process of qualification.
- c) adapted to the demands of lifelong learning and all learning contexts, on an equal footing.
- d) geared towards the mobility of people.<sup>10</sup>

Further ECVET consultation guidelines and regulations specify:

- a) mobility of people undertaking training.
- b) validation of the outcomes of lifelong learning.
- c) transparency of qualifications.
- d) mutual trust and cooperation between vocational training and education providers in Europe.<sup>11</sup>

The experience and methods of ECVET in the project "Baltic Education", form the basis for the evaluation of the training programmes developed "Management and Technologies of Water, Wastewater, Waste and Circular Economy".

In a first step, the individual training modules are evaluated according to the principle "25 training hours = 1 credit point". Based on this starting point, in a second step the significance and content of each training module is evaluated by project partners and experts and then the credit points for each module are determined in a group evaluation.

Within the framework of the "Baltic Education" project, a procedure for the mutual international recognition of vocational education and further training qualifications was developed and agreed with all countries bordering the Baltic Sea. Following this agreement, the project developed and agreed a procedure for the recognition of qualifications from all training courses. The following procedure then follows for the recognition of the degrees of all training courses of the project.

- Lecturers/examiner rates the courses by assigning credit points.

---

<sup>8</sup> EUROPEAN COMMISSION (EC) (2006): European Credit System for Vocational Education and Training (ECVET). A system for the transfer, accumulation and recognition of learning outcomes in Europe. SEC (2006) 1431, Brussels, p. 3

<sup>9</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>10</sup> EUROPEAN COMMISSION (EC) (2006): European Credit System for Vocational Education and Training (ECVET). A system for the transfer, accumulation and recognition of learning outcomes in Europe. SEC (2006) 1431, Brussels, p. 5

<sup>11</sup> EUROPEAN COMMISSION (EC) (2006): European Credit System for Vocational Education and Training (ECVET). A system for the transfer, accumulation and recognition of learning outcomes in Europe. SEC (2006) 1431, Brussels, p. 35

- Mutual recognition of completion in the Baltic Sea countries follows upon fulfilment of the following conditions:
  - a) The final exam was passed.
  - b) The assessment of the course has resulted in at least 80 % of the possible credit points shown in Tables 3 to 5 (20% margin of tolerance).
  - c) Skills were acquired in all three mandatory modules
- Where they do not yet exist, each of the future participants will receive an EU education passport in which the results are documented.

## 2.21 Structuring and evaluation of additional qualifications in the context of initial vocational training

In the project "Management and Technologies of Water, Wastewater, Waste and Circular Economy" six trainings will be developed and implemented.

- A Technologies water supply
- B Technologies water saving
- C Greywater and rainwater utilisation technologies
- D Technologies wastewater treatment (incl. decentralised)
- E Fundamentals of the circular economy
- F Systemic solution-oriented consulting

All six trainings are classified as mandatory modules, in which knowledge and skills have to be acquired.

With regard to the assignment of the course in the BSR-QF, the classification was made in competence level 4 "Intermediate Vocational Education"

The assessment in the project led to the following conclusions:

Table 3: Evaluation additional qualifications by credit points system

Training	Credit Points
A Technologies water supply	3,5
B Technologies water saving	4,0
C Greywater and rainwater utilisation technologies	4,0
D Technologies wastewater treatment (incl. decentralised)	5,5
E Fundamentals of the circular economy	4,5
F Systemic solution-oriented consulting	3,5
Total	25,0

## Internationally recognised educational qualification

Participants can complete individual or all six main modules. A qualified certificate of attendance is issued for each completed main module. Participants who complete all six main modules and pass the final examination receive the internationally recognised further training qualification "Environmental Consultant in XY (profession learned in initial vocational training)".

## 2.22 Structuring and evaluation of further vocational trainings

In the project "Management and Technologies of Water, Wastewater, Waste and Circular Economy" six different further vocational trainings will be developed and implemented.

- A Preparation and management of SMEs for work in the Green Economy
- B Waste reduction and recycling management
- C Wastewater, treatment and recycling management
- D Water supply and saving
- E Cradle to Cradle in SMEs
- F Energy generation from wastewater and waste

Each training programme comprises three modules, which are classified as mandatory modules, in which knowledge and skills have to be acquired.

With regard to the assignment of the trainings in the BSR-QF, the classification was made

- ✓ Minimum competence level 4 "Intermediate Vocational Education" or
- ✓ competence level 5 "Higher vocational education", if participants have already acquired appropriate skills by other qualifications and professional activities and if they contribute them to the course.

The assessment in the project for every training led to the following conclusions:

Table 4: Evaluation further vocational trainings by credit points system

Modules of every training	Credit Points
Training module A: "Knowledge"	2,5
Training module B: „Self-study"	5,0
Training module C: „Reinforcement"	2,5
Credit Points total for each training	10,0

## Internationally recognised educational qualification

Upon completion of the respective training course and the final examination, the participants acquire the recognised professional further training qualification of

- A Specialist for management of SMEs in Green Economy
- B Specialist for Waste Management
- C Specialist for Wastewater Management
- D Specialist for Water Management
- E Specialist for Cradle to Cradle in SMEs
- F Specialist for Energy generation from wastewater and waste

## 2.23 Structuring and evaluation of higher education trainings

In the project "Management and Technologies of Water, Wastewater, Waste and Circular Economy" four different main modules will be developed and implemented.

- A Management & Technologies of the Water and Wastewater industry
- B Waste Management & Technologies
- C Management & technologies of the circular economy
- D Management of sustainable economic activity

Each training programme comprises different modules, which are classified as mandatory modules, in which knowledge and skills have to be acquired.

With regard to the assignment of the trainings in the BSR-QF, the classification was made

- ✓ Minimum competence level 5 "Higher vocational education" or
- ✓ competence level 6 "Bachelor and other comparable education and skills", if participants have already acquired Bachelor degree or appropriate skills by other qualifications and professional activities and if they contribute them to the trainings.

The assessment in the project for every main module led to the following conclusions:

Table 5: Evaluation main modules for higher education by credit points system

Main modules	Credit Points
A Management & Technologies of the Water and Wastewater industry total	8,0
B Waste Management & Technologies total	8,0
C Management & technologies of the circular economy total	10,0
D Management of sustainable economic activity	10,0

### Internationally recognised educational qualification

Upon completion of the respective main module and the final examination, the participants acquire the recognised professional further training qualification of

- A Manager for Water and Wastewater handling
- B Manager for Waste handling

C Manager for circular economy

D Manager for sustainable economic