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Product O4

Examination regulations, evaluations and recognition

A1 Analysis of existing examination regulations (English)

A2 Uniform examination regulations (English, Polish, German)

A3 Transfer and recognition (English)

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Baltic Sea Academy

Chamber of Crafts and SME in Katowice

Võru County Vocational Training Centre

Kontiki Vocational Center



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1. Analysis of existing audit regulations and legal bases

1.1 Estonia¹

PROCEDURE FOR AWARDING THE OCCUPATIONAL QUALIFICATION IN ENERGY PERFORMANCE OF BUILDINGS

I. GENERAL INFORMATION

1) Estonian Society of Heating and Ventilation Engineers is the awarding body which holds the right to issue certificates.

2) There are the following qualifications in the field of energy performance of buildings:

a) Energy Auditor 6 Complete occupational qualification, level 6 of EstQF

b) Energy auditor 6 includes partial qualification Preparation of Energy Audits for Residential Buildings, level 6 of EstQF

c) Diploma Specialist in energy performance of buildings, level 7 of EstQF

d) Chartered Specialist in energy performance of buildings, level 8 of EstQF

3) The competence requirements of the standard of an energy auditor, level 6, diploma specialist in energy performance of buildings, level 7 and a chartered specialist in energy performance of buildings, level 8, are granted to a person by granting a vocational certificate if the authority that is going to grant the qualification has acknowledged the conformity of their range of competences to the occupational standard. The occupational qualification certificate is awarded to a person if the competence requirements have been recognized on the national level.

4) To ensure impartiality in awarding occupational qualifications, the awarding body shall set up an occupational qualification committee.

5) In order to assess the occupational competence of the person applying for a occupational qualification, the occupational qualifications committee may set up one or several assessment committees.

6) In accordance with the Construction Act specialists who are responsible for preparing energy audits and issuing energy performance certificates are required to acquire the qualification according to the occupational qualification level. The acquisition of the qualification of an energy auditor and diploma specialist in energy performance of buildings can be responsible person for issuing energy performance certificates for existing buildings.

7) The authority of the occupational qualification committee are valid until the right to award the occupational qualification the expiry date of the validity period.

¹ Prepared by Project Partner Võru County Vocational Training Centre



- 8) Upon awarding an occupational qualification, the occupational qualification committee shall proceed from this Act and the procedure for awarding the occupational qualification in the field of energy performance of building.
- 9) Applying for occupational qualification and recertifying occupational qualification are different from preconditions.
- 10) Applying for an occupational qualification and conditions and procedure for evidencing and re-evidencing the occupational qualifications is for a fee, the amount of the fee for awarding occupational qualification and recertifying occupational qualification is approved by the Professional Council of Engineers on the basis of the awarder of occupational qualification.
- 11) The members of the occupational qualifications committee and assessment committee are paid a remuneration for performing their official duties, the amount and payment procedure of which shall be determined by the awarder of occupational qualification.
- 12) The documents that are required for applying for occupational qualification are provided by the Administrative Procedure Act, taking account of the specifications provided for in this procedure.
- 13) Procedure and changes to the procedure for awarding occupational qualifications shall be submitted to the sector skills council for approval and shall be brought into force upon the declaration of awarding an occupational qualification following the meeting.

II FUNCTIONS OF AWARDER OF OCCUPATIONAL

QUALIFICATION The awarder of occupational qualification shall:

- a) develop in cooperation with the occupational qualifications committee the draft procedure for awarding occupational qualification and submit it to the sector skills council;
- b) organise the preparation of instructions for assessment of occupational competence, materials and other documents necessary for awarding occupational qualification;
- c) submit to the sector skills council for approval the amount of the fee for awarding occupational qualification and re-evidencing an occupational qualification after coordinating the amount of the fee with the occupational qualifications committee;
- d) inform public about awarding an occupational qualification;
- e) make information related to the awarding an occupational qualification publicly available;
- f) appoint a responsible person who shall admit the application and documents of the person applying for an occupational qualification and shall verify their con-



formity based on the preconditions that are provided in the Administrative Procedure Act:

- register the application and documents of the person applying for an occupational qualification;
 - submit the required documents and assess the suitability of the required documents;
 - appoint deadlines that are related to the documents' procedure and informing a person applying for a occupational qualification.
- g) issue an occupational qualification certificate;
- h) ensure protection of information not subject to disclosure received during the awarding of occupational qualification;
- i) assume responsibility for compliance with the procedures for the organisation of awarding occupational qualification;
- j) submit to the sector skills council at least once a year a report on the organisation of awarding occupational qualifications;
- k) submit the data to be entered in the register of occupational qualifications to the occupational qualifications institution.

III FUNCTIONS OF THE ACTIVITIES AND MEMBERSHIP OF THE OCCUPATIONAL QUALIFICATION COMMITTEE

1) Occupational qualification committee consists of the parties interested in awarding occupational qualifications in the given field: representatives of employers, employees, representatives of professional associations and specialists and trainers:
- specialists in the given field: 3 representatives (EKVÜ - Estonian Society of Heating and Ventilation Engineers)

- employer in the field of electrical works: 1 representative (EAEE - Estonian Association of Electrical Enterprises)

- specialis in the field of thermal engineering: 1 representative (ESTIS - Estonian Association of Thermal Engineers)

- employer: 1 representative (EAACEC - Estonian Association of Architectural and Consulting Engineering Companies)

- training: 1 representative (TTÜ - Tallinn University of Technology)

- 1 representative from the Estonian Qualifications Authority

2) The occupational qualification committee shall comprise no less than eight members.

3) If the occupational qualification committee has got the pretensions against the member of the committee the chairman or the vice-chairman has got the right to submit an application to the awarder of the occupational qualification to recall a member of committee.



4) The chairman and vice-chairman are selected amongst the members by the occupational qualification committee.

5) Occupational qualification committee shall:

- a) prepare the draft procedure for awarding process in cooperation with awarder of occupational qualification;
- b) prepare the procedure for occupational qualification committee;
- c) shall calculate and submit the amount of the fee for awarding occupational qualification and recertifying occupational qualification certificate for approval to the awarder of occupational qualification;
- d) decide on the form(s) for assessment of the occupational qualification competence;
- e) appoint, if necessary, assessment committee(s) to assess the conformity of the person applying for an occupational qualification with the requirements of the occupational qualification standard;
- f) approve the instructions of an assessment and the materials which shall be brought into force and make information related to the awarding a occupational qualification publicly available on the webpage of the awarder of the occupational qualification;
- g) decide on awarding or refusing to award occupational qualification to the person applying for the occupational qualification;
- h) examine the documents of the person applying for an occupational qualification
- i) have the right to repeal an issued occupational qualification certificate
- j) resolve the complaints submitted regarding the activities of the assessment committee
- k) approve, if necessary, the requirements for the place of assessment of occupational competence;

6) Members of the occupational qualifications committee are required to hold competence and act impartially, also may not participate in deciding whether to award an occupational qualification to the person applying for the occupational qualification if the member:

- a) has participated in the work of the assessment committee;
- b) is directly related to providing preparatory training for the person applying for an occupational qualifications;
- c) is the employer of the person applying for a occupational qualification or is otherwise personally interested in awarding the occupational qualification, or if other circumstances give reason to doubt their impartiality.

IV THE ORGANISATION OF ACTIVITIES OF OCCUPATIONAL QUALIFICATION COMMITTEE

1) The principle form of work of the occupational qualification committee is sitting. The occupational qualification committee have the right to organise network meetings



through network. Voting is possible whether through internet by adding digital signature or at the meeting where members gather together.

- 2) The activity of the occupational qualification committee is organised by its chairman. In case of the absence of chairman the sitting is organised by the vice-chairman.
- 3) Sittings take place in case of necessity. A decision to assemble a sitting is done by the chairman or, upon absence thereof, the vice-chairman, announcing other members of the occupational qualification committee two weeks before.
- 4) If necessary, the member of the occupational qualification committee has got the right to authorize in writing the other member of the committee.
- 5) The sitting of the occupational qualification committee is juridical if the sitting is participated by at least four members and the chairman or, upon absence thereof, vice-chairman.
- 6) Awarding occupational qualification and other questions are decided by simple majority vote. In the event of a tied vote, decisive standpoint is the chairman's or, upon absence thereof, vice-chairman's.
- 7) Deliberations and decisions are reported and signed by the head of the meeting and a rapporteur.
- 8) The chairman or, upon absence thereof, vice-chairman has got the power to sign on behalf of the occupational qualification committee.

