

Result 6.1

Quality plans

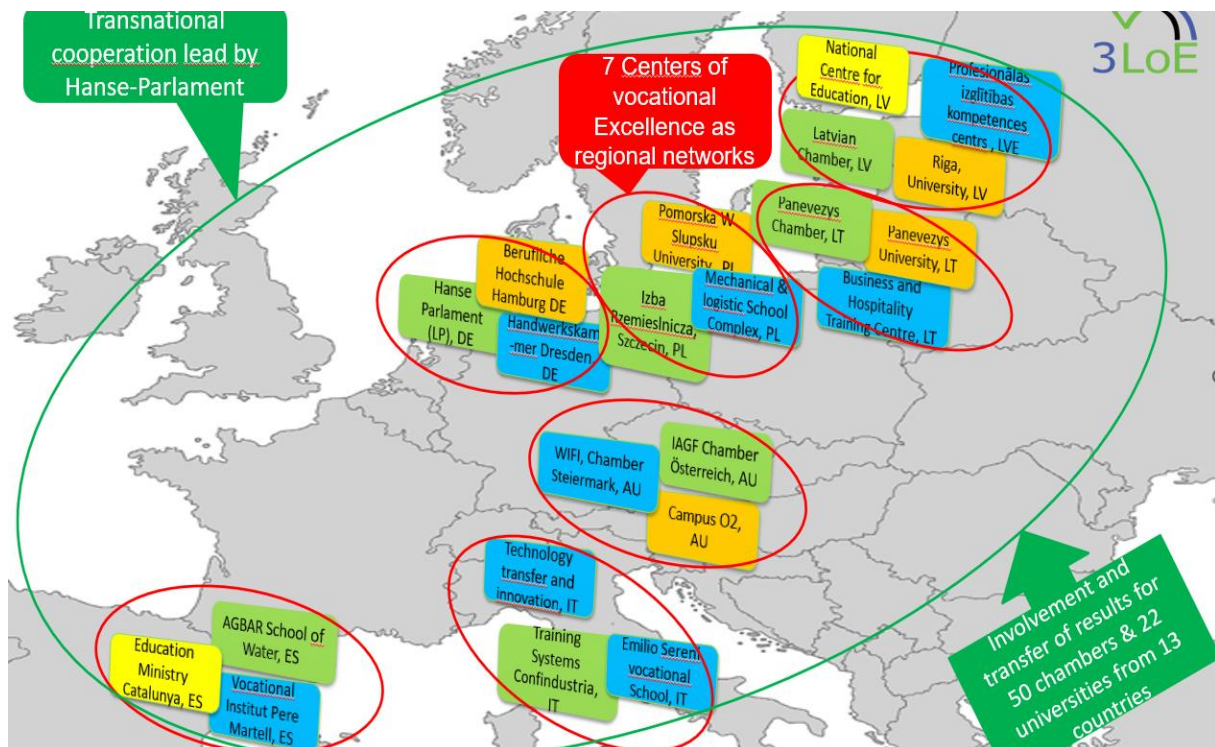
Prepared by Hanse-Parlament



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Partner



Language

English

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Summary of the Project and Introduction

1. About the 3LOE project

Around 99% of all EU businesses are SMEs, creating up to 70% of all jobs. In general, SMEs have good growth prospects for the future and are particularly well equipped to solve environmental problems and to enhance the green economy. However, in most of the project countries, SMEs are confronted with a shortage of skilled workers and young entrepreneurs. This shortage of skilled workers is even more alarming taking into account that due to aging of current entrepreneurs, a large and growing number of companies will have to be handed over to the next generation. Furthermore, young specialists and entrepreneurs often lack the qualifications and skills needed in order to respond to contemporary developments in the fields of energy, climate and environmental protection. The following problems have been identified in SMEs working in the fields of green economy, energy and environmental protection:

- Blatant and growing shortage of skilled workers.
- Large qualification deficits, especially in the Green Economy.
- Loss of attractiveness and low qualification of school-based VET.
- Low rates of further training and insufficient orientation of offers to SME needs.
- Ageing of entrepreneurs and increasing shortage of young people (demographic change).
- Failure of business transfers and low rates of business start-ups.
- Low innovation rates and insufficient productivity.
- Not enough cooperation between universities and SMEs and a lack of teaching geared to SME needs.
- Comparably low internationalization of SMEs and vocational training providers.
- Lack of national level support for SMEs”.

To meet these challenges, work-based learning and new paths in vocational training must be provided through cooperation between educational institutions, economic chambers and SMEs. University graduates are often well-qualified in theory, but lack practical knowledge, skills and abilities that are crucial for SMEs. For this reason, VET reforms must also involve higher education, and should implement dual bachelor's degree programs that combine a bachelor's degree with vocational training and on-site work in companies.

In the 3LOE project, an innovative and complex project structure with 22 project partners from 7 countries as well as 60 associated partners from 13 countries was designed. In each country, centers of vocational excellence (COVEs) in Green Economy will be established, managed and their permanent continuation ensured. A transnational cooperation of the centers will be developed, extended to 60 education stakeholders from 13 countries and operated permanently in an institutionalized form. The centers will offer a wide range of dual education measures in vocational training, further education and higher education, that are being developed, tested and evaluated in the project. These educational measures on EQF levels 3-7 focus on Green Economy, Digitalization and Entrepreneurship. Furthermore, vocational and educational

consulting and innovation support for SMEs will be developed and implemented. In total, seven Train-the-Trainer programs will be developed and implemented permanently by the project partners. All results will be transferred to the 60 associated partners together with implementation advice.

