Result 2.2 Three-level centres of professional excellence "Green Economy for SMEs" and transnational platform

Part B
Development and Implementation of Information & Cooperation Tools and transnational Cooperation by involving associated Partners

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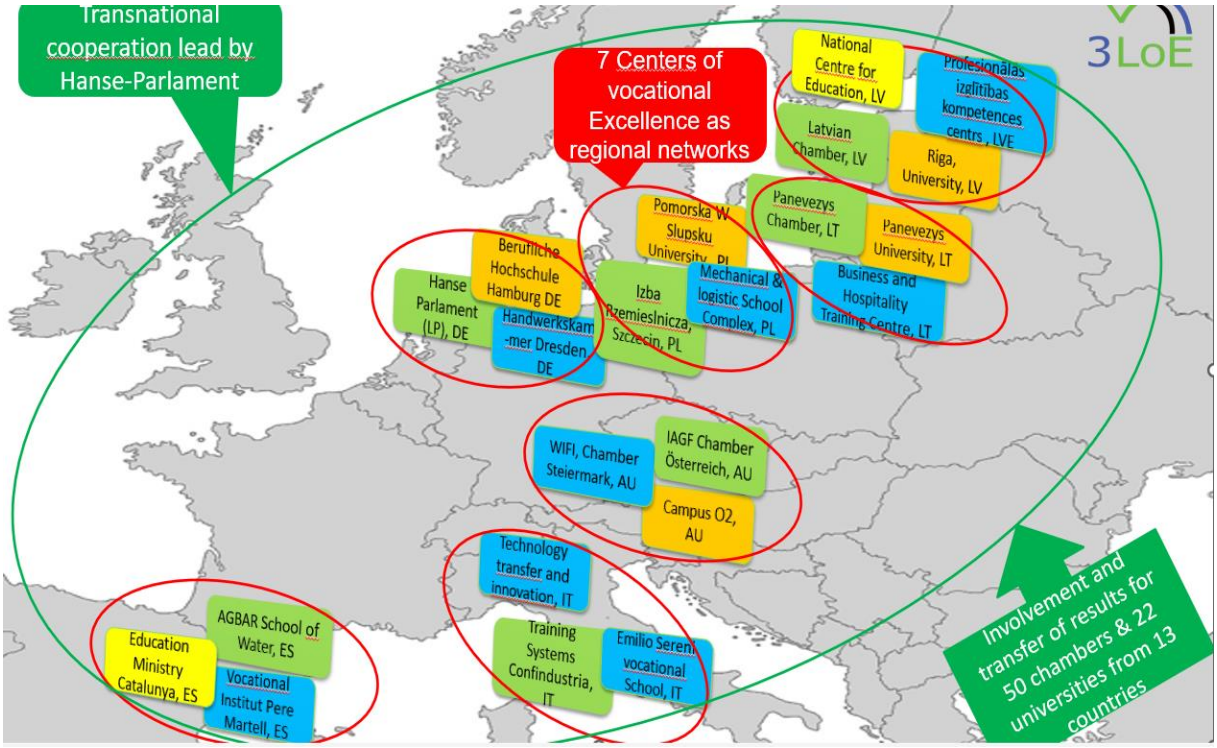

Language

English

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1. Summary of the Project and Introduction

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 teach-ing 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 bache-lor's degree programs that combine a bachelor's degree with vocational training and on-sight 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 Econ-omy 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 schoolteachers, 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 counselling 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 program, 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 program 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 programs "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 programs.

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

5.2Transfer 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.

Analyses of the economic and demographic development, the education and labour markets as well as the qualification needs of SMEs in the Green Economy were conducted to provide the basis for a common point of departure for carrying out the project

work.[1] They form the starting point for the subsequent development of concepts for the establishment and permanent operation of seven regional centers of excellence in seven EU countries.

To meet the challenges, a regional center of vocational excellence in the Green Economy is being set up and operated permanently in each of the seven project countries. The three-level centers are intended to perform vocational training and innovation support tasks for SMEs at the following levels:

Level: Vocational training (EQF Level 3 and 4)

Level: Further training (EQF Level 4 to 6)

Level: Higher education (EQF level 6 and 7)

A concept for the establishment, development and ongoing operation of the centers of vocational excellence was developed on the basis of comprehensive analyses of the challenges, current bottlenecks and foreseeable developments[2].

This report includes the following findings for the work of the Centers of vocational Excellence in the Green Economy.

The seven regional centers of vocational excellence in the Green Economy will provide comprehensive qualifications at all levels of vocational training and innovation promotion primarily for and with small and medium-sized enterprises and their staff. In order to capture the needs and conditions of SMEs as fully as possible and to align the work of the centers of excellence with them, cooperation between SMEs, chambers and vocational and higher education institutions was analysed and the requirements for centers of excellence were examined. The results of these investigations are summarized below.

Various activities as well as cooperation and information tools are being developed for cooperation among the partners and with other institutions in the individual regional centers of vocational excellence, as listed below.

Coordination by Hanse Parlament, a transnational cooperation between the seven centers of excellence is being established and developed, with ongoing exchange of information and experience, transfer of knowledge and best practice, implementation of development work based on division of labour, joint implementation of train-the-trainer programmes, mutual personnel support as needed. The activities and procedures for international cooperation among the centers and the expansion to include 60 institutions from 13 countries are presented in conclusion.

[1] Result 2.1 Analysis of economic, demography, education and labour markets & recommendations
[2] Result 2.2 Three-level centres of professional excellence "Green Economy for SMEs" and transnational platform, Part A Concept Development and Implementation of Three-level Centers

Result 2.2 Three-level centres of professional excellence "Green Economy for SMEs" and transnational platform is presented in three parts:

- ✓ Part A Concept: Development and Implementation of Three-level Centers of Excellence of Vocational Training in Green Economy.
- ✓ Part B Development and Implementation of Information & Cooperation Tools and transnational Cooperation by involving associated Partners.
- ✓ Part C Evaluation concept and report as well as business models for the continuation of the centres of vocational excellence.

The present report comprises Part B Tools & Cooperation. As the 7 COVEs are primarily dedicated to the promotion of SMEs, Report B first presents the cooperation and promotion needs of SMEs. In order to meet these needs, the individual COVEs carry out a variety of promotional and educational tasks. Tools and models have been developed for the important cooperation between the partners of a COVE and for the international cooperation of all 7 COVEs. The report concludes with the expansion of international cooperation to include 70 associated partners from 13 countries.

2. Investigation of the cooperation needs and the requirements of the SMEs

For the foundation of the center of Excellence, the cooperation between universities, SMEs and chambers was examined.[3]

2.1 Demand for Innovation Support in SMEs in the Baltic Sea Region

The main target groups of the project are small and medium-sized enterprises. In order to capture their needs and special conditions, the need for SMEs' innovation support was investigated. The results of extensive business surveys in the Baltic Sea countries lead to the following summary conclusions.[4]

The role which SMEs play in the economy of the Baltic Sea Region makes creating adequate conditions for their innovation and competitiveness growth a key challenge. For this reason, it is vital to broaden our knowledge of the level of SMEs innovation and to gather data on a demand for innovation support in SMEs - the task that the authors of this report have undertaken.

The sample of the analyzed SMEs consisted of 542 companies from 9 Baltic Region countries and had a large overrepresentation of commercial and service companies as well as mature small and medium-size enterprises (which have been on the market for over 10 years).

On account of the fact that the sample of the enterprises used in the study was not representative, the results are not representative either. In the study, the Baltic Sea region entrepreneurs have been asked to specify a kind and a degree of intensity of innovation changes implemented in their companies. It turns out that marketing and product innovations are most frequent. Moreover, an innovation climate based on openness in organization culture in these companies has proved to be an important factor in innovation implementation in the majority of the analyzed SMEs. SMEs in general have a bad opinion about the innovation climate in the country in which they operate. A difficult access to financing innovation activities by financial institutions is a common problem with building a friendly innovation climate in all the analyzed countries. Major problems which SMEs struggle within innovation implementation are lack of financial resources, complicated legal procedures, and a deficiency of adequately qualified staff.

A cooperation with scientific and R&D circles and other institutions designed to increase SMEs innovation level is vital on the account of the specificity of SMEs, which generally have limited human resources and a low financial potential. The results of

[3] The surveys are based on the results of the project „Qualification, Innovation, Cooperation and Keybusiness for Small and Medium Enterprises in the Baltic Sea Region – QUICK". Hanse-Parlament, Hamburg, Center of Competence for Innovation Support of SMEs in the Baltic Sea Region

[4] For a detailed presentation see Dr Magdalena Olczyk: Report "Demand for Innovation Support in small and medium Enterprises in the Baltic Sea Region", Hanzeatycka Szkoła Zarządzania in Słupsk

the analysis indicate that local authorities including chambers of crafts and commerce and entrepreneurs' associations are major partners in innovation cooperation for SMEs.

As far as an SMEs cooperation with R&D institutions is concerned, a leader-role is generally played by universities. Moreover, the intensity of this cooperation is quite high. The percentage of SMEs cooperating with R&D centers amounts to 50% in the Germany, 64% in Norway, 75% in Lithuania and 90,9% in Russia. Only the Polish SMEs declare a very low intensity of contacts with R&D sphere (only 16,37% of the Polish SMEs can boast of such contacts). The intensity of cooperation with R&D institutions does not translate into R&D projects in the Baltic Sea Region SMEs, however.

In the majority of the Polish, German and Norwegian SMEs, there have not been any R&D activities, when this study was conducted. The Russian and Lithuanian SMEs are exceptions to this rule, because 9 out of 10 analyzed enterprises have been involved in R&D projects. A predominant type of R&D activities present in the Baltic Sea Region SMEs are product and service enhancements.

Moreover, the study has shown that about 90% of the analyzed SMEs can see barriers impeding cooperation with scientific institutions. The major barrier SMEs encounter is insufficient proper funds to finance R&D and difficulties with access to external financing.

However, according to the SMEs, the reasons for low intensity of cooperation with R&D sphere are scientific institutions themselves - SMEs report difficulties with initiating a cooperation with scientific institutions, a lack of interest of these institutions to involve in such a cooperation, and ignorance of the economic subject matter on behalf of these institutions' representatives.

An attempt has been made to assess the demand for innovation in SMEs when analyzing the Baltic Sea Region SMEs' innovation potential and their cooperation with R&D sphere.

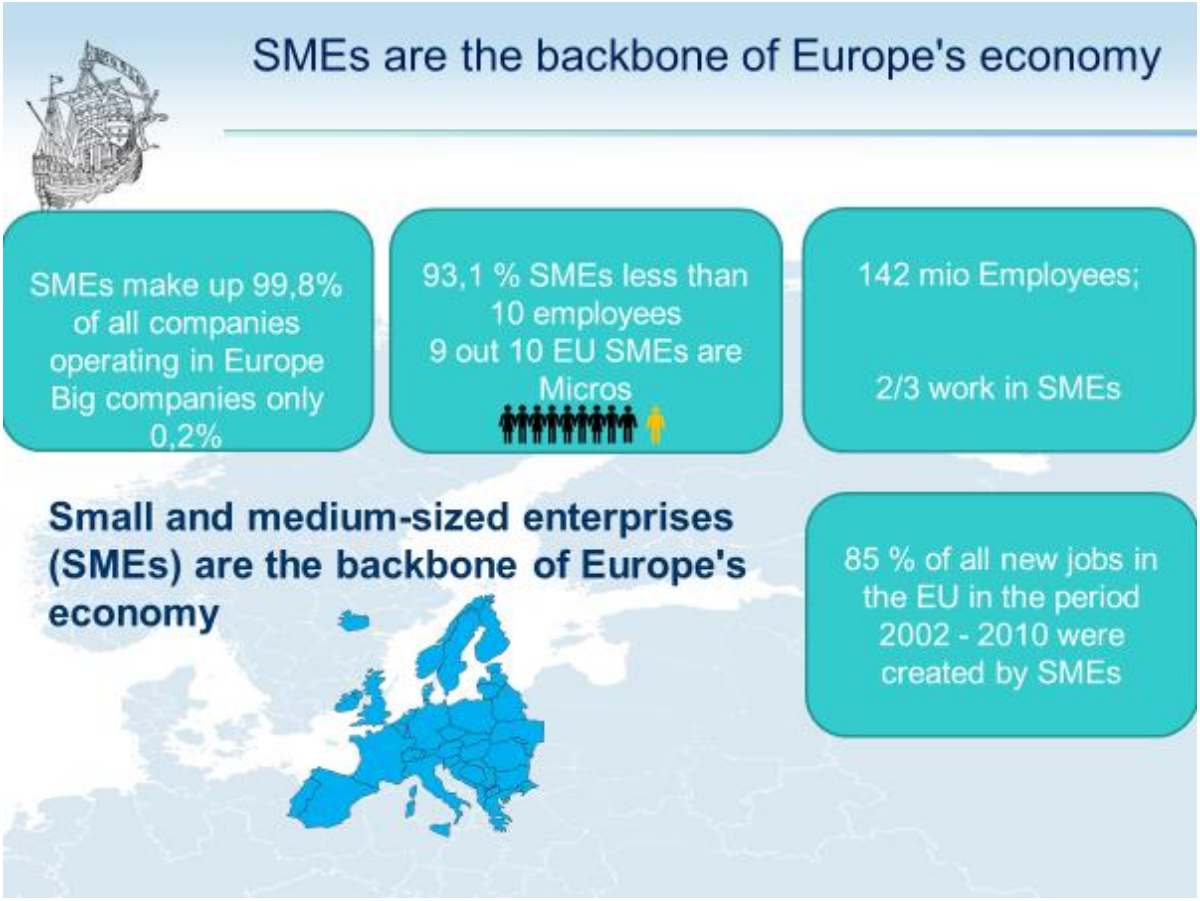
It turns out that SMEs from all the countries indicate a high demand for R&D activities. Polish SMEs are an exception in this respect, because only 1 in 3 of the analyzed enterprises shows interest in R&D activities. Unfortunately, a high demand for R&D is not accompanied by SMEs' intentions to conduct such research in the future. The study shows a high degree of uncertainty among SMEs as to satisfaction of their R&D needs.

