



HANSE-PARLAMENT

Dual Bachelor courses of study within the framework of the BSME Project and investigation of implementation in Vilnius/Lithuania

Results of work conducted thus far and recommendations for the further implementation process

Hamburg, October 2007



The "Baltic Spatial Development Measures for Enterprises Project (BSME)"
is financed from EU funds as part of the INTERREG III B-Programme



<u>CONTENTS</u>	<u>Page</u>
PART A: TASKS AND RESULTS of the BSME Project	3
1. Elite training for entrepreneurs and management staff	3
1.1 Problem and remits	3
1.2 Methods of resolution	4
Dual Bachelor courses of study	6
The Bologna Process	7
Responsible body organisations and financing	7
1.3 Implementation in Germany	7
Private University of Applied Sciences for technical courses of study	7
Private University of Cooperative Education for business administration courses of study	8
1.4 Course of study with integrated master craftsman training	9
1.5 Further study locations in the Baltic Region	12
2. Promotion of continuing vocational training and innovation	12
2.1 Problem and remits	12
2.2 Fostering innovation	14
2.3 Promotion of continuing vocational training	17
3. Integration of the vocational education and higher education courses into a Qualifications Framework (QF)	18
3.1 Introduction	18
3.2 The Baltic Sea Region Qualification Framework	19
PART B: RESULTS AND RECOMMENDATIONS FOR IMPLEMENTATION IN VILNIUS/LITHUANIA	22
4. Examinations and preparations for dual Bachelor courses of study	22
4.1 Potential partners and results of the agreements in Vilnius	22
Vilnius Gedeminas Technical University	22
Further potential partners	23
4.2 Survey of companies in Lithuania	25
Execution	25
Results	25
5. Proposals for method of resolution and implementation	29
5.1 Organisational and sponsor structure	29
5.2 Courses of study	30
5.3 National and international cooperation	30
5.4 Financing and funding	31
6. Further development to an education and innovation centre	32
7. Use of preliminary work, documentation and experiences	33
8. Further approach to be adopted	34



PART A: TASKS AND RESULTS of the BSME Project

Within the scope of the “Baltic Spatial Development Measures for Enterprises (BSME)” Project, investigations into and work on the implementation of dual Bachelor courses of study comprised the main focus of the respective “Education” BSME work package. The following will mainly deal with the results of work conducted on these courses of study. This will be supplemented by a brief indication of support measures for continuing vocational training and for innovations which are closely related to the courses of study.

Part A will describe the results in general terms, and Part B will look specifically at the potential location of “Vilnius/Lithuania”.

1. Elite training for entrepreneurs and management staff

1.1 Problem and remits

In the Baltic region, more than 99% of all firms are small and medium-sized companies (SME's). They provide around 70% of all jobs, play an indispensable role in vocational qualification and account for by far the greatest part of state revenues. They form the backbone of the economy, exercise a stabilising effect on society and are instrumental in securing the future for everyone.

There is currently already a significant lack of entrepreneurs and managerial staff in small and medium-sized companies. Demographic developments and increased competition between the different sectors of the economy will bring about a considerable increase in this shortage of entrepreneurs in future.

The demands on company management are high and are constantly rising. In the light of globalisation and the EU, international knowledge and experience are also increasingly required. Entrepreneurs and management staff working in SME's need to have soundly based theoretical qualifications as well as good vocational training and practical experience.

Until now, SME's have mainly drawn upon the system of initial and continuing vocational education and training to provide their up and coming entrepreneurs and managers. Such training routes are, however, strongly losing their appeal in many of the countries bordering the Baltic. As a result of the dramatic medium-term decline in the number of school-leavers going on at the same time, caused by the decrease in the birth rate, SME's as a whole are able to attract fewer and fewer young people (supply problem) and are increasingly being forced to rely on young people with an inadequate level of training (quality problem).

The processes of internationalisation and market liberalisation have put the squeeze on continuing vocational education and training courses in individual countries. Young people are exhibiting an ever-greater preference for university level education. Since such courses are predominantly theoretical in nature and largely neglect the practical requirements of SME's in particular, the high numbers of students are not capable of producing a sufficient amount of suitable entrepreneurs and up and coming managers. The furtherance of the entrepreneurial spirit and qualified training for entrepreneurs are increasingly becoming a critical bottleneck factor. The important task of promoting innovation in craft trade companies and in the SME sector needs, at the same time, to be accompanied by approaches aimed at the removal/alleviation of this bottleneck. These developments fundamentally apply to all countries in the Baltic region, albeit with varying degrees of intensity.



Securing up and coming entrepreneurs, management staff and high levels of innovation is becoming a crucial question of survival for small and medium-sized companies in the Baltic region, and this makes the promotion of this the highest priority for small and medium-sized and craft trade companies.

1.2 Method of resolution

A model for the integrated initial and continuing training of up and coming managers and entrepreneurs in SME's has been developed in pursuit of the following goals:

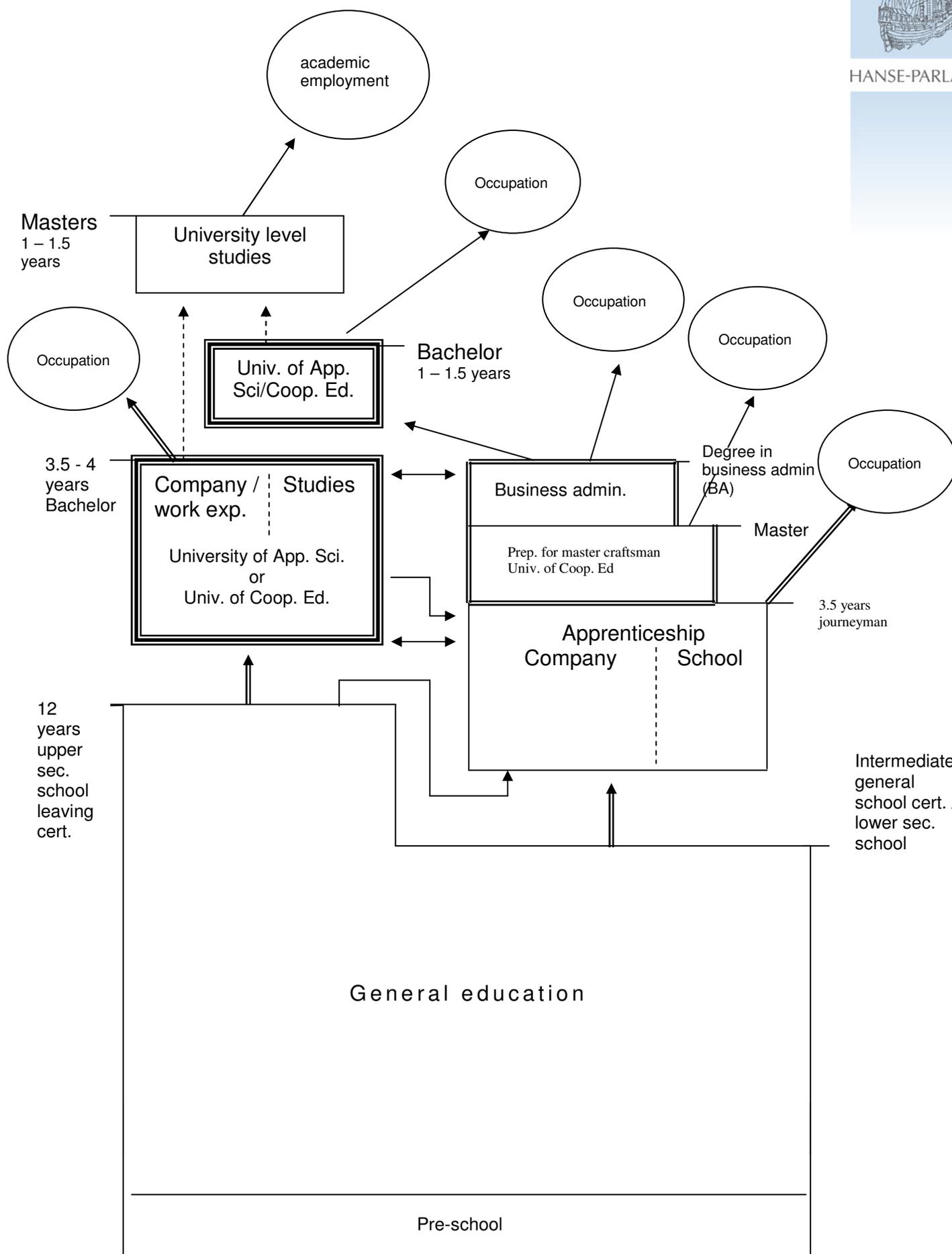
- Sustainable increase in the attractiveness of vocational training and acquiring more highly qualified people for training and long-term employment in SME's. The aim is to increase the proportion of trainees in craft trade companies with a certificate of qualification for entrance to university or a University of Applied Sciences to 15% in the medium term and to 20% in the long term.
- Enrichment of content and increase in quality of vocational education and training, especially for management staff and entrepreneurs.
- Integration of initial vocational education and training and continuing VET (such as master craftsman or woman) in a new independent training route to be concluded with internationally recognised qualifications.
- Integration of aspects of international cooperation.