V FUNCIONS OF THE ACTIVITIES AND MEMBERSHIP OF THE ASSESSMENT COMMITTEE

- 1) The assessment committee is a committee set up by the occupational qualifications committee to assess the competence of the applicant for an occupational qualification certificate.
- 2) The assessment committee shall comprise no less than three members. If the assessment takes place in the form of an examination that uses an automatic testing system which does not require the involvement of a person in the assessment of the examination and only records the results, the assessment committee may have one member.
- 3) Members of the assessment committee shall be independent and have the necessary professional knowledge and experience.
- 4) The competence of the member(s) of the assessment committee must meet the following requirements:
 - a) occupational competence;
 - b) occupational qualifications system competence;



- c) assessment competence;
- d) shall hold valid energy performance certificate

5) No more than one third of the members of the assessment committee may be directly related to organising the preparatory training for the particular assessment or examination and no more than one third of the members may work at the same institution as the employer of the person applying for an occupational qualification certificate, except in the case of the automatic testing system described in subsection 3) of this section.

6) Assessment committee shall:

- a) assess the competence of the applicant for an occupational qualification certificate;
- b) prepare a report on the organisation and results of the assessment and submit it to the occupational qualifications committee.

VI PRECONDITIONS AND THE DOCUMENTS OF THE PERSON APPLYING FOR OCCUPATIONAL QUALIFICATION

1) Applying for an occupational qualification:

1.1) Energy auditor 6, Complete occupational qualification:

- a) The precondition for obtaining the qualification of an Energy auditor is higher technical education at least for 3-4 years;
- b) professional work experience: a person is required to have experience preparing energy audits for residential and public buildings on their own and at their own risk - a person shall submit verifications for existing buildings. Minimum 1-3 years of independent specialisation and professional work 5 years before filing an application for extending the qualification;
- c) participating in refresher courses (TP or EAP; 1 EAP = 26 hours of work)

1.2) Energy auditor 6, Partial occupational qualification, carrying out energy audits in residential buildings:

- a) The precondition for obtaining the qualification of an energy auditor, partial occupational qualification, carrying out energy audits in residential buildings is higher technical education at least for 3-4 years;
- b) professional work experience: a person is required to have experience preparing energy audits for residential buildings on their own and at their own risk - a person shall submit verifications for existing buildings. Minimum 1-3 years of independent specialisation and professional work 5 years before filing an application for extending the qualification;
- c) participating in refresher courses (TP or EAP).

1.3) Diploma specialist in energy performance of buildings, level 7:



- a) The precondition for obtaining the qualification of a diploma specialist in energy performance of buildings is higher technical education at least for 4,5 years (minimum 270 EAP)
- b) professional work experience: a person is required to have experience of consulting energy performance certificates and issuing them to existing buildings; minimum 2-5 years of independent specialisation and professional work 5 years before filing an application for extending the qualification.
- c) participating in refresher courses (TP or EAP)

1.4) Chartered specialist in energy performance of buildings 8:

- a) The precondition for obtaining the qualification of a Chartered specialist in energy performance of buildings is higher technical education at least for 4,5 years (minimum 270 EAP).
- b) professional work experience: a person is required to have experience of consulting in relation to energy performance in residential and public buildings (expert assessments, development plans, feasibility research, etc.), carrying out energy audits in complex buildings (including industry), Providing consulting services in relation to energy performance in complex buildings (including industry) (expert assessments, development plans, feasibility research, etc.), scientific research and development, training; minimum 4-8 years of independent specialisation and professional work 5 years before filing an application for extending the qualification.
- c) training/publishing in the field of energy performance of buildings (3 trainings)
- d) participating in refresher courses (TP or EAP)

2) Accumulation of credit points within professional refresher courses for energy auditors and specialists in energy performance of buildings are not required if less than 5 years are passed from being awarded occupational qualification. At least 75% of the number of points awarded after the completion of the course and of the total number of points must be obtained in the area of specialisation or the specialty related to the qualification that is applied for, or the extension of which is applied for.

3) Preconditions for applying for re-evidencing an occupational qualification:

Issuing energy performance certificates to existing buildings, carrying out energy audits in residential buildings, varying out energy audits in public buildings, providing consulting services in relation to energy performance in residential and public buildings (expert assessments), dynamic modelling of the heat-transfer cycle in buildings, providing the evidence base for the calculations of minimum requirements for energy efficiency as well as the requirements for the buildings with low or almost zero energy consumption and as well as the requirements for the accumulation of credit points within refresher courses should be adhered to.

Energy auditor 6 (level 6 of EstQF), 50TP;



Energy auditor 6 (level 6 of EstQF), includes partial qualification Preparation of Ener-gy Audits for Residential Buildings, 70TP;

Diploma specialist in energy performance of buildings 7 (level 7 of EstQF) 80 TP

Diploma specialist in energy performance of buildings 7 (level 7 of EstQF), 80 TP;

Chartered Specialist in energy performance of buildings 8 (level 8 of EstQF), 100 TP.

At least 75% of the number of points awarded after the completion of the course and of the total number of points must be obtained in the area of specialisation or the specialty related to the qualification that is applied for, or the extension of which is applied for.

4) In addition, the applicant presents following documents required for the awarding of occupational qualification:

- a) application (other required documents)
- b) copy of identification document;
- c) proof of payment of a fee for awarding occupational qualification.

VII PROCLAMATION OF AWARDING OCCUPATIONAL QUALIFICATION

1) The awarder of occupational qualification shall announce the awarding of the occupational qualification at least 3 times a year;

2) The awarder of occupational qualification shall make following information related to the awarding of an occupational qualification publicly available on the webpage www.ekvy.ee not later than 30 days before assessment:

- a) announce time and place of the sitting of occupational qualification committee;
- b) approve the time and place when and where are received documents of the person applying for the occupational qualification
- c) other information concerned with awarding of occupational qualification

VIII ASSESSING THE COMPETENCE OF THE APPLICANT FOR AN OCCUPATIONAL QUALIFICATION CERTIFICATE

1) Energy auditor, diploma specialist in energy performance of buildings and chartered specialist in energy performance of buildings specialists are assessed by the applicant's occupational qualification, professional work experience, competence and refresher courses based on the documents certifying compliance and if necessary, on the basis of conversation or occupational competence (test).

2) The performance of the function of an assessment committee shall be approved by the occupational qualification committee.



IX DECIDING TO AWARD AN OCCUPATIONAL QUALIFICATION AND ISSUING THE OCCUPATIONAL CERTIFICATE

- 1) The occupational qualification committee shall decide on awarding or refusing to award occupational qualification to the person applying for the occupational qualification on the basis of assessment committee's opinion. If necessary, an applicant is asked to the additional conversation.
- 2) The awarder of occupational qualification shall announce the decision to the applicant. For not awarding the applicant with the occupational qualification the awarder of occupational qualification shall justify the decision in writing.
- 3) The awarder of occupational qualification shall make information related to the awarding of an occupational qualification publicly available on their webpage.
- 4) Applicant has the right to submit a challenge to the occupational qualification committee pursuant to the procedure provided in the Code of Administrative Court Procedure
- 5) The awarder of occupational qualification shall submit the decision awarding occupational qualification and the data to be entered in the register of occupational qualifications to the The Estonian Qualifications Authority within 10 days, who shall arrange date to be entered on the forms of occupational qualification certificates and issue typed occupational qualification certificates to the awarder of occupational qualification.
- 6) The awarder of occupational qualification must have the possibilities to organise the awarding of occupational qualification certificate.
- 7) The beginning of validity of an occupational qualification certificate is considered the date when the decision was made by occupational qualification committee.
- 8) Energy auditor 6 (level 6 of EstQF), Energy auditor 6 (level 6 of EstQF), includes partial qualification Preparation of Energy Audits for Residential Buildings, Diploma specialist in energy performance of buildings 7 (level 7 of EstQF) and Chartered Specialist in energy performance of buildings 8 (level 8 of EstQF) occupational qualification certificates are valid for five years.
- 9) Re-evidencing the occupational qualifications takes place on the basis of documents (chapter 5)
- 10) A sector skills council may repeal the right to award occupational qualification given to an awarder of occupational qualification selected in a competition if:
 - a) the occupational qualification certificate is acquired by way of fraud;
 - b) the occupational qualification certificate is issued on the basis of a falsified document or a document containing false data;
 - c) the activities of the person holding the profession do not comply with the provisions of the occupational qualification standard.

11) If an issued occupational qualification certificate is repealed, it is deleted from the register of professions and the awarder of the occupational qualification shall inform the relevant person of the decision by registered mail and shall publish a relevant announcement in the official publication Ametlikud Teadaanded (Official Notices) (<http://www.ametlikudteadaanded.ee>).

12) Repealed occupational qualification certificate of an energy auditor and energy performance of buildings the owner of the occupational qualification has the right to reapply for an occupational qualification beginning from two years after repeal of the occupational qualification certificate.