The authors of the study have intended to assess SMEs needs for innovation support from scientific institutions. The demand for specific types of support from universities has been much lower than the analyzed above demand for periodical R&D. The entrepreneurs have been mostly interested in periodical trainings and workshops for enterprises which were preparing, or which were involved in innovative projects, as well as information meetings on specific types of and kinds of innovations. Such a low level of demand for support from universities is due to the fact that most analyzed SMEs cannot see any potential benefits resulting from a cooperation with scientific institutions.

The only positive effect of such a cooperation, which a majority of the analyzed SMEs from all the countries have agreed upon is "launching new products and services". However, the analyzed SMEs have declared a very high demand for trainings and consulting services from scientific environment. Services, products and new technologies are desired fields of a possible cooperation.

Finally, cluster involvement in innovative projects of the Baltic Sea Region SMEs as well as their intentions to engage in future cluster cooperation have been analyzed. It turns out that the majority of the analyzed companies have not been involved in a cluster so far. Unfortunately, the majority of the analyzed SMEs do not have any intention to start a cooperation with any cluster.

The above results show that it is necessary to start intense activities destined to increase the Baltic Sea Region SMEs' understanding of benefits resulting from a cooperation with scientific institutions, and the involvement in a cluster venture. Moreover, abolishment of the barriers identified in this study (mainly financial barriers) limiting both innovation implementation processes and SMEs' cooperation with scientific sphere is recommended.



2.2 Cooperation between universities and chambers/SMEs

A significant number of SMEs have their background in certain new innovations made by founders or a group of founders. But SMEs often lag behind large enterprises

regarding innovation. Large enterprises generally have their own research departments while SMEs are often too small to finance their own and suffer from limited access to research institutions (financial and non-financial barriers). Although there are a lot of activities and programs provided by the EU aiming at improving the cooperation between SMEs and universities, the success is still low. The application procedures for many programs are too complicated and time-intensive for the enterprises. And often, entrepreneurs do not even know about these programs.

The co-operation between universities and SMEs should be able to offer direct and concrete benefits, with which a company can increase its profitability. A successful way of improving the cooperation is to start on the ground, i.e. at the level of the SMEs and universities. The present study follows this approach. First, the current situation, including the problems and good practices of cooperation between SMEs and universities, has been evaluated. Second, the aims and the next steps are elaborated.

This study does not only consider the cooperation between SMEs and universities but also between economic chambers and universities. Since the capacities are deficient in SMEs for communication and building up business contacts to universities, first contacts between universities and SMEs via chambers, which closely work together with SMEs in their daily work, are more practical. However, it has to be taken into account that membership in chambers is not mandatory in most of the BSR countries. Therefore, the role of the chambers differs accordingly.

2.21 Status quo: cooperation between universities and SMEs and Chambers as service providers

What are the current problems of the collaboration between universities and chambers/SMEs?

Persons and Institution

There are huge differences between universities, SMEs and chambers concerning cooperation. The level of commitment varies widely, even within one group. When talking about improving collaboration among these institutions, one has to concentrate on the committed organizations instead of trying to get every institution on board.

Cooperation depends highly on the persons involved and is rarely institutionalized. Often, one very committed and motivated person in each institution keeps cooperation going. If this person leaves the organization (for example a professor retires), the partnership needs to be redefined by the successor. Furthermore, the cooperation between a university and an SME/chamber is highly related to one topic or research area. Therefore, several people in one organization might be involved in different forms of cooperation. But there is hardly one person or one department, which is responsible for the coordination of all existing cooperation of the organization and, thus, no single contact person is responsible for cooperation in general. This lack of structure creates a problematic situation, especially for outsiders who want to initiate collaboration with

an organization but do not know who to contact. Some universities are establishing project coordination departments, which are responsible for gathering information about new research programs and share this information with the different departments. However, even those structures are missing in most chambers and SMEs.

The financial structure differs among universities, chambers and SMEs, and so does the wish to start cooperation. While universities mainly try to get funding for existing or new researchers, SMEs are interested in new products or outcomes, which increase the profit of the enterprise. These differences are also reflected in the preferred duration of projects. While universities try to get funding for projects with a longer duration, SMEs favor shorter projects with a fast delivery of results and outputs, which can then be capitalized. SMEs and even chambers have little experience and resources for complex project applications.

Universities, on the one hand, and SMEs and chambers, on the other hand, often talk in different languages. In the world of universities, project results are measured in number and quality of research papers published in various scientific journals. These research papers include a description of the theoretical background and the chosen approach as well as a detailed analysis. In contrast, SMEs and chambers need the results to be written in an understandable language. They prefer short reports instead of theoretical research papers. It must be possible to easily transfer the written results into action (improved processes, new products, etc.).

Both universities and chambers, offer seminars and other courses for SMEs. There is no coordination between the institutions so that it might happen that a university and a chamber in the same town offer very similar seminars. In doing so, they compete with each other.

Process

In many countries there is little communication between universities, chambers and SMEs. There are few possibilities where representatives of universities, chambers and SMEs meet by chance. Few universities take part in vision-processes of SMEs. Then again, SMEs and chambers also hardly take part in curriculum development of new study programs at universities. The interaction between universities and SMEs is low even though both institutions could contribute to the success of the respective other. Due to a lack of possibilities for representatives of the different institutions to meet each other and thus to come in contact, it is increasingly difficult to start cooperation as meetings, and face-to-face communications are essential for it.

2.22 Future aims

Persons and Institutions

The future objective is to share responsibilities among chambers and universities, to overcome the overlapping offers of universities and chambers, particularly seminars for SMEs but also consultation services. The two institutions should agree in advance

on their offers for SMEs. That way offers become more attractive which is especially beneficial for chambers without mandatory membership. One possibility might be a division of the offers for SMEs according to the target group: universities provide seminars for the management level, chambers for the skilled workers. Another possibility is that the seminar offers can be divided according to content (management skills by chambers, technical skills by universities) or according to the degree/certificate that will be obtained.

It is desired that every institution has one post (or department) who is responsible for external communication, particularly for the cooperation with other institutions and SMEs. This does not only enable coordination of responsibilities between universities and chambers but also provides external institutions or SMEs with a central contact person to turn to. That way communication processes are institutionalized. This primary contact person can then pass on information internally. The name and contact details of this person must be available publicly, e.g. on the institution’s website or newsletter. Internally, all employees need to support the communication manager, i.e. sharing cooperation activities of staff, relationships and contacts with other institutions and SMEs, as well as thematic orientation.

A second aim is aligning the interests of chambers, universities and SMEs to receive funding. Currently, universities are looking for funding for research projects to finance present and additional employees. SMEs are looking for solutions which quickly result in additional profits. While universities generally look for longer research projects, SMEs prefer to have shorter projects with fast delivery of results.

Last but not least, research should be adapted better to work on the ground. This includes practice-oriented research topics. One way to better understand the problems of SMEs and to detect possible gaps for research is to send students in the enterprises (e.g. via an internship or for a bachelor or master thesis). Besides the main task of getting practical training, the students can act as intermediary between the enterprise and the university. This has already been carried out successfully by German universities, which provide dual study programs. Students are employed in an enterprise and concurrently study at a university. Or in Finland students take practical training in companies and do their bachelor/master thesis in and for companies. In doing so, they can apply their practical experience at the university and their theoretical knowledge to the company.

Processes

Most important is to maintain already created contact network. The face-to-face communication between universities, chambers and SMEs should be improved and institutionalized. Only face-to-face contacts can create a basis for sustainable cooperation. Conferences, workshops, fairs, etc. are places where universities, chambers and SMEs meet. However, it must be secured, that different institutions talk to each other instead of only being in the same room (e.g. round tables at conferences, etc.). Therefore, special side-events during larger events must be organized for craftsmen and

professionals. Special forums are another possibility to bring together universities, chambers and SMEs. In these forums, the different institutions can exchange ideas, problems and experiences.

As mentioned before students can act as an intermediary in enterprises to transfer experiences from one institution to the other. However, it must also be possible for SME employees to gain experience at universities, e.g. through practical training or an internship at a university lab.

Especially cross-border cooperation requires good language skills, which is often a problem, particularly for smaller SMEs. It must be possible that SMEs can ask questions in their native language and not in English.

There are some excellent examples were universities support SMEs, e.g. via students working on specific tasks for the companies. The opposite, SMEs and chambers supporting universities, is rather uncommon. Because most students end up working in an enterprise, the qualification needs and wishes of enterprises must be considered in the curricula of universities. SMEs could, therefore, be included in the development of new or the adaption of existing curricula. For example, at Satakunta University of Applied Sciences, every training program has a council where company representatives are present and communicate the need for topics. In Finland, some of the curriculum contents are linked to different competence requirements, so that these have to be taken into account when planning.

2.23 First cooperation concepts for universities and chambers/ SMEs

The most important vision is close cooperation between universities and SMEs including Research that is more oriented towards the practice and needs of SMEs.

SMEs influencing activities of universities, e.g. development of curricula.

Particularly in Eastern European countries, systematic and closer cooperation between universities and SMEs must be initiated from the top, e.g. through political decisions or lobbying. Good PR could sensitize the relevant institutions to rapprochement and cooperation. In addition, round tables must be organized with representatives from all three institutions to elaborate on curricula or other study-relevant topics.

As mentioned above, joint conferences can bring together representatives from universities, chambers, and SMEs. In order to make them talk to each other, these conferences must include sessions with smaller working groups where the representatives of different institutions can exchange knowledge and experiences, and they can start to get to know each other.

Since there are some good examples for fruitful cooperation between universities, chambers and SMEs, an international exchange of these good practices is required. This exchange must not only be on the level of institutions (universities exchange with universities, chambers with chambers, etc.) but must go beyond. However, one has to

consider that especially smaller SMEs have difficulties in freeing up employees (for practical training or even to knowledge transfer exchange events) since they need every single employee to cover daily work.

Last but not least, universities need to transfer scientific results in a more practical format for the enterprises (results written in an easy language on 1 to 2 pages maximum).

To improve the cooperation between universities, chambers and SMEs, every institution needs one central contact person.

First of all, the information about the right contact person must be available for external parties. This requires that there is a central contact person or department in each institution in the first place. If an institution has agreed upon one central contact person, the institution must build up awareness within the institution. All employees must know about this position and have to use it. An organigram must be developed with relevant information about the positions, names of the contact persons and their responsibilities. This Simple diagram can be used both, for internal and external parties.

Round tables can be organized for persons with the same tasks or working area. These round tables can improve the cooperation between universities, chambers and SMEs on working level.

In order to intensify the cooperation between universities and SMEs, students must be more involved in the practical work of enterprises.

A stronger inclusion of practical work into the curricula must fit in the overall legal framework of the countries. For example, in Germany, dual study courses are permitted by law, which allows students to work and study concurrently. Another good example is the Satakunta University: here, the curricula include practical work in enterprises as part of the study courses.

Particularly in cross-border-cooperation, command of English is essential - not only for students but also for teachers.

In order to improve the knowledge of English of employees, English courses must be offered. At universities, participation in English courses should be accredited with credit points. In addition, it is not only necessary to talk about language courses, but also professional courses can be taught in English. Another possibility to improve English skills at university level is an exchange of teachers and the employment of foreign, English-speaking teachers in the courses.

2.24 Conclusion

Although cooperation between universities and SMEs is a major concern of the EU, it still lacks behind set goals. A successful way of improving the collaboration between universities and SMEs is to start at the basis, i.e. at the level of the SMEs and

universities. The present study followed this approach. A small group of representatives of universities and chambers from countries around the Baltic Sea elaborated in a workshop (future workshop) existing problem of the cooperation between universities, chambers and SMEs, future aims (how would the cooperation look like) and first action concepts for the realization of the most critical objectives. In continuation of this work, the Hanseatic Parliament, which has been successfully promoting SMEs in the entire Baltic Sea region for many years, founded the Baltic Sea Academy, which currently comprises 21 colleges and universities from 9 Baltic Sea countries.

The Baltic Sea Academy promotes cooperation between universities, chambers and SMEs. In this respect, the most important problems that need to be addressed have been identified:

- lack of a central person/department, who/which is responsible for the cooperation with other institutions,
- different financial structures in universities, chambers, and SMEs,
- different aims of the institutions (research papers versus increasing profit),
- same offers for SMEs by universities and chambers without coordination between the institutions,
- little communication between universities, chambers and SMEs,
- little interaction between universities and SMEs,
- few possibilities for representatives of the different institutions to meet each other (little face-to-face-contact).