Such a model should incorporate the tried and tested elements and benefits of vocational education and training and training to master craftsman or master craftswomen level. This does not, however, merely involve putting initial and continuing VET together. The intention is to impart much more extensive and in-depth management knowledge, to provide content which is significantly more demanding and to establish a level of qualification classified above that of the present training to master craftsman or master craftswomen level. In terms of content, the model comprises technical and specialist qualification within the individual occupations and overarching elements relating to company management, business administration and vocational education.

The aim is to establish an elite form of training which will be viewed as an independent training route alongside existing vocational education and training pathways. This will also provide a crucial impetus for the further development of present training systems.

The aim is to develop and implement such a training model in a uniform way for the Baltic region. This will create a system of training and study covering every entitlement relating to establishing companies across all the countries of the EU and the vocational education and training required for this, thus enabling small and medium-sized companies to obtain the excellent level of management staff and highly qualified entrepreneurs they so desperately require.

The basic model is outlined in the following diagram.





Dual Bachelor courses of study

A dual Bachelor programme of study will be established, consisting of:

- Soundly based vocational education and training leading to journeyman/woman or skilled worker qualification
- A recognised programme of study leading to a Bachelor degree

The two components of the training are coordinated and are implemented in parallel. Participants need to have a certificate of qualification for university entrance and conclude separate contracts for the vocational education and training and for the programme of study.

The vocational education and training can comprise any technical specialist or commercial occupation and is carried out either

- within the dual VET system with practical in-company training and theoretical training at a vocational school or
- within a school-based system with practical and theoretical training at a vocational school and periods of practical placement in a company.

During the three to four year period of training, the vocational element of the qualification will enjoy a special status, enabling the graduates to acquire in-depth practical knowledge and experience.

The programme of study at a university, institute of higher education or University of Cooperative Education can comprise

- the study of management and business administration
- a technical course of study in various subjects
- the study of design etc.

The programme of study comprises a minimum of 1,700 hours. In addition to this, time is set aside for individual study, attending optional events, composing the Bachelor dissertation, examinations and so on. The programme of study is concluded with the internationally recognised “Bachelor” qualification.

For those who have already completed a course of vocational education and training, dual courses comprising integrated

- a) a technical or business administration course of study and
- b) master craftsman training.

For the purpose of acquisition of international experience and knowledge, at least three months of the training period are to be spent in another Baltic country. As a matter of principle, elements of training undertaken abroad are recognised and validated in the student’s home country. A wide variety of combinations of vocational education and training and higher education study are possible, such as:

- vocational training and study in a student’s home country
- vocational training in a student’s home country and study in another country
- vocational training abroad and study in a student’s home country
- vocational training and study abroad.



The two official, internationally recognised qualifications, “journeyman or woman/skilled worker status” and “Bachelor” can be amalgamated on one certificate, which also includes assessments on the part of the training company, personal and social skills, experience gained and so on.

The Bologna Process

The programmes of study must be in complete compliance with the aims and requirements of the Bologna Process, to which more than 40 countries have signed up thus far.

The programmes of study will be designed in a modular form. Credit points will be awarded for the modules of the programme of study as well as for the practical training.

The programmes of study will be monitored and certified by recognised accreditation bodies. The aim is to have a uniform structure across the Baltic region, enabling cross-border cooperation between places of study and teacher and student exchanges to be promoted. This is also intended to provide support for international cooperation on the part of companies involved in the vocational training. A further aim is for places of study carry out practice oriented research and development projects with the participating companies and students.

Responsible body and financing

The VET elements will be carried out by companies and vocational schools (=dual) or via vocational schools and in-company work placements (=school-based). The companies will bear the cost of the practical training, as well as paying the trainees a training allowance. Vocational school costs will be publicly funded. The conditions applying in the respective countries will determine whether the training takes place in a dual or school-based form.

The course of study will take place at state or private (state recognised) institutions of higher education or at type 1 Universities of Cooperative Education. If the course takes place at a state institution, the costs will be borne by the state, with supplementary funding via study fees if applicable. In the case of private institutions, costs need to be financed via study fees, apart from any state grants which may be available, these fees being paid by the students, by the companies involved in the training or by a combination of the two.

In respect of state responsible forms of sponsorship, the aim is to achieve public private partnership (PPP) solutions, securing participation/active involvement on the part of trade and industry in implementing the courses of study. A decision as to which form of responsible forms is to be adopted will be investigated and decided on an individual basis in accordance with the prevailing specific conditions of each place of study/country.

1.3 Implementation in Germany

Private University of Applied Sciences for **technical** courses of study

Institute of Higher Education 21 in Buxtehude (Greater Hamburg) has been founded as a private University of Applied Sciences in the form of a non-profit making limited company. The shareholders are the Chambers of Trade and Industry of Lüneburg-Wolfsburg and Stade, the Chambers of Crafts and Trades of Lüneburg-Stade and



Hamburg, employers' associations, local authorities and companies from the region. The two Chambers of Crafts and Trades involved are members of the Hanseatic Parliament and partners in the B-SME Project

Institute of Higher Education 21 is financed via study fees and a grant from the State of Lower Saxony. It began operations on 1 October 2005, offering three technical programmes of study:

- civil engineering
- building conservation (architecture)
- building and real estate.

The three programmes of study are certified and Institute of Higher Education 21 is state recognised.

A fourth programme of study, "Physiotherapy" has been certified and was launched in October 2006.

A new intake for all courses of study takes place annually in October.

Within the scope of the dual technical courses of study, students already in possession of a journeyman/skilled worker qualification can also pursue integrated master craftsman courses of study at Institute of Higher Education 21, these being held in conjunction with the Chamber of Crafts and Trades of Lüneburg-Stade.

The policy is that masters' programmes will also be available at Institute of Higher Education 21 in the future.

Higher Education 21 is integrated into both the SME elite training cooperation project in the Baltic region and the BSME Project. The plan is for the Hanseatic Parliament to become a member of the Board of Trustees at Institute of Higher Education 21.

Private University of Cooperative Education for **business administration** courses of study

The Hamburg University of Cooperative Education was established in Hamburg in June 2005 as a private institution in the form of a non-profit making limited company. The shareholders are the Chambers of Crafts and Trades of Hamburg, Lüneburg-Stade and Schwerin and guilds and employers' associations from the craft trades sector in Hamburg. The three Chambers of Crafts and Trades involved are members of the Hanseatic Parliament and partners in the B-SME Project.

This is a type 1 University of Cooperative Education which awards recognised Bachelor degrees. Masters programmes of study are not possible at the Hamburg University of Cooperative Education. These may be completed at other institutes of higher education (such as at Institute of Higher Education 21). State validation was issued in spring 2006. The plan is for the Hamburg University of Cooperative Education to receive initial funding from the State of Hamburg and to be financed via study fees. A business plan has been drawn up.

The Hamburg University of Cooperative Education commenced operations in October 2006 with a four-year dual programme of study "Bachelor of Arts in Business Administration". A curriculum has been drawn up, and the accreditation process has taken place.

