Result 4.3
Examination regulations "Energy Service Manager / Energy Consultant" with recognized continuing education qualification

Examination regulations, evaluations and international recognition for two further education programs

- Energy Service Manager/Energy Consultant
- Commercial Specialist in Sustainable Management

Hanse-Parlament

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Content

1. Project Summary and Introduction 3
1.1 Project summary 4
1.2 Objectives, results and target groups 4
1.3 Exams Regulation and international recognition 6
2. Regulation for the examination “Energy Consultant” 7
2.1 Aspects of examination rules 7
2.2 Areas of application 9
2.3 Regulation for the further training examination "Energy Service Manager / Energy Consultant" 10
3. Regulation for the examination “Commercial Specialist in Sustainable Management” 15
3.1 Areas of application 15
3.2 Regulation for the further training examination “Commercial Specialist in Sustainable Management” 15
4. Evaluation in the Qualifications Framework and international recognition 24
4.1 EQF and BSR-QF – an introduction 24
4.2 The Baltic Sea Region Qualifications Framework 25
4.3 Methodology and Descriptors 29
4.4 Structuring and evaluation 32
4.5 Evaluation further vocational training Energy Consultant 33
4.6 Evaluation further vocational training Commercial Specialist in Sustainable Management 35

1. Project Summary and Introduction

The word region is defined as “an area, especially part of a country or the world having definable characteristics but not always fixed boundaries”[1]. The Baltic Sea region (BSR) is particularly unique. While the Baltic Sea is the pivotal point defining much of the region’s characteristics and challenges, the countries are also extremely different. Geographically, they are divided between Northern, Western and Central/Eastern Europe, historically, they have been shaped by the East-West divide after the second world war. Nevertheless, given their proximity to the Baltic Sea, they have much in common.

The EU has acknowledged this by issuing the very first macro-regional strategy, the EU Baltic Sea Region Strategy in 2009. As most countries boarding the Baltic Sea were by then EU member states, it can well be considered the EU’s inland sea. The challenges, such as saving the sea, i.e. ensuring clear water, rich and healthy wildlife as well as clean and safe shipping, and the opportunities for a prosperous region through cooperation measures to increase innovation, deepen the single market by improving transportation systems, connecting energy markets and fighting trans-border crime together, make the region very distinct from other parts of the world. Therefore, “BSR integration is best understood as the way that European integration has been translated into this region, further deepening and leveraging access to the rest of Europe and the markets that the EU provides”[2]

Over the past 25 years, this region has become densely integrated, e.g. in the areas of trade, investment, labor mobility, transport and energy infrastructure as well as research collaboration. Furthermore, it demonstrates a broad landscape of robust cross-border organizations and collaborative efforts. Nevertheless, “companies do not look at the Baltic Sea Region as one integrated market in terms of their strategies. For most of them, the region remains a group of individually small markets within the EU, each with its different dynamics, rivals, and often even regulatory rules’”[3].

Keeping this in mind, the lack of comprehensive regional data collection is surprising. Therefore, as part of the Erasmus+ funded project “Promoting permeability through dual bachelor's programs with integrated initial and further vocational training” (BA&VET), an analysis of the region’s demography, economy, and labour as well as education market has been conducted. The majority of the data is taken from the Eurostat database of the European Union. When needed additional sources, such as the OECD database, have been consulted as well.

[1] Oxford Dictionary
[2] Skilling, David (2018). *The Baltic Sea Economies: Progress and Priorities*. Copenhagen: Baltic Development Forum, p.10.
[3] Ibid., p.11

1.1 Project summary

Objectives: What do you want to achieve by implementing the project?

- Increasing permeability between vocational and higher education
- Recruiting universities for tasks of further education in climate and environmental protection
- Providing excellently qualified entrepreneurs, managers and skilled workers and reducing the shortage of skilled workers to meet the challenges in climate and environmental protection
- Strengthening the productivity of SMEs through innovation support and R&D projects
- Promoting cooperation between SMEs and colleges/universities

Implementation: What activities are you going to implement?

- Analyses economy, education and labour markets and qualification needs
- Creation of solution models for 4 project countries
- Development and implementation of Train the Trainer program
- Development and implementation of 2 dual three-stage Bachelor's degree programs and 2 further trainings in climate and environmental protection
- Implementation of R&D projects in SMEs
- Quality assurance for training measures and project implementation
- Dissemination, transfer of results and implementation consultation

Results: What project results and other outcomes do you expect your project to have?

- Result report of the analyses of the economy, education and labour markets and qualification needs
- Solution models for four project countries
- Complete train-the-trainer program
- Module manuals with all documentation for two dual three-stage Bachelor's programs in climate and environmental protection
- Two further education programs in climate and environmental protection
- R&D projects implemented in SMEs
- Quality manual and results reports
- Manual, result videos and broad regional transfer of results

1.2 Objectives, results and target groups

The main objectives of the project are as follows:

a) Increasing the permeability between vocational education and training and higher education and thus promoting the attractiveness of vocational education and training

b) Strengthening the recruitment of colleges/universities for the important tasks of continuing education in climate and environmental protection

c) Providing highly qualified entrepreneurs, managers and skilled workers who, in addition to good theoretical knowledge, also have practical competences, skills and professional experience in climate and environmental protection and reducing the shortage of skilled workers to cope with the very large tasks in the energy, climate and environmental sector.

d) Attracting entrepreneurs and executives who have all the skills to successfully run a company and perform high-quality tasks in climate and environmental protection

e) Strengthening the productivity and competitiveness of enterprises through knowledge and technology transfer, promotion of innovation and implementation of manageable R&D projects

f) promoting cooperation between SMEs and colleges/universities, strengthening colleges/universities to implement dual courses of study on climate and environmental protection, and promoting entrepreneurship in higher education.