The objectives and aimed outcomes of the 3LOE project can be summarized as following:

1. Foundation of a three-level Center in each project country

1.1 Building the "Green Economy" skills alliance for qualifications in SMEs with educational and economic actors from the 7 project countries; development of information and cooperation tools.

1.2 Expansion of the skills alliance to the 60 associated partners from 13 countries, comprising chambers of commerce, SME associations, as well as universities of applied sciences/colleges.

1.3 Development, testing and evaluation of a curriculum and teaching materials for Train the Trainer courses for personnel and center management (vocational school-teachers, trainers in SMEs and lecturers in further and higher education institutions).

1.4 Evaluation of the construction and operation of the seven centers of Excellence and of the transnational cooperation.

1.5 Development of business and financing plans and ensuring the long-term continuation of the seven centres and transnational cooperation.

1.6 Development, consulting and introduction of political strategy program.

2. Implementation and realization vocational training

2.1 Development and implementation of a tool for vocational and qualification counseling as well as a training for consultants and teachers to use the tool.

2.2 Implementation of the dual system, so that work-based learning is put into practice in the project countries.

Preparation and transfer of curricula and examination regulations for dual vocational training for different professions and implementations in Poland, Lithuania, Latvia and Spain.

Development, test and implementation Trainings for teachers to conduct dual vocational training as well as Training of trainers in SMEs.

2.3 Development political concept for the training and integration of young people with learning difficulties for young people with learning difficulties (EQF level 3).

Development, test and implementation of a dual vocational training "Specialist for Building Insulation".

2.4 Development, testing and evaluation of education programme, teaching materials and examination regulations for the provision of sector-specific qualifications already during the initial vocational training for stronger learners. Implementation in the dual system, so that work-based learning is put into practice in the project countries.

2.5 Development and implementation five-year technician training „Ecologic Solutions in Logistics”.

3. Implementation and realization of further vocational training

3.1 Development and implementation of concepts and instruments for the management of continuing vocational training.

3.2 Development, test and implementation of a Train-the-Trainer program for teachers to conduct further training.

3.3 Development and implementation of a concept "SME-fair digitalization" as well as development, test and implementation of two train the trainer programs "Basic and advanced digital skills".

3.4 Transfer and implementation of four further trainings Energy Saving and Renewable Energies.

3.5 Preparation, transfer and implementation of six further trainings in the Green Economy.

3.6 Development, testing and evaluation of different training programs and teaching material for owners, managers and qualified workers of SMEs (EQF level 5 and 6). The trainings are specifically tailored to SME needs and different qualification levels and combine the transfer of technical, professional and management know-how.

- Training Enterprise and Entrepreneurship in Green Economy

- Training Energy Service Manager

- Trainings vocational Master Carpenter and Electric

- Training Construction Technician

- Training Service Technician

- Training Sustainability in foodservice industry

3.7 Development of regulations for new continuing education occupational profiles with a focus on the green economy.

3.8 Development of an integration programme for the unemployed (EQF level 4) in order to be able to place the unemployed in permanent jobs through further training seminars and a further training qualification.

4. Implementation and realization of higher education

4.1 Preparation and transfer of curricula, evaluation and examination regulations for two existing dual Bachelor degree programmes "Management of Renewable Building Energy Technology" and "Business Administration for SMEs".

4.2 Development and beginning of implementation of new dual Bachelor degree programs

- Business Administration & Sustainable Management of SMEs

- Entrepreneurship and Innovation in Green Economy

- Logistics - Green Supply Chains

- Service technician

- Tutorial "Sustainable management Climate neutrality for companies"

4.3 Development, test and implementation of four study modules (EQF level 6) on SME management in the Green Economy sector, which will be carried out in the dual study system and integrated into existing Bachelor degree programmes.

4.4 Development and implementation of concept for innovation promotion Solutions for manageable R&D tasks of SMEs and conducting manageable R&D projects for SMEs-

4.5 Development, testing and implementation of Training program for university lecturers and SME advisors.

5. Dissemination, transfer and use of the project results

5.1 Development of a concept and summary evaluation of the dissemination results of all partners

5.2 Transfer of all educational measures to 60 educational institutions in 13 countries and needs-oriented implementation consultations as well as realization of a bundle of measures for further dissemination of the project results.

5.3 Further dissemination activities such as presentations online, at third-party events, press releases and conferences.

5.4 Book with all results of the project and distribution via book trade.

For each of the three levels of educational measures there will be:

- Target-group-specific educational programs.
- Curricula, teaching materials, etc. developed in a leading role by the educational institutions of the respective level, whereby the educational institutions of the other levels (in particular universities) participate in an advisory and supportive manner.
- Representatives of the participant target groups involved in the development work.

All educational measures will be tested with the respective target groups under different national conditions in the countries, evaluated and completed on the basis of the evaluation results with application notes.

2. About the Quality plans

In the 3LOE project a distinction is made between

a) quality assurance and evaluation of the development and implementation of all educational measures

b) Quality assurance and evaluation of the processes

- Development of Centers of vocational Excellence and collaborations
- Result transfers and implementation consulting
- Implementation of the project and collaboration in the project consortium

Quality assurance and evaluation of educational measures occur in the Work Packages, in which qualification shall be developed, tested and implemented (WP 2 to 5).