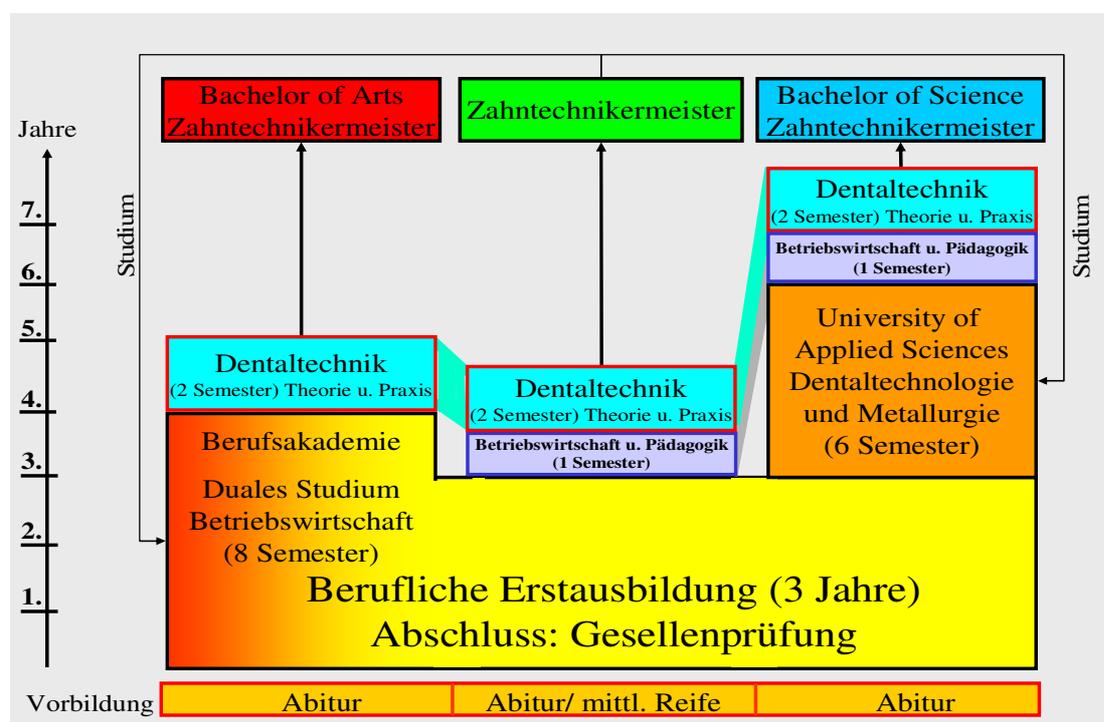
A new intake takes place annually in October.



The Hamburg University of Cooperative Education is an independent study location within the framework of the SME elite training cooperation project in the Baltic region and receives financial support from the funds of the B-SME Project. The intention is for the Hanseatic Parliament to become a member of the board of trustees at the Hamburg University of Cooperative Education.

1.4 Course of study with integrated master craftsman training

Within the scope of the BSME Project, a curriculum for a Bachelor course of studies in business administration featuring integrated master craftsman training was developed using one occupation (dental technology) as an example. The concept was designed in such a way so as to allow the master craftsman training modules to be easily exchanged for other occupations. The following diagram illustrates the basic structure of this training and study course.



The curriculum for integrated master craftsman training was completed in August 2007.

Within the scope of the integrated course of study, the specific master craftsman training encompasses 2 semesters, which may be attended by various groups of persons, such as:

- Students seeking to obtain a master craftsman qualification and the degree of “Bachelor of Arts in Business Administration” at the same time
- Participants wishing only to complete master craftsman training and not pursuing a Bachelor course of study
- Students from other institutes of higher education pursuing a practical and technical addition to their theoretical training



- It is also possible to combine the technical and specialist training afforded by the master craftsman training with the Business Administration course of study to achieve a Bachelor qualification as an “Industrial Engineer”.

The following overview provides a summary of the various combination possibilities and the respective qualifications to which these lead.

Prior learning	Order of qualifications					Total duration of qualification in years	Qualifications achieved:			
	Initial VET	Study Business Administration	Study Dental-Technology	Study Dental-Technology	Business education		Journeyman	Master craftsman	Bachelor of Art	Bachelor of Science
Upper secondary school leaving certificate	1.	1.				4	Yellow		Red	
Upper secondary school leaving certificate + journeyman examination		1.				7				
Upper secondary school leaving certificate	1.	1.		2.		5		Green		
Upper secondary school leaving certificate + journeyman examination		1.		2.		8				
Master craftsman examination		1.				7.5 – 8.5				
Upper secondary school leaving certificate + journeyman examination			1.	2.	3.	7.5			Blue	
Upper secondary school leaving certificate + journeyman examination			1.	3.	2.	7.5				
Upper secondary school leaving certificate	1.		2.	3.	4.	7.5				
Upper secondary school leaving certificate	1.		2.	4.	3.	7.5				
Master craftsman examination			1.			6.5 – 7.5				
Upper secondary school leaving certificate			1.	2.		4				
Upper secondary school leaving certificate			1.		2.	3.5				
Upper secondary school leaving certificate			1.	2.	3.	4.5				
Upper secondary school leaving certificate			1.			3				
Intermediate secondary school leaving certificate/ Upper secondary school leaving certificate / journeyman examination				1.	2.	4.5		Yellow		Green
Duration of individual qualifications	3 years	4 years	3 years	1 year	4 months					



1.5 Further study locations in the Baltic Region

Within the scope of the BSME Project, it is planned to:

- (1) develop the two study locations in Germany (Hamburg University of Cooperative Education and Institute of Higher Education 21), support individual structural projects and commence specific study operations;
- (2) investigate potential study locations at 3 further Baltic Region venues in order to use the preparatory work conducted and experiences gained as a basis for implementing dual Bachelor courses of study in these places. The following have been selected as potential locations for which interest should be gauged and implementation opportunities investigated:
 - ⇒ North Polish region based in the location of Gdansk
 - ⇒ Baltic Region based in the location of Vilnius
 - ⇒ Finland based in the location of Pori;
- (3) To launch a process of cooperation between all 5 locations in the Baltic Region, commence an exchange of information and experience and promote cooperation between the universities/institutes of higher education and the chambers involved.
- (4) With a view to establishing a standardised structure across the Baltic Region, the aim is to design the curricula in as uniform a way as possible:
 - ⇒ The plan is to base the course of study in “Management and Business Administration” uniformly on the curriculum which was developed by the Chambers of Crafts and Trades of Hamburg and Lüneburg-Stade and which formed the object of extensive evaluation and consultation by the BSME Project working groups.
 - ⇒ The aim is for the curricula of Institute of Higher Education 21 to form the relevant basis for the technical courses of study.
 - ⇒ It is planned for the curriculum jointly developed within the BSME Project to form the basis of dual Bachelor courses of study with integrated master craftsman training.
 - ⇒ The aim is to develop further curricula at a later stage on a requirements basis and to agree and design these on a pan-Baltic basis.

Part B details the results of the investigations conducted and recommendations relating to implementation in Vilnius/Lithuania.

2. Promotion of continuing vocational training and innovation

2.1 Problem and remits

There is a close correlation between the dual Bachelor courses of study and the general tasks relating to the promotion of vocational training and innovation in craft trades and the SME sector.

Broad-based and excellent qualifications are the absolutely critical prerequisite for sustained economic success. Small and medium-sized companies will only have a competitive chance both domestically and internationally if they are able to operate at the highest levels of innovative strength and quality. Both of these require the best



quality of training. Significant deficits exist even today, and these will increase considerably in future, hampering growth and innovation to a crucial degree.

- Virtually all countries in the EU are experiencing a massive reduction in the number of school leavers as a result of demographic developments. Quantitative problem!
- This is creating an increasing level of competition both between higher education and vocational education and training and within trade and industry itself in terms of securing well trained skilled workers and management staff. SME's have up until now been on the losing side of this competition for young workers, and this is a situation which is likely to persist in the absence of far-reaching improvements: aggravation of the quantitative problem!
- Significant deficits are in evidence in the qualifications of school leavers in many countries. Notwithstanding this, qualification requirements on the part of trade and industry are high and growing. The craft trades sector is, however, obtaining an increasing number of young workers only from the lower ends of the qualifications scale. Measured against the high requirements and current necessities, the result is an increasing and marked qualification deficit: qualitative Problems!
- The proportion of school leavers opting for vocational education and training is decreasing steadily and has already fallen to an extremely low level within individual Baltic Region countries. At the same time, there is a constant increase in the numbers of workers leaving employment for age reasons. In the new EU member countries, this problem is being significantly exacerbated by migration, especially of the best workers, and this is resulting in an ever widening deficit of qualified skilled workers.
- SME's are experiencing a particularly extensive quantitative and qualitative squeeze in the field of up and coming young managers and entrepreneurs. There is already a marked lack of entrepreneurs, and this is a situation which will exacerbate considerably in future.
- Although this situation is evident to varying degrees on the labour markets of EU countries, the tendency being exhibited is similar.

Compared to major companies, smaller companies such as craft trades companies have crucial advantages: They are flexible, fast moving, innovative and fast growing. The main disadvantage they have opposed to large company groups is the fact that they do not have internal staff and service departments. Whereas major companies can fall back on such internal departments as research, marketing, human resources, legal services and the like, in SME's these functions are largely left up to company owners to deal with alone, the result being that all too quickly too great a burden is placed on management. In the light of the forces of globalisation and internationalisation and the associated complex issues, information overload and deep-seated structural change, craft trade companies are confronted with a particularly difficult situation. The key solution can only be based on the establishment of centralised service providers for SME's – quasi in the nature of external staff department functions – providing them with assistance for the broad range of management tasks facing them, particularly in the areas of “Qualification, guidance and transfer”, whilst also putting them in a position to make unrestricted use of the distinct advantages they enjoy.