Precondition for reapplying for a occupational qualification is participating in refresher course at least for 50 TP (credit points)

13) A decision to repeal a occupational qualification certificate may be disputed in the administrative court according to the conditions and procedure established in the Code of Administrative Court Procedure.

14) If necessary, the awarder of profession that issued the occupational qualification certificate may apply for a duplicate of the occupational qualification certificate which shall be issued by the authorised employee of the register of occupational qualifications.

X DOCUMENTING THE AWARDING OF OCCUPATIONAL QUALIFICATION AND ARCHIVING THE DOCUMENTS

The activities related to the awarding of occupational qualification shall be documented pursuant to the document forms prepared by the awarder of occupational qualification and to the extent determined by the awarder of occupational qualification, and the documents shall be preserved for the time period specified in the archiving procedure approved by the awarder of occupational qualification unless other time limits have been provided by legislation.

1.2 Germany

In Germany chambers are the competent authorities responsible for vocational training. This means that they convene examination boards for all the vocational trainings and further trainings and conduct intermediate and final examinations. Chambers also have the competence to issue official examination regulations related to recognized vocational further training qualifications. Besides in Germany official examination regulations related to recognized vocational further training qualifications can be issued by the Federal Ministry of Economics and Technology.

Speaking about training to acquire the qualification of “Energy service technicians” or “Energy service managers” the question is about vocational further trainings. For this purpose many chambers have created official examination regulations. German Chambers of Crafts have made use of them especially intensively: they have issued

a legally binding official examination regulation according to the Law on Crafts Ordinance (Crafts Ordinance (Handwerksordnung) – HWO).

Further training ordinances of separate chambers and also on a federal level are similar to a great extent. Because especially in the energy sector German Chambers of Crafts have issued many examination regulations, the legal regulation related to further training examinations “Building energy consultant” of the Leipzig Chamber of Crafts is presented as an example below.

Legal regulations related to further training examinations “Building energy consultant (HWK)” – new version

The full meeting of the Leipzig Chamber of Crafts does issue the following specific legal regulations related to further training examinations for the recognized qualification “Building energy consultant (HWK)”.

§ 1 Objective and outline of the further training examination, designation of the further training qualification

(1) For the evidence of occupational competence which has been acquired within the framework of vocational further training in the qualification of building energy consultant (HWK), the competent authority can conduct examinations according to § 3.

(2) During the examination to acquire the qualification of building energy consultant (HWK) it has to be determined if the examinee possesses the 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. It has to be determined if the graduate is skilled to issue a building energy certificate according to valid legal regulations.

(3) The further training examination includes the following five areas of activity:

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) The successfully passed examination leads to the recognized qualification “Building energy consultant (HWK)”.

§ 2 Admission requirements

(1) Those persons are admitted to the examinations which have passed the master craftsman's examination in a respective craft (compare Annex).

(2) Notwithstanding paragraph 1 those persons can also be admitted to the examination which 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 (§ 42b HWO).

§ 3 Content and duration of the examination

(1) The examination in the area of activity "Modernization planning" is divided into a case-related project work and a professional discussion related thereto. 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 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 evidences 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.

The duration of the project work should not exceed six hours. The professional discussion associated therewith in the form of a fictional consultation should not last for more than 30 minutes.

(2) The examination in the areas of activity "Building and structures assessment and selection", "Taking into consideration structural-physical requirements", "Technical facilities assessment and selection" and "Using legal regulations related to energy saving and energy efficiency" have to be conducted in writing.



1. 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.
2. 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.
3. 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 reasonable and economical energy use, comfort and usability for the intended use.
4. In the area of activity “Use of legal regulations related to energy saving and energy efficiency” the examinee should prove that he can evaluate 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.

The duration of the written examination is four hours in total. Thereby in every area of activity at least one complex, activity-oriented task has to be processed.

§ 4 Regulations related to weighing and passing

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

(2) The areas of activity have to be weighted as follows:

1. Area of activity “Modernization planning”: 60 percent
2. Area of activity “Building and structures assessment and selection”: 10 percent
3. Area of activity “Taking into consideration structural-physical requirements”: 10 percent
4. Area of activity “Technical facilities assessment and selection”: 10 percent
5. Area of activity “Use of legal regulations related to energy saving and energy efficiency”: 10 percent

(3) The examination is passed if the performance is evaluated as follows:

1. in the overall result with at least “adequate”



2. in the area of activity “Modernization planning” and in minimum two further areas of activity with at least “adequate”

3. in the areas of activity “Building and structures assessment and selection”, “Taking into consideration structural-physical requirements”, “Technical facilities assessment and selection” and also “Use of legal regulations related to energy saving and energy efficiency” on average with at least “adequate” and

4. in none of the areas of activity with “unsatisfactory”.

(4) 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.

(5) 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.

§ 5 Exemption from parts of the examination

(1) Upon request the examinee has to be exempted from passing separate areas of activity by the Chamber of Crafts according to § 1 paragraph 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 five years after the notification about the passing of another examination. Complete exemption from all the areas of activity named in § 1 paragraph 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.

§ 6 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 § 1 paragraph 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. The

evaluation of the examination result has to be undertaken within the framework of the re-examination.

§ 7 Use of other regulations

If this legal regulation does not contain divergent regulations, the examination regulation related to further training examination according to § 42 in conjunction with § 38 HwO (PO-F-Hw) of the Leipzig Chamber of Crafts dated April 3, 2009 has to be applied.

§ 8 Entry into force

This legal regulation enters into force on the day of publication thereof in the German Handwerk News, issue of the Leipzig Chamber of Crafts.

Annex to § 2 par. 1

of legal provisions for the further training examination for the qualification “Building energy consultant (HWK)”. According to § 2 par. 1 the following master craftsmen are admitted to the further training examination which are listed below:

- Master roofer,
- Electrical engineering technician,
- Master screed layer,
- Master tile layer, paver and mosaic layer,
- Master glazier,
- Master refrigeration equipment installer,
- Master plumber,
- Master painter and varnisher,
- Master bricklayer and concrete worker,
- Master metal worker,
- Master furnace and air heating builder,
- Master parquet layer,
- Master interior decorator,
- Master shutter and sun protection technician,
- Master chimney sweeper,
- Master stone mason and stone carver,



- Master plasterer,
- Master carpenter,
- Heat, cold and noise insulation master,
- Master installer and heating engineer

The vocational further training with a recognized qualification “Building energy consultant” or “Energy service technician” is a prerequisite in Germany in order to be registered in a list of recognized energy consultants. The state grant is provided for the payment of expenses related to energy consultations only if they are performed by persons from this list.

The vocational further training is made use of actively. Comprehensive recognized further training regulations are available in Germany.

1.3 Poland²

In Poland, the Institution of Chamber of Crafts conducts vocational exams (checking exams, journeyman exams and master craftsman exam). For instance, the Chamber of Crafts and Small and Medium Enterprises in Katowice conducts exams in 75 crafts, the most popular one are: car mechanic, hairdresser, carpenter and food industry professions (cook, chef, confectioner and baker).

Qualification exam for the title of journeyman and a qualifying exam for the title of a master craftsman is a form of assessing the level of knowledge and skills of the profession craft. While for young workers employed in the apprenticeship exam apprentice is synonymous with professional examination.

A) Requirements for applicants for the exam

a) The journeyman exam can be approached by person who meets one of the following conditions:

- a person who completed an apprenticeship with a craftsman, while completing the training in school or non-school system;
- a person who has a high school graduation certificate or eight years of primary school and took an apprenticeship in-school system;
- a person who has a high school graduation certificate or eight years of primary school and has a two-year or three-year work experience in the profession, according to the duration of training in a given profession;
- a person who has a certificate of completion of secondary school or school on the foundation of an eight-year primary school which provides vocational training and at least a six-month internship in the profession, for which passes the exam;
- a person who has a professional degree in a related profession and at least a six-month internship in a profession for which passes the exam. Journeyman

² Prepared by Project Partner Chamber of Crafts and SME in Katowice



exam is an exam of the apprenticeship or professional examination for young workers employed for the sake of learning the profession.

b) The master's examination can be approached by a person who meets one of the following conditions:

- a person who holds a journeyman title or equivalent in the profession and at least three years' experience in the profession, or at least a six-year seniority in the profession and high school certificate (or school on the foundation of an eight-year elementary school);
- a person who for at least six years alone practiced the profession in the course of their business and have a certificate of completion of secondary school or secondary school on the foundation of an eight-year elementary school;
- a person who holds a journeyman or equivalent in a related profession and at least 3 years work experience in the profession and a certificate of completion of secondary school or secondary school;
- a person who holds a master in the profession related, and at least a year training in the profession in which wishes to past another exam;
- a person who has secondary or higher technical education and respectively a two-year or one-year work experience in the profession.