In pursuit of these objectives, the following results will be achieved:

1. Analysis results on the economy, demography, education and labour markets as well as qualification needs in climate and environmental protection

2. Curriculum, Teaching materials, implementation report and evaluation concept and report for teacher training

3. Module handbooks with integrated continuing education, teaching materials, examination regulations, implementation reports as well as evaluation concept and reports for a three-stage dual Bachelor's degree program

- "Business Administration & Sustainable Management of SMEs"
- "Management of renewable building energy technology"

4. Concept for promoting innovation by SMEs and evaluation concept and report

5. Concept for innovation promotion of SMEs and R&D projects carried out for SMEs

6. Concepts and report for the evaluation and quality assurance of qualifications and R&D subsidies as well as project implementation, transfer of results, implementations and implementation consultations

The primary target groups of the project are:

a) school leavers who wish to combine vocational education and training with a bachelor's degree and thus receive excellent employment and professional career opportunities.

b) students who are qualified in higher education and university and at the same time in a company and who are highly welcome in SMEs as managers and professionals or as independent entrepreneurs.

c) owners, managers and specialists of SMEs who are qualified in continuing vocational training, acquire tailor-made competences and skills for high-quality activities in climate and environmental protection and achieve a recognized continuing vocational qualification.

d) SMEs that attract suitably qualified young entrepreneurs, managers and specialists, receive innovation funding and carry out R&D projects together with colleges/universities.

The project addresses the following secondary target groups (beneficiaries):

a) colleges and universities which, in order to expand their educational opportunities in climate and environmental protection, receive all the documents and materials for two new dual bachelor's degree programs in order to meet the labour market needs and the conditions of SMEs in particular.

b) chambers and other vocational training institutions which attract strong young people to vocational training, receive curricula for continuing vocational training modules for the qualification of SMEs and their staff, and cooperate intensively with col-leges/universities in teaching and innovation promotion.

c) teachers, advisers and lecturers from chambers, other VET providers and colleges/universities who are qualified in Train the Trainer programs to provide high-quality further training, to carry out dual study courses in cooperation with companies as well as innovation promotion and R&D projects for SMEs at a high-quality level.

1.3 Exams Regulation and international recognition

Official examination regulations with recognised further vocational qualifications have been developed for the two further vocational VET programs of the BA&VET project:

- Commercial Specialist in Sustainable Management
- Energy Consultant

These examination regulations are reproduced in the English version in Chapters 2 and 3 below.

A procedure for the evaluation and international recognition of the two further vocational education degrees was also developed and is presented in Chapter 4.

2. Regulation for the examination "Energy Consultant"

2.1 Aspects of examination rules

In the focus of the course "Energy Consultant" there is a specific further training of specialists for the conveyance of selected contents for the improvement of energy efficiency and use of renewable energy in residential buildings. Since on the one hand in already available (often older) buildings which still do not have a modern energy level it is possible to achieve significant savings in energy, especially heating energy, through comprehensive technical measures. And on the other hand, first of all during planning of new buildings a very significant contribution can be made for the avoidance of energy and reduction of energy consumption. Both for older buildings and new buildings it applies equally that every measure for avoidance or for the reduction of energy consumption must be carefully planned and implemented at least equally carefully. Consultations for customers which have a great interest in energy efficiency of their building are of vital importance at the forefront of development of technical solutions. That is why specialists are required for various processes, especially consulting, planning, performance and supervision of energy-efficient renovation and construction. Therefore, the further training is oriented basically at all groups of specialists which are involved in consulting, planning, performance and supervision of energy-efficient renovation and construction.

Common for these specialists or experts is among other things the fact that they possess sound vocational education and comprehensive expert knowledge in the sphere of renewable energy for residential buildings. Their professional works and tasks include among other things the occupation with measures for energy-related renovation and for the improvement of energy efficiency of buildings. In addition to the acquired vocational qualification this professional background experience represents a significant prerequisite which is required for further training to acquire the qualification of building energy consultant. Through additional qualification participants of this further training acquire knowledge and skills in order to conduct independent consultations for various private and commercial customers on site. The core of this so-called "On-site consultation" is the demonstration of possibilities of energy-related renovation of buildings on the basis of substantiated numbers, data and facts according to the current energetic situation of the residential building. Consultants present a catalogue of reasonably coordinated measures for the energetic improvement of the building. Thereby also legal and first of all financial aspects are considered. Consultants must possess the following basic competences.

- On the basis of his basic knowledge the consultant can undertake registration and evaluation of the actual state and the identification of energetic weak points of already available residential buildings.

- The consultant can prepare a description of suggested measures for energy-related renovation with information on how an improvement of energy efficiency can be achieved (indication of the renovation roadmap). Thereby he also provides instructions and information in what order the measures have to be performed and how those measures must be connected with one another.
- On the basis of suggested measures, the consultant can indicate the expected saving of final energy, the expected CO2 emissions and the expected final energy costs.
- The consultant can determine expected energy-related additional costs. The consultant can provide information related to economic efficiency of renovation over one course or (in case of renovation roadmap) of the first measure on the basis of appropriate parameters.
- The consultant gives a hint at further benefits which are related to energy-related renovation.