In accordance with the effectiveness offered by this possible solution for the SME sector, inter-company training and technology centres have been created in old EU countries (such as in Germany and France), which are predominantly under the



auspices of chambers of crafts and trades, although some are run by chambers of industry and commerce, these providing companies with workplace related and tailored continuing training, guidance, technology transfer and such like.

Within the scope of the dual bachelor courses of study, it seems sensible to realise the central remits of entrepreneur and management staff training

- in a training and innovation centre and
- combine these directly with the requirements of initial and continuing vocational education and training and innovation
- in order to gain synergy effects and achieve cost reductions
- and to be sure of being able to provide small and medium-sized companies with the services and assistance they require from a single source.

It is imperative that such training and innovation centres should be set up by or in close cooperation with chambers and employers' associations

- in order to make use of the experience of such organisations and their close access to the companies, to guarantee direct company proximity, integrate existing capacities and secure long-term sustainability.
- The extensive and positive experiences which have emerged from other EU countries provide compelling evidence for the method of resolution outlined.

2.2 Fostering innovation

The dual Bachelor courses of study described under 1. place the main focus on training and apprenticeships. Excellent qualifications are also a crucial prerequisite for high levels of innovation. A further aim, however, is for the universities/institutes of higher education involved and the University of Cooperative Education also to participate in practice oriented research and development projects for small and medium-sized companies and thus promote innovations in a sustainable manner. The courses of study and the measures to foster innovation are directed at an identical target group, high-performing small and medium-sized companies and their management staff. Since companies are always involved in the dual courses of study, direct cooperation between companies and institutes of higher education arises, the aim being for this to be exploited for both the transfer of knowledge and know-how and for development work carried out by the companies.

The research and development tasks may be implemented in a number of different ways, such as:

- development within the scope of seminar or degree papers by the students involved
- targeted individual commissions from companies or consultations/know-how transfer by professors and lecturers
- more complex projects involving public funding (especially including from the EU)
- joint development by several/all of the universities/institutes of higher education involved or the University of Cooperative Education.



Main focuses and specialisations in the field of research and development will also emerge from the five participating institutions. The aim is to establish a coordinated division of labours enabling as many of the company related issues and tasks as possible to be covered.

Intensive cooperation on the part of the five study locations is thus indispensable, both in terms of apprenticeships and training as well as with regard to the support of innovation. The aim is to conclude an appropriate cooperation agreement in this area, something which may take the form of the establishment of a joint umbrella organisation such as the "Baltic Academy". The aim is to guarantee a coordinated division of tasks and a smooth level of cooperation whilst taking targeted measures to secure joint application for and allocation of EU support projects and funding for SME trade and industry in the Baltic region.

Within the scope of the BSME Project

- ⇒ a comprehensive concept for the fostering of innovation in the craft trade and SME sector was developed;
- ⇒ a cooperation agreement was concluded with the universities/institutes of higher education involved and the University of Cooperative Education;
- ⇒ initial joint research and development tasks were launched.

A workshop was held with interested universities and institutes of higher education, at which international cooperation projects in the areas of teaching and research were discussed and possible specialisations on the part of the institutions within a coordinated division of labour were outlined. This workshop resulted in the conclusion of a cooperation agreement by the following partners:

- ✓ Hamburg University of Cooperative Education
- ✓ Hamburg Institute of International Economics
- ✓ Hanseatic Parliament
- ✓ Institute of Higher Education 21, Buxtehude
- ✓ Lund University, Schweden
- ✓ Tampere University of Technology, Pori
- ✓ Technical University of Gdansk
- ✓ Vilnius Business College
- ✓ Vilnius Gedeminas Technical University

The cooperation agreement concluded runs as follows:

BALTIC SEA ACADEMY

1. Participating Institutions

The institutions, the signatories to this Cooperation Agreement (in the following referred to as "Partner") herewith agree the principles for cooperation in the future:

In general, admission of further relevant institutions that have the scope and interests which comply with point 2. and operate within the Baltic region, is possible.

2. Areas of Cooperation

The intended cooperation includes primarily the following areas:



a) Apprenticeship

In accordance with the Bologna Process regarding the development and realisation of Bachelor and Master Degree courses, in particular with regard to the “SME” target group for various specialist disciplines (e.g. Technology, Business Studies, Design, Environment and Energy etc.).

The focus here is in particular on dual study programmes that combine degree study with vocational training or further development.

The cooperation in terms of an apprenticeship may apply to different aspects, for instance

- Exchange of experiences and information
- Development of Curricula
- Further development of professional education and further professional development programmes – preferably with internationally recognised qualifications
- Exchange of lecturers and students
- Common study programmes
- Common symposia, seminars, etc.

b) Research & Development

Implementing applied research and development projects, especially for the target group of “SMEs” covering diverse enquiries. If possible, small and medium-sized enterprises should be involved in these projects that are

- training partners within the framework of dual degree courses
- other businesses from the 11 Baltic countries

Cooperation in the area of research and development can concern different aspects, for instance

- Exchange of experiences and information
- Establishing an agreed division of work with specialisations at the individual locations
- Joint realisation of projects in connection with apprenticeships, e.g. Bachelor dissertations
- Joint development, funding application and realisation of projects with funding from the EU and/or national funding monies
- Joint processing of orders by companies.

As part of this cooperation a first EU funding application for the period 2007 – 2013 shall be developed and submitted during the course of 2007.

3. Coordination

The cooperation takes place under the umbrella organisation “Baltic Sea Academy”, which will carry out the following responsibilities:

- Coordinating the cooperation and assisting with the realisation
- Assisting with the development, funding application and realisation of funding projects
- If required, will take the role of applicant for funding projects
- If required, upon the initiative of partners or on own initiative, development of proposals for further regulations that become necessary in the course of the actual cooperation and which come into force upon amicable agreement

The Baltic Sea Academy is managed by the Hanseatic Parliament. The Hanseatic Parliament does not receive remuneration for the tasks performed from the other partners, unless specific written agreements have been made or successful funding projects provide specific budgets for this.



The cooperation in the various areas of work can

- take place - bilaterally or multi-laterally - directly between partners
- come about upon the initiative of the Baltic Sea Academy.

The partners will meet at least once a year upon invitation by the coordinating office for a work session in order to check the cooperation progress, to initiate further developments, etc. Regardless of this, bilateral meetings or general meetings of all partners may be convened if the need arises.

4. Rights and Duties of the Partners

No legal obligation exists to cooperate, unless a legally binding agreement was made between partners or within the framework of the implementation of specific projects.

The cooperation within the scope of this agreement does in no way affect the cooperation of individual partners with third parties, who are not part of this agreement.

The costs of this cooperation (e.g. own personnel expenditure, travel expenses) are borne by each partner, unless a differing written agreement was made between partners, or cost reimbursement is effected as part of funded projects.

5. Commencement of Agreement and Duration

The agreement comes into force on 1st January 2007 and shall run for an indefinite period of time.

A partner may withdraw from this agreement toward each half year mark (e.g. 30th June, 31st December) by giving six weeks' prior notice in writing to the coordination office.

This cooperation association commenced initial, small-scale research work in the spring of 2007.

2.3 Promotion of continuing vocational training

The capacities offered by an innovation training centre in terms of human resources, premises and technology should also be used to create tailored, high-quality and cost saving provision from a single source for the high and growing need of small and medium-sized companies and their employees for continuing training. One possible approach would be the targeted offering of individual or partial modules from the Bachelor curricula for the technical or business administration courses of study for continuing training courses. This will not constitute a Bachelor qualification. The aim is much more focussed on the provision of the necessary training and an important and valuable service for the SME sector by the training and innovation centre. When such continuing training measures are implemented, teaching staff from the five study locations can, if required, be involved as lecturers on a freelance basis, also enabling them to impart international thematic areas, promote export and support companies in cross-border cooperation projects.

Within the scope of the BSME Project, various training schemes and courses have been developed and piloted complete with all relevant documentation, and these could immediately be offered and implemented by a training and innovation centre.



3. Integration of the vocational education and higher education courses into a qualifications framework (QF)

3.1 Introduction

With the Maastricht declaration in 2004, the Lisbon Strategy from 2000 and several other initiatives the European Union is giving attention to geographical and job mobility, as well as lifelong learning, in order to increase and ensure employment occupation and economic growth in the EU countries. Lifelong learning has become a necessity in handling with rapid social, technological and economic changes and ageing population. As a result education is one of the key components to cover so as to reach the ambitious Lisbon goals. The European Commission has therefore initiated the development of a European Qualification Framework (EQF) and the establishment of National Qualification Frameworks (NQF) by 2010. The modelling of NQFs will be done by national authorities. The EQF, which is a meta-framework, is seen as central by the EC to the fulfilment of the European objectives in the Lisbon Strategy.