Future aims for cooperation between universities, chambers, and SMEs:

- sharing responsibilities among chambers and universities (reduction of overlapping offers for SMEs),
- central contact person for external communication and the development of cooperation,
- mutual interest to get funding and profit,
- research should be adapted better to practice,
- improved face-to-face-communication between universities, chambers and SMEs,
- exchange of students and staff among universities and SMEs (in both directions),
- no language barriers (particularly for cross-border-cooperation),
- participation of SMEs in the development of curricula.

First activities were elaborated for the four most essential visions. The cooperation between universities, chambers, and SMEs through practical research and SME influence on university activities can be reached by:

- political decisions and lobbying,
- round tables for representatives of all three institutions to draw up curricula,
- joint conferences with smaller working groups,
- international exchange of good practice,
- scientific results in a short, understandable written form.

There is a need for a central person in each institution, who is responsible for cooperation and external communication. This person (or department) must be visible for staff members as well as for external parties (e.g. through an organigram). Round tables for persons in different institutions with the same working areas can improve the collaboration on working level.

Staff of colleges and universities should specify their competences and areas of interest in dealing with SMEs. This information should be entered into a central database (e.g. a knowledge bridge) so that SMEs have the opportunity to find a potential partner quickly and in a targeted manner. This would increase the efficiency of communication.

In order to intensify the cooperation between universities and SMEs, students must be more involved in the practical work of enterprises, e.g. through a stronger inclusion of practical work in the curricula.

2.3 Survey on the development of Centers of Excellence[5]

[5] Prepared by: Marzena Grzesiak, Gdańsk, Magdalena Olczyk and Marzena Starnawska, Gdańsk University of Technology

2.31 Introduction

Starting from the '90s in Europe, many Centers of Excellence (CoE)[6], practically in all areas and disciplines, have been created. Although the concept of a Center of Excellence is often used, it is still somewhat ambiguous. Intuitively, each organization may be recognized as a "Center of Excellence", when it comprises and attracts excellent actors (ex. researchers, companies or others), earning a reputation as a significant resource for the progress of science and technology and the spread of innovation. In literature, the most basic definition of Centers of Excellence is "CoE is a team of people that promote collaboration and use best practices around a specific focus area to drive business result"[7]. A Center of Excellence is defined more broadly as "a premier organization providing an exceptional product or service in an assigned sphere of expertise and within a specific field of technology, business, or government, consistent with the unique requirements and capabilities of the CoE organization".

In literature, we can find a list of some key features which are part of the CoE concept. Each Center of Excellence should be characterized by:[8]

a "critical mass" of high-level scientists and/or technology developers,

a well-identified structure (mostly based on existing structures) with its own research agenda,

an ability to integrate related disciplines or complementary skills, necessary to achieve strategic goals,

a capability of maintaining a high rate of exchange of qualified human resources,

a dynamic role in the surrounding innovation system (adding value to knowledge),

high levels of international visibility and scientific and/or industrial connectivity,

adequate stability of financing and operating conditions over time (the basis for investing in people and building partnerships) and, eventually, sources of finance that are not dependent on public funding over time.

COVE's activities include mainly conducting basic and applied research, implementation of projects and research programs and conducting educational activities, service and training.

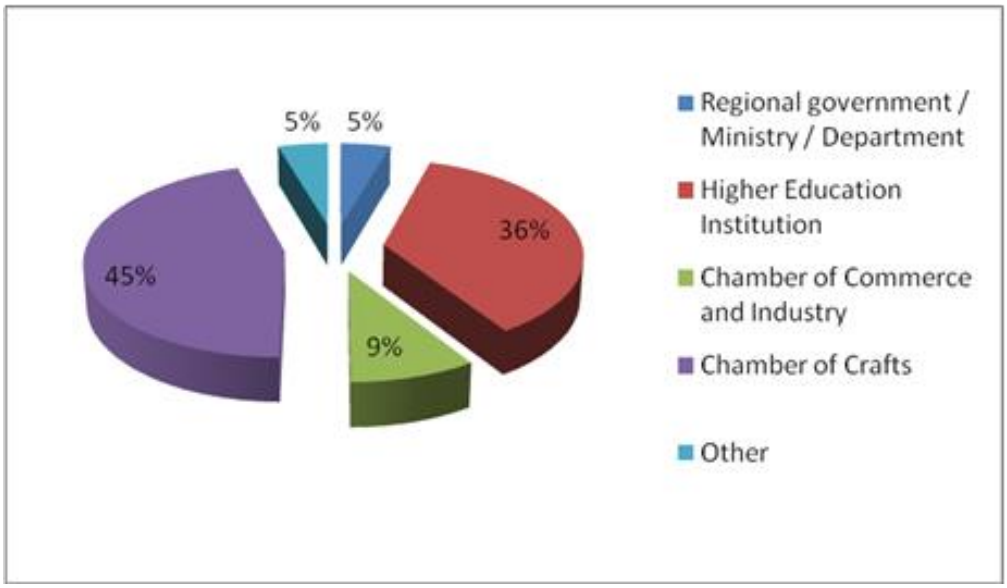
Depending on the scope of activities, there are different types of Centers of Excellence: i.e. conducting research in a specific area, conducting broad interdisciplinary cooperation, engaged in research, based on research infrastructures, involving academic-industrial collaboration or developing the industrial implementation of R&D.

[6] The term "Center of Competence" is hereinafter used to mean the name "Center of Excellence"
[7] https://agileelements.wordpress.com/2008/10/29/what-is-a-center-of-excellence/
[8] http://www.kpk.gov.pl/centra_doskonalosci/index.html

2.32 Centers of Excellence –survey results analysis

A written survey of all project and associated partners was conducted. As far as the organizations that responded to the Center of Excellence's survey are concerned, there have been three main groups. Almost 45% of the respondents classified themselves as Chambers of Crafts, and only 9% as Chambers of Commerce and Industry. Slightly more than one-third of respondents were Higher Education Institutions. As a result, the opinions and interest in participation in different forms of COVEs are mainly based on the Chamber of Crafts and Higher Education Institutions.

Figure 1. Answers to the question: What kind of institution/organization do you represent?



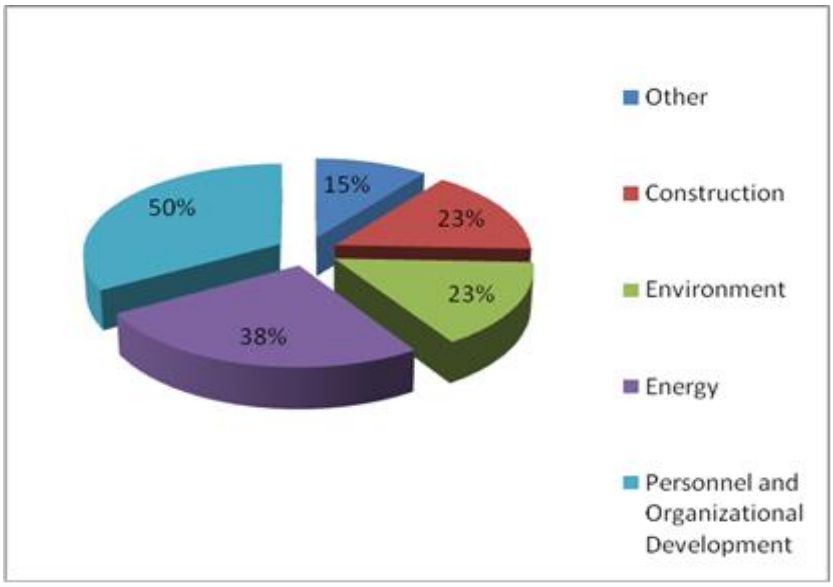
NB: Percentage of answers (one respondent indicated two organizations)

Respondents were asked what kind of COVE they would be interested and able to participate in. In the survey, they had a choice between five categories of COVE's:

- "Environment",
- "Energy",
- "Personnel and organizational development",
- "Construction"
- as well as "Other".

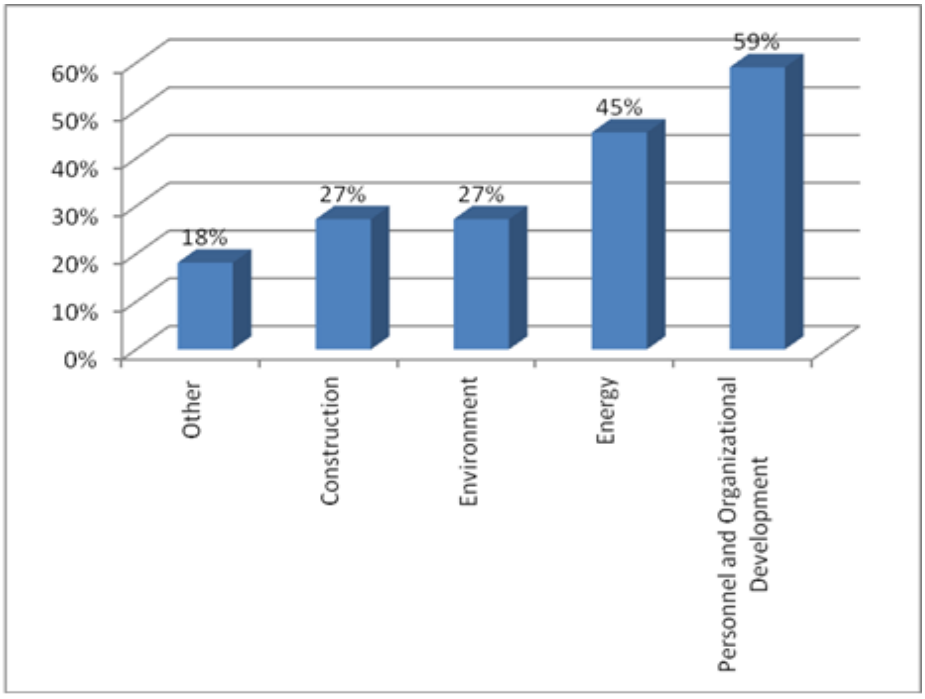
The option "Personnel and organizational development" is represented in 50% of all answers given to this question. "Energy" is the second most frequent answer – 38% of all responses. "Environment" just like "construction" constitutes 23% of all answers. "Other" includes "vocational training (for SMEs)", "SME management and financing", "promotion of craft sector and entrepreneurship", "service quality management".

Figure 2. Answers to the question: What kind of CoE could you participate in?
Percentage of answers



Almost 60% of all respondents are interested in the participation in "Personnel and Organizational Development". As for "Energy" – 45% of them choose it, and 27% of organizations can participate in "Construction", as well as "Environment" COVEs.

Figure 3. Answers to the question: What kind of COVE could you participate in?



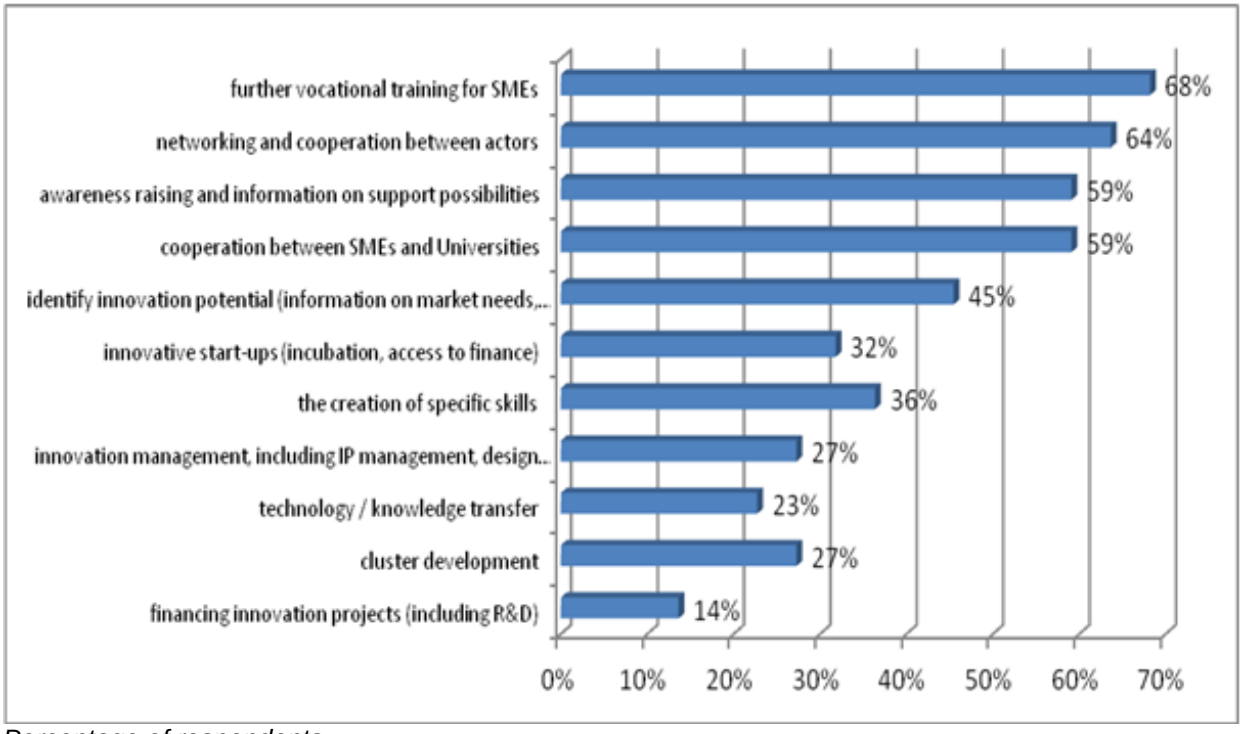
Percentage of respondents; Please mind respondents could choose more than one answers. Therefore, answers do not sum up to 100%.