B The scope, form and structure of the exams: journeyman and master

The tasks are developed on the basis of the same standards that are the basis for carrying out the examination confirming vocational qualifications. Standards are de-veloped by the CKE (Central Examination Board) and they are approved by the MEN (Ministry of Education).

For the crafts, which do not have legal based standards yet, the basis of examination requirements are:

- for the journeyman's exam - existing requirements adopted in those exams - the curriculum of the Basic Vocational School and the so-called. Tutorials Examination for candidates for the journeyman;
- for master's examination - existing requirements adopted for these exams, as defined in handbooks exam for candidates for the master.

Both the exam (journeyman and master) consist of two stages - theoretical and practical. The order of taking the stages in the profession are set by the chairman of the committee in consultation with the Chamber of Craft.

C) The scope, form and structure of the exams: journeyman

The theoretical part of journeyman exam consists of granting the candidate answers to questions from the range of topics:

The written part:

- Accounting,



- Professional documentation of business,
- Technical Drawing,
- Principles of safety and fire protection,
- The basic principles of environmental protection,
- The basic provisions of labor law,
- The basic problems of business law and business management.

The oral part:

- Technology,
- Science of mechanic,
- Science of materials.

The duration of the written stage of the theory can not be longer than 210 minutes. The oral part of the exam can last no more than 30 minutes.

Practical stage consists of independent performance by the candidate's examination tasks checking practical skills. The duration of the practical stage of the examination can not be longer than 24 hours in total in three days (average: maximum of 8 hour work in the following three days).

D) The scope, form and structure of the exams: master

Theoretical stage of the master exam consists of granting the candidate's answers to questions concerning the following subjects:

Written part:

- Professional and advanced accounting,
- Advanced documentation of business,
- Technical drawing,
- Principles of safety and fire protection,
- The basic principles of environmental protection,
- The basic provisions of labor law,
- The basic problems of business law and business management,
- Fundamentals of psychology and pedagogy,
- Methodology of teaching.

The oral part:

- Technology,
- Science of mechanics,
- Science of materials.

As in the case of journeyman exam, the duration of the written stage of the theory can not be longer than 210 minutes. The oral part of the exam can last no more than 30 minutes.



Similarly, the practical stage consists of independent performance by the candidate's examination tasks checking practical skills. The duration of the practical stage of the examination can not be longer than 24 hours in total in three days (average: maximum of 8 hour work in the following three days).

E) Conclusions

To pass the exam, a candidate to the craftsman should be evaluated with the grade of at least 2 (in the scale of 2-6). The grades are evaluated by the Commission.

The evaluation team evaluates the candidate with the following grades:

- a) the degree of excellent - 6;
- b) the degree of very good - 5;
- c) the degree of good - 4;
- d) the degree sufficient - 3;
- e) the degree of insufficient – 2.

The evaluation of the practical stage shall be determined on the basis of the ratings issued for each task examination

The evaluation of the written part of the theoretical stage is determined on the basis of assessments made of each subject of the exam for journeyman and master's examination.

A person who received a failing grade from one stage of the examination, have the right to proceed to the second stage of the exam.

A candidate for journeyman or master, who received a failing grade:

- With at least one task of the examination stage of practical, it is to re-take the exam covering this task,
- With at least one topic for the written or oral stage of theoretical part is to resit examination covering the subject.

The re-take exam is conducted by a Examination Commission no later than six months after the end of the first exam.

Qualifying examinations for the titles of journeyman and master carry out examination committees of Chambers of Crafts, appointed by the competent authority from the Chambers of Craft. The creation of the commission informs the Chamber of Craft Minister responsible for education.

The committee consists of:

- Head of the commission,
- No more than 6 deputy chairman,
- The members of the committee.



The Commission shall conduct the examination in examination teams. Team members prepare exam and exam tasks for both the stage of theoretical and practical - after consultation with the chairman of the team and approved by the chairman of the committee.

For a person who passes the journeyman exam, the Chamber of Crafts issues a certificate journeyman. For a person who has passed the master's exam, the Chamber of Craft issues a master's diploma in crafts.

F) Qualifying course in pedagogy for apprenticeship instructors

In Poland, the Chamber of Crafts also conducts qualifying courses in pedagogy for apprenticeship instructors.

The course is organised for people who seek to obtain the rights to the teaching profession.

The recipients of the course can also be entrepreneurs who would like your company to hire interns or apprentices (eg. Barbershops, retailers, factories and others), as well as lecturers of all non-school forms of education, and other people willing to broaden their knowledge of pedagogy, psychology and methodology.

The course includes a total of 70 hours of coursework in pedagogy, psychology and methodology, and 10 hours of practice methodology.

Completion of the course entitles a person to act as an instructor of practical training.

The main objective of the qualifying course in pedagogy for apprenticeship instructors is to provide participants with appropriate teaching qualification and preparing them for the tasks of teaching and education related to the conduct of practical training. Skills to enable effective organization and delivery of education in the workplace.

Completion of pedagogical course for instructors of practical training is a prerequisite for accepting trainees and apprentices in service establishments, factories, health care, public administration, local government and others.

After the course an individual gains the following:

- the ability to apply knowledge of the basics of pedagogy, psychology and methodology in the process of apprenticeship.
- an authority to perform the task instructor of practical training based on knowledge of teaching methods and education. The participant to be eligible for the course should meet the following conditions:
- instructors of practical training must be of legal age and have at least a title in the profession, which will teach or profession included in the scope of the profession, which will teach.
- instructors of practical training not having the league title in the profession should be of legal age and have one of the certificates:
a) technical school leaving certificate or school leaving certificate or equivalent post-secondary or post-secondary school diploma or post-secondary and pro-

fessional degree in a profession related to the profession, which will teach, and at least three years' experience in the profession, in which will teach,

b) secondary school leaving certificate and professional title of skilled worker or equivalent in the profession, which will teach and at least four years of service in the profession acquired after obtaining a professional title,

c) school leaving certificate secondary school, technical secondary school, technical trainee in another profession than the one they teach, or secondary study and professional title of skilled worker or an equivalent degree in the profession, which will teach, and at least six seniority in the profession acquired after obtaining a professional title,

d) university degree on direction (specialties) corresponding to the profession, which will teach, and at least three years' experience in the profession acquired after obtaining the diploma or university degree in another direction (specialty) and at least a six-year work experience in the profession you will teach.

A copy of the certificate confirming education should be provided before the course starts.

The programme of the course includes:

- selected issues of pedagogy and andragogy (20h)
- elements of psychology in teaching profession (20h)
- the grounds for the methodology of practical training (30h)
- methodology 10h

Assessment will take place in the form of complex theoretical examination before the Examining Board appointed by the Organizer (in this case the Chamber of Crafts). The condition of the final exam is a methodical traineeship.

After completing the course and passing the exam, participants receive a certificate.

The main purpose of the practice is methodical professional development in line with the specialty professional. The participant should be able to apply acquired during the course of theoretical knowledge and to use it in practical activities,

During the practice participant knows the essence of pedagogical work, and in the broad context of gaining experience in the organization of practical training (including documentation on teaching, conceptualization and implementation of activities, analysis of their own work, monitoring and evaluation of the effects of students' work).

The participant should choose establishments (industry craft any), which will take place in practice.

1.4 Hungary³

The vocational training program to be developed in the VESTE project will be implemented in the Hungarian training system within the framework of vocational education and training in a different regulatory environment, known as adult education which is outside the realm of school education.

The objectives of the VESTE project can be fulfilled in Hungary within the framework of adult education, whose legal regulation is guaranteed by the Vocational Training Act and the Adult Education Act.

The Government regulation on professional examination regulations determines the detailed rules in the National Qualification Register (OKJ) for everyone involved in the conduct of the examinations – e.g. for vocational qualification, partial qualification, professional qualification examinations, complex professional examination.

The rules governing the content of training for each profession, including the content of examinations and the rules for the recognition of previously attained qualifications, are included in the professional and examination requirements issued by the Minister responsible for the specific profession.

The Vocational Training Act contains the terms used in VET. The ones concerning the VESTE project are the following:

- 21. Complex professional examination: measurement of professional theoretical and practical knowledge, skills, aptitudes and general knowledge of graduates of vocational schools and adults who want to complete a vocational training outside the school system in order to obtain the qualifications required by the OKJ for the exercise of the activities of the desired profession. It is a procedure for the issuing of a certificate that certifies the acquisition of this knowledge.
- 28. Module examination: Examination, competence assessment, which is the prerequisite for the complex professional examination outside the school system. Organized by the vocational training institutions in order to check whether the graduate has acquired the professional competences prescribed in the specific modules of the vocational and examination requirements.
- 39. Professional prequalification: the previous qualifications required to take up this vocational training program. The titles of these vocational training programs are included in the professional and examination requirements.
- 41. Professional and examination requirements: a central VET document issued by the minister responsible for vocational education and training, which sets out the professional requirements, prerequisites, and preparation requirements for a complex professional examination of a particular profession.