Quality assurance and evaluation of transfer processes and implementations, cooperation in the centers of vocational excellence and the entire project implementation is the subject of the work in Work Package 6 Quality Management.

The evaluation concept and the various quality plans are listed below.



Evaluation Concepts and Quality Plans

1. Overview

Quality assurance, evaluation and monitoring of four areas:

- Educational measures
- Development of centers of professional excellence and collaborations
- Transfers and implementation consulting
- Quality assurance for the implementation of the project

Quality assurance and evaluation of educational measures occur in the Work Packages, in which qualification shall be developed, tested and implemented (WP 2 to 5). The uniform procedures, processes and instruments for the implementation of this work shall be described in Work Package 6 "Quality management". The results of quality assurance and evaluation shall be implemented directly into the individual educational measures. A comprehensive analysis of the evaluation of all educational measures shall occur in the context of Work Package 6 "Quality Management".

Quality assurance and evaluation of the transfer processes, implementations and cooperation as well as the entire project implementation shall occur in Work Packages 1 "Project Management", Work Package 2 "Development and permanent operation of regional centers of excellence" and Work Package 7 "Dissemination and implementation advice". As the work for these three areas is closely linked, the survey and analysis of the data shall be performed using identical methods and generally uniform work processes. Therefore, the implementation of the work shall be described for the uniform procedure, approaches and mechanisms for all three areas in Work Package 6 "Quality management".

The following shall be outlined comprehensively:

- Methods and goals of evaluation
- Quality assurance and evaluation of educational measures
- Quality assurance and evaluation of transfer processes and implementations, cooperation in the centers of professional excellence and the entire project implementation

2. Methods and Goals of Evaluation

Numerous evaluation methods and standards have been established on an international level. The comparison of applied methods shows that concerning the validity evaluation criteria play a significant role (cf. among others Widmer, Th., Evaluation: Ein systematisches Handbuch, Wiesbaden, 2009).

Depending on which criteria certain priority is assigned to, the evaluation results turn out correspondingly.

The same significance has the pragmatic direction. Therefore, the question: which goals have to be reached with the evaluation?



2.1 Goals

As a rule, the evaluation has the following goals:

- It has to provide objectified knowledge about the progress (quantity and quality) of processes.
- It serves the control of such processes and helps capturing the strong and the weak points. Therefore, it is an instrument of quality assurance.
- It serves the legitimization. In other words, a successful evaluation is an evidence of competence of the person responsible for the process being evaluated.
- Transparency, to make a dialogue possible.

In order to achieve these goals, the evaluation was performed in a process-related and summative manner: process-related (also formative, development-related) in order to evaluate the quality of the project progress and if necessary, to make changes. The summative evaluation or evaluation of results serves the evaluation of the specified objectives within the framework of the project, final evaluation of impact and efficiency of the project lecturers management, of cooperation and transfer.

2.2 Methods

As a rule, it is reasonable to use a combination of qualitative and quantitative instruments for evaluations: “If one wants to ensure the availability of statements concerning relevant program conditions and impacts through the framework of mutually reinforcing evidence so the multiple methodic access providers, in general, a more comprehensive and informative picture than a monomethodic approach” (Brandtstädter, Jochen (1990): Development during the course of life. Approaches and problems of lifespan development psychology. In: Mayer, Karl Ulrich (Hg.): Life courses and social transformation (special issue of the Cologne magazine for sociology and social psychology. Opladen: Westdeutscher Verlag.).

Whereas for the analysis of process-related data (program control, execution etc.) first of all qualitative survey methods are suitable, for the verification of achievement of the goals, of impact and causal assessment quantitative survey and evaluation methods have to be implemented (Stockmann, Reinhard: Was ist eine gute Evaluation. Saarbrücken: Centrum für Evaluation, 2002. (CEval-Arbeitspapiere; 9).

Within the framework of evaluations, the most frequently used methods are:

- Secondary analysis of available materials
- Guided interviews
- Standardized surveys or partly standardized surveys
- Case studies

Which methods are selected and implemented in particular depends on the central questions of evaluation discussed herein, therefore which goals and tasks are set, who performs the evaluation and which research paradigm must be the basis for this.



Within the framework of the present evaluation the mixed model – consolidation model – is implemented. According to the general description it means that first of all a quantitative survey/research is performed. The obtained data material is subsequently evaluated quantitatively, then it is followed by qualitative research method which is aimed at the consolidation of achieved results. So, it provides material for the interpretation of expected and unexpected effects and illustrates the results of quantitative studies on the basis of case examples.

Therefore, for the evaluation of the Master BSR project standardized as well as partly standardized surveys were used in the form of written questionnaires during planned and conducted partner workshops as well as an online survey. Complementary results were achieved after that with the help of guided interviews.

The secondary analysis of available materials was also included in the broadest sense, i. e. for the registration of framework data of the project the control instrument “Activity planning” and “Project application” were evaluated in order to capture project goals, terms and tasks of the project consortium and to take them into account during the implementation of separate evaluation steps and assessments.

3. Quality Assurance and Evaluation of Educational Measures

In the context of the project, the following educational measures shall be developed, tested, evaluated and implemented:

In Work Package 2 “Development and permanent operation of regional centers of excellence”:

- ✓ Train the Trainer Program for personnel and center management.