We also asked what type of innovation support respondents' institutions/organizations could be involved in (Figure 4). Almost seventy percent of respondents (68%), indicate

that they can be involved in support of further vocational training for SMEs whereas 64% of organizations can be involved in support of networking and cooperation between actors. Almost 60% of the surveyed institutions can be involved in support of raising awareness and information on support possibilities and in support of collaboration between SMEs and universities. Around 45% can do so in terms of supporting the identification of innovation potential. It is interesting to see that 27% can be involved in support of cluster development and innovation management issues, including IP management and design. Respondents display relatively high interest (36%) in their organizations supporting the creation of specific skills (Figure 4).

Similarly, the most frequent option chosen by respondents is the interest in "support for vocational training for SMEs" (15%), and "support for cooperation and networking between actors" (14%). Thirteen percent of all answers refer to "support for cooperation between SMEs and universities" and also "support for raising awareness and information on support possibilities" (Table 1).

Figure 4. Answers to the question: In the Center of vocational Excellence, what type of innovation support could be your institution/organization involved in?



Percentage of respondents

Table 1. Answers to question: In the Center of Excellence, what type of innovation support could be your institution/organization involved in?

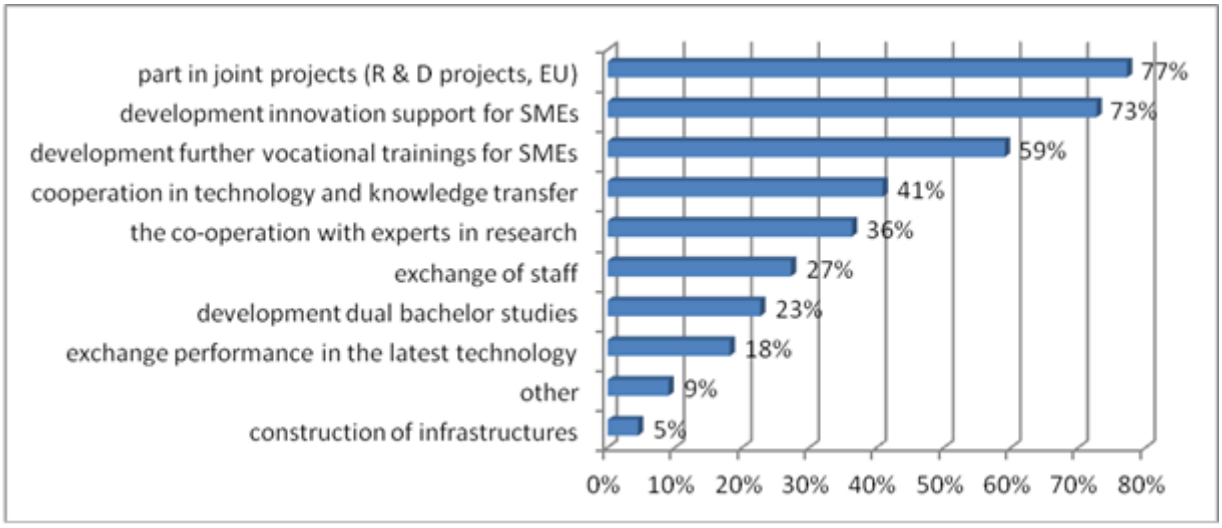
Involvement of the institution in the type of innovation support	Percentage of answers
further vocational training for SMEs	15%
networking and cooperation between actors	14%

cooperation between SMEs and Universities	13%
awareness-raising and information on support possibilities	13%
identify innovation potential (information on market needs, market conditions, new regulations, new technology, etc.)	10%
the creation of specific skills	8%
innovative start-ups (incubation, access to finance)	7%
cluster development	6%
innovation management, including IP management, design management and organizational innovation	6%
technology / knowledge transfer	5%
financing innovation projects (including R&D)	3%

Percentage of answers

Respondents were asked what benefits they expect from COVE participation. It is interesting to see that 77% of them expect participation in joints projects (e.g. R&D, other EU projects). Also, a little more than 70% expect the development of innovation support for SMEs. Almost 60% look forward to benefiting from the development of further vocational training for SMEs. Approximately 40% of surveyed institutions expect benefits such as cooperation in technology and knowledge transfer, whereas 36% of them would expect benefits in terms of cooperation with research experts. Only 23% would envision a benefit from the development of dual bachelor courses (Figure 5).

Figure 5. Answers to the question: What benefits do you expect in connection with participation in a Center of Excellence?



Percentage of answers

Similarly, the most frequent option, chosen as a benefit out of COVE is participation in joint projects (27% of responses), development of innovation support for SMEs (25%),

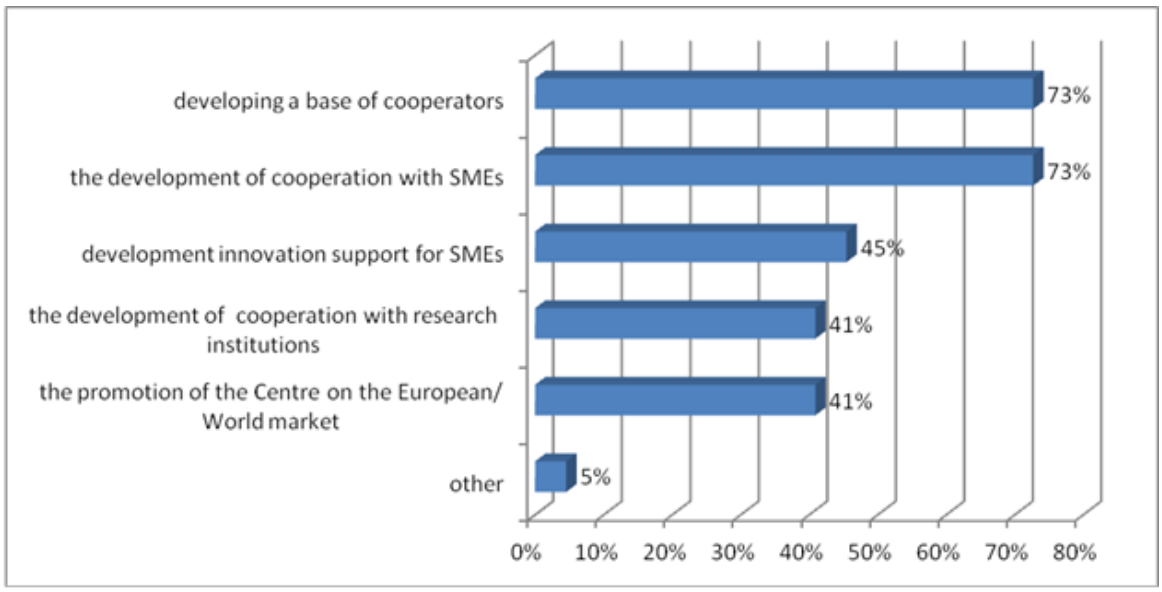
development of further educational training (20%). Some respondents mention the exchange of contacts as well as international networking opportunities for cooperation in other markets (Table 2).

Table 2. Answers to the question: What benefits do you expect in connection with participation in a Center of Excellence?

Benefits expected by institution	Percentage of answers
part in joint projects (R & D projects, EU)	27%
development innovation support for SMEs	25%
development further vocational training for SMEs	20%
cooperation in technology and knowledge transfer	14%
the co-operation with experts in research	13%
exchange of staff	9%
development of dual bachelor studies	8%
exchange performance in the latest technology	6%
other	3%
construction of infrastructures	2%

Percentage of answers

Figure 6. Answers to the question: What actions should be taken by the members for the development of Centers of Excellence? *Percentage of respondents*



Respondents prompted about actions that should be taken by members of COVE for their development acknowledge that "development of the base of cooperators" and also "development of cooperation with SMEs" is required (by more than 70% of organizations). 45% of organizations believe that COVE members should "develop

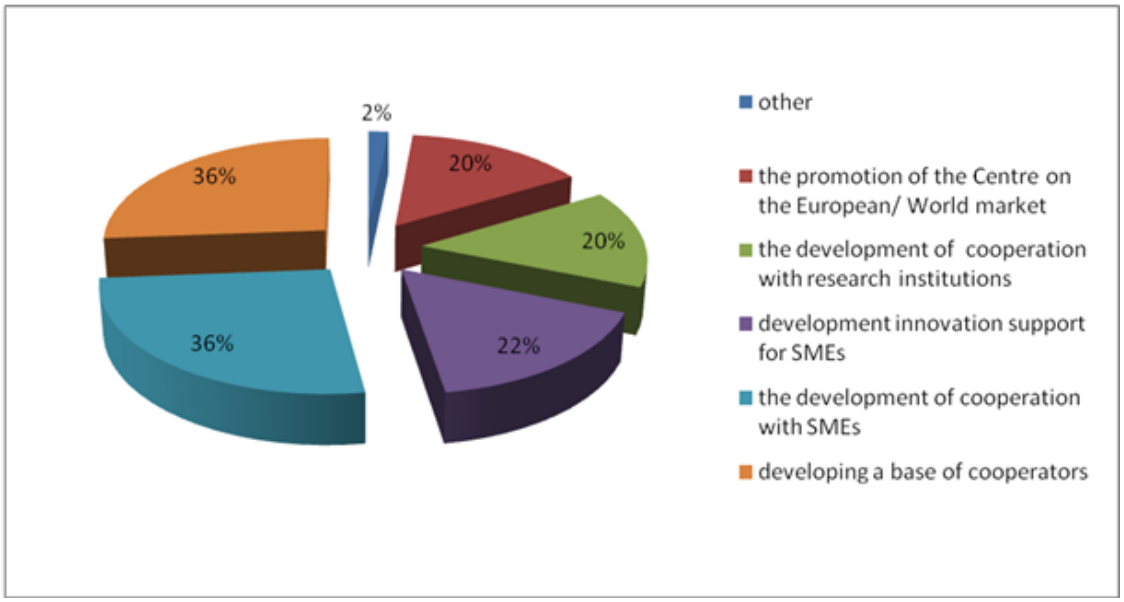
innovation support for SMEs" as part of COVE activity. A little more than 40% of organizations believe that COVE members should "develop cooperation with research institutions" and "promote COVE on the European/World market" (Figure 6).

Likewise, 36% of answers given to this question, stand for "developing a base of cooperators" and "development of cooperation with SMEs" (Figure 7).

One respondent indicates that members should make attempts at acquiring funds for COVE operation and promotion of COVEs.

For the surveyed institutions and organizations, "further vocational training" as a measure for promotion of innovations in SMEs is especially important – almost 70% of respondents acknowledge this. Nearly 60% find "cooperation between SMEs and universities" as important, and between 50-55% of them regard "technology and knowledge transfer", "training and provision of management and professionals", "information and exchange of experiences" together with "R&D for SMEs" as especially important.

Figure 7. Answers to the question: What actions should be taken by the members for the development of Centers of Excellence? *Percentage of answers*



Similarly, (Figure 9) the most frequent answer signifies the importance of "further vocational training" (18% of all answers), "cooperation between SMEs and universities" (25% of all answers), "technology and knowledge transfer" (14% of all answers) and "training and provision of management and professionals" for COVEs' tasks and activities. One organization recognizes the importance of starting contacts between actors from different systems – there should be a body/person responsible for networking and cooperation for finding business partners and investors for universities. There should also be a larger emphasis on making bodies responsible for sustainable relationships between business and universities more visible and recognizable.