The main purposes and functions of a Qualification Framework (QF) are to increase the transparency, quality and comparability of vocational and academic qualifications across different educational systems and European countries. One of Europe's assets is the enormous diversity of educational and training systems. A precondition to turn these assets into profit is to increase transparency. Transparency can be seen as an essential precondition for recognition of, in particular, vocational learning outcomes which are linked to qualifications. Quality is one of the preconditions for establishing centres of excellence and human capital development. Comparability among countries, however, can be seen as a crucial element to increase labour mobility and to ensure penetrability between qualifications. Moreover, it allows vocational education and training providers to compare their vocational and education profiles across countries and between qualifications. Penetrability, however, is a precondition for lifelong learning because it allows individuals to achieve qualifications in a cumulative way.

In the near future QFs have to satisfy these criteria with concrete and well-designed concepts. A QF is an adequate instrument for the development and classification of qualification outcomes according to a set of criteria for levels of learning which will be achieved by a specific person. Also the absence of transparency of qualifications across different education and training systems will be covered by this instrument. We want to support this constructive and fruitful discussion at the European level with an own Baltic Sea Region-Qualification Framework (BSR-QF) model. This BSR-QF has to be seen as a complement and contribution to the ongoing discussion and it is not a substitute for the current modelling of NQFs. We are aware that bilateral agreements on this subject could result in complex and intransparent structures at the European level. However, the BSR is a region with 9 EU and EAA Members. These countries share common problems and they are facing similar economic and demographic challenges. The Baltic Education project therefore provides opportunities for consultation and development. The project Baltic Education wants to enforce and intensify this education theme especially in the context of vocational education and training (VET). The Baltic Education project wants to test the compatibility of professional training programmes within such a QF. With the BSR-QF the testing and experimentation phase of professions will be more plausible because it is now possible to categorise them. The BSR-QF should furthermore contain a reference to the Europass documents which are tools for labour market mobility and transparency in united Europe.



3.2 The Baltic Sea Region Qualification Framework

The BSR-QF has eight competence (or reference) levels (0-7) which are based on educational qualifications and on a modified framework for qualification of the European Higher Education Area (EHEA). Four levels of vocational education and three levels of university education are covered by this BSR-QF. This concept is in line with the 8-level reference structure of the European Commission. The project Baltic Education has its focus on competence level 2. Within this competence level, the profession “painter and wallpaper hanger” is used as a test case by the project team. The following Table shows our proposal for a BSR-QF.

Baltic Sea Region-Qualification Framework (BSR-QF)

Level	Education Degree	Framework EHEA*
0	<i>Basic Education</i>	-
1	<i>No Vocational Graduation</i> (graduation/training after/for 1-2 years, and work and apprenticeship preparation phase (access with a qualified school leaving exam after nine compulsory school years, at the age of 15/16))	First cycle VET** area
2	<i>Lower Vocational Graduation</i> (certificate of apprenticeship (in 2 - 5 years; access with a secondary school graduation or after finalising Competence Level 1), and no/limited professional or experience (certificate of apprenticeship + < 5 years of profession experience); Finalising Level 2 is a precondition for Competence Level 3 and 4)	Second cycle VET area
3	<i>Middle Vocational Graduation</i> (long profession experience as skilled worker (certificate of apprenticeship + ≥ 5 years of profession experience); comprehensive further education; “young master craftsman” with no/limited professional experiences (< 3 years of profession experience); Finalising Competence Level 3 gives (limited) access to Competence Level 5)	Third cycle VET area
4	<i>Upper Vocational Graduation</i> (master craftsman with long profession experiences as master (≥ 3 years); “master craftsman plus”; long profession experiences and further education (certificate of apprenticeship + ≥ 8 years of profession experience); Finalising Competence Level 4 gives access to Competence Level 5; introductory study period)	Fourth cycle VET area and short cycle academic area
5	<i>Bachelor</i> (academic bachelor’s degree)	First cycle academic area
6	<i>Master</i> (academic master’s degree)	Second cycle academic area
7	<i>PhD</i>	Third cycle academic area

* Framework for Qualification of the European Higher Education Area

** Vocational Education and Training

- *Competence level 0 - Basic Education*

Competence profiles which have been reached in this level are neither counted to vocational education and training nor to academic education. Basic or General Education is seen as necessary to get access to the qualification levels. The development of learning skills requires further structured support. In general it is not possible to relate this level to a domain. Therefore these qualifications are not domain specific.



- *Competence level 1 – No Vocational Graduation*

An adjusted EHEA framework helps to categorise competence level 1 within the first cycle VET area. Qualifications at this level are limited because knowledge and skills are in a very early stage. Methods and social competences are still not domain specific although qualification after 1 to 2 years will be covered by this level as well as work and apprenticeship preparation phases. Within the first cycle VET area it is possible to get access with a qualified school leaving exam after at least nine compulsory school years, at the age of 15 or 16.

- *Competence level 2 – Lower Vocational Graduation*

Competence level 2 covers VET measures over a period of time of 2 to 5 years. Also it covers the certificate of apprenticeship. The access to the lower vocational graduation is only given to people with a secondary school graduation or after finalising Competence Level 1. It is possible to identify vocational competences although the degree of expertise is still small. The graduate has therefore no or limited practical vocational experiences. Qualifications at this level recognise broad general knowledge and some field-specific knowledge. Therefore only specific parts of a domain are covered by individual competences at this level. The second cycle of the VET area meets this competence level. Finalising Level 2 is a precondition for Competence Level 3 and 4.

- *Competence level 3 – Middle Vocational Graduation*

Compared to level 2 this qualification describes a higher level of vocational competences. Certificate of apprenticeship, comprehensive further education, “young master craftsman” and long work experiences are covered by this competence level. The individual level in a domain is relatively high and all parts of it are covered. Qualifications at level 3 indicate significant field-specific knowledge and skills. The individual can be called a specialist who has knowledge as well as skills and who can solve problems in a relatively independently way. Finalising Competence Level 3 with comprehensive further education gives (limited to people with superior qualification) access to Competence Level 5 even without a graduation at a grammar school. Pupils (individuals) who want to get access to competence level 5 also have to be examined closely. Therefore, pupils who have passed the examination will be accepted within level 5.

- *Competence level 4 – Upper Vocational Graduation*

Individuals who reach this level have already achieved a master craftsman and/or they have long occupational experiences and hence they have acquired a high degree of expertise. Every part of a domain is covered on a high level with the exception of scientific knowledge. Autonomous learning, broad theoretical and practical knowledge are included by this level. Academic introductory study periods are tangent to this relatively high competence level. Finalising Competence Level 4 with comprehensive further education or “master craftsman plus” gives limited access to Competence Level 5 also without a graduation at a grammar school. It is possible to take already achieved credits into account (max. 120 credit points). Nevertheless, individuals who aim for access to competence level 5 still have to be tested in a close examination or they have to complete an individual counselling interview. In reference to the framework for qualification of the European Higher Education Area competence level 4 covers the short cycle academic area. Students who achieve approximately 120 ECTS credits are within this competence level 4.



- *Competence level 5 – Bachelor*

This qualification signifies the completion of the first cycle qualification of the EHEA. The academic bachelor's degree is reached by students who have typically obtained 180 to 240 ECTS credit points. Qualifications at level 5 recognise advanced theoretical knowledge and skills. The individual has no work experience in practice. An academic specific domain is only partially covered by this competence level. Precondition for the access to Competence Level 5 is a graduation at a grammar school. But finalising Level 3 and 4 gives also few limited access to Competence Level 5. Finalising Level 5 is a precondition for Competence Level 6.

- *Competence level 6 – Master*

This competence profile describes a significant high level of academic qualification. The domain specific competence level is very high and the graduate is an academic specialist and expert. Qualifications at this level recognise self-directed and theoretical learning. The Master's degree is a precondition for reaching Competence Level 7. The master's degree is the second highest qualification within the EHEA framework.

- *Competence level 7 – PhD*

The PhD degree is the highest academic degree and the highest cycle within the European Higher Education Area. Within this competence level the individual is a specialist and expert. Qualifications at level 7 recognise leadership experience and the individual has a capacity for critical analysis, assessments and synthesis of very innovative and multifaceted ideas.