³Prepared by Project Partner KONTIKI-SZAKKÉPZŐ Zrt.



- 42. Professional requirement: Conditions reflecting the requirements of the economy towards the professional and the requirements for solving tasks carried out in the course of the profession. It covers the content and quality of competences (work requirements) required for entry into and successful carrying out of the profession.
- 43. Vocational prerequisite module: a fixed part of the vocational training program requirements, for specific vocational training programs the complete requirement. The requirement modules of vocational training programs cover all competences defined in the professional and examination requirements.
- 47. Examination Task: includes the purpose of the written, interactive (computer), practical, and oral examination activity (-s) and to which topic area at least one examination activity must be assigned.

The aim of the VET program developed in the project is not to prepare students for part of a vocational training program or for a complete training program.

The reduced objective of the vocational training and technical preparation of the training program developed in the project is to provide the necessary theoretical and practical knowledge for the energetic modernization of residential buildings and spreading the use of renewable energies.

In order to achieve the integration of the educational program developed in the project into the Hungarian education system, the professional content of the vocational training program must be compared to the content of the professional and examination requirements of a recognized VET degree in Hungary.

According to the provisions of the Vocational Training Act, it can be assumed that it is sufficient to examine the following elements, which are the professional and examination requirements laid down by ministerial decrees of the OKJ (legally stipulated):

a) Depending on the type of qualification, theoretical and practical knowledge required for starting the training ("initial competence"), school and professional qualifications, fulfilment of the requirements relating to medical fitness are the prescribed admission requirements.

b) the most typical occupation, activity and brief description of the field of work (task profile).

c) complex requirements for professional examinations

- the conditions for participation in the complex professional examinations, including the conditions of the language examination and the module examination.

- Examination activities of the complex professional examination.

- Cases, modalities, and conditions for exemption from examination activities.

d) the recognition and crediting of skills acquired in the fields of school education, vocational training, higher education, non-formal and informal learning and compe-

tences acquired in the course of employment, during the period of specialization provided for in Article 27 (2) with regard to the fulfilment of professional requirements.

The professional requirements of the vocational qualification consist of the requirement modules contained in the government resolution.

Based on the professional and examination requirements and the curriculum of the Vocational Training Framework, in vocational schools and institutions outside the school system, depending on their professional performance and assessments as well as the content specifications of the curriculum, a VET program is to be developed within the framework of the Adult Education Act.

In order to ensure that the educational programs of the VESTE project become an integral part of VET education and that the acquired knowledge is recognized, the developed content must become an integral part of adult education programs.

The complex professional examination is a state examination which can be organized in Hungary. The complex professional examination must be passed before an examination board. The examination board of the complex professional examination uses a circular stamp with the coat of arms of Hungary (§ Szt. 9 (6)).

Preparations for the complex vocational examination for obtaining a VET degree prescribed by the OKJ are carried out in vocational school classes and in vocational education and training outside the school system, i.e. in adult education. The complex professional competences acquired in theoretical and practical vocational training, as well as the professional skills and examination requirements defined in the context of vocational education and training, are measured in a standardized process. The complex professional examination must be conducted on the basis of the professional and examination requirements and the provisions of the Professional Examination Regulations (§ Szt. 9 (1-3)).

Except for students with specific educational needs and the exceptions laid down in the examination regulations, no exemption can be granted. (§ Szt. 9 (4-5)).

The vocational training institutions outside the school system - also known as adult education - organize a module examination in accordance with the professional and examination requirements as the completion of the individual modules. The module examination can also be consolidated and organized in accordance with professional and examination requirements. In vocational education and training outside the school system, the complex vocational examination can only be passed after successful completion of the module examination prescribed in the vocational and examination requirements (§ Szt. 10 (1-2)).

The subjects completed in the VET system according to the certificate - as defined in the VET framework curriculum - are equivalent to the completion of the module examination for the given module (§ Szt. 10 (3)).



In order to obtain the VET degree prescribed by the OKJ, the complex professional examination must be carried out on the basis of the professional and examination requirements and in accordance with the subject-specific examination regulation. The complex professional examination must be passed before an examination board (§ Szt. 14 (1)).

The examination board is an independent, four-member organization. In addition to the chairperson, three members take part in the work of the examination board, at least one of them has a specialization in the area in question and one is recommended by the educational institution in accordance with the provisions of the examination act.

The chairperson and members of the examination board are appointed by the Minister for Vocational Education and Training through the state vocational and adult education institution.

The professional trainings in which the Chamber of Commerce develops and implements professional and examination requirements due to an agreement with the Minister for Vocational Education and Training, the chairperson of the examination board is appointed by the state vocational and adult education institution on the basis of the Chamber of Commerce's proposal (§ Szt. 14 (2)).

Only persons who have the necessary qualifications for the transfer of theoretical knowledge or practical training may participate in the work of the examination board.

As chairperson of the examination board, only a person may be appointed who is listed as chairperson on the national vocational training list for state vocational and adult education. A mandate as a member of the examination board can be given to persons who are on the list of examination committees for state vocational and adult education. The work of the examination board can be supported by experts (§ Szt. 14 (3-6)).

2. Examination Regulations Energy Service Manager

The examination ends with the designation "Energy Service Manager". The profile of the participants at the end of the qualification measure 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.

2.1 Quality requirements for examinations in vocational education and training

Testing prerequisites;

- testing shall be objective; testing must ensure the same basic conditions for candidates during examination; it shall safeguard equal evaluation standards; different examiners shall interpret comparable results on an equal basis
- unambiguous and precise language in examination tasks, documented and well-established (technical) language shall be used, thus avoiding blurred or misleading terms
- avoiding one-sided topic concentration; paying attention to the verification of the exam-relevant content range and no over-emphasizing of, for instance the examiner's favourite topics
- verification of the overreaching professional competence; examining shall be based on abilities, skills and knowledge that will translate to excelling in the relevant practice areas
- delivery of reliable results
- exam results should be as far as possible without measuring errors, such as shift towards the centre, halo effect, severity or leniency errors
- examining of content-wise relevant issues only; theoretical requirements = theoretical exam; practical requirements = practical exam
- transparency; ensure that candidates know in advance the examination requirements
- economic viability; examinations are to be conducted efficiently with regard to cost/benefit considerations (output/input ratio is what matters most)

2.3 Aspects of examination rules

In the focus of the course “Energy service technicians” 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 the 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 the 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 the energy-related renovation.

These basic competences which can only be acquired through participation in the 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” 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).

2.3 Regulation for the examination “Energy service manager”

Legal provisions for the further training examination “Energy service manager”

§ 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, the competent authority can conduct examinations according to § 4.
- (2) During the examination to acquire the qualification of Energy service manager 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

- (5) 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.
- (6) 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.
- (7) 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 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

6. 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 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 not 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 evidences 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.

7. 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 further areas of activity with at least “adequate”,
 - + in the areas of activity “Building and structures assessment and selection”, “Taking into consideration structural-physical requirements”, “Technical 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

- (5) 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.
- (6) 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

- (7) Examination which has not been passed can be repeated twice.
- (8) 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

2.3 Regulations for the examinations „Energy Service Manager”

Przepisy prawne dla egzaminu z doskonalenia zawodowego na stanowisko „Energy Service Manager”

§1 Cel egzaminu i tytuł po zakończeniu

- (1) W celu udokumentowania zdolności do zawodowego działania, która została nabyta w ramach doskonalenia zawodowego w ramach Energy Service Manager, właściwa placówka może przeprowadzać egzaminy stosownie do §4.
- (2) Dzięki egzaminowi w ramach Energy Service Manager należy stwierdzić, czy egzaminowany dysponuje koniecznymi umiejętnościami, wiedzą i zdolnościami, aby udzielać odpowiednich porad dotyczących zagadnień energetycznych w budynkach. Egzaminowany ma w jego czasie zbadać i ocenić budowlę (konstrukcję budowlaną i urządzenia techniczne) pod względami fizyki, techniki budowlanej, prawa budowlanego, ekologii i ekonomii, jak również opracować i przedstawić koncepcje, które długofalowo poprawią bilans energetyczny budowli.
- (3) Dzięki egzaminowi należy stwierdzić, czy egzaminowany posiada fachową wiedzę do wystawienia świadectwa energetycznego dla budynku.
- (4) Po zdaniem z powodzeniem egzaminie uzyskuje się uznawany tytuł „Energy Service Manager”.