Figure 8. Responses to the question: What measures to promote innovations in SMEs, that should be realized by Centers of Excellence, are especially important? *Percentage of respondents*

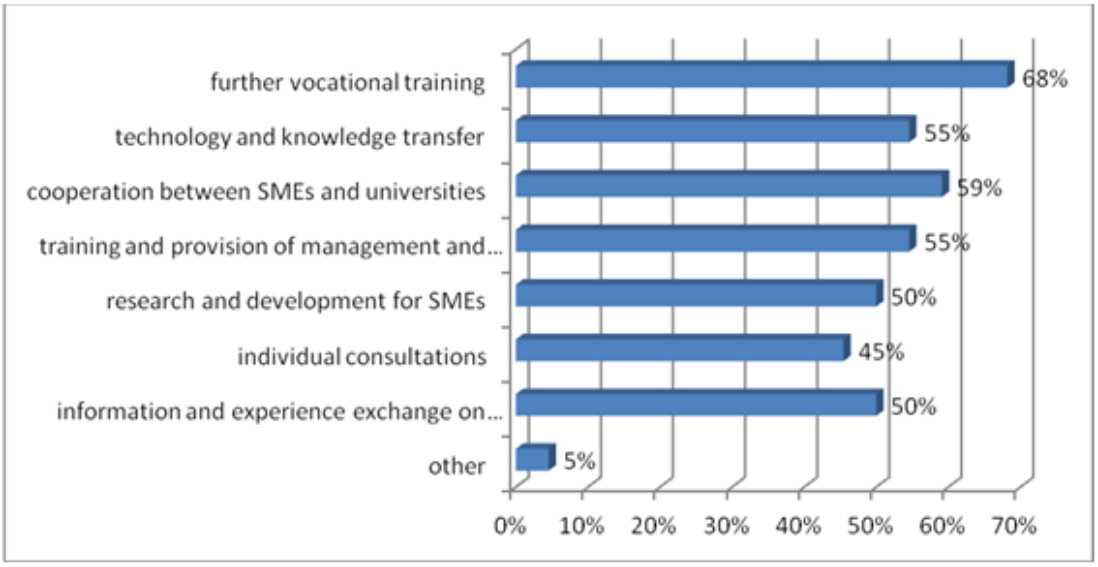
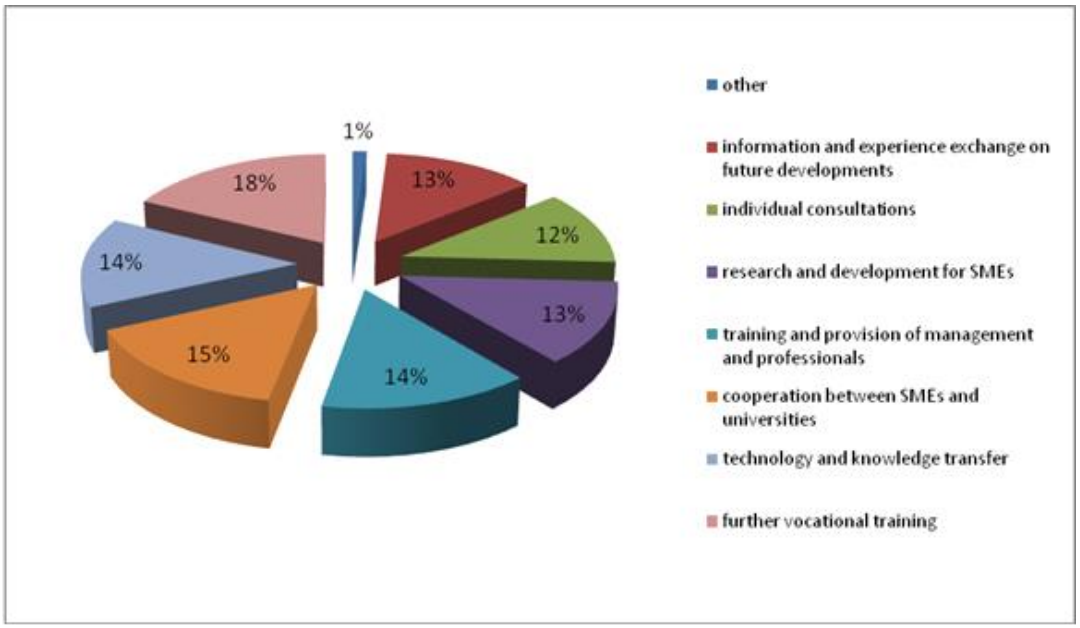


Figure 9. Answers to the question: What measures to promote innovations in SMEs, that should be realized by Centers of Excellence, are especially important? *Percentage of answers*



3. Individual Activities of the Centers of vocational Excellence

Development and coordination Concept three-tiered centers of excellence

- Development of a draft concept by PP1 Hanseatic Parliament by 28.02.2021
- Consultation and coordination of the draft in the project consortium
- Revision and completion of the concept by PP1 Hanse-Parliament by 31.08.2021

Development of centers of excellence Germany

- Foundation and development by the three German partners from 01.02.2021, coordination by PP2 Chamber of Crafts Dresden
- Start of the current operation from 01.07.2021 at the latest
- Acquisition of a college/university from Saxony as a center partner by PP2 Dresden Chamber of Crafts and Consulting by PP3 Hamburg University of Cooperative Education
- Development and conclusion of an agreement on the operation of the center by 31.12.2021
- Continuous development and operation until 31.10.2024
- Implementations report 30.06.2024

Development of centers of excellence Poland

- Foundation and development by the three Polnish partners from 01.02.2021, coordination by PP5 Zespol Szkol Mechanicznych i Logistycznych
- Development and conclusion of an agreement on the foundation and operation of the center by 31.05.2021
- Start of the current operation from 01.07.2021 at the latest
- Continuous development and operation until 31.10.2024
- Implementations report 30.06.2024

Development of centers of excellence Lithuania

- Foundation and development by the three Lithuanian partners from 01.02.2021, coordination by PP7 Profesinio Mokymo Centras Zirmunai
- Development and conclusion of an agreement on the foundation and operation of the center by 31.05.2021
- Start of the current operation from 01.07.2021 at the latest
- Continuous development and operation until 31.10.2024
- Implementations report 30.06.2024

Development of centers of excellence Latvia

- Foundation and development by the four Latvian partners from 01.02.2021, coordination by PP23 Liepājas Valsts tehnikums
- Development and conclusion of an agreement on the foundation and operation of the center by 31.05.2021
- Start of the current operation from 01.07.2021 at the latest
- Continuous development and operation until 31.10.2024
- Implementations report 30.06.2024

Development of centers of excellence Austria

- Foundation and development by the three Austrian partners from 01.02.2021, coordination by PP14 Wirtschafts-Förderungsinstitut der Wirtschaftskammer Steiermark
- Development and conclusion of an agreement on the foundation and operation of the center by 31.05.2021
- Start of the current operation from 01.07.2021 at the latest
- Continuous development and operation until 31.10.2024
- Implementations report 30.06.2024

Development of centers of excellence Italy

- Foundation and development by the three Italian partners from 01.02.2021, coordination by PP21 Emilio Sereni
- Start of the current operation from 01.07.2021 at the latest
- Acquisition of a college/university from Italy as a center partner with Consulting by PP15 Campus 02
- Development and conclusion of an agreement on the operation of the center by 31.12.2021
- Continuous development and operation until 31.10.2024
- Implementations report 30.06.2024

Development of centers of excellence Spain

- Foundation and development by the three Spanish partners from 01.02.2021, coordination by PP20 Institut Pere Martell
- Start of the current operation from 01.07.2021 at the latest
- Acquisition of a college/university from Spain as a center partner with Consulting by PP3 Hamburg University of Cooperative Education
- Development and conclusion of an agreement on the operation of the center by 31.12.2021
- Continuous development and operation until 31.10.2024
- Implementations report 30.06.2024

From 01 February 2021 until end of project for each centre until end of project

- Networking and cooperation with relevant actors in the country

- Embedding the centers in regional and national strategies
- Implementation of regional events
- Transnational networking, cooperation and platform of all 7 centers
- Development and implementation of information and cooperation tools until 31.08.2021
- Transnational cooperation by involving 70 associated partners
- Development Business and financing plans until 30.06.2024

4. Suggestions for Cooperation and Information

4.1 Train the Trainer programs

To promote cooperation in the centres of vocational excellence and to train the use of all tools and training measures developed in the project, seven Train the Trainer programmes will be developed, practically tested and evaluated during the project period. After revision and completion of the Train the Trainer programmes based on the evaluation results, the programmes will be transferred to 21 colleges and universities, which will carry out these trainings on an ongoing basis after the end of the project.

4.11 Training program for personnel and center management

- Development of Train the Trainer program by PP13 Institut für angewandte Gewerbeforschung
- Development of Evaluation Concept for Train the Trainer PP1 Hanse-Parlament
- Implementation of the Train the Trainer program and report by PP13 Institut für angewandte Gewerbeforschung
- Evaluation and report by PP1 Hanse-Parlament

4.12 Training for consultants & teachers to use a tool for qualification conselling

- Development of Train the Trainer program by PP3 Berufsakademie Hamburg
- Development of Evaluation Concept for Train the Trainer PP3 Berufsakademie Haburg
- Implementation and evaluation of the Train the Trainer program and reports by PP3 Berufsakademie Hamburg

4.13 Training for teachers to conduct dual vocational training

- Development of Train the Trainer program by PP5 Zespol Szkol Mechanicznych i Logistycznych
- Development of Evaluation Concept for Train the Trainer Programm PP1 Hanse-Parlament
- Implementation of the Train the Trainer program and report by PP5 Zespol Szkol Mechanicznych i Logistycznych
- Evaluation and report by PP1 Hanse-Parlament

4.14 Training for teachers to conduct further trainings

- Development of Train the Trainer program and evaluation concept by PP1 Hanse-Parlament
- Implementation and evaluation of the Train the Trainer program and reports by PP1 Hanse-Parlament

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4.15 Training for teachers Basic Digital Skills

- Development of Train the Trainer program by PP14 Wirtschafts-Förderungs-institut der Wirtschaftskammer Steiermark
- Development of Evaluation Concept for Train the Trainer Programm PP11 Rigas Stradina Universitate
- Implementation of the Train the Trainer program and report by PP14 Wirtschafts-Förderungsinstitut der Wirtschaftskammer Steiermark
- Evaluation and report by PP11 Rigas Stradina Universitate

4.16 Training for teachers Advancedd Digital Skills

- Development of Train the Trainer program by PP6 Akademia Pomorska w Slupsku
- Development of Evaluation Concept for Train the Trainer Programm PP11 Rigas Stradina Universitate
- Implementation of the Train the Trainer program and report by PP6 Akademia Pomorska w Slupsku
- Evaluation and report by PP11 Rigas Stradina Universitate

4.17 Training for university lecturers and SME advisors

- Development of Train the Trainer program and evaluation concept by PP3 Berufsakademie Hamburg
- Implementation and evaluation of the Train the Trainer program and reports by PP3 Berufsakademie Hamburg

4.2 Evaluation of the seven Centers of vocational Excellence

Evaluation of the establishment and work of the Centers of voacational Excellence and of the international cooperation by PP1 Hanse-Parlment.

4.3 Work Meetings

- Holding of an opening event
  Opening event with presentation of the project, discussion of the aims and objectives of the Center, ensuring participation in individual project activities, agreements on further cooperation, collection of proposals for expansion of the Center, aims and objectives of international exchange, etc.
- Regular working meetings
  Regular working meetings, during the project period at least every six months.
- Bilateral cooperation
  Cooperation with the individual members of the Center will vary in intensity. The main purpose of the Center working meetings is to coordinate and exchange information. Individual tasks will be dealt with on the initiative of Partner 1 Hanse Parlament within the framework of bilateral cooperation with individual members of the Center.

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4.4 Participation in Individual Project Activities

In a region, the Centre of Excellence must cover all areas and topics relevant for SMEs on the basis of job-sharing. They should be operated in close cooperation with vocational schools, economic chambers and associations as well as with universities in order to jointly carry out educational and counselling tasks, such as:

In level 1 Vocational education

- Comprehensive career counselling for young people and their parents.
- Providing regular vocational school classes within the framework of dual vocational education.
- Extensive qualification, support and counselling tasks for young people with learning difficulties or social disadvantages who until now have been pushed away and who get integrated into regular vocational education via these channels.
- Development and implementation of special staged vocational education courses for people with learning difficulties in cooperation with companies
- Development and implementation of vocational education courses for strong learners who receive additional qualifications and early further trainings in the Centres of Excellence with a scope of 500 - 700 hours already during the vocational education.

In level 2 Further training

- Training the trainers in companies and accepting the trainer aptitude examination in order to enable companies to provide vocational education within the framework of dual systems.
- For persons with completed vocational education, training to become a technician or master craftsman while at the same time obtaining a qualification enabling one to attend university.
- Execution of business start-up courses and accompanying consultation by business founders up to the establishment or takeover of a business.
- Demand-oriented development and realization of further training programmes covering all relevant aspects of the strongly growing need for further training of entrepreneurs, managers and skilled workers.
- Targeted further training for women and men during the family phase as well as qualification and counselling tasks during the re-entry into the working life.
- Conducting further training and counselling programmes for older people
- Carrying out retraining, qualification and integration measures for the unemployed together with employment services.

In level 3 Higher education and promotion of innovations

- Together with colleges or universities, vocational schools as well as with companies, realization of dual study programs.
- Ensuring the exchange of information and experience as well as the transfer of knowledge and technology in writing and electronically, and in particular through

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the personal exchange which is so important for SMEs, in the form of meetings, information and training courses, group coaching, etc.
- Comprehensive promotion of innovations for SMEs as well as implementation of R&D tasks in and with SMEs.

4.5 Written Exchange of Information

- Publication of a newsletter or electronic / written information on current project developments, interim results, developments in other project countries etc. at least every three months.
- Sending drafts of outputs (products) with a request for comments.
- Sending of all finished outputs (products).
- Book with all results of the project and distribution via book trade.

4.6 Participation in Workshops, Conferences and Tests

- Invitation and participation in project workshops and conferences
- Participation as speakers at conferences.
- Invitation and participation in Train the Trainer course.
- Invitation as an observer at tests of education measures

4.7 International Exchange

- Invitation of members of the Hanse-Parlament and Baltic Sea Academy from the region to working meetings of the Center.
- Exchange of information and experience within the framework of conferences.
- Publication of newsletters by Partner 1 Hanse-Parlament.
- Ongoing communication of questions wishes, needs etc. for international exchange to Partner 1 Hanse-Parlament.

4.8 Best practices and outlook

The structure, organisation, working and cooperation forms of the Centres of Excellence use instruments, experiences and procedures from two best practice models from Sweden. Lund University, which is a founding member of the Baltic Sea Academy, has developed two models which have been operated very successfully for many years.