In Work Package 3 First center level "Vocational training" shall be developed, tested, evaluated and implemented:

- ✓ Train the Trainer Program for consultants & teachers to use a tool for sound vocational and qualification counselling.
- ✓ Train the Trainer Program for teachers to conduct dual vocational training.
- ✓ Implementation dual vocational training,
- ✓ Training of trainers in SMEs for the acquisition of pedagogical qualifications.
- ✓ Training Specialist for Building Insulation
- ✓ Implementations for additional qualifications
 - A Technologies water supply
 - B Technologies water saving
 - C Greywater and rainwater utilisation technologies
 - D Technologies decentralised wastewater treatment
 - E Fundamentals of the circular economy
 - F Systemic solution-oriented consulting
- ✓ Implementation five-year technician training „Ecologic Solutions in Logistics”

In Work Package 4 Second center level "Continuing vocational training" shall be developed, tested, evaluated and implemented:

- ✓ Train the Trainer Program for teachers to conduct further training
- ✓ Train the Trainer Program for teachers A Basic Digital Skills
- ✓ Train the Trainer Program for teachers B Advanced Digital Skills
- ✓ Further trainings for SMEs in the Green Economy
 - A Preparation and management of SMEs for work in the Green Economy
 - B Waste reduction and recycling management
 - C Wastewater, treatment and recycling management
 - D Water supply and saving
 - E Cradle to Cradle in SMEs
 - F Energy generation from wastewater and waste
- ✓ Training Enterprise and Entrepreneurship in Green Economy
- ✓ Training Energy Service Manager
- ✓ Training Vocational Master
- ✓ Training Service Technician

In Work Package 5 Third center level "Higher education" shall be developed, tested, evaluated and implemented:

- ✓ Dual Bachelor program "Logistics - Green Supply Chains"
- ✓ Dual Bachelor program "Sustainable Building System Technology"
- ✓ Study modules "Green Economy"
 - A Management & Technologies of the Water and Wastewater industry
 - B Waste Management & Technologies
 - C Management & technologies of the circular economy
 - D Management of sustainable economic activity
- ✓ Train the trainer Program for university lecturers and SME advisors
- ✓ Conducting manageable R&D projects for SMEs

Quality assurance for all professional educational measures shall follow EQAVET. The development of curricula for study programs shall follow the guidelines of an official certification body.

Target groups and beneficiaries are SMEs, their owners, managers and specialists, youth and students. In order to completely understand their true requirements, representatives from SMEs as well as other target groups shall be engaged intensively. SMEs shall be included in technical discussions and practical testing as well as take part in workshops from the very beginning.

In order to cover differing national requirements, the educational measures developed as part of the project shall be tested in different countries through trials and evaluated scientifically using written participation surveys, interviews with participants, teachers and SMEs as well as accompanying observations.



Indicators include number of participants, distribution across industries, position in the company; satisfaction levels of the participants with lecturers, organisation, documents, etc.; assessments of the lecturers; evaluations of SMEs regarding practical relevance; results of examinations and project work.

3.1 Train the Trainer Programs

The Train the Trainer programs are developed by different partners and tested with participation of two persons each from all project partners. The test is concluded with an implementation report.

The evaluation of the Train the Trainer programs is the responsibility of PP1 Hanse-Parlament, PP3 Berufsakademie Hamburg and PP11 Rigas Stradina Universitate. The responsible evaluation partner in each case develops an evaluation concept, which is discussed and agreed upon in the entire consortium, carries out the evaluations and prepares an evaluation report with recommendations for future applications.

Based on the evaluation results, the Train the Trainer programs are revised, finalized and transferred to all colleges and universities. In the future, the universities and colleges will conduct these Train the Trainer programs on an as-needed basis, so that well-qualified teachers and consultants are constantly available in sufficient numbers in all Center of Excellence regions.

3.2 Training Programs for Initial Vocational Training

The project aims to promote work-based learning through the introduction of dual vocational training, especially in countries that have used school-based vocational training until this point in time. The German system of dual vocational training shall be added in order to evaluate and edit a description of Austrian dual vocational training. Training regulations, teaching plans and examination regulations shall be made available for different profession. These documents are transferred to all project and associated partners as well as to politicians, administrators and stakeholders in 13 countries. After adaptation to national conditions, implementations are made for individual professions:

in Poland by PP4 Izba Rzemieslnicza Malej i Sredniej Przedsiębiorczosci: professions Electrician & Fitter of fixtures and fittings in building industry.

In Lithuania by PP7 Profesinio Makymo Centras Zirmunai: profession cook.

In Latvia by PP23 Profesionālās izglītības kompetences centrs: profession Motor vehicle mechanic/Car mechanic.

In Spain by PP20 Institut Pere Martell: profession Electrician

All implementations that are completed with an implementation report are evaluated by PP6 Akademia Pomorska w Slupsku. The partner prepares an evaluation concept, which is discussed and agreed in the consortium, carries out the evaluations on this basis and prepares an evaluation report including recommendations for future uses.



In order to enable the companies to participate as training partners and to carry out 70 - 75 % of the training time in the company, three alternative programs for a training of trainers in SMEs with a recognized qualification will be realized. Implementations are carried out by all seven Centers of Excellence, which carry out this training for SMEs on an ongoing basis in line with demand. The evaluations of the tests in all seven countries are carried out by PP1 Hanse-Parlament.