PART B: RESULTS AND RECOMMENDATIONS FOR IMPLEMENTATION IN VILNIUS/LITHUANIA

4. Examinations and preparations for dual Bachelor courses of study

4.1 Potential partners and results of the agreements in Vilnius

Within the meetings of the BSME Project working groups, the Vilnius Chamber of Commerce, Industry and Crafts in particular has expressed a marked interest in developing a location for the realisation of dual Bachelor courses of study. This met with the broad agreement of all other parties, who assured the Vilnius Chamber of Commerce, Industry and Crafts of their support. Lithuania was defined as the primary regional catchment area, although interested companies from Latvia and Estonia in particular and from other neighbouring countries (Belarus, Poland, Russia) are, of course, welcome to participate. The conclusion was reached that other locations could be developed in the Baltic States should the project prove to be a success, although no specific plans were made.

In June 2006, the Annual General Meeting of the BSME Project voted unanimously to investigate the opportunities for developing and realising dual Bachelor courses of study in Vilnius.

A whole series of discussions and clarification meetings was held with various institutions in Vilnius in conjunction with the Vilnius Chamber of Commerce, Industry and Crafts. All of the business partners involved expressed a marked interest in realising the project. Dr. V. Navickas, President der Vilnius Chamber of Commerce, Industry and Crafts at the time, became particularly closely involved and was able to use his good personal contacts to establish fruitful relationships with universities and institutes of higher education. In 2006, Dr. Navickas became Lithuanian Minister of Economics and continues to support the project from within this high-ranking political office. Alongside the Vilnius Chamber of Commerce, Industry and Crafts, which has been closely pursuing the realisation of the dual courses of study, further Lithuanian chambers (Kleipeda Chamber of Commerce, Industry and Crafts and Panevezys Chamber of Commerce, Industry and Crafts) expressed their interest and support during the course of the joint workshops.

As well as conducting bilateral talks and negotiations, Vilnius Gedeminas Technical University and Vilnius Business College also took part in a two-day workshop held in Hamburg in December 2006, this also involving visits to Institute of Higher Education 21 and the Hamburg University of Cooperative Education. Vilnius Gedeminas Technical University was also involved in the BSME Project working groups.

Vilnius Gedeminas Technical University

As far as cooperation in teaching and research is concerned, the focus of further clarification is Vilnius Gedeminas Technical University. Talks and negotiations in this area are being led by Prof. Dr. A. V. Rutkauskas, Dean of Business Management Faculty. The university is particularly interested in cooperation and in the realisation of dual Bachelor courses of study.

At present Vilnius Gedeminas Technical University includes 8 faculties, Aviation Institute named after A. Gustaitis, International Studies Centre, Centre for Continuous Education, 10 research institutes and 19 laboratories. On Sept 1, 2005 over 14,849 students came to the University's classrooms, with 3491 of them being first-year students. Teaching staff numbers 919, including 50 Research fellows. There are also 117 Doctors Habil and Professors, 508 Doctors or Associate Professors, 75 Lectors and 248 Assistants.



The University provides 88 programmes for diploma engineers, undergraduate and graduate (Bachelor and Master) studies in the fields of Humanity Sciences, Physical Sciences, Social Sciences, Technological Sciences, Biomedical Sciences and Art Sciences.

The university also organises Doctoral studies in 15 areas (Technological, Humanities, Social, and Physical sciences, etc). All the faculties have the right for Habilitation. This certifies that the University's scope of education and research is rather versatile and of high academic level.

Vilnius Gedeminas Technical University aims to implement dual Bachelor courses of study on the basis of the preparatory work conducted, the curricula, further documentation originating from the BSME Project and the experiences gained by the two study locations in Germany. No specific plans have yet been formulated in respect of the subject areas of the courses. In accordance with the results of the talks and negotiations conducted thus far, the following courses of action are expressly recommended.

- a) The launch of dual training courses combining a course of study in Business Administration with a technical course of vocational education and training.
- b) Once some experience has been gained, the launch of technical courses of study. The three civil engineering courses of study offered by Institute of Higher Education 21 are also a possible way forward for Vilnius in this area.
- c) This to be followed by the process oriented development of further courses of study in accordance with available capacities in the region and the requirements of the companies.

In order to identify the specific needs of Lithuanian trade and industry, a written company survey was proposed. This survey was conducted in 2006 in conjunction with the Vilnius Chamber of Commerce, Industry and Crafts as part of the BSME project (see below).

Further potential partners

Vilnius Business College is also interested in the realisation of dual Bachelor courses of study. Although not currently in a position to implement such courses of study by itself, it is willing to become involved by taking on certain tasks within the implementation process if another institution (such as Vilnius Gedeminas Technical University) assumes overall responsibility.

Vilnius Business College was established in 1989, and in 2001 due to the reforms in the system of education in Lithuania, it was granted the status of college as a higher education institution and its Professional Bachelor's diploma is recognised by state. It is a non-profit private organization having 18- year experience of providing higher education as well as formal and informal education in the fields of business administration, languages and ICT. VBC is a member of the Conference of College Directors of Lithuania, EURASHE, BUSINET, Vilnius Chamber of Commerce and Industry; it as well cooperates with Confederation of industrialists and employers of Lithuania.

Vilnius Business College is well-known for its economics, language and ICT tutors education and is involved in the training of a wide range of different target groups – school graduates, adults, including elderly, unemployed, working professionals, qualified specialists willing to change their qualifications, etc.



It was among the first to have broken the traditional way of part-time studies in Lithuania (1 intensive 2-week session per term) and in 2002 introduced so-called “every Saturday” part-time studies, thus increasing the number of contact hours and reducing the overall duration of the part-time program, which was and still is innovation for the Lithuanian education market.

In Lithuania, vocational education and training is school-based. For this reason, it is important that an appropriate vocational school is obtained as a partner to enable implementation of dual Bachelor courses of study to take place. Contact was established with the Lithuanian Ministry of Education, which demonstrated significant interest in such a project and proposed the Public Institution Vilnius Builder Training Centre as a vocational training partner.

Previously a state organisation, the Public Institution Vilnius Builder Training Centre became a public non-profit making company three years ago. The main shareholders are the Lithuanian Ministry of Education and construction companies. The Training Centre offers courses of initial vocational education and training in technical fields, the main focus being on occupations within the building and construction industry. An in-company work placement of at least 15 weeks is integrated into the school-based training (imparting of theory and practice in teaching workshops). This work placement is, in fact, usually longer and some placements may encompass up to 30 weeks. Initial vocational education and training takes place in four stages.

- Stage 1 involves simple vocational education and training extending over 2 to 3 years for young people with a low level of prior learning.
- Stage 2 comprises full vocational education and training extending over 2 years for young people in possession of the intermediate secondary school leaving certificate.
- Stage 3 combines full vocational education and training with studies leading to upper secondary school leaving certificate for young people in possession of the intermediate secondary school leaving certificate and extends over 3 years.
- Stage 4 comprises full vocational education and training extending over 1 to 2 years for young people in possession of the upper secondary school leaving certificate.

Final vocational examinations are conducted by the Chamber of Commerce, Industry and Crafts.

Alongside initial vocational education and training, the Training Centre also offers retraining courses and continual vocational training for adults.

The Vilnius Builder Training Centre is a particularly high-performing, experienced and well equipped and organised VET establishment. The Training Centre has expressed its willingness to and is extremely interested in conducting dual Bachelor courses of study in conjunction with the university and the Vilnius Chamber of Commerce, Industry and Crafts and to assume responsibility for the implementation of vocational education and training within this framework.



4.2 Company surveys in Lithuania

Execution

The purpose of the survey was to identify and assess the level of interest displayed by Lithuanian companies in dual Bachelor courses of study. The survey was conducted and evaluated by the Vilnius Chamber of Commerce, Industry and Crafts in conjunction with the Secretariat of the Hanseatic Parliament in the early summer of 2006. The survey was conducted exclusively in written form using a Lithuanian language questionnaire (see below).

The following text was used to introduce the survey.

“Excellently qualified and motivated employees are critical to the economic success of small and medium-sized companies. The labour market is already displaying evidence of significant bottlenecks in this regard. These are constantly growing, resulting in fierce competition to secure the “best workers”. In future, it will become increasingly difficult to recruit good management staff and skilled workers. This makes the acquisition and securing of qualified personnel the most important company management and economic development.

*For this reason, the Lithuanian Chambers of Trade, Industry and Crafts and Trades are working in conjunction with partner organisations from Germany, Poland and Finland to plan new elite courses of training for entrepreneurs, management staff and skilled workers, the aim being for these to be realised for their member companies in conjunction with Lithuanian institutes of higher education. The aim is for the planned new model to comprise a combination of practical in-company training and a parallel course of higher education. For these purposes, it is important to identify the needs of companies in even more precise terms. **We would therefore like to extend a cordial invitation to you to take part in this survey and would also wish to point out that it is very much in your own interest to do so.**”*

Unfortunately, only 23 companies participated in the survey. The Vilnius Chamber is in possession of the addresses of the companies.