The **Full Scale Lab** is
a) a concept to specify the needs and interests of companies with the option of access to various knowledge disciplines and to arrive at a systemic solution
b) a room equipped with flexible analogous materials (e.g. for setting up a production unit made of light materials such as cardboard, polystyrene or similar to simulate optimal processes, plus training equipment such as laptops, white board, fashion rationing

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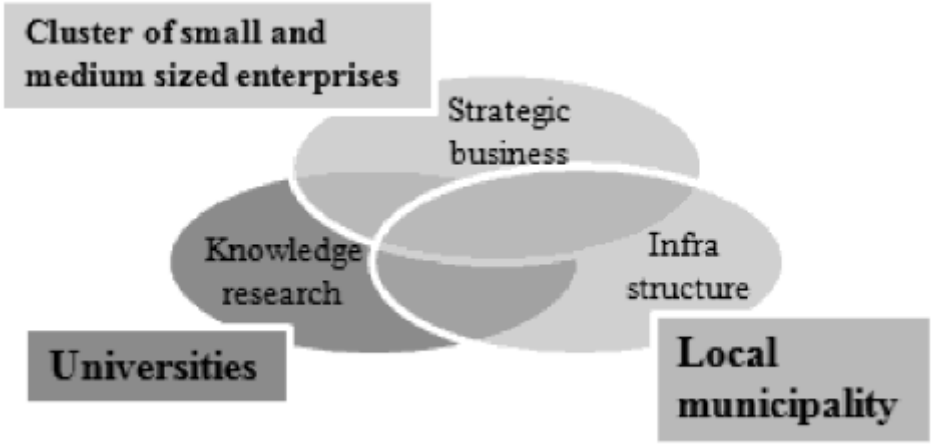
material, flipcharts etc.) and with Virtual Reality Technology (optical tracking systems), in which companies can conduct trials and seminars with their employees and staff from universities and educational institutions.
The laboratory is primarily used for spatial design or technical developments. For this purpose, the expertise of the corresponding disciplines can be accessed.

The **krAft programme** is
the approach of bringing together science (research and development) and local/regional actors (e.g. technology promotion, business and regional development, chambers of commerce, etc.) and SMEs on a common theme in order to exchange experiences and - if necessary - design joint developments (product and process innovations).



BSA (ed.): SME relevant sectors in the BSR ..., Hamburg 2012, p. 13

Such a group meets at regular intervals. Necessary is a topic of interest to everyone (e.g. age-appropriate work design, recruiting and training, cooperation with educational institutions, development of a company work ability management system etc. pp.) The group has a coordinating person who moderates the meetings and also ensures that topic-specific expertise (e.g. from a college/university) is called in. The programme also stipulates that the experienced group members are subsequently able to supervise and moderate other krAft groups, etc.

The demands on persons and institutions involved are above all, according to the underlying understanding of dialogues:

- To be open to interdisciplinary and transdisciplinary cooperation (i.e. also to the exploration of the interpretation/perception of the other disciplines and the operational practitioners).
- To be interested in a joint solution (winning together = win-win).

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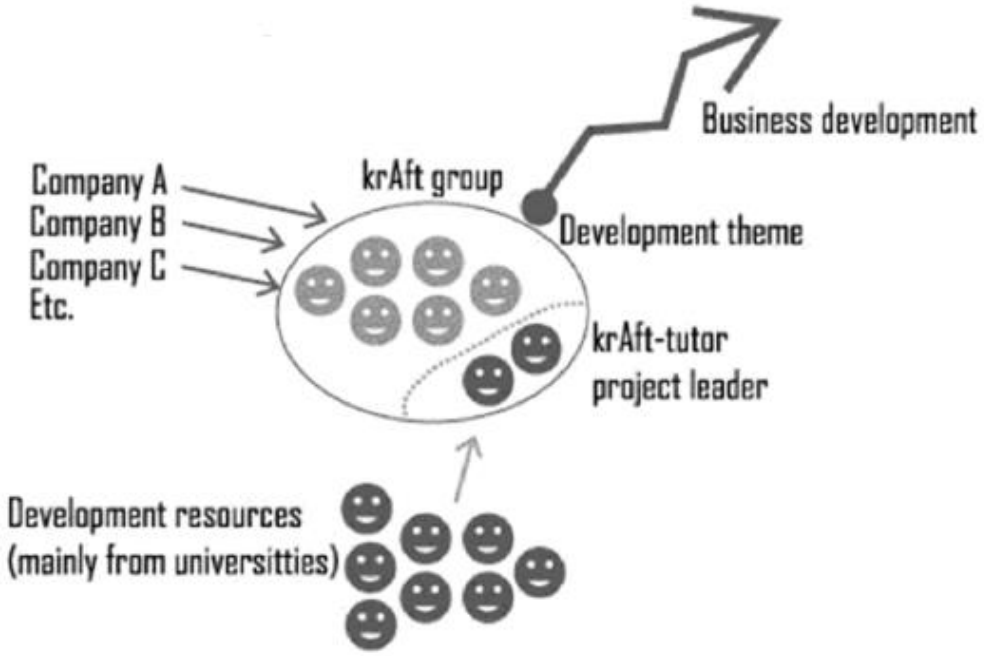
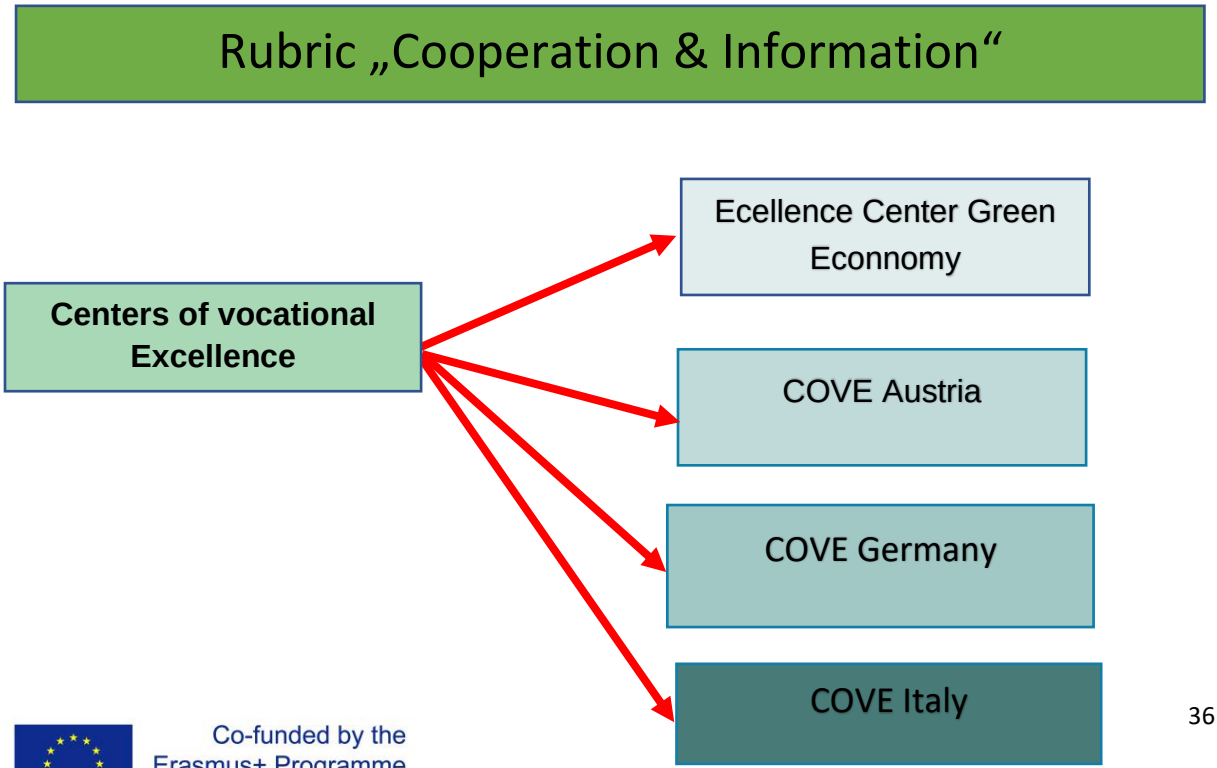
- Being able to translate technical language into understandable statements in order to facilitate joint learning.
- Being ready to understand the understanding of others (listening = to appreciate with head and heart the perceptions and statements of others in respect).

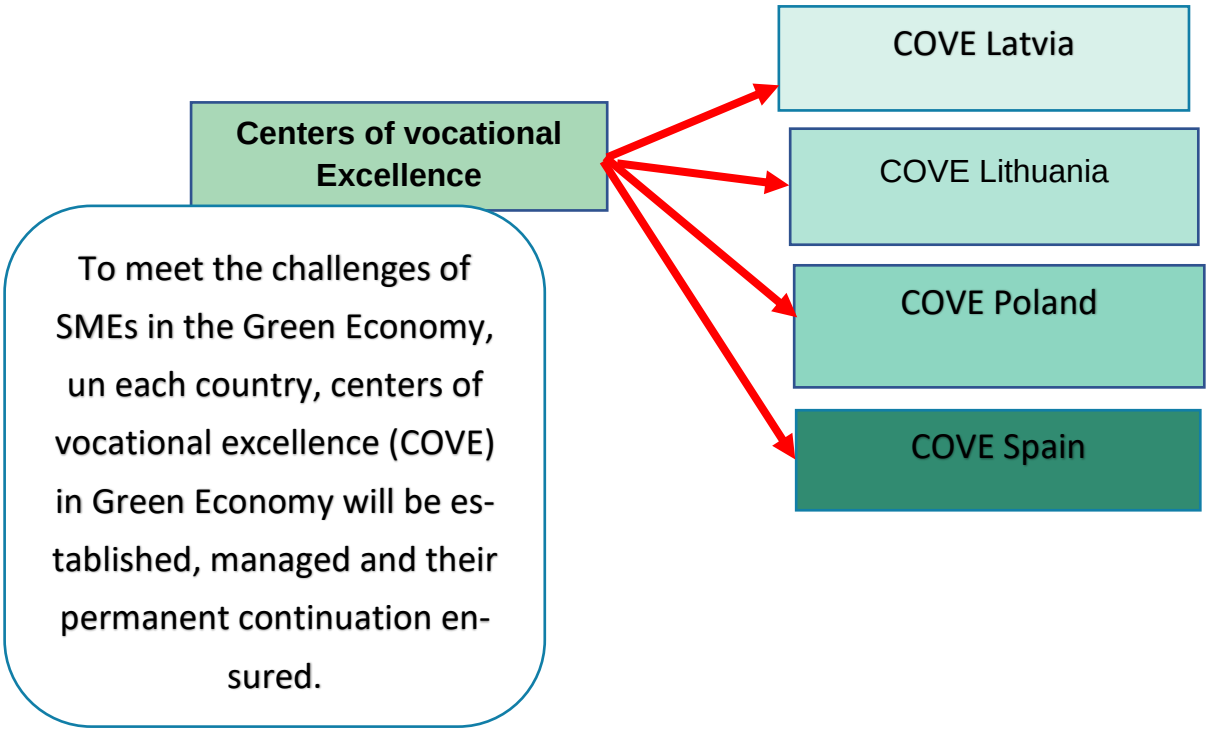


BSA (ed.): SME relevant sectors in the BSR ..., Hamburg 2012, p. 17

4.9 Tools and Results on the project website

The different cooperation and information tools and the results of the project will be published on the project website, so that all project and associated partners as well as interested third parties can work with them freely.





To meet the challenges of SMEs in the Green Economy, un each country, centers of vocational excellence (COVE) in Green Economy will be established, managed and their permanent continuation ensured.

Partners of the Centers of vocational Excellence

The partners of each country establish and operate a Center of vocational Excellence in their region. The centers will offer a wide range of dual education measures in vocational training, further education and higher education, that are being developed, tested

International Cooperation Partners "Further"

A transnational cooperation of the centers will be developed, extended to 70 education stakeholders and operated permanently in an institutionalised form.