For the integration and qualification of persons with special learning needs, a complete specific training course is transferred and implemented. Since these persons fail primarily in the theory lessons in the vocational school, a two-year, predominantly practical vocational training with a recognized qualification is carried out. In a completely permeable system, this qualification can be used to obtain qualifications for regular three-year vocational training and all further vocational training courses with corresponding qualifications at EQF Level 4 - 6, taking into account competencies already acquired in related occupations.

This specific training program is tested by PP23 Liepājas Valsts tehnikums in Latvia. The evaluation of the tests is performed by PP9 Panevezio kolegija. After a revision and finalization based on the evaluation results, a transfer to all seven centers of professional excellence will take place.

Fast-learning youth as well as persons who have performed well on midterm examinations can be allowed to shorten the normal length of the training time by up to one year. This reduction shall be restricted to six months; a second six-month reduction shall be used for the demonstration of competences in technology and management of waste, wastewater, water and circular economy. In a sense, this is advanced training undertaken during vocational training.

Additional qualifications can also be awarded during the regular training time or after the end of professional training independently of the possibility to shorten the training period.

With the awarding of additional qualifications Specialists should be educated, who already have deeper knowledge and competences in the environmental sector or obtain them directly after the vocational training.

Fast-learning youths (i.e. with GSCEs or A-levels) from the successful completion of vocational training as they already achieve further education qualifications and have outstanding career chances in their professional lives.

The learning results are found under EQF Level 5. Additional competences and skills procured during vocational training (EQF Level 4) are predominantly transferable between occupations. Only individual modules are designed for specific occupations. The project shall be directly especially to youth who have successfully completed vocational training in one of the relevant professions, for example:

- Specialist in wastewater technology

- Specialist in circular economy and waste management
- Specialist in water supply technology
- System mechanic for sanitation, heating and air conditioning technology
- Gas and water installation technician
- Plumber

The provision of additional qualifications are tested by partners from different countries:

A Technologies water supply: In Germany by PP2 Handwerkskammer Dresden and in Spain by PP20 Institut Pere Martell with PP18.

B Technologies water saving: In Poland by PP4 in Spain by PP20 Institut Pere Martell with PP18 and in Italy by PP21

C Greywater and rainwater utilisation technologies: In Germany by PP2 Handwerkskammer Dresden

E Fundamentals of the circular economy: In Poland by PP5 Tadeusz Tanski Mechanical and Logistics School, in Lithuania by PP8 Panevezys Chamber of Commerce Industry and Crafts, in Latvia by PP10 Latvian Chamber of Crafts and in Italy by PP16 Trasferimento Tecnologico e Innovazione

F Systemic solution-oriented consulting: In Lithuania by PP7 Professinio Makymo Centras Zirmunai and in Latvia by PP10 Latvian Chamber of Crafts.

The evaluation of the tests is performed by PP9 Panevezio kolegija. After a revision and finalization based on the evaluation results, a transfer to all seven centers of professional excellence will take place.

Two new full training programs are also being developed, tested, evaluated, and implemented for high-learning youth.

- 2 Years Training "Sustainable restaurant worker"
Development, Testing and Evaluation by PP7 Professinio Makymo Centras Zirmunai
- Five-year technician training „Ecologic Solutions in Logistics”
Development and testing in Poland by PP5 Tadeusz Tanski Mechanical and Logistics School Evaluation by PP6 Akademia Pomorska w Slupsku

After a revision and finalization based on the evaluation results, a transfer to all seven centers of professional excellence will take place.

3.3 Training Programs for Further Vocational Training

Five Trainings Energy Saving and Renewable Energies are implemented by all seven Centers of vocational Excellence.

Green competences for management and technologies in water, wastewater, waste and circular economy shall be imparted through six different further training programs



of study for persons with professional training and several years of professional experience. The individual training courses shall be oriented specifically for the needs of the "owner and management of SMEs" and "specialists of SMEs" target groups. The imparted teaching content is transferable between occupations. People from all professions as well as interested companies from all industries shall be approached. The learning results are found under EQF Level 5.

Additional training courses can be added in order to offer an integration program for the unemployed with appropriate pre-qualifications to improve their chances in the labor market.

The entire education and coaching program include:

- two to three blocks of classroom training in a training center, in which owners, HR managers, managers and specialists take part.
- one to two very long learning phases at workplaces in companies, in which all employees of the company participate at differing intensities.
- the implementation of a specific project for management and green economy technologies, which is determined and defined in the beginning of the first learning phase in the company. Learning occurs through accompanying daily work in the company as well as through the implementation of a development project.
- an individual training and coaching program, which shall occur during the learning phases in the company with advisors or teaching staff.

The training programs are tested by partners from different countries:

Preparation and management of SMEs for work in the Green Economy: In all seven Centers of vocational Excellence

Waste reduction and recycling management: In Germany by PP2 HWKD, in Lithuania by PP8 PCCIC, in Latvia by PP 10 LAK, in Italy by PP18 DEGC and in Spain PP19 SRRA & PP20 IPM

Wastewater, treatment and recycling management: in Germany by PP2 HWKD, in Lithuania by PP8 PCCIC, in Italy by PP18 DEGC and in Spain by PP19 SRRA & PP20 IPM

Water supply and saving: In Germany by PP2 HWKD, in Latvia by PP10 LAK, in Italy by PP18 DEGC and in Spain by PP19 SRRA & PP20 IPM

Cradle to Cradle in SMEs: In Germany by PP2 HWKD, in Latvia by PP 10 LAK in Italy by PP18 DEGC and in Spain by PP19 SRRA & PP20 IPM

Energy generation from wastewater and waste: In Germany by PP2 HWKD, in Italy by PP18 DEGC and in Spain by PP19 SRRA & PP20 IPM



The evaluation of the tests is performed by PP11 RSU. After a revision and finalization based on the evaluation results, a transfer to all seven centers of professional excellence will take place.