These basic competences which can only be acquired through participation in further training in addition to comprehensive technical knowledge and experience to a very great extent contain business expertise, planning and control skills, knowledge of respective legal conditions and funding opportunities, competences for the preparation of feasibility studies as well as outstanding consulting skills. Therefore, the name “Energy service manager” is chosen for this recognized further training qualification. However, if necessary, without any change of content of the examination regulation also the name “Energy service technician” or “Energy consultant” can be used.

For the evaluation of examination results the following 100-points system is recommended:

- 100 – 92 points for the result which corresponds to the requirements to a particular extent,
- less than 92 – 81 points for the result which fully corresponds to the requirements,
- less than 81 – 67 points for the result which corresponds to the requirements in general,
- less than 67 – 50 points for the result which has shortages but still corresponds to the requirements as a whole,
- less than 50 – 30 points for the result which does not correspond to the requirements but allows identifying that certain basic knowledge is still available,
- less than 30 – 0 points for the result which does not correspond to the requirements and when even basic knowledge is very fragmentary or absent.

The mark is determined on the basis of the weighted arithmetic average of acquired points. Thereby the following points mean the following mark:

- 100 – 92 points equal to the mark: very good (A),
- less than 92 – 81 points equal to the mark: good (B),
- less than 81 – 67 points equal to the mark: satisfactory (C),

- less than 67– 50 points equal to the mark: adequate (D),
- less than 50– 30 points equal to the mark: inadequate (E),
- less than 30 – 0 points equal to the mark: unsatisfactory (F).

2.2 Areas of application

The examination regulations are to be used in countries that have the possibility to install official further education examinations with a recognized qualification and do not yet have a corresponding examination regulation "Energy Service Manager / Energy Consultant".
In countries that do not have the possibility to install official further education examinations with a recognized qualification, the examination regulations are to be used to conduct internal examinations. Although this is not associated with a state-recognized further education qualification, the qualification can nevertheless be recognized internationally after passing the examination.
In countries where official further education examinations with a recognized qualification "Energy Service Manager / Energy Consultant" already exist, these examination regulations are to be applied. Of course, all conditions of the respective examination regulations must be fulfilled, including the admission requirements. In the partner countries Estonia, Finland and Poland, for example, the official examination regulations are based on EQF Level 6 and require a relevant bachelor's degree.

In Germany, "Energy Service Manager / Energy Consultant" trainings are conducted in accordance with the developed curriculum and, in accordance with the examination regulation below, the final exams are accepted and recognized.
The curriculum and examination regulations should also be used in Poland. Here, however, there is the problem that the certified "Energy Service Manager / Energy Consultant" may only issue valid energy performance certificates for buildings if they have relevant university degree. In accordance with the provisions of the Polish Energy Performance of Buildings Act, the energy performance certificate shall be issued by a person who:
(a) have a university degree leading to the award of the designation of engineer, architect, landscape architect, firefighter, master architect, landscape architect, fire-fighter or master engineer; or
(b) have completed higher education and postgraduate programs other than those referred to in (a), whose program includes issues of energy performance of buildings, the conduct of energy audits of buildings, energy efficient buildings and renewable energy sources.
In Estonia and Finland, the mandatory requirement is that a suitable Bachelor's degree must be available. It is important to note that only the people who already have bachelor's degree, can be certified in the field of energy saving under the current legislation.

According to the examination regulations below, the examination ends with the designation "Energy Consultant or Energy Service Manager". The profile of the participants at the end of the qualification measures corresponds rather to a "... Manager", possibly also a "... Consultant / Advisor".
In practice, this designation also makes it clear that the qualification measure does not produce a "super-technician" who can "solve" (in particular) the technical problems with the use of (renewable) energy at the building. Operational works will be continued as before by the craftsmen.

2.3 Regulation for the further training examination "Energy Service Manager / Energy Consultant"

Legal provisions for the further training examination "Energy Service Manager / Energy Consultant"

§ 1 Objective of the examination and designation of the qualification

(1) For the evidence of occupational competence which has been acquired within the framework of vocational further training in the qualification of Energy service manager / Energy Consultant, the competent authority can conduct examinations according to § 4.

(2) During the examination to acquire the qualification of Energy service manager / Energy Consultant it has to be determined if the examinee possesses required skills, knowledge and abilities to conduct qualified building energy consultations. Thereby the examinee has to examine, to evaluate the building (building construction and technical facilities) according to structural-physical, structural-technical, construction law, ecological and economic aspects, and to develop and present concepts which would provide for sustainable improvement of energy balance of the building.

(3) According to the examination it has to be determined if the examinee is skilled to issue a building energy certificate.

(4) The successfully passed examination leads to the recognized qualification “Energy service manager”.

§ 2 Admission requirements

(1) Those persons have to be admitted to the examination which have passed a bachelor, technician or master craftsman examination or a comparable examination in a vocational course which includes structural-physical, structural-technical, construction law, ecological and economic contents in the sphere of building technology or building energy.