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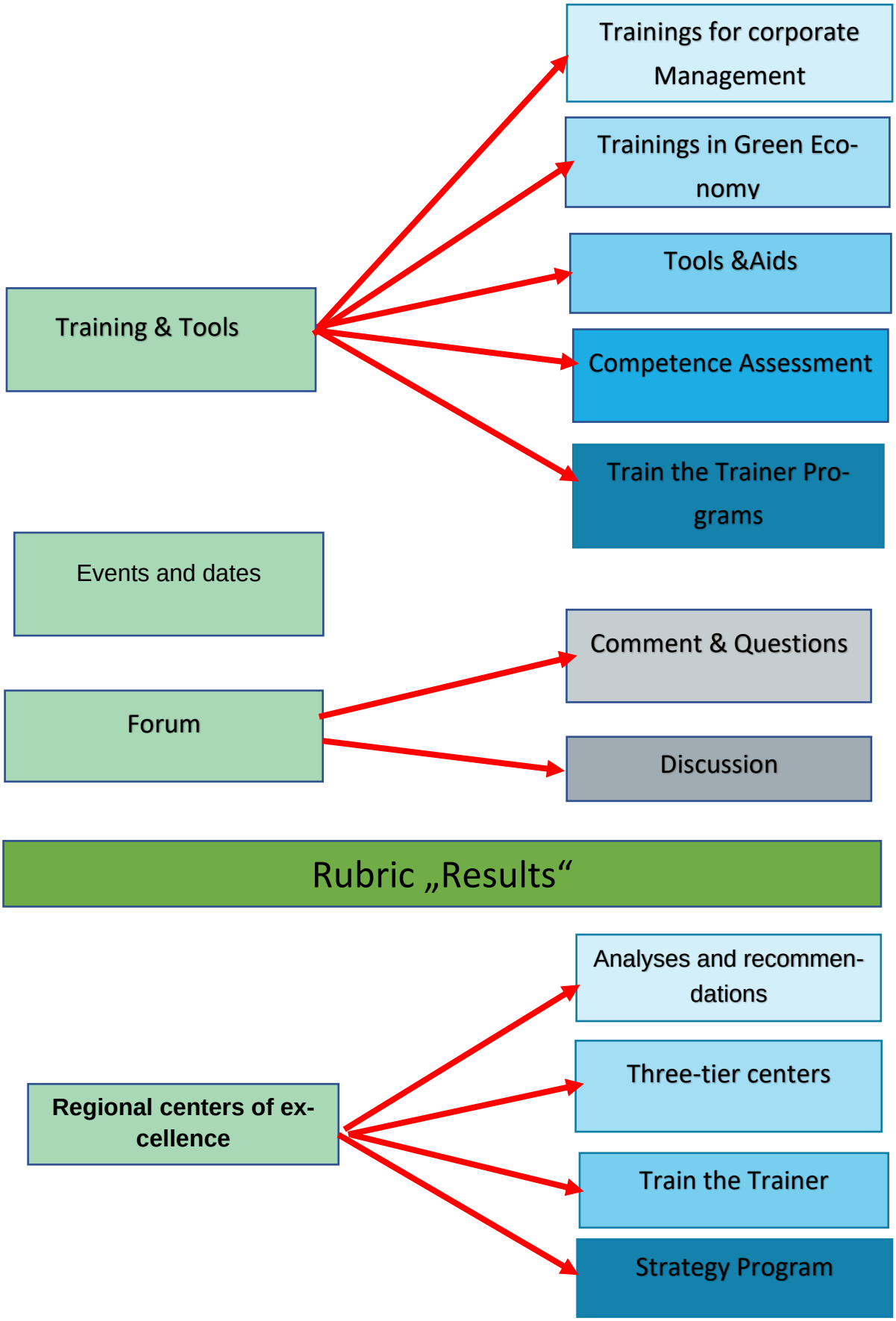

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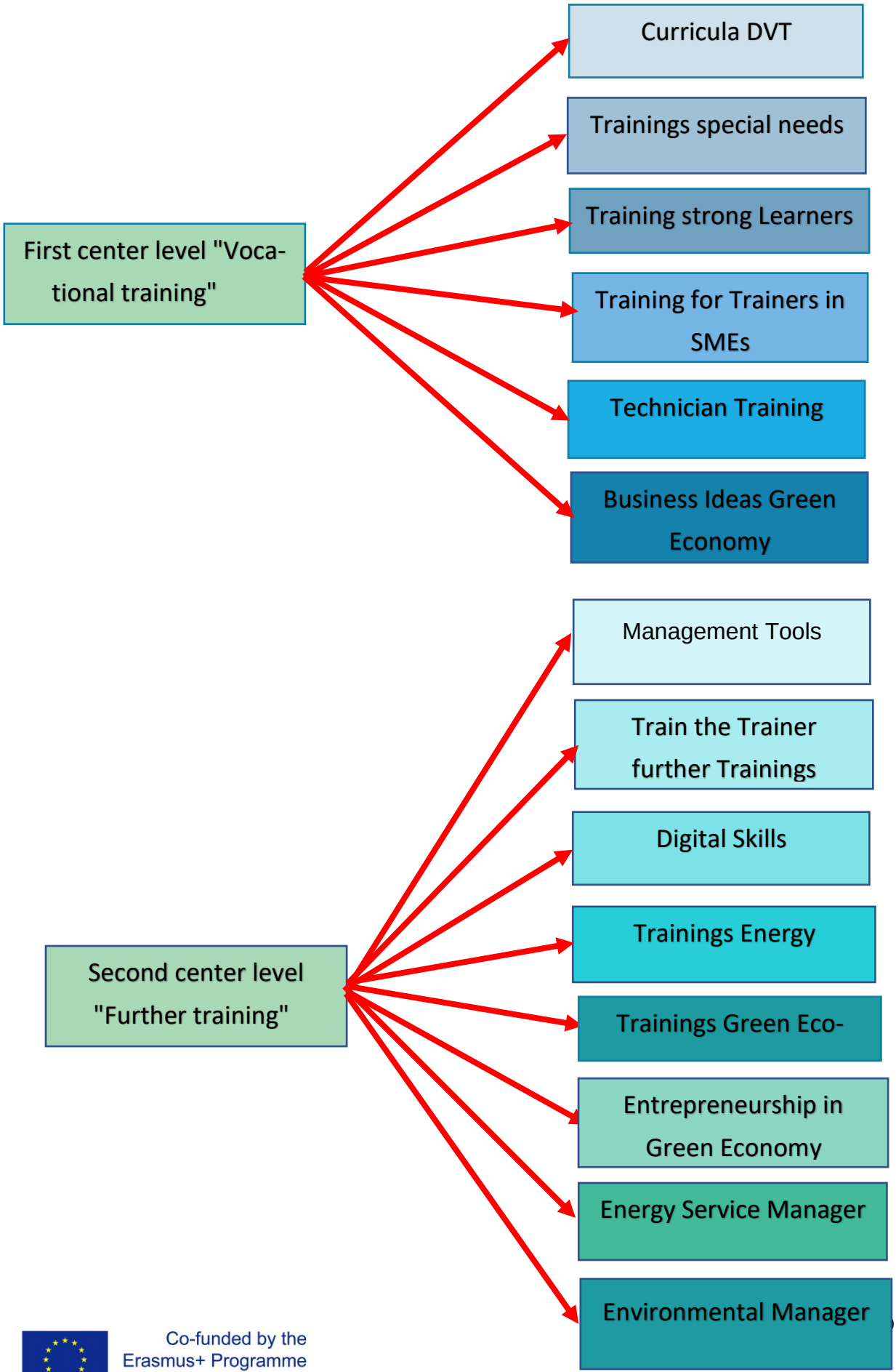

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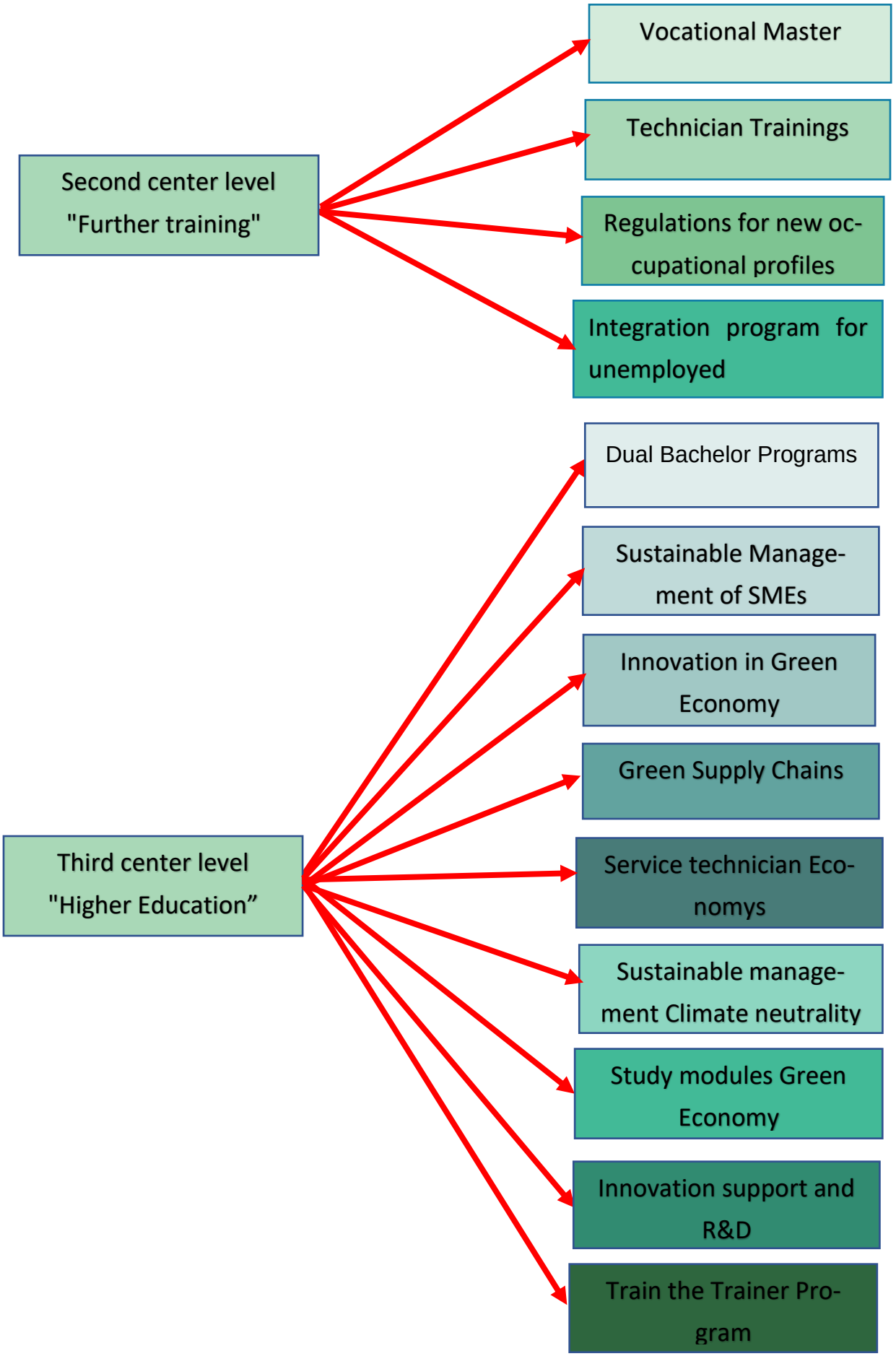

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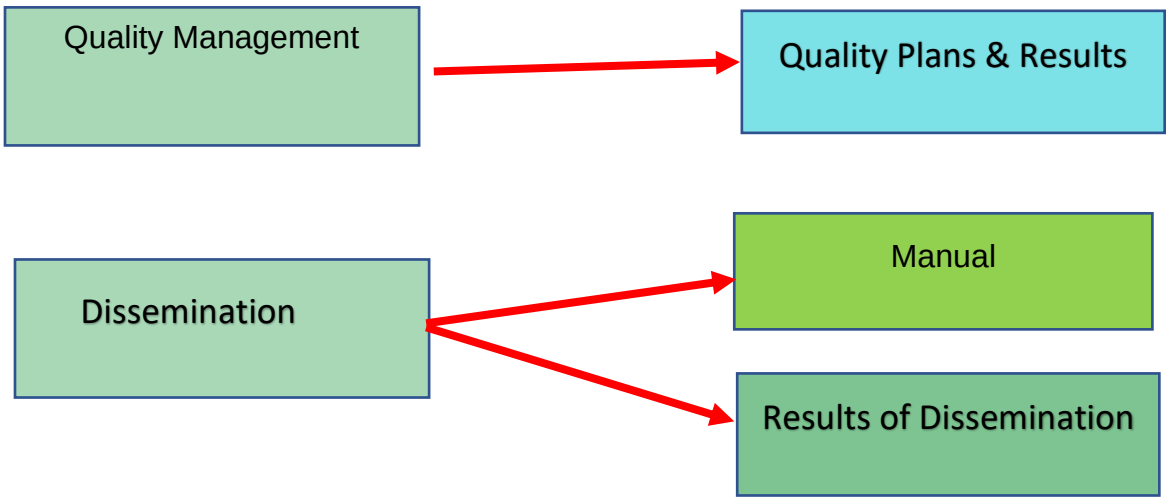

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5. Extension of international Cooperation

Coordination by Hanse Parlament, a transnational cooperation between the seven centers of excellence is being established and developed, with ongoing exchange of information and experience, transfer of knowledge and best practice, implementation of development work based on division of labour, joint implementation of train-the-trainer programmes, mutual personnel support as needed, for example provision of lecturers or assumption of advisory tasks. The international cooperation of the 7 centers of vocational excellence also concerns the joint implementation of educational programmes, e.g., Bachelor's programmes with a double degree.

In the transnational cooperation of the 7 centers of vocational excellence of the project, teachers and other staff of the centers are intensively involved and short internships and study visits are organised in centers in other countries, especially in the more advanced countries Germany and Austria. In addition, teachers sit in on the trials of educational measures in other countries in order to gain experience for their own implementations.

The SMEs involved in the project are also included in the transnational cooperation so that international experience can be gained, contacts established, and international cooperation opportunities explored.

In the plans and binding resolutions for the permanent continuation of the 7 centers of vocational excellence, active promotion of the mobility of teachers, staff and learners as well as of international cooperation between SMEs are explicitly stipulated as mandatory tasks.

The aim is to extend the international cooperation to all Baltic Sea countries. This requires the acquisition of additional partners from the other Baltic Sea countries:

a) Higher Education Institution:
   They are central partners, cooperate with each other across the Baltic Sea region, exchange experiences, implement joint development projects and carry out the following work at the local and regional level:
   - Promotion of innovation and realization of R&D tasks with and for SMEs.
   - Development of curricula for initial and further vocational training of owners, managers, skilled workers of SMEs and young people.
   - Development of curricula for the permanent implementation of (dual) study programs.
   - Development and permanent implementation of Train the Trainer programs for
     - Teachers and counsellors of chambers and other VET providers.
     - Owner and staff of SMEs who are involved in dual study programs as training partners and also teach at the university.
     - Own lecturers for the realization of dual and other study programs.

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This will provide a sufficient number of qualified teachers at all participating institutions in all Baltic Sea countries.