§2 Warunki dopuszczenia do egzaminu

- (1) Do egzaminu dopuszcza się osobę, która zdała egzamin licencjacki (bachelor), egzamin na technika lub mistrza lub porównywalny egzamin w instytucji kształcenia zawodowego, który obejmuje fizyczne, techniczne, prawne, ekologiczne i ekonomiczne treści w zakresie techniki instalacyjnej lub zagadnień energetycznych w budynkach.



- (2) Odmienne od ust. (1) do egzaminu może być również dopuszczona ta osoba, która dysponuje długoletnim, właściwym doświadczeniem zawodowym i może uwiarygodnić, że uzyskała wiedzę, umiejętności i doświadczenie, które uzasadniają dopuszczenie do egzaminu - okazując świadectwa lub też w inny sposób.
- (3) Dopuszczając do egzaminu należy uwzględnić tytuły nabyte za granicą i okresy pracy zawodowej za granicą.

§3 Struktura i przeprowadzanie egzaminu

Egzamin z doskonalenia zawodowego w ramach Energy Service Manager obejmuje pięć następujących dziedzin (zakresów merytorycznych):

1. planowanie modernizacji,
2. ocena i wybór budowli i konstrukcji budowlanych,
3. uwzględnienie wymogów fizyki budowlanej,
4. ocena i wybór urządzeń technicznych,
5. zastosowanie ustawowych regulacji dotyczących oszczędności energii i skuteczności energetycznej.

§4 Treści i czas trwania egzaminu

- (1) Na płaszczyźnie działania „Planowanie modernizacji” egzamin dzieli się na:
 - a) indywidualną pracę projektową, związaną z nią rozmowę specjalizacyjną.
Osoba egzaminowana musi przedstawić dwie różne realne propozycje modernizacji. Jedna z propozycji zostaje wybrana przez komisję egzaminacyjną na pracę projektową, jeżeli spełnia ona wymagania egzaminacyjne z powyższych zakresów merytorycznych od 1 do 5. Komisja egzaminacyjna zawiadamia pisemnie osobę egzaminowaną o zatwierdzeniu pracy projektowej, przedstawia opis zadania, kryteria oceny, datę rozpoczęcia i czas trwania opracowania propozycji opracowania. Podczas przygotowania opracowania możliwe jest korzystanie z komputera.
 - b) Rozmowa techniczna
Fachowa dyskusja nawiązująca do projektu przebiega w formie fikcyjnej rozmowy doradcze i trwa nie dłużej niż 30 minut na osobę egzaminowaną. Czas opracowywania pracy projektowej nie powinien przekraczać dwóch miesięcy. W przypadku indywidualnej pracy projektowej, którą należy zrealizować w formie zaplanowania modernizacji, osoba egzaminowana powinna udowodnić na przykładzie budowli lub części budowli i przynależnych do niej/ich insta-

lacji technicznych, w szczególności urządzeń energetycznych i wentylacyjnych, że potrafi:

1. zrealizować inwentaryzację i dokumentację modernizowanego obiektu,
2. wykonać obliczenia do fizycznej i energetycznej oceny zasobu,
3. opracować, wyliczyć i przedstawić koncepcję poprawy bilansu energetycznego zasobu, w szczególności z uwzględnieniem wymagań i udokumentowania obowiązujących podstaw ustawowych,
4. wykonać analizę kosztów i korzyści przedsięwzięcia w celu poprawienia bilansu energetycznego budowli z uwzględnieniem możliwości dofinansowania i porównania ekonomiczności,
5. opracować koncepcję utylizacji dla planowanego przedsięwzięcia modernizacyjnego, jak również
6. ocenić przedsięwzięcie modernizacyjne z punktu widzenia prawa budowlanego.

(2) Egzamin na płaszczyznach działań

- a) oceny i wyboru budowli i konstrukcji budowlanych,
- b) uwzględnienia wymogów fizyki budowlanej,
- c) oceny i wyboru urządzeń technicznych, jak też
- d) zastosowania ustawowych regulacji dotyczących oszczędności energii i skuteczności energetycznej należy przeprowadzić pisemnie. Czas trwania egzaminu pisemnego wynosi łącznie 4 godziny.

W każdym obszarze działania należy opracować conajmniej jedno kompleksowe i aktywne zadanie.

- a. Na płaszczyźnie działania „Ocena i wybór budowli i konstrukcji budowlanych” osoba egzaminowana ma udowodnić, że podczas planowania modernizacji potrafi wybrać, sprawdzić i ocenić materiały budowlane, elementy i konstrukcje budowlane pod względem fizyki i techniki budowlanej, zważając przy tym na względy ekonomiczne, ochronę środowiska i recykling materiałów budowlanych.
- b. Na płaszczyźnie działania „Uwzględnienie wymogów fizyki budowlanej” osoba egzaminowana ma udowodnić, że planując elementy budowlane i budynki potrafi w odniesieniu do danego obiektu zastosować przepisy dotyczące ciepła, wilgotności, akustyki i przepisy przeciwpożarowe.
- c. Na płaszczyźnie działania „Ocena i wybór urządzeń technicznych” osoba egzaminowana ma udowodnić, że potrafi wybierać urządzenia techniczne, w szczególności urządzenia grzewcze, urządzenia wentylacyjne do pomieszczeń, urządzenia oświetleniowe (elektrotechnika) i urządzenia odnawialnych

źródeł energii pod względem rozsądnego i oszczędnego wykorzystania energii, komfortu i przydatności do przewidzianego celu.

- d. Na płaszczyźnie działania „Zastosowania ustawowych regulacji dotyczących oszczędności energii i skuteczności energetycznej” osoba egzaminowana ma udowodnić, że potrafi dokonać oceny bilansu energetycznego stosownie do podstaw prawnych, potrafi ocenić skuteczność energetyczną z uwzględnieniem szczelności powietrznej i mostków termicznych, uczestniczyć w działaniach budowlanych i uwzględniać zagadnienia ochrony zasobów i zabytków, jak również, że zna prawne i techniczne aspekty sporządzania świadectw energetycznych budynków.

§5 Regulacje dotyczące oceny i zdawania

- (1) Praca projektowa i rozmowa specjalizacyjna z płaszczyzny działania „Planowania modernizacji” są ważone w stosunku 3:1.
- (2) Pozostałym płaszczyznom działania należy przyporządkować następujące wagi:
- „Planowanie modernizacji”: 60%,
 - „Ocena i wybór budowli i konstrukcji budowlanych”: 10%,
 - „Uwzględnienie wymogów fizyki budowlanej”: 10%,
 - „Ocena i wybór urządzeń technicznych”: 10%,
 - „Zastosowanie ustawowych regulacji dotyczących oszczędności energii i skuteczności energetycznej”: 10%.
- (3) Egzamin jest zdany, jeżeli wyniki zostały ocenione:
- na łączną ocenę przynajmniej „dostateczną”,
 - na płaszczyźnie działania „Planowanie modernizacji” i w przynajmniej dwóch innych płaszczyznach działania na ocenę przynajmniej „dostateczną”,
 - na płaszczyznach działania „Ocena i wybór budowli i konstrukcji budowlanych”, „Uwzględnienie wymogów fizyki budowlanej”, „Ocena i wybór urządzeń technicznych”, jak również „Zastosowanie ustawowych regulacji dotyczących oszczędności energii i skuteczności energetycznej” po wyliczeniu średniej arytmetycznej na ocenę przynajmniej „dostateczną”,
 - żadnej z płaszczyzn działania nie oceniono na ocenę „niedostateczną”.
- (4) Jeżeli w jednej lub wielu płaszczyznach działania „Ocena i wybór budowli i konstrukcji budowlanych”, „Uwzględnienie wymogów fizyki budowlanej”, „Ocena i wybór urządzeń technicznych” i „Zastosowanie ustawowych regulacji dotyczących oszczędności energii i skuteczności energetycznej” uzyskanych zostało każdorazowo przynajmniej 30 i mniej niż 50 punktów, to na wniosek osoby egzaminowanej z jednej z tych płaszczyzn działania może być przeprowadzony uzupełniający egzamin ustny, jeżeli umożliwia on ogólne zdanie egzaminu. Ustny egzamin uzupełniający powinien trwać maksymalnie 20 minut.

Wynik każdorazowego egzaminu i ustnego egzaminu uzupełniającego z danej płaszczyzny działania należy ważyć w stosunku 2:1.

(5) Za zdany egzamin należy wystawić świadectwo, w którym podane są poszczególne oceny z każdorazowych płaszczyzn działania, zwolnienia z podaniem podstawy prawnej, jak również łączna ocena z egzaminu.