(2) Notwithstanding paragraph (1) those persons can be admitted to the examination which possess many years of relevant professional experience and prove to reasonable satisfaction by way of providing certificates or otherwise that they have acquired knowledge, skills and experiences which justify the admission to the examination.

(3) Foreign qualifications and time of occupation abroad have to be considered during the admission to the examination.

§ 3 Outline and conduct of the examination

The further training examination to acquire the qualification of Energy service manager / Energy Consultant includes the following five areas of activity (content areas):

1. Modernization planning
2. Building and structures assessment and selection
3. Taking into consideration structural-physical requirements
4. Technical facilities assessment and selection
5. Use of legal regulations related to energy saving and energy efficiency.

§ 4 Content and duration of the examination

(1) The examination in the area of activity “Modernization planning” is divided into

a) a case-related project work.
The examinee has to present two different real modernization proposals. The Examination Board determines on if the proposals as project work, if this corresponds to the examination requirements of the above-mentioned content areas 1 to 5. The Examination Board shall notify the examinee with the approval of the project work, a description of the tasks, the evaluation criteria, the beginning of the processing time as well as the processing period in writing. The processing of the project work can be supported by computers.

b) a professional discussion.
The technical discussion in the form of a fictional consultation is no longer than 30 minutes per test.
The duration of project work should not exceed two months. During the case-related project work which has to be performed in the form of modernization planning the examinee has to prove in relation to a building or parts of a building and associated technical facilities, especially energy supply and ventilation facilities, that he can:

1. perform the inventory and documenting of the modernization object,

2. prepare calculations related to the structural-physical and energy assessment of the inventory,
3. develop, calculate and present a concept for the improvement of energy balance of the inventory, especially taking into account requirements and evidence of valid legal foundations,
4. perform a cost-benefit analysis of the measure for the improvement of energy balance of the building taking into account funding opportunities and profitability comparisons,
5. prepare a disposal concept for the planned modernization measure and
6. evaluate the modernization measure under building laws.

(2) The examination in the areas of activity

a) Building and structures assessment and selection,
b) Taking into consideration structural-physical requirements,
c) Technical facilities assessment and selection and
d) Using legal regulations related to energy saving and energy efficiency has to be conducted in writing. The duration of the written examination is 4 hours in total. At least one complex and action-oriented task must be processed in each action field.

a. In the area of activity “Building and structures assessment and selection” the examinee should prove that he can select construction materials, components and structures according to structural-physical and structural-technical aspects, that he can verify, evaluate and select them for the modernization planning considering economic viewpoints, environmental protection and construction materials recycling.

b. In the area of activity “Taking into consideration structural-physical requirements” the examinee should prove that he can use heating, humidity, noise and fire protection regulations in an object-related manner and implement them for the planning of components and buildings.

c. In the area of activity “Technical facilities assessment and selection” the examinee should prove that he can select technical facilities, especially heating systems, room ventilation systems, lighting equipment (electrical engineering) and renewable energy facilities taking into account aspects of reasonable and economical energy use, comfort and usability for the intended use.

d. In the area of activity “Use of legal regulations related to energy saving and energy efficiency” the examinee should prove that he can assess energy balance according to legal regulations, evaluate energy efficiency taking into account air tightness and heat bridges, monitor construction measures and consider aspects of protection of historical buildings and monuments and that he

also knows legal and technical aspects when issuing building energy certificates.

§ 5 Regulations related to weighing and passing

(1) The project work and the professional discussion in the area of activity “Modernization planning” are weighted in a proportion of 3:1.

(2) The remaining areas of activity have to be weighted as follows:
- “Modernization planning”: 60 %
- Building and structures assessment and selection”: 10 %
- “Taking into consideration structural-physical requirements”: 10 %
- “Technical facilities assessment and selection”: 10 %
- “Use of legal regulations related to energy saving and energy efficiency”: 10 %
- The examination is passed if the performance is evaluated as follows
  + in the overall result with at least “adequate”,
  + in the area of activity “Modernization planning” and in minimum two fur ther areas of activity with at least “adequate”,
  + in the areas of activity “Building and structures assessment and selec tion”, “Taking into consideration structural-physical requirements”, “Tech nical facilities assessment and selection” and also “Use of legal regulations related to energy saving and energy efficiency” on average with at least “adequate” and
  + in none of the areas of activity with “unsatisfactory”.

(3) If in one or several areas of activity “Building and structures assessment and selection”, “Taking into consideration structural-physical requirements”, “Technical facilities assessment and selection” and “Use of legal regulations related to energy saving and energy efficiency” in each case at least 30 and less than 50 points are acquired, upon request of the examinee a supplementary examination can be conducted in one of these areas of activity if it is allowed for the passing of the examination. The oral supplementary examination has to last maximum 20 minutes. The result of the corresponding examination and the oral supplementary examination in this area of activity has to be weighted in proportion of 2:1.

(4) The passing of the exam has to be evidenced by a certificate which should contain information about separate marks for corresponding areas of activity, exemptions specifying the legal basis and also the overall mark for the examination.

§ 6 Exemption from parts of the examination

(1) Upon request the examinee has to be exempted from passing separate areas of activity according to § 3 if he has successfully passed another comparable

examination in a public or state-accredited educational institution or before a state examination board and the registration for the further training examination according to this legal provision takes place within three years after the notification about the passing of another examination. Complete exemption from all the areas of activity named in § 3 is not allowed.