A comprehensive training for entrepreneurs is being developed to promote entrepreneurship and to open up market fields in the Green Economy by SMEs. In order to improve qualifications and eliminate the shortage of specialists, managers, experts and young entrepreneurs, six additional, longer advanced training courses will be realized.

Training Enterprise and Entrepreneurship in Green Economy

- Development: PP7 PMSC with PP22 VISC
- Tests: in Lithuania by PP7 PMCZ & PP8 PCCIC, in Latvia by PP10 LAK, in Spain by PP21 ES and in Italy by PP16 T2I & PP17 SFC
- Evaluation of all tests: PP11 RSU

Training Energy Service Manager

- Development PP3: BAHH
- Tests: In Germany by PP2 HWKD, in Lithuania by PP8 PCCIC, in Latvia by PP23 LVT, in Italy by PP 16 T2I and in Spain by PP19 SRRA & PP20 IPM
- Evaluation of all tests: PP11 RSU

Training Vocational Master

- Development: PP2 HWKD and PP1 HP
- Tests: In Germany by PP3 HWKD and in Latvia by PP10 LAK
- Evaluation of all tests: PP11 RSU

Training Construction Technician

- Development: PP1 HP
- Test: In Latvia by PP23 LVT
- Evaluation of test: PP11 RSU

Training Service Technician

- Development: PP14 WIFI & PP15 HS02
- Test: In Austria by PP14 WIFI
- Evaluation of test: PP15 HS02

Training “Work-related English with Focus on Green Economy” for companies

- Development: PP9 PCCIC
- Test: In Lithuania by PP9 PCCIC
- Evaluation of test: PP9 PC

Training “Service Technician”

- Development: PP14 WIFI & PP15 HS02
- Test: In Austria by PP14 WIFI
- Evaluation of test: PP15 HS02

Two EQF 5 courses “Industrial Symbiosis Facilitator” and “Green Public /Private Procurement”

- Development and implementation in Italy by PP17 SFC

After a revision and finalization based on the evaluation results, a transfer to all seven centers of professional excellence will take place.

3.4 Bachelor's Degree Programs

Two dual Bachelor programs, which have been successfully implemented for many years in Germany for and with SMEs, will be prepared and transferred to all seven centers of excellence:

a) Business Administration for SMEs; Implementation in Lithuania by PP8 PCCIC with PP9 PC

b) Management of Renewable Building Energy Technology

Four new dual Bachelor programs will be developed, tested, evaluated and implemented:

- Business Administration & Sustainable Management of SMEs, development by PP3 BAHH
- Entrepreneurship & Innovation in Green Economy
Development: PP11 RSU
- Logistics - Green Supply Chains
Development: PP6 APS
Test: In Poland by PP6 APS
Evaluation of Test: PP6 APS
- Sustainable Building System Technology
Development: PP14 WIFI & PP15 HS02
Test: PP14 WIFI & PP15 HS02
Evaluation of Test: PP15 HS02
- Sustainable management Climate neutrality for companies
Development: PP14 WIFI & PP15 HS02

After a revision and finalization based on the evaluation results, a transfer to all seven centers of professional excellence will take place.

As best practices, four comprehensive study modules "Green Economy" will be prepared, transferred, implemented and evaluated for integration into existing Bachelor courses, for postgraduate studies or for further education of university graduates, entrepreneurs and executives.

Management & Technologies of the Water and Wastewater industry

- Tests: Planed in Italy by PP16 T2I, PP17 SFC & PP21 ES
- Evaluation of Test: PP9 PC

Waste Management & Technologies

- Tests: In Lithuania by PP9 PC
- Evaluation of Tests: PP9 PC

Management & technologies of the circular economy

- Tests: In Lithuania by PP9 PC with PP8 PCCIC
- Evaluation of Tests: PP9 PC

Management of sustainable economic activity

- Tests: In Poland by PP6 APS and in Lithuania by PP11 RSU
- Evaluation of Tests: PP9 PC

After a revision and finalization based on the evaluation results, a transfer to all seven centers of professional excellence will take place.

Institutions of higher education implement specific R&D tasks for and with individual SMEs for specific aspects of management and green economy technology in the context of cooperation between institutions of higher education with SMEs. Requests and tasks come from the SMEs which participate in as the training partner for dual programs of study or from other SMEs through arrangements with their chamber. The results are the property of each SME. They shall only be used in this context and only with the agreement of other interested parties. Research activities of institutions of higher education during editing of the SME specific R&D tasks shall be considered part of the daily work of the company. Therefore, the R&D requirements of the company shall be included within the development work of the universities.

- Implementation by all seven Centers of vocational excellence
- Evaluation by PP15 HS02

4. Quality Assurance and Evaluation of Processes

Planning includes four areas of project implementation:

- Processes of project implementation (see 4.2)
- Quality assurance and evaluation of project management, partner meetings and further tasks in the context of Work Package 1 "Project Management".
- Development and processes of Cooperation in the seven Center of Excellence as well as in the international cooperation (see 4.3)
- Processes of Result Transfer and Implementation (see 4.4)



Quality assurance and evaluation of written and personnel transfer, individual implementation counselling as well as additional measures for distributing the project results in the Work Package 7 “Dissemination and implementation advice”.