Results

a) Available human resources and acquisition of human resources

Please indicate on each line one column which applies in your view.

	Yes	No	Undecided
We have a sufficient pool of well qualified employees	5 21.73%	16 69.57%	2 8.70%
We do not require additional staff	7 30.43%	16 69.57%	0 0%
We can acquire new employees easily and quickly	0 0%	23 100%	0 0%
We will experience a high requirement for <u>management</u> staff in future	5 21.73%	18 78.26%	0 0%
We will experience a high requirement for <u>skilled workers</u> in future	21 91.30%	2 8.70%	0 0%
We are seeking a management successor/executive management support in the medium term	7 30.43%	11 47.83%	5 21.74%
Other (<i>professional sales manager, project manager</i>)	2 8.70%	0	0



Conclusion:

There is a high level of requirement for additional qualified staff, particularly in respect of management staff and especially in respect of skilled workers. Recruitment is very difficult.

b) Which staff characteristics are important or unimportant to you?

Please indicate on each line one column which applies in your view.

	Very important	Important	Not crucial	Not very important	Completely unimportant
Well-founded vocational training	13 56.52%	10 43.48%	0	0	0
Practical experience of working life	12 52.17%	10 43.48%	0	1 4.35%	0
Specific technical knowledge	10 43.48%	11 47.82%	2 8.70%	0	0
Well-founded theoretical professional knowledge	5 21.73%	15 65.22%	2 8.70%	1 4.35%	0
Well founded knowledge of business administration	1 4.35%	17 73.91%	3 13.04%	1 4.35%	1 4.35%
Practical management experience	8 34.78%	15 65.22%	0	0	0
Good management qualifications	9 39.13%	13 56.52%	1 4.35%	0	0
Other Negotiating skills	1 4.35%	-	-	-	-

Conclusion:

Well-founded vocational training, practical experience, theoretical professional knowledge, knowledge of business administration and management experience/qualities are of particular importance.

c) The aim is for the planned new model to comprise a combination of practical in-company training and a parallel course of higher education. Participants must be in possession of the upper secondary leaving certificate/higher education entrance qualification. Training will lead to qualified skilled worker status and the international higher education degree of “Bachelor (BA)”.

Please indicate on each line one column which applies in your view.

	Yes	No	Undecided
Such a combination is good	17 73.91%	1 4.35%	5 21.74%
Higher education study and vocational education and training should remain separate	3 13.04%	17 73.91%	3 13.04%
<u>Practical</u> VET is particularly important	22 95.65%	0	1 4.35%
<u>Theoretical</u> VET is particularly important	17 73.91%	2 8.70%	4 17.39%
A course of study in <u>business administration</u> is particularly important	16 69.56%	1 4.35%	6 26.09%
A <u>technical</u> course of study is particularly important	12 52.17%	6 26.09%	5 21.74%
The combined training courses should extend over a maximum of <u>3</u> years	13 56.52%	2 8.70%	8 34.78%



	Yes	No	Undecided
The combined training courses should extend over a maximum of <u>4</u> years	2 8,70%	11 47.82%	10 43.48%
Most time should be devoted to practical in-company training	8 34.78%	9 39.13%	6 26.09%
Most time should be devoted to the course of study at the institute of higher education	9 39.13%	7 30.43%	7 30.43%
I would take part in such a programme and conduct the practical VET in my company	8 34.78%	6 26.09%	9 39.13%
I would pay the person in question a training allowance for training/work activities in my company	3 13.04%	7 30.43%	13 56.52%
I would only provide training in my company if I receive financial remuneration	9 39.13%	5 21.74%	9 39.13%
In my capacity as employer, I would make a contribution to the study costs of my employees	11 47.82%	1 4.35%	11 47.82%
I would like to offer training myself in order to obtain the right and the best employees	7 30.43%	7 30.43%	9 39.13%
I would take part in the new training model in order to create long-term staff loyalty	13 56.52%	3 13.04%	7 30.43%
We especially need <u>skilled</u> workers from the following occupational fields: <i>mechanics, engineering and mechanics, electrical engineering, technology, electricians</i>			
We especially need <u>management</u> staff for the following tasks: <i>Head of production, Head of operations, Head of new product design, Master craftsman, Marketing Director, Construction manager, Production organisation</i>			
We need committed entrepreneurs doe autonomous management activity or for company management succession	9 39.13%	7 30.43%	7 30.43%
Only the state should deal with the training of entrepreneurs, management staff and skilled workers	3 13.04%	14 60.87%	6 26.09%

Conclusion:

The dual model meets with a high level of agreement. Vocational education and training and course of study in business administration are particularly important, a technical course of study being viewed as somewhat less important. Training should be of 3 years' duration. Equal time weighting is accorded to in-company learning and higher education learning. A large proportion of the companies would participate in this training model or is undecided. Although only a few wish to pay a training allowance, a relatively large number of companies are prepared to consider contributing towards study costs. It is pleasing to see the large proportion of companies not assigning this important task to the state alone.

d) The combination of vocational education and training leading to skilled worker status and a course of higher education study in business administration leading to a Bachelor qualification would be a particularly good thing in my view:

12 – 52.17% no
11 – 47.83% yes!

In the case of the course of higher education study in business administration, particular importance should be attached to the following subjects and areas of knowledge (please state): *Leadership, law, psychology, financial analysis, investment, strategic leadership, economic analysis, business leadership, business law, state finances, micro and macroeconomics, project and human resources management, public relations work, the Internet, communication, marketing, international business, business ethics.*



Conclusion:

No clear ideas have yet been formulated as to what subject areas the dual training should comprise.

- e) **The combination of vocational education and training leading to skilled worker status and a course of higher education study in a technical subject leading to a Bachelor qualification would be a particularly good thing in my view:**

12 – 52.17% no
11 - 47.83% yes

In the case of the course of higher education study in technical subjects, particular importance should be attached to the following subjects and areas of knowledge (please state): *Project planning, programming, basic economics, management of automatic plants, English, programming, technical knowledge of foreign languages, interest in new technologies.*

Conclusion:

No clear ideas have yet been formulated as to what subject areas the dual training should comprise.

- f) **I see the following hindrances to the implementation of this planned elite training** (please state possible hindrances): *No statement made.*

Conclusion:

There are no perceived hindrances.

- g) **During the combined training involving in-company learning/activity and attendant study at an institute of higher education, study periods should take place:**

(please tick as appropriate, multiple answers are possible)

8 -34.78 % in longer blocks of at least 3 months

8 -34.78 % in shorter blocks of approximately 2 – 3 weeks

5 – 21.74 % in blocks held in winter only

1 - 4,35 % in blocks held in summer only

6 – 26.09 % as day-time teaching on Friday and Saturday every week

○ other forms (please state which): *1-2 times a month on Saturday (whole day) and a further 2-3 times a week from 6:00 pm.*

Conclusion:

There is no clear preference in respect of theoretical teaching in blocks or on a daily basis, although the latter tends to be viewed more favourably. Summer should be omitted.



h) I would like to make the following remarks, additional comments and proposals in respect of this topic:

Training courses should be organised for skilled workers every 5 years. These courses need to be state supported.

Special measures promoting and facilitating training could be put in place – study leave and similar measures.

i) The planned new training model

Please tick as appropriate, multiple answers are possible.

<input checked="" type="checkbox"/> 7-30,43%	I am very interested	<input type="checkbox"/>	I am not interested
<input checked="" type="checkbox"/> 9-39,13%	I wish to receive further further information	<input type="checkbox"/> 4-17,39%	I do not wish to receive information
<input checked="" type="checkbox"/> 9-39,13%	Please keep me informed of further progress	<input type="checkbox"/> 1-4,35%	I am not interested in being informed of further progress
<input checked="" type="checkbox"/> 12-52,17%	I am interested in the results of this survey	<input type="checkbox"/>	I am not interested in the results
<input type="checkbox"/>	I wish to have further guidance	<input type="checkbox"/> 1-4,35%	I do not require guidance

Conclusion:

Just under half of the companies are interested in the training courses, wish to receive further information and express an interest in the results of the survey. A smaller minority is not interested and does not wish to receive further information.

5. Proposals for method of resolution and implementation

5.1 Organisational and sponsor structure

Implementation should take place in the form of a public private partnership (PPP) involving the following partners:

- Vilnius Gedeminas Technical University, assuming responsibility for the conducting of the Bachelor course of study;
- Vilnius Builder Training Centre, assuming responsibility for the conducting of the vocational education and training;
- Vilnius Chamber of Commerce, Industry and Crafts, to conduct examinations for initial vocational education and training, involve companies, integrate the requirements and interests of the companies into the work on an ongoing basis and organise work placements extending over at least 30 weeks within the companies.