(2) The further training examination board upon request of the examinee also decides about exemptions on the basis of foreign examination results.

§ 7 Repetition of the examination

(1) Examination which has not been passed can be repeated twice.

(2) If in case of an examination which has not been passed the examinee achieves at least adequate examination results in separate areas of activity according to § 3, this examination result does not have to be repeated upon request if the examinee registers for a re-examination within the period of two years starting from the day of determination of the result of examination which has not been passed.

(3) The evaluation of the examination result has to be undertaken within the framework of the re-examination.

§ 8 Entry into force

This legislation enters into force on xx.yy.zzzz

3. Regulation for the examination “Commercial Specialist in Sustainable Management”

3.1 Areas of application

The examination regulations are to be used in countries that have the possibility to install official further education examinations with a recognized qualification and do not yet have a corresponding examination regulation " Commercial Specialist in Sustainable Management ".
In countries that do not have the possibility to install official further education examinations with a recognized qualification, the examination regulations are to be used to conduct internal examinations. Although this is not associated with a state-recognized further education qualification, the qualification can nevertheless be recognized internationally after passing the examination.
In countries where official further education examinations with a recognized qualification " Commercial Specialist in Sustainable Management " already exist, these examination regulations are to be applied. Of course, all conditions of the respective examination regulations must be fulfilled, including the admission requirements.

3.2 Regulation for the further training examination “Commercial Specialist in Sustainable Management”

Ordinance on the Examination for the Recognised Further Training Qualification of Certified Specialist for Commercial, Sustainable Business Management and Certified Specialist for Commercial, Sustainable Business Management

§ 1 Aim of the examination and designation of the qualification

(1) The examination for the recognised further training qualification of Certified Specialist for Commercial, Sustainable Business Management and Certified Specialist for Commercial, Sustainable Business Management is intended to provide evidence of the extension of professional skills, knowledge and abilities (professional competences) aimed at professional advancement. The examination shall be conducted by the competent body.

(2) Through the expansion of the professional ability to act, the person to be examined should be able to analyse and evaluate business management, commercial and legal problems as a manager in craft enterprises and to implement developed solutions operationally while taking into account current/latest developments. The extended professional abilities include in particular:

1. analysing and assessing the potential of a business from a business management point of view,

2. supporting the establishment of craft enterprises,

3. managing and developing craft enterprises from a commercial point of view,

4. acting as an interface between commercial and service-providing areas of the company.

(3) Successful completion of the examination leads to the recognised advanced training qualification "Specialist for Sustainable Management".

§ 2 Admission requirements

(1) Anyone who can prove the following shall be admitted to the examination:

1. a successfully passed journeyman's or final examination in a recognised three-year training occupation or

2. a successfully passed final examination in a recognised two-year training occupation and two years of professional experience.

(2) By way of derogation from subsection (1), admission to the examination shall also be granted to persons who, by submitting certificates or by other means, demonstrate that they have acquired professional skills, knowledge, and abilities (professional competences) which justify admission to the examination.

§ 3 Structure of the examination

(1) The examination components are the three areas of activity and one elective area of activity. The person to be examined shall indicate the chosen elective field of action when registering for the examination.

(2) The three fields' areas of activity are:

1. assessment of the competitiveness of enterprises,

2. preparation, implementation and evaluation of start-up and take-over activities, and

3. development of business management strategies.

(3) The compulsory elective fields of activity are:

1. usage of information and communication technologies,

2. usage of communication and presentation techniques in business transactions,

3. implementation of bookkeeping in the craft enterprise using customary software in the trade, and

4. implementation of project management in the craft enterprise.

§ 4 Examination contents in the field of activity "Assessing the competitiveness of enterprises

In the field of activity "Assessing the competitiveness of enterprises", the candidate should be able to demonstrate the ability to assess business management, commercial and legal prerequisites for the competitiveness of an enterprise and professional development potential in the skilled crafts sector, as well as the ability to present

decision-making necessities. Several of the qualification contents listed under numbers 1 to 6 are to be linked to the task:

1. analyse corporate objectives and classify them in a system of corporate objectives,

2. justify the significance of the corporate culture and the corporate image for the company's performance and competitiveness,

3. analyse the situation of a company on the market and justify the potential for success,

4. analyse account data, in particular; balance sheets and profit and loss accounting, analyse the strengths and weaknesses of a company,

5. use information from internal and external accounting for decision making processes,

6. apply legal regulations, in particular trade and crafts law as well as commercial and competition law, when analysing business objectives and concepts.

§ 5 Examination contents in the field of action "Preparing, implementing and evaluating start-up and takeover activities".

In the field of activity "Preparing, carrying out and evaluating start-up and take-over activities", the candidate should demonstrate the ability to prepare, carry out and evaluate tasks in the context of starting up and taking over a company, taking into account personal, legal and business management framework conditions and objectives, and to be able to justify their significance for a business concept. Several of the qualification contents listed under numbers 1 to 10 are to be linked to the task:

1. explain the importance of personal requirements for the success of professional self-employment,

2. describe and evaluate the economic, social and cultural significance of the skilled crafts sector and the benefits of membership in skilled crafts organisations,

3. point out and evaluate possibilities of using advisory services as well as promotion and support services when setting up and taking over a business,

4. make and justify decisions about the location, size of enterprise, personnel requirements as well as on setting up and equipping an enterprise,

5. develop and evaluate a marketing concept for market introduction,

6. draw up and justify an investment plan and financing concept; draw up a profitability forecast and carry out liquidity planning,

7. Derive the legal form from a business concept and justify the decision made,

8. apply legal provisions, in particular of civil law as well as company and tax law, in connection with the establishment or takeover of craft enterprises,

9. justify the necessity of private risk and retirement provisions, present possibilities of private risk and retirement provisions,

10. Present and justify the significance of personal aspects as well as business and legal components of a business concept in context.