As the planning and control mechanisms as well as the data collection and evaluation are identical for all three areas, the relevant planning that follows shall be the same for all.

Concerning the evaluation criteria which must be used in relation to the evaluated processes the opinions in the scientific literature diverge strongly. Often it is recommended to use checklists which contain up to 100 and more criteria according to which the processes can be evaluated.

To ensure the practicability of the evaluation but nevertheless to assess the results thoroughly the evaluation of the project implementation concentrated on four criteria.

- The quality and the efficiency of management
- The communication and the cooperation in the project consortium and in the Knowledge Alliance
- The involvement of transfer recipients and success of transfer activities
- The expected benefits of implementation of products developed within the framework of the project

According to international experiences with evaluations which are available first of all in the English-speaking countries a holistic (integral) evaluation of processes should have the priority.

During the evaluation of the registered data the focus is on the following criteria:

- How do project partners assess the cooperation in consortium and the project management of the Lead Partner?
- Have the expectations of the project partners been met?
- Did the management meet the requirements?
- How do transfer recipients assess their involvement and the transfer activities?
- What benefits do the developed products have for the project partners and the transfer recipients?

4.1 Planning and Control Mechanisms

The project uses four central planning and control mechanisms:

A binding agreement with foundations of implementation

- responsibilities and consequences of non-compliance
- detailed description of goals, activities and envisaged results
- asks, obligations and budgets for each partner
- binding rules of management and accounting statements
- uniform paperwork for work reports, registration of working times etc.



The agreement shall be developed by the Lead Partner at a workshop with input and votes from all partners and agreement from the Lead Partner and each individual projected partner by 31 December 2020.

A differentiated activity plan which sets out individual work steps, tasks, events, etc., until the end of the project

- responsible and contributing partners.
- deadlines for implementation and execution.
- goals and expected results.
- all tests and implementations.
- quantity structures and quality criteria.

This plan is developed as a draft by the Lead Partner and discussed in a workshop together with all partners. On this basis, consultation and planning rounds are held for each country with the respective partners to develop country-specific implementation concepts, which are coordinated transnationally. In a workshop together with all partners, an overall activity plan is deliberated, agreed upon and a binding agreement is reached on this. Thereafter, the activity plan is monitored and updated by the Lead Partner and discussed with all partners in semi-annual workshops.

On the basis of a uniform foundation, each partner shall vote on a communication and dissemination plan from the Lead Partner with target groups, deadlines, indicators, obligations, dissemination measures etc.

An initial plan shall be created by all partners by 31 March 2021.

An initial record of all measures implemented and an update to the plan shall be created by all partners by 31 March 2022 and 31 March 2023.

The final record of all measures implemented shall be created by all partners by 31 October 2024.

The communication and dissemination plan shall also be discussed at bi-annual workshops.

The Lead Partner shall develop a separate project accounting plan with sub-budgets for each partner and financial specifications for tasks undertaken. For this purpose, money for the expenses shall be reserved. The partners shall only receive payment when the agreed upon task has been completed and all receipts have been submitted.

The activity and dissemination plan as well as accounting are the central control and monitoring instruments with regards to achieving project goals, implementation of all activities, compliance with all deadlines, cost-effective implementation and financial development. Monitoring and accounting shall be run by an experienced employee of the Lead Partner, who is responsible for compliance with all requirements, assessments of invitations for tenders, cost efficiency, etc. In addition, the Lead Partner shall create an external tax consultancy office for monitoring and evaluation, which is also

responsible for compliance with all requirements, fiscal accounts and cost efficiency. Planning and monitoring results shall be consulted at meetings where all partners are present. Large savings, greater cost efficiency, faithfulness to goals and deadlines and attaining greater quality shall be ensured with this approach.

4.2 Project Management

Partner 1 Hanse-Parlament shall be responsible for overall project management, which includes:

- Creation, coordination and completion of a partner agreement
- Creation and coordination of a differentiated activity plan for the entirety of the project period
- Development and coordination of a communication and dissemination program with each partner
- Creation and continual implementation of separate project accounting
- Annual activity report and statements with all receipts from all partners
- Continual administrative and financial project management
- Securing of communication and intensive bilateral exchange between the Lead Partner and project and associated partners
- Preparation, management and follow-up of at least eight workshops with all project partners
- Preparation, management and follow-up of an international counselling and transfer conference
- Creation of mid- and final reports with project accounting

In addition to the data, results, etc. that result from the central planning and control mechanisms (see 4.1), the following sources of data shall also be used for the evaluation of project management:

- Written evaluation of each partner workshop
- Reoccurring, anonymous electronic survey of project and associated partners
- Comprehensive personal interviews with project and associated partners using external experts.

The results of the evaluation shall be reviewed with all partners through workshops and used in additional projects, resulting in a continuous improvement process. A comprehensive project management evaluation report shall be created by Partner 1 Hanse-Parlament.

4.3 Center of Excellence and Transnational Cooperation

The regular work on the operation, strengthening and expansion of the seven Centers of professional Excellence is to be carried out in cooperation with the development and realization of the qualification measures (work packages 3 to 5). Overarching tasks and specifics for the development work and operation of the centers of excellence and

transnational cooperation are outlined in work package 2 "Development and permanent operation of regional centers of excellence".