- Provision of lecturers and consultants for the implementation of educational and counselling programs or short courses by chambers and other educational institutions.

b) SME promoters, economic chambers and other educational institutions:
The large and colorful diversity of SMEs is contrasted by only a few higher education institutions which are concentrated in a few central locations. In many countries the higher education institutions have only limited capacity to establish contacts and exchange information with SMEs. Often their workflows do not match the conditions of SMEs, which have minimal management capacities. On both sides, there is a fear of contact, speechlessness and lack of understanding. For this reason, the cooperation must include supporters of SMEs (in particular chambers and SME associations) who facilitate connections with SMEs on a needs-oriented basis, consult SMEs, provide SMEs with specific advice and further training, encourage SMEs to take part in dual study programs and participate in the implementation of teaching and development tasks.
Through the participation of the SME promoters, SMEs - also from rural regions - are involved in a large scale and connected to the higher education institutions.

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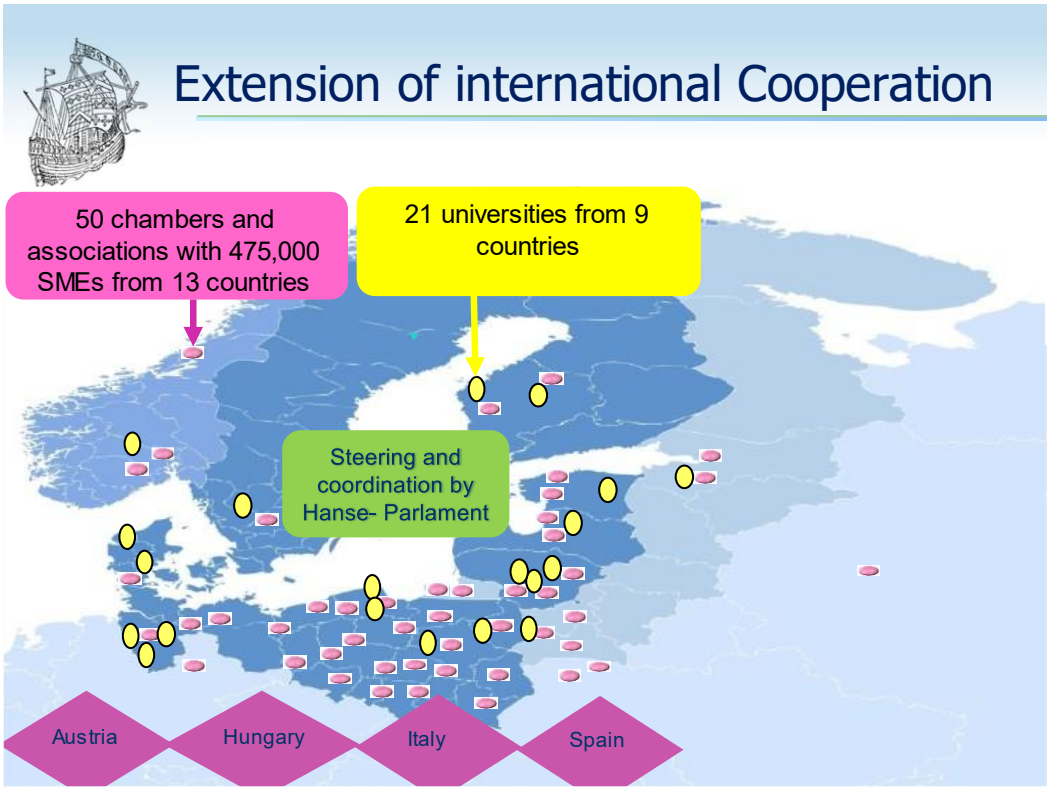
Also, the chambers are officially represented in political bodies at the regional and national level, so that they can achieve reform processes very well.
It is also crucial that the chambers / associations with their educational institutions and the vocational schools carry out all tasks of (dual) initial vocational training as well as further vocational training and receive support from colleges / universities. In summary, chambers, vocational schools and other vocational training institutions perform the following tasks at the local and regional level:

- mediation between SMEs and universities
- advice and support for SMEs in the implementation of dual study programs
- Participation in R&D tasks in SMEs
- organizing initial vocational training and conducting courses on new technologies
- Implementation of further vocational training for SMEs and their employees
- acceptance of all examinations in vocational education and training
- advising and supporting SMEs on all relevant issues
- representing the interests of SMEs vis-à-vis all social groups

To cover all sub-regions and all tasks of the Centers of vocational Excellence, the international Cooperation is to be expanded to include from 16 countries:

a) 50 economic chambers, SME associations, VET providers and vocational schools and
b) 21 higher education institutions (see overview below).



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Partner of the international Cooperation

	Partner organization	Country	Type of organization
1	IPOSZ - Hungarian Association of Crafts-men´s Corporations	Hungary	SME Support Institution
2	KONTIKI School	Hungary	VET Provider
3	Chamber of Craft Region Kaliningrad	Russia	Economic Chamber
4	Small Business Chamber Warsaw	Poland	Economic Chamber
5	Chamber of Crafts and SME in Szczecin	Poland	Economic Chamber
6	Chamber of Crafts in Opole	Poland	Economic Chamber
7	St. Petersburg Foundation for SME Develop-ment	Russia	SME Support Institution
8	Baltic Sea Forum e.V.	Germany	Regional Support Institution
9	Initiative Wirtschaft Mittel- und Osteuropa	Germany	SME Association
10	Craft Chamber in Rzeszów	Poland	Economic Chamber
11	Panevėžys Chamber of Commerce, Industry and Crafts	Lithuania	Economic Chamber
12	Dresden Chamber of Skilled Crafts and Small Businesses	Germany	Economic Chamber
13	Eastern Mecklenburg-Western Pomerania Chamber of Handicraft	Germany	Economic Chamber
14	Vilnius Builder Trainings Center	Lithuania	VET Provider
15	Estonian Chamber of Commerce, Industry and Crafts	Estonia	Economic Chamber
16	Chamber of Craftmanship and Enterprise in Białystok	Poland	Economic Chamber
17	Hamburg Chamber of Skilled Crafts and Small Businesses	Germany	Economic Chamber

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18	Handicraft and Small Business Chamber Lublin	Poland	Economic Chamber
19	Handicraft Chamber Leningrad Region	Russia	Economic Chamber
20	Handicraft Chamber of Ukraine	Ukraine	Economic Chamber
21	Innovation Factory	Denmark	VET Provider
22	Kaliningrad Chamber of Commerce and Industry	Russia	Economic Chamber
23	Kyiv Chamber of Commerce and Industry	Ukraine	Economic Chamber
24	Kujawsko-Pomorska Chamber of Craft and SME's	Poland	Economic Chamber
25	Latvian Chamber of Crafts	Latvia	Economic Chamber
26	Latvian Chamber of Commerce and Industry	Latvia	Economic Chamber
27	Lower Silesian Chamber of Craft and Small and Medium-sized Businesses	Poland	Economic Chamber
28	Master Craftsman Committee Norway	Norway	SME Association
29	Nordic Forum of Crafts	Norway	SME Association
30	Organisation of Handicraft Businesses in Trondheim	Norway	Economic Chamber
31	Osteuropaverein der deutschen Wirtschaft	Germany	Business Association
32	Pomeranian Chamber of Handicrafts for SME's	Poland	Economic Chamber
33	Chamber of Crafts and SME in Katowice	Poland	Economic Chamber
34	Russian Chamber of Crafts	Russia	Economic Chamber
35	Schwerin Chamber of Skilled Crafts	Germany	Economic Chamber
36	Vilnius Chamber of Commerce, Industry and Crafts	Lithuania	Economic Chamber

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37	Warmialand and Mazury Chamber of Crafts and Small Business	Poland	Economic Chamber
38	Wielkopolska Craft Chamber in Poznan	Poland	Economic Chamber
39	Hanse e. V.	Germany	Business Association
40	Belarusian Chamber of Commerce and Industry	Belarus	Economic Chamber
41	Schwerin Chamber of Skilled Crafts	Germany	Economic Chamber
42	Võru County Vocational Training Centre	Estonia	VET Provider
43	The Baltic Institute of Finland	Finland	Consultation Institution
44	Haus Rissen	Germany	Educational Institution
45	Arbeit und Zukunft	Germany	Consultation Institution
47	Wirtschafts-Förderungs-Institut Steiermark	Österreich	Economic Chamber and VET Provider
48	Marshal's Office of the Pomorskie Voivodship	Poland	Public Promotion Institution
49	Białystok Foundation of Professional Training	Poland	Educational Institution
50	Hanseatic Institute for Support of Small and Medium Enterprises	Poland	Consultation Institution
51	Hamburg University of Corporate Education	Germany	University of Applied Sciences
52	University 21	Germany	University of Applied Sciences
53	Hamburger Weltwirtschaftsinstitut	Germany	Research Institution
54	University of Latvia	Latvia	University
55	Centre for European and Transition Studies	Latvia	Research Institution
56	Brest State Technical University	Belarus	University
57	Saint-Petersburg State University of Service and Economics	Russia	University

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58	VIA University College	Denmark	University of Applied Sciences
59	Tampere University of Technology	Finland	University
60	University of Lund	Sweden	University
61	University in Bialystok	Poland	University
62	Vytautas Magnus University	Lithuania	University
63	Panevezys University of Applied Sciences	Lithuania	University of Applied Sciences
64	International Business Academy	Denmark	University of Applied Sciences
65	Vilnius Gediminas Technical University	Lithuania	University
66	Gdańsk University of Technology	Poland	University
67	Satakunta University	Finland	University
68	University of Warsaw	Poland	University
69	Craft Chamber of Kaliningrad Region	Russia	Economic Chamber
70	Offensive Mittelstand	Germany	Consultation Institution
71	Tadeusz Tanski Mechanical and Logistics School Complex	Poland	Vocational school
72	Akademia Pomorska w Slupsku	Poland	University of Applied Sciences
73	Profesinio Makymo Centras Zirmunai	Lithuania	Vocational school
74	Rigas Stradina Universitate	Latvia	University
75	Institute for Applied Trade Research of the Economic Chamber	Austria	Research Institution
76	Campus 02	Austria	University of Applied Sciences
77	Trasferimento Tecnologico e Innovazione Scarl	Italy	Innovation and Trainings Center
78	Sistemi Formativi Confindustria	Italy	Business Association
79	Department D`Educacio – Generalitat de Catalunya	Spain	Public Education Institution
80	Sociedad Regional de Abastecimiento de Aguas	Spain	Company Utilities & Training

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81	Institut Pere Martell	Spain	Vocational school
82	ITA Emilio Sereni	Italy	Vocational school
83	National Centre for Education	Latvia	Public Education Institution
84	Liepājas Valsts tehnikums	Latvia	Vocational school
85	Baltic Sea Academy	Germany	Association of Universities

Project Partners

The institutions of the extended international Cooperation are involved in the project work as associated partners and participate in individual project activities (e.g. participation in workshops, train the trainer programs, etc.). They will receive all project results and personalized implementation advice.

The cooperation and operation will be evaluated by Hanse-Parlament. The evaluation results will be continuously fed into the further work, resulting in a continuous improvement process.

The expansion of the international cooperation will be completed by formal resolutions of the 50 chambers and 21 universities/universities of applied sciences. The 85 partners from 16 countries manage the international cooperation of the Centers of vocational Excellence in the Green Economy. International cooperation is supported by an information and learning platform. To-wards the end of the project, business and financial plans are developed and an agreement is concluded with all project and associated partners to ensure the continuation and further operation of the cooperation platform.

As part of international cooperation, the chambers, with their educational institutions and vocational schools, carry out the tasks of initial and further vocational training. It is also the task of the chambers to ongoingly advocate specific SME interests vis-à-vis politics, administrations, universities, colleges, etc.

Baltic Sea Chambers of the Hanseatic Parliament supports chambers as a pan-Baltic Sea network, in executing these essential promotional activities for SME, assuming key development tasks, funding innovations and inviting further institutions to a cooperative provision of the support measures.

Colleges and universities are indispensable institutions as to qualification measures and innovation funding in SME. Consequently, a second pan-Baltic Sea innovation support network for SME was set up, comprising twenty-one colleges and universities - the Baltic Sea Academy.

United in "Baltic Sea Chambers", an innovation support structure, chambers are the point of contact of choice for businesses, closely collaborating with high schools and universities of the Baltic Sea Academy, involving them in development and support tasks, thus allowing SME, within the framework of the Hanseatic Parliament to,

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a) tap on funding support by their local chambers via "Baltic Sea Chambers", as well as on best practice, expertise and resources of all other partner chambers in the BSR, b) to draw upon knowledge, resources, etc. of all involved colleges and universities of the entire Baltic Sea Region, via the Baltic Sea Academy.

A compact network of chambers and colleges/universities, cooperating within the Hanseatic Parliament, reaching businesses across all countries and most regions of the Baltic Sea Region, thus enabling SME, irrespective of their location, to draw via their respective local chambers on knowledge and funding resources of the entire BSR.
The participating colleges and universities have agreed on division of tasks among themselves so that each partner can specialise in certain areas of responsibility, whilst covering all relevant topics and issues regarding Green Economy. The Cooperation of the Centre of Vocational Excellence is coordinated by the Hanseatic Parliament, functioning as a control centre, ensuring cooperation between partners and acting as a driving force, coordinator, think tank and service provider for the ongoing implementation of qualification and innovation strategies for SME.

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