§ 6 Examination contents in the field of activity "Developing corporate management strategies “

In the field of the "Developing corporate management strategies" activity, the skills to be demonstrated revolve around being able to manage a company, identify operational growth potential and develop corporate strategies, taking into account company-related strengths and weaknesses as well as market-related opportunities and risks. Several of the qualification contents listed under numbers 1 to 11 are linked to the task:

1. assess the significance of the structural and procedural organisation for the development of a company; propose possibilities for adaptation,

2. evaluate developments in product and service innovations as well as market conditions, also in an international context, and derive growth strategies from this,

3. justify possible uses of marketing instruments for sales and procurement of products and services,

4. changes in capital requirements derived from investment, finance, and liquidity planning; present alternatives for capital acquisition,

5. develop and evaluate concepts for personnel planning, recruitment and qualification and present instruments of personnel management and development,

6. consider provisions of labour and social security law in the development of a business strategy,

7. present opportunities and risks of inter-company cooperation,

8. use controlling to develop, pursue, enforce and modify business objectives,

9. present instruments for the enforcement of claims and justify the use of these instruments,

10. present and justify the necessity of planning a company succession, also taking into account inheritance and family law as well as tax law provisions,

11. examine the necessity of initiating insolvency proceedings on the basis of company data; show the consequences for the continuation or liquidation of a company under insolvency law.

§ 7 Examination contents in the elective compulsory activity area "Using information and communication technologies

In the compulsory elective activity area "Using information and communication technologies", the candidate shall demonstrate the ability to present the enterprise and its services or products with the help of information and communication technologies and to introduce a data protection system taking into account legal regulations. Several of the qualification contents listed under numbers 1 to 4 are linked to the task:

1. show and evaluate possibilities of designing and optimising websites,

2. use information and communication technologies, especially for public relations, marketing and personnel recruitment,

3. introduce and accompany a company data protection system for the use of information and communication technologies,

4. conduct online business taking into account the provisions of online law.

§ 8 Examination contents in the compulsory elective activity area "Using communication and presentation techniques in business".

In the compulsory elective activity area "Using communication and presentation techniques in business dealings", the following skills are to be demonstrated; to be able to advise customers in a customer-oriented and needs-based manner and to present work results in a structured manner. Several of the qualification contents listed under numbers 1 to 3 are linked to the task:

1. conduct counselling interviews in a needs-oriented manner, including the use of computer-assisted communication and presentation techniques,

2. utilize complaints/feedback to improve customer relations,

3. present themselves and the company.

§ 9 Examination contents in the compulsory elective activity area "Implementation of bookkeeping in the craft enterprise using customary software in the trade ".

In the compulsory elective activity area "Implementing bookkeeping in the crafts enterprise using software customary in the trade", the abilities to be able to manually and electronically record and check business transactions are to be demonstrated. Several of the qualification contents listed under numbers 1 to 4 are linked to the task:

1. create, check and account for vouchers,

2. create, keep and check cash books,

3. prepare payroll,

4. participate in the preparation of the annual financial statement.

§ 10 Examination contents in the elective compulsory activity area "Implementing project management in the craft enterprise".

In the elective compulsory activity "Implementing project management in the skilled crafts sector", the candidate is to demonstrate the ability to identify possible uses of projects and to structure and implement projects in a process-oriented manner. Several of the qualification contents listed under numbers 1 to 5 are linked to the task:

1. initiate and define a project,

2. plan the project,

3. monitor and control project implementation,

4. assemble and lead the project team,

5. conclude the project.

§ 11 Conduct of the examination and duration of the examination

(1) For the examinations in particular examination components, complex situation-related tasks shall be set. At least one task shall be set for each examination component.

(2) The examination tasks are to be completed in writing.

(3) The examination for each examination component lasts two hours

(4) If no more than two of the examination components were graded "unsatisfactory", a supplementary oral examination may be held in each of these examination components. If one of the examination components was graded "unsatisfactory", a supplementary oral examination is excluded. The supplementary oral examination shall be conducted in a situation-related manner and shall last a maximum of 20 minutes for the person to be examined in each examination component. When determining the result for the examination component in question, the assessment of the written examination performance and the assessment of the supplementary examination shall be assessed at a ratio of 2:1.

§ 12 Exemption from individual examination components

If the person to be examined is exempted from taking individual examination components, these examination components shall not be taken into account for the application of § 13.

For the remaining examination components, the proportions according to § 13, Paragraph 2, Sentence 2 shall increase in proportion to each other. Only these examination components shall form the basis for the decisions of the examination board.

§ 13 Assessment of the examination performance

(1) Each examination performance shall be assessed with points in accordance with Appendix 1.

(2) The examination performances in the three examination components pursuant to § 3, paragraph 2 and the examination performance in the examination component pursuant to § 3, paragraph 3 shall be assessed individually. The arithmetic average of the individual assessments shall be calculated as the assessment of the examination.