Analyses of economy, demography, education and labor markets and Qualification requirements and recommendations: PP1 HP till 31. July 2021

Development & coordination Concept three-tiered Centers of Excellence: PP1 HP till 31. August 2021

Development of two centres of excellence in Germany: Coordination by PP2 HWKD and PP24 BHH, Start 01. February 2021 and implementations report until 30 June 2024

Development of centres of excellence in Poland: Coordination by PP5 ZSLM, Start 01. February 2021 and implementations report until 30 June 2024

Development of centres of excellence in Lithuania: Coordination by PP7 PMCZ, Start 01. February 2021 and implementations report until 30 June 2024

Development of centres of excellence in Latvia: Coordination by PP22 VISC, Start 01. February 2021 and implementations report until 30 June 2024

Development of centres of excellence in Austria: Coordination by PP14 WIFI, Start 01. February 2021 and implementations report until 30 June 2024

Development of centres of excellence in Italy: Coordination by PP21 ES, Start 01. February 2021 and implementations report until 30 June 2024

Development of centres of excellence in Spain: Coordination by PP20 IPM, Start 01. February 2021 and implementations report until 30 June 2024

Networking and cooperation with relevant actors in all countries

Implementation of regional events

Development & testing training program for personnel and center management

Evaluation of training program for personnel and center management

Transnational networking, cooperation and platform of all 7 centers: Coordination by PP1 HP

Development of information & cooperation tool by PP1 HP until 31. October 2021 ad implementations by all Partners

Transnational cooperation by involving 70 associated partners: Coordination by PP1 HP

Business and financing plans for each center of professional excellence and conclusion of an agreement on the permanent continuation until 30 June 2024



Business and financing plans of the transnational platform by the project and associated partners and conclusion of an agreement on the permanent continuation: Coordination by PP1 HP until 30 June 2024

Analysis of all EU funding opportunities by PP22 VISC until 31 March 2024

Development, consulting and introduction of political strategy program by PP1 HP, PP13 IAGF and PP22 VISC until 31 March 2024

Evaluation of the construction and operation of the 8 Centers of Excellence by PP1 HP, PP13 IAGF & PP22 VISC and Evaluation report until 30 June 2024

In addition to data, results, etc., that shall be obtained from the central planning and control mechanisms (see 4.1), the following data sources shall be used for the evaluation of the development and cooperation within the Center of Excellences and in the international cooperation:

- Reoccurring, anonymous electronic survey of the partners in the seven Center of Excellence, between the seven Center of Excellence and with the associated partners
- Comprehensive personal interviews with project, alliance and associated partners using external experts
- Evaluation of the construction and operation of the seven Center of Excellence by PP1 HP, PP13 IAGF & PP22 VISC and Evaluation report until 30 June 2024

The results of the evaluation shall be reviewed with all partners through workshops and used in additional projects, resulting in a continuous improvement process.

By the end of the project, a comprehensive evaluation report of the cooperation within the Center of Excellence and in the international cooperation shall be created by P1 Hanse-Parlament.

4.4 Transfer, Implementation and Dissemination

Development and agreement of a communication and dissemination plan individually for each partner with separate activities including transfer, counselling and further dissemination, target groups, deadlines, etc. (see 4.1)

Preparation of concepts, curricula, teaching materials and instructions for use for all educational and other measures developed as part of the programs as well as paper and electronic transfers for all direct and associated project partners from 13 countries as well as additional education institutions and stakeholders.

- Responsible: Partner 1 Hanse-Parlament

Individual implementation consulting for project and associated project partners from 13 countries as well as additional education institutions

- Responsible: Partner 1 Hanse-Parlament



Creation of a book for all results of the project and distribution through a publisher

- Responsible: Partner 1 Hanse-Parlament
- Publication by 31 October 2024

Implementation of measures for further dissemination

- Responsible: Partner 1 Hanse-Parlament with the involvement of all other partners

Complete results, materials, etc., shall be made available in an Internet platform accessible to the public as well as on the websites of all project partners.

Up to date information in social media and publication in member magazines and newsletters by all Partners.

The project results, possibilities of use, etc. shall be presented in person to at least 25 third-party institutions, including universities and business forums, in different countries by PP1 HP and all Project Partners

The project results and its uses shall be reported intensively in at least seven press conferences and at least 22 press releases: Coordination PP1 HP

Creation and distribution of result videos: Coordination by PP1 HP

Publications in professional journals, newsletters, etc. by all partners

Project and associated partners introduce the results of the project into the political decision-making processes of their daily business

Ongoing information for all project and associated partners on their own platforms and in member journals

Partner 1 Hanse-Parlament is as an international organization in numerous political committees and shall inform them about project goals and results, in order to further promote their inclusion in political decision-making processes.

In addition to the data, results, etc. that result from the central planning and control mechanisms (see 4.1), the following sources of data shall also be used for the evaluation of transfer, implementation and deployment:

- Reoccurring, anonymous electronic survey of project and associated partners
- Comprehensive personal interviews with project and associated partners using external experts

The results of the evaluation shall be reviewed with all partners through workshops and used in additional projects, resulting in a continuous improvement process. A comprehensive transfer, implementation and deployment evaluation report shall be created by Partner 1 Hanse-Parlament.