§6 Zwolnienie z części składowych egzaminu

(1) Osobę egzaminowaną należy na wniosek zwolnić ze zdawania zagadnień z poszczególnych płaszczyzn działania stosownie do §3, jeżeli z powodzeniem zdała ona inny porównywalny egzamin przed publiczną lub uznawaną przez państwo instytucją kształcenia lub przed państwową komisją egzaminacyjną, a zgłoszenie na egzamin z doskonalenia zawodowego według tego przepisu prawnego nastąpi w ciągu trzech lat od poinformowaniu o zdaniu tego innego egzaminu. Całkowite zwolnienie ze wszystkich płaszczyzn działania podanych w §3 nie jest dopuszczalne.

(2) Komisja egzaminacyjna ds. egzaminu z doskonalenia zawodowego decyduje na wniosek osoby egzaminowanej również o zwolnieniach na podstawie zaliczonych egzaminów zagranicznych

§7 Powtórka egzaminu

(1) Egzamin, który nie został zdany, może być powtarzany dwukrotnie.

(2) Jeżeli osoba egzaminowana - w przypadku niezdanego egzaminu - uzyskała z poszczególnych płaszczyzn działania stosownie do §3 przynajmniej dostateczne oceny egzaminacyjne, to na wniosek nie trzeba powtarzać tego wyniku egzaminacyjnego, jeżeli osoba egzaminowana zgłosi się w ciągu dwóch lat licząc od dnia stwierdzenia wyniku niezdanego egzaminu na egzamin poprawkowy.

(3) W ramach egzaminu poprawkowego należy wykorzystać ocenę wyniku z egzaminu.

§ 8 Wejścia w życie

Ten przepis obowiązuje od xx.yy.zzzz



2.3 Regulation for the examination „Energy Service Manager“

Rechtsvorschriften für die Fortbildungsprüfung „Energy Service Manager“

§ 1 Ziel der Prüfung und Bezeichnung des Abschlusses

- (1) Zum Nachweis von beruflicher Handlungsfähigkeit, die im Rahmen der beruflichen Fortbildung Energy Service Manager erworben worden ist, kann die zuständige Stelle Prüfungen nach § 4 durchführen.
- (2) Durch die Prüfung zum Energy Service Manager ist festzustellen, ob der Prüfling über die notwendigen Fertigkeiten, Kenntnisse und Fähigkeiten verfügt, um eine qualifizierte Gebäudeenergieberatung durchzuführen. Dabei soll der Prüfling das Bauwerk (Baukonstruktion und technische Anlagen) unter bauphysikalischen, bautechnischen, baurechtlichen, ökologischen und wirtschaftlichen Aspekten untersuchen, beurteilen und Konzepte entwickeln und darstellen, die die Energiebilanz eines Bauwerks nachhaltig verbessern.
- (3) Es ist durch die Prüfung festzustellen, ob der Prüfling sachkundig ist, einen Gebäudeenergieausweis auszustellen.
- (4) Die erfolgreich abgelegte Prüfung führt zum anerkannten Abschluss „Energie Service Manager“.

§ 2 Zulassungsvoraussetzungen

- (1) Zur Prüfung ist zuzulassen, wer die Bachelor-, Techniker- oder Meisterprüfung oder eine vergleichbare Prüfung in einer beruflichen Bildungsmaßnahme bestanden hat, die bauphysikalische, bautechnische, baurechtliche, ökologischen und wirtschaftlichen Inhalte im Bereich der Gebäudetechnik oder Gebäudeenergie umfasst.
- (2) Abweichend von Abs. (1) kann zur Prüfung auch zugelassen werden, wer über langjährige, einschlägige Berufserfahrungen verfügt und durch Vorlage von Zeugnissen oder auf andere Weise glaubhaft macht, dass er Kenntnisse, Fertigkeiten und Erfahrungen erworben hat, die eine Zulassung zur Prüfung rechtfertigen.
- (3) Ausländische Bildungsabschlüsse und Zeiten der Berufstätigkeit im Ausland sind bei der Zulassung zur Prüfung zu berücksichtigen.

§ 3 Gliederung und Durchführung der Prüfung

Die Fortbildungsprüfung zum Energy Service Manager umfasst folgende fünf Handlungsfelder (inhaltliche Bereiche):



1. Modernisierungen planen
2. Bauwerke und Baukonstruktionen bewerten und auswählen
3. Bauphysikalische Anforderungen berücksichtigen
4. Technische Anlagen bewerten und auswählen
5. Gesetzliche Regelungen zur Energieeinsparung und Energieeffizienz anwenden.

§ 4 Inhalte und Dauer der Prüfung

(1) Die Prüfung im Handlungsfeld "Modernisierungen planen" gliedert sich in

a) eine fallbezogene Projektarbeit.

Der Prüfling hat zwei verschiedene reale Modernisierungsvorschläge vorzulegen, von denen der Prüfungsausschuss einen als Projektarbeit bestimmt, wenn dieser den Prüfungsanforderungen der vorgenannten Ziffern 1 bis 5 entspricht. Der Prüfungsausschuss teilt dem Prüfling mit der Genehmigung der Projektarbeit eine Aufgabenbeschreibung, die Bewertungskriterien, den Beginn der Bearbeitungszeit sowie die Bearbeitungsdauer schriftlich mit. Die Bearbeitung der Projektarbeit kann PC-Rechner unterstützt erfolgen.

b) ein Fachgespräch.

Das auf die Projektarbeit bezogene Fachgespräch in Form eines fiktiven Beratungsgesprächs soll nicht länger als 30 Minuten je Prüfling dauern.

Die Bearbeitungsdauer der Projektarbeit soll zwei Monate nicht überschreiten. Bei der fallbezogenen Projektarbeit, die in Form einer Modernisierungsplanung durchzuführen ist, soll der Prüfling für ein Bauwerk oder Teile eines Bauwerks und die dazugehörigen technischen Anlagen, insbesondere Energieversorgungs- und lufttechnische Anlagen nachweisen, dass er:

1. eine Bestandsaufnahme und Dokumentation des Modernisierungsobjekts durchführen,
2. Berechnungen zur bauphysikalischen und energetischen Beurteilung des Bestandes aufstellen,
3. ein Konzept zur Verbesserung der Energiebilanz des Bestandes, insbesondere unter Berücksichtigung der Anforderungen und Nachweise der geltenden gesetzlichen Grundlagen entwickeln, berechnen und darstellen,
4. eine Kosten-/Nutzenrechnung der Maßnahme zur Verbesserung der Energiebilanz des Bauwerks unter Berücksichtigung der Fördermöglichkeiten und eines Wirtschaftlichkeitsvergleichs durchführen,
5. ein Entsorgungskonzept für die geplante Modernisierungsmaßnahme aufstellen und

6. die Modernisierungsmaßnahme baurechtlich bewerten kann.

(2) Die Prüfung in den Handlungsfeldern

- a) Bauwerke und Baukonstruktionen bewerten und auswählen,
- b) Bauphysikalische Anforderungen berücksichtigen,
- c) Technische Anlagen bewerten und auswählen und
- d) Gesetzliche Regelungen zur Energieeinsparung und Energieeffizienz anwenden ist schriftlich durchzuführen.

Die Prüfungsdauer der schriftlichen Prüfung beträgt insgesamt 4 Stunden.

- a. Im Handlungsfeld „Bauwerke und Baukonstruktionen bewerten und auswählen“ soll der Prüfling nachweisen, dass er Baustoffe, Bauteile und Baukonstruktionen unter bauphysikalischen und bautechnischen Aspekten auswählen, prüfen, bewerten und unter Beachtung der ökonomischen Gesichtspunkte, des Umweltschutzes und des Baustoffrecyclings für die Modernisierungsplanung auswählen kann.
- b. Im Handlungsfeld „Bauphysikalische Anforderungen berücksichtigen“ soll der Prüfling nachweisen, dass er Wärme-, Feuchte-, Schall- und Brandschutzvorschriften objektbezogen anwenden und für die Planung von Bauteilen und Gebäuden umsetzen kann.
- c. Im Handlungsfeld „Technische Anlagen bewerten und auswählen“ soll der Prüfling nachweisen, dass er Technische Anlagen, insbesondere Heizungsanlagen, Raumluftechnische Anlagen, Beleuchtungsanlagen (Elektrotechnik) und erneuerbare Energien-Anlagen unter den Aspekten der sinnvollen und sparsamen Energieverwendung, des Komforts und der Brauchbarkeit für den vorgesehenen Verwendungszweck auswählen kann.
- d. Im Handlungsfeld „Gesetzliche Regelungen zur Energieeinsparung und Energieeffizienz“ soll der Prüfling nachweisen, dass er nach den gesetzlichen Grundlagen eine Energiebilanz beurteilen, die Energieeffizienz unter Berücksichtigung der Luftdichtheit und der Wärme-Brücken bewerten, Baumaßnahmen begleiten und Aspekte des Bestands- und Denkmalschutzes berücksichtigen kann sowie rechtliche und technische Aspekte bei der Ausstellung von Gebäudeenergieausweisen kennt.