§ 14 Passing the Examination, Overall Grade

(1) The examination is passed if at least 50 points have been achieved in each examination component, this is without rounding.

(2) If the examination has been passed, the scores for the compulsory activity areas and the elective activity areas in which several examination tasks have been set according to § 11 Paragraph 1 shall be rounded to a whole number in each case.

(3) For the formation of an overall grade, the arithmetic average of the evaluations of the compulsory activity areas and the elective activity areas is to be calculated as the overall score. The total number of points shall be rounded to a whole number in accordance with commercial practice. The grade as a decimal number and corresponding mark (please see table below) shall be assigned to the rounded total number of points according to Annex 1. The assigned grade is the overall grade.

§ 15 Certificates

(1) Those who have passed the examination pursuant to § 14(1) shall receive a certificate from the competent body.

(2) On the certificate, the evaluation with points and the overall grade shall be indicated as a decimal number with one decimal place and as a mark (please see table below). Any exemption under § 12 shall be indicated with the place, date and the name of the examination board of the other comparable examination.

(3) The certificate may contain additional non-official remarks for information (comments), in particular

1. about the qualification obtained or

2. at the request of the examined person, on special or additional skills, knowledge and abilities acquired during further training.

§ 16 Repeating the examination

(1) If the examination is not passed, it may be repeated twice.

(2) With the application to retake the examination, the person to be examined shall be exempted from the examination of those examination components which were assessed with at least "sufficient". Exemption is only possible if the person to be examined registers for the re-examination within two years from the date of the decision on the failed examination.

§ 18 Entry into force

This Ordinance shall enter into force on .....

Appendix 1 (to §§ 13 and 14) Evaluation scale and key

Punkte	Note als Dezimalzahl	Note in Worten	Definition
100	1,0	sehr gut	eine Leistung, die den Anforderungen in besonderem Maß entspricht
98 und 99	1,1		
96 und 97	1,2		
94 und 95	1,3		
92 und 93	1,4		
91	1,5	gut	eine Leistung, die den Anforderungen voll entspricht
90	1,6		
89	1,7		
88	1,8		
87	1,9		
85 und 86	2,0		
84	2,1		
83	2,2		
82	2,3		
81	2,4		
79 und 80	2,5	befriedigend	eine Leistung, die den Anforderungen im Allgemeinen entspricht
78	2,6		
77	2,7		
75 und 76	2,8		
74	2,9		
72 und 73	3,0		
71	3,1		
70	3,2		
68 und 69	3,3		
67	3,4		
65 und 66	3,5	ausreichend	eine Leistung, die zwar Mängel aufweist, aber im Ganzen den Anforderungen noch entspricht
63 und 64	3,6		
62	3,7		
60 und 61	3,8		
58 und 59	3,9		
56 und 57	4,0		
55	4,1		
53 und 54	4,2		
51 und 52	4,3		
50	4,4		
48 und 49	4,5	mangelhaft	eine Leistung, die den Anforderungen nicht entspricht, jedoch erkennen lässt, dass gewisse Grundkenntnisse noch vorhanden sind
46 und 47	4,6		
44 und 45	4,7		

Punkte	Note als Dezimalzahl	Note in Worten	Definition
42 und 43	4,8		
40 und 41	4,9		
38 und 39	5,0		
36 und 37	5,1		
34 und 35	5,2		
32 und 33	5,3		
30 und 31	5,4		
25 bis 29	5,5	ungenügend	eine Leistung, die den Anforderungen nicht entspricht und bei der selbst Grundkenntnisse fehlen
20 bis 24	5,6		
15 bis 19	5,7		
10 bis 14	5,8		
5 bis 9	5,9		
0 bis 4	6,0		

4. Evaluation in the Qualifications Framework and international recognition

A qualifications framework for the Baltic Sea Region was designed under the Project Leonardo “Baltic Education”[4]. 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 designed courses “Sustainable Management” and “Energy Service Manager”.

4.1 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 Lis-bon 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 be-tween countries

[4] 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.

4.2 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 method-ology 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.

Table 1 Baltic Sea Region-Qualifications Framework

Level	Education Degree	Framework for Qualification of the VET* area and EHEA**
1	*Basic Education*	-
2	*No Vocational Graduation* graduation/training after/for 1-2 years, and work and apprenticeship preparation phase (at the age of 15/16)	First cycle VET area
3	*Lower Vocational Graduation* 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	*Middle Vocational Graduation* 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	*Upper Vocational Graduation* 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

Level	Education Degree	Framework for Qualification of the VET* area and EHEA**
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 sec-ondary 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 “Mas-ter 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[5].

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 obtained by students who usually scored 180-240 credit points[6]. 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.

[5] 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.
[6] 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

4.3 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[7]. 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 in the BSR-QF, are not occupation-specific, but they are in fact aggregates[8]. 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 below 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 Frame-work. The design is consistent with the structures and methods of the European Commission[9]. 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 there-on. 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.

[7] 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

[8] 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.

[9] 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.