All three partners should be accorded a management function. This partnership model enables the integration of further partners for executive involvement, such as the Vilnius Business College and other vocational education trainings centres for the conducting of vocational education and training in further occupations.

The formation of an advisory committee to take on monitoring, consultancy and funding tasks also seems sensible. This would enable such bodies as the relevant ministries, other public institutions, further chambers and companies to be involved.

5.2 Courses of study

The express recommendation is to begin with a dual course of study combining a Bachelor degree in business administration with a technical course of vocational education and training. The reasoning behind this is:

- curricula, study and examination regulations and so forth are available and ready for use;
- such a course of training can be realised relatively rapidly and easily and no costly technical apprentice workshops are required for the course of higher education study;
- Lithuania evinces a particularly large and urgent demand for this combination of qualifications.

Once a degree of experience has been gained (after approximately 1 – 2 years), further courses of study, for which curricula and further documentation are already available, could be implemented. This would particularly involve:

- adopting the technical courses of study offered at Institute of Higher Education 21;
- a dual business administration course of study featuring integrated master craftsman training or a course of study leading to a qualification as an “industrial engineer”.

Cooperation should then take place with the universities/institutes of higher education at the other study locations as well as within the scope of the Baltic Academy to conduct joint investigation of further courses of study and joint development of curricula in such courses of study as the following:

- further technical courses of study;
- courses of study in the field of “energy and environmental technology”;
- a course of study in design.

5.3 National and international cooperation

The partners involved will have no difficulty in reaching the national and international agreements which remain necessary.

- a) All three partners are integrated into a mutual and pan-Lithuanian network involving a variety of ministries, other relevant public institutions, universities and institutes of higher education, chambers and employers’ associations which acts as a national conduit for the securing of all agreements, division of labour, imparting of information and so forth.



- b) The Vilnius Chamber of Commerce, Industry and Crafts is a Member of the Hanseatic Parliament, which comprises 30 chambers of crafts and trades and industry and commerce Denmark, Germany, Estonia, Finland, Latvia, Lithuania, Norway, Poland, Russia, Sweden, Hungary and Belarus. This acts as a conduit to secure the necessary international cooperation, establishment of contacts and the cross-border exchange of information and experiences. Various members of the Hanseatic Parliament (especially including those from Germany) are successfully operating training and innovation support institutions of this kind for small and medium-sized companies. Within the framework of the Hanseatic Parliament and within the scope of bilateral partnerships, full use of such experiences may be made and experts in conceptual design and development may also be seconded to Vilnius if necessary.
- c) The Vilnius Gedeminas Technical University is a cooperation partner in the Baltic Sea Academy. This provides an easy route for easy international exchange of students and lecturers, joint development of curricula and so forth and pan-Baltic cooperation in the field of innovation.

5.4 Financing and funding

The Vilnius Gedeminas Technical University is a state institution funded via public finances. This means that, in the same way as all existing courses of study, the higher education study element of the dual bachelor courses of study needs to be financed via the public purse.

Vocational education and training in Lithuania is also nationally funded. The same approach needs to apply for vocational education and training within the scope of the dual Bachelor courses of study.

In addition to this, further funding will be required for the start-up phase in order to structure cooperation, implement extensive information and marketing measures, adapt existing documentation to the specific prevailing conditions in Lithuania and so forth. For the start-up phase, which will comprise the conducting of a full course of study over four years, the plan is for public project funding on a diminishing scale to be provided. Consideration could, for example, be accorded to the following sources of funding:

- national funding;
- the European Social Fund;
- the EU Baltic Programme for sub-regions;
- pan-European funding programmes such as Lifelong Learning or Erasmus.

In addition to this, further funds will be required for ongoing operations in order to be able to implement such aspects as project work, extra excursions, workshops involving companies and such like. In order to achieve this, the plan is to levy specific study fees from the outset, these being paid by the companies involved, the students or a combination of the two. Financial or material donations (such as from companies manufacturing production technologies) and voluntary activities should also enable additional financial requirements to be fully covered once the initial four-year project funding has expired.

For complex tasks, such as the implementation of extensive research and development work, the aim is to develop and realise project applications for funding from specific EU programmes. This should enable small and medium-sized



companies to operate in conjunction with universities/institutes of higher education and become much more closely involved in EU programmes (such as the Research Framework Programme) than has hitherto been the case, receive targeted processing of their specific interests and obtain sustainable innovation support.

6. Further development to an education and innovation centre

The overarching objective is the sustainable realisation of dual bachelor courses of study. Parallel to this, the aim is to adopt a gradual approach in accordance with the concept presented under point 2. to

- ✓ conduct research and development work and the transfer of knowledge and technology and
- ✓ realise VET measures also.

This will enable the particular pursuit of the following aims and tasks relating to the fostering of SME's and their employees.

- ⇒ Elite training for entrepreneurs and management staff within the SME sector in the form of dual Bachelor courses of study
- ⇒ A sustainable increase in the attractiveness of vocational education and training and the acquisition of qualified skilled workers
- ⇒ Targeted instruction courses on production technologies, new technologies, training for specialised activities etc. to supplement vocational education and training
- ⇒ Advanced and continuing training measures for skilled workers in such areas as production technologies, the application of new technologies, new ways of working etc.
- ⇒ Advanced and continuing training measures for management staff and entrepreneurs in product development, quality assurance, new processes and technologies etc.
- ⇒ Advanced and continuing training measures for management staff and entrepreneurs relating to all issues of leadership, business administration, marketing, controlling etc.
- ⇒ Practice oriented transfer of knowledge, know-how and new technologies
- ⇒ Knowledge and technology transfer between research institutes/universities and companies
- ⇒ Transfer of requirements from companies to the research institutes/universities
- ⇒ Cooperation between universities/institutes of higher education on the processing of research and development tasks
- ⇒ A wide range of consultancy tasks (group and individual consultancy services) on business administration, technical and specialist issues
- ⇒ Comprehensive fostering of product, process and organisational innovations
- ⇒ Securing the exchange of information and experiences and pan-Baltic cooperation in the areas of teaching and research and development



The plan is for the funding of continuing training and consultancy provision to take place primarily via the levying of fees from participants. For complex consultancy, research and development tasks, project funding involving the provision of funding by the companies themselves will be required.

The continuing training, consultancy services, transfer tasks and research and development functions may each be provided by the three partners

- Vilnius Chamber of Commerce, Industry and Crafts
- Vilnius Gedeminas Technical University
- Vilnius Builder Training Centre

either individually or jointly. The agreed concept will secure that these comprehensive services and this support are made available to the companies and their employees

- from a single source
- in a tailored fashion
- just in time
- with a high degree of company proximity and
- oriented towards specific requirements.

7. Use of preliminary work, documentation and experiences

Extensive preliminary work which has taken place within the scope of the BSME Project and the realisation of programmes in North Germany is available to serve as a basis for the implementation plans in Vilnius. This particularly includes the following.

a) With regard to the dual Bachelor courses of study

- ✓ Curriculum for a course of study in Business Administration at the Hamburg University of Cooperative Education
- ✓ Curricula for 4 technical courses of study at Institute of Higher Education 21
- ✓ Curricula for a course of study in Business Administration with integrated master craftsman training
- ✓ Study and examination regulations
- ✓ Statutes for the development of a sponsoring organisation and extensive experience gained by Institute of Higher Education 21 and the Hamburg University of Cooperative Education in the start-up process and ongoing operations

b) With regard to the fostering of innovation

- ✓ A comprehensive innovation support concept for craft trades and the SME sector
- ✓ Pan-Baltic cooperation within the scope of the Baltic Sea Academy.



- c) With regard to vocational education and training
- ✓ “Company leadership strategies” management course
 - ✓ Company start-up seminar
 - ✓ Export seminar for beginners
 - ✓ Export seminar for companies experienced in foreign trade
 - ✓ Train the trainer seminar
 - ✓ Electronic management and controlling system

8. Further approach to be adopted

The present report covers results which have been achieved as of September 2007. An agreement has been reached with the three partners

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that this report would be made available by the end of October 2007 and will serve as the basis for further scrutiny and agreements. The next round of negotiations is scheduled to take place in Vilnius in November 2007. The joint aim is to launch dual Bachelor courses of study in Vilnius in the autumn of 2008.

Agreement has also been reached that further cooperation will take place in Hanseatic Parliament projects and in the Baltic Sea Academy, these to be conducted from 2008 onwards and pursuing the particular focus of supporting the SME sector in the areas of “continuing vocational training”, “innovation” and “cross-border cooperation projects”.