§ 5 Gewichtungs- und Bestehens-Regelungen

(1) Die Projektarbeit und das Fachgespräch des Handlungsfeldes "Modernisierungen planen" werden in einem Verhältnis von 3:1 gewichtet.

(2) Die übrigen Handlungsfelder sind wie folgt zu gewichten:

- a) "Modernisierungen planen": 60 %



- b) "Bauwerke und Baukonstruktionen bewerten und auswählen": 10 %
 - c) "Bauphysikalische Anforderungen berücksichtigen": 10 %
 - d) "Technische Anlagen bewerten und auswählen": 10 %
 - e) "Gesetzliche Regelungen zur Energieeinsparung und Energieeffizienz anwenden": 10 %
- (3) Die Prüfung ist bestanden, wenn die Leistungen
- a) im Gesamtergebnis mit mindestens "ausreichend",
 - b) im Handlungsfeld "Modernisierungen planen" und in mindestens zwei weiteren Handlungsfeldern mit mindestens "ausreichend",
 - c) der Handlungsfelder "Bauwerke und Baukonstruktionen bewerten und auswählen", "Bauphysikalische Anforderungen berücksichtigen", "Technische Anlagen bewerten und auswählen" sowie "Gesetzliche Regelungen zur Energieeinsparung und Energieeffizienz anwenden" im arithmetischen Mittel mit mindestens "ausreichend" und
 - d) in keinem Handlungsfeld mit "ungenügend" bewertet worden sind.
- (4) Wurde in einem oder mehreren der Handlungsfelder „Bauwerke und Baukonstruktionen bewerten und auswählen“, „Bauphysikalische Anforderungen berücksichtigen“, „Technische Anlagen bewerten und auswählen“ und „Gesetzliche Regelungen zur Energieeinsparung und Energieeffizienz anwenden“ je-weils mindestens 30 und weniger als 50 Punkte erreicht, kann auf Antrag des Prüflings in einem dieser Handlungsfelder eine mündliche Ergänzungsprüfung durchgeführt werden, wenn diese das Bestehen der Prüfung insgesamt ermöglicht. Die mündliche Ergänzungsprüfung soll höchstens 20 Minuten dauern. Das Ergebnis der jeweiligen Prüfung und der mündlichen Ergänzungsprüfung in dem Handlungsfeld ist im Verhältnis 2:1 zu gewichten.
- (5) Über das Bestehen der Prüfung ist ein Zeugnis auszustellen, aus dem Einzelnoten der jeweiligen Handlungsfelder, Befreiungen unter Angabe der Rechtsgrundlage sowie die Prüfungsgesamtnote hervorgehen.

§ 6 Befreiung von Prüfungsbestandteilen

- (1) Der Prüfling ist auf Antrag von der Ablegung einzelner Handlungsfelder gemäß § 3 zu befreien, wenn er eine andere vergleichbare Prüfung vor einer öffentlichen oder staatlich anerkannten Bildungseinrichtung oder einem staatlichen Prüfungsausschuss erfolgreich abgelegt hat und die Anmeldung zur Fortbildungsprüfung nach dieser Rechtsvorschrift innerhalb von fünf Jahren nach Bekanntgabe des Bestehens der anderen Prüfung erfolgt. Eine vollständige Befreiung von allen in § 3 genannten Handlungsfeldern ist nicht zulässig.

- (2) Der Fortbildungsprüfungsausschuss entscheidet auf Antrag des Prüflings auch über Befreiungen aufgrund ausländischer Prüfungsabschlüsse.

§ 7 Wiederholung der Prüfung

- (1) Eine Prüfung, die nicht bestanden ist, kann zweimal wiederholt werden.
- (2) Hat der Prüfling bei nicht bestandener Prüfung in einzelnen Handlungsfeldern gemäß § 3 mindestens ausreichende Prüfungsleistungen erbracht, so ist diese Prüfungsleistung auf Antrag nicht zu wiederholen, sofern sich der Prüfling innerhalb von zwei Jahren, gerechnet vom Tage der Feststellung des Ergebnisses der nicht bestandenen Prüfung, zur Wiederholungsprüfung anmeldet.
- (3) Die Bewertung der Prüfungsleistung ist im Rahmen der Wiederholungsprüfung zu übernehmen.

§ 8 Inkrafttreten

Diese Rechtsvorschrift tritt am xx.yy.zzzz in Kraft.

3. 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 course “Advanced training-programme for SMEs: Cradle-to-Cradle”.

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

⁴ Hanseatic Parliament: Baltic education, Hamburg 2008



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.

3.2 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 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.

Baltic Sea Region-Qualifications Framework



Level	Education Degree	Framework for Qualification of the VET* and EHEA** of area
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
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 comple-



tion 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 5⁵.

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 points⁶. Level 6 qualifica-

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



tions 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.

3.3 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 motivations⁷. 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 aggregates⁸. Hence, educational degrees were used in the project to describe, illustrate and classify skills. This increases the legitimacy

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.

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 Framework. The design is consistent with the structures and methods of the European Commission⁹. 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.

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	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	First cycle VET area

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.

	relevant information in order to carry out tasks and to solve routine problems using simple rules and tools		age of 15/16)	
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 profession experience)	Third cycle VET area
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	Fourth cycle VET area and short cycle demica-area

			period	
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 problem-solving skills required in research and or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields	manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams	Master (academic master's degree) and other high qualifications and competences	Sixth cycle VET area and second cycle academic area
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 inno-	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 re-	PhD and other very high qualifications and competences	Seventh cycle VET area and third cycle academic area

	vation and to extend and redefine existing knowledge or professional practice	search.		
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* 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.

3.4 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 units¹¹.

ECVET also perfectly complements the European Qualifications Framework¹². 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 people¹³.

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 Europe¹⁴.

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

¹²cf. 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.

¹³EUROPEAN 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

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

The training for Energy Service Manager are subdivided into the following modules:

- Modul 1: Legal issues with at least 12 – 26 (average 19) hours
- Modul 2: Building envelope in new building and stock with at least 98 – 116 (average 107) hours
- Modul 3: Plant technology and renewable energies in new buildings and existing buildings with at least 98 – 116 (average 107) hours
- Modul 4: Energy proof, modernization recommendations, economy with at least 68 – 90 (average 79) hours
- Modul 5: Electrical engineering / lighting with at least 12 - 24 (average 18) hours

All five 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 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 288 - 372 lessons (an average of 333 hours).

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 maximum 35 credit points are possible.

Evaluation by credit points system

<u>Module</u>	<u>Credit Points</u>
Modul 1: Legal issues	3
Modul 2: Building envelope in new building and stock	11
Modul 3: Plant technology and renewable energies in new buildings and existing buildings	11
Modul 4: Energy proof, modernization recommendations, economy	8
Modul 5: Electrical engineering / lighting	2
Total	35

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

3.5 Final examination and international mutual recognition

The examination regulations were designed and approved, leading to an officially degree “Energy Service Manager” (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 28 credit points out of total 35 possible credit points (20% tolerance margin).
 - 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.

3.6 Application of the examination regulations in the partner countries

In Germany, Energy Service Manager trainings are conducted in accordance with the developed curriculum and, in accordance with the above examination regulations, 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 Managers may only issue valid energy performance certificates for buildings if they have relevant university degrees. 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, firefighter 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 Hungary, implementations are expected to begin in 2018. This course is organized by the Tanext Academy, which has the official adult education license and is supported by project partner Kontiki Berufsbildungs AG. The course is conducted in conjunction with the officially approved adult education course "Facility Energy Techni-

cian". It will be an officially recognized course, which will be completed with a multi-lingual competence certificate.

In Estonia, as in Poland, the mandatory requirement is that a suitable Bachelor's degree must be available. For decades, the qualification system has been based on the level of education - higher education, vocational education or secondary education. The new, 8-level European Qualifications Framework is still in the pipeline. It will take some time before the employers and educators will build a clear and common understanding about a verified qualification system. Estonia's new profession system in the area of energy efficiency is still in the developing phase. Today, 51 certifications have been issued in this field, of which, only 14 were at the lowest possible level - 6th level. The need for knowledgeable and skilled experts in this field far bigger than this

number. 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 in Estonia. VESTE project has contributed greatly to developing the curriculum and the procedures for conducting professional examinations in the field of vocational training. It has also had a positive impact on the training of the specialists in the field and examinations development in Estonia. No doubt that there will be many ideas and suggestions that will be incorporated in the future vocational education curriculums in Estonia.