Level	Expertise*	(Methodological) Competence*	(Formal) education degree	Framework for Qualification of the VET area and EHEA
	In the BSR-QF, expertise is described as knowledge and skills (equivalent with EQF)	*In the BSR-QF, competence describes the degree of responsibility and autonomy*	*The (Formal) education degree describes the degree which can be reached by an individual*	*The framework VET area and EHEA is a modified and extended EHEA framework*
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	Exercise self-management within the guidelines of work contexts that are usually predictable,	Long profession experience as skilled worker (certificate of apprenticeship + ≥ 5 years of	Third cycle VET area

	required to generate solution to specific problems in a domain	but are subject to change supervise the routine work of others, taking some responsibility for the evaluation and improvement of work activities	profession experience); comprehensive further education; "young master craftsman" with no/limited professional experiences (< 3 years of 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 (≥ 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	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	manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches take responsibility for contributing to	Master (academic master's degree) and other high qualifications and competences	Sixth cycle VET area and second cycle academic area

	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	professional knowledge and practice and/or for reviewing the 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.

4.4 Structuring and evaluation

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)[10]. ECVET is a system that enables describing qualifications by transferable and accumulable learning units (in the form of knowledge, skills and competence) and corresponding allocated credit units[11].

[10] 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

[11] 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

ECVET also perfectly complements the European Qualifications Framework[12]. 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[13].

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[14].

The experience and methods of ECVET in the project “Baltic Education”, form the basis for the evaluation of the “Energy Consultant”.

4.5 Evaluation further vocational training Energy Consultant

The training for Energy Consultant is subdivided into the following modules:

- Modul 1: Skills required for a consultant with at least 5 hours
- Modul 2: Legislation and regulation with at least 25 hours
- Modul 3: Energy efficiency with at least 200 hours
- Modul 4: Renewable energy with at least 50 hours
- Modul 5: Energy efficiency certificates with at least 40 hours
- Modul 6: Skills required for a consultant with at least 30 hours

[12]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.
[13]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
[14] 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

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

With regard to the assignment of the Energy Service Manager / Energy Consultant training in the BSR-QF, following classification was made:

a) Minimum competence level 5 “Higher Vocational Education”.
b) Level 6 “Bachelor and other comparable education and skills”, if there are comprehensive training, for example master training or bachelor's exams.

Depending on the country, the theory course covers 350 lessons.
To a similar extent, guided practical phases should also be implemented, which require intensive cooperation with companies.
In addition, extensive self-learning.
The entire workload is achieved in each case to about 36% by theory lessons and self-learning, and to about 28% in practice guided phases. In the evaluation of the entire training program for the Energy Service Manager / Energy Consultant maximum 28 credit points are possible.

Evaluation by credit points system

Module	Credit Points
Modul 1: Motivation	0,4
Modul 2: Legislation and regulation	2,0
Modul 3: Energy efficiency	16,0
Modul 4: Renewable energy	4,0
Modul 5: Energy efficiency certificates	3,2
Modul 6: Skills required for a consultant	2,4
Total	28,0

The examination regulations were designed and approved, leading to an officially degree “Energy Service Manager / Energy Consultant” (see Chapter 2). In this way, future realization of the course can be completed by an appropriate final exam.

The following procedure was adopted for future application in the involved Baltic Sea Region countries.

International recognition

a) Lecturers/examiner rates the courses by assigning credit points.
b) Mutual recognition of completion in the BSR countries follows upon fulfilment of the following conditions:
    - The final exam was passed.
    - The evaluation of the course has yielded at least 25 credit points out of total 28 possible credit points
    - Skills were acquired in all five mandatory modules

Documentation

Where they do not yet exist, each of the future participants will receive an EU education passport in which the results are documented.

4.6 Evaluation further vocational training Commercial Specialist in Sustainable Management

The Further vocational training for Commercial Specialist in Sustainable Management is subdivided into the following modules:

- Modul 1: Analysing and promoting the competitiveness of companies acting sustainably.
- Modul 2: Designing marketing according to a sustainability-oriented strategy.
- Modul 3: Organizing business accounting, controlling as well as financing and investment considering sustainability.
- Modul 4: Designing human resources management and leading employees.
- Modul 5: Qualifications of trainers in SMEs.

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

With regard to the assignment of the Commercial Specialist in Sustainable Management training in the BSR-QF, following classification was made competence level 6 “Higher Vocational Education”.

In the evaluation of the entire training program for the Commercial Specialist in Sustainable Management training maximum 48 credit points are possible.

Evaluation by credit points system

Module	Credit Points
Modul 1: Analysing and promoting the competitiveness of companies acting sustainably	8
Modul 2: Designing marketing according to a sustainability-oriented strategy	8
Modul 3: Organizing business accounting, controlling as well as financing and investment considering sustainability	12
Modul 4: Designing human resources management and leading employees	11
Modul 5: Qualifications of trainers in SMEs	9
Total	48

The examination regulations were designed and approved, leading to an officially degree “Commercial Specialist in Sustainable Management” (see Chapter 3). In this way, future realization of the course can be completed by an appropriate final exam.

The following procedure was adopted for future application in the involved Baltic Sea Region countries.

International recognition

c) Lecturers/examiner rates the courses by assigning credit points.
d) Mutual recognition of completion in the BSR countries follows upon fulfilment of the following conditions:
    - The final exam was passed.
    - The evaluation of the course has yielded at least 42 credit points out of total 48 possible credit points.
    - Skills were acquired in all mandatory modules.

Documentation

Where they do not yet exist, each of the future participants will receive an EU education passport in which the results are documented.