

The dual system of vocational training in Germany

1. The dual system of vocational training in Germany¹

Vocational training plays a prominent role in the German educational system. Almost 60 % of each year's students choose professional education. Up to 70 % of them again fall into the dual system while the remaining part of the students completes a full-time school-based education at a vocational school. The system is called dual because the training is performed in two learning places: at an enterprise and at the vocational school. At the moment in Germany the training is possible in 349 acknowledged qualified professions for the duration between 2 and 3,5 years.



¹ HogeForster, J., Döding, L.: The educational systems in the Baltic Sea Region with special consideration of the dual system in Germany, in: Job Market Innovations – testing and implementation of new methods of the promotion the employment in the niching, perishing and little popular occupations, Hamburg 2012.

The central law for the vocational training in Germany is the Vocational Training Act (BBlG). Other important laws are: the Crafts Code (HwO), the Ordinance on Trainer Aptitude, the Young Persons Employment Act, the Industrial Constitution Act, the Law for the Advancement of Further Training and the Distance Learning Protection Act.

The legal basis for the enactment of educational regulations are §25 of BBlG or §25 of HwO. There it states that the Federal Ministry of Economics and Technology in consultation with the Federal Ministry of Education and Research officially recognize qualified jobs and can issue educational regulations for this purpose. The educational regulations are prepared at the Federal Institute for Vocational Education and Training (BIBB) by intensive involvement of representatives of the employers and employees.

For the job-related teaching at vocational schools the Permanent Conference of the Ministers of Education and Cultural Affairs of the Federal States (KMK) issues framework plans which are aligned with the educational regulations of the federation. The curricula for the general teaching at the vocational school are developed principally by separate states because culture and education in Germany are subject to the sovereignty of the federal states.

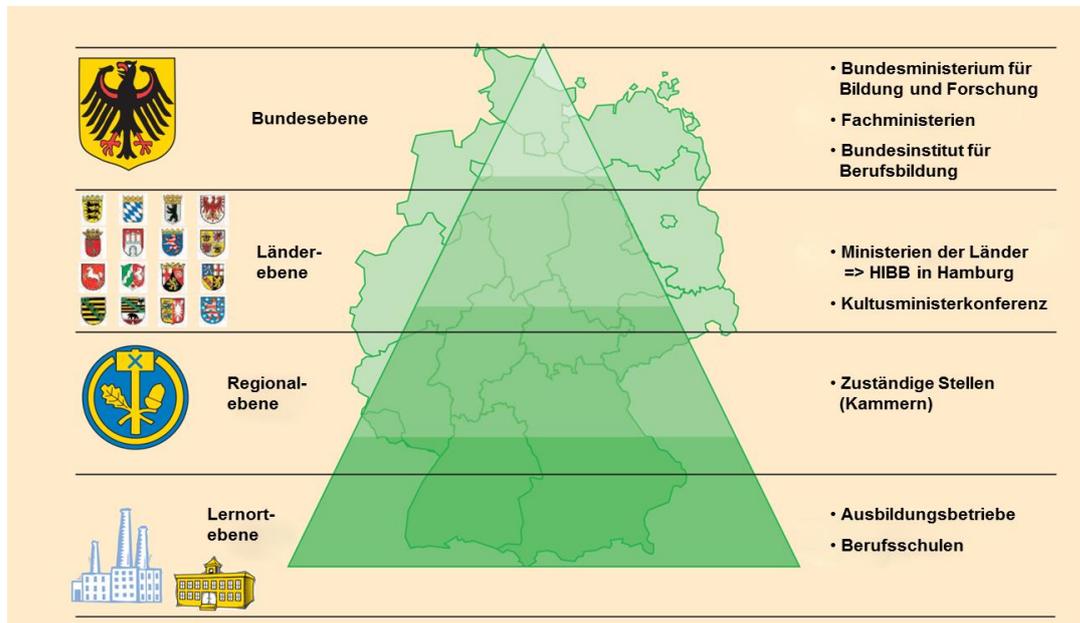
The legal basis for the educational relationship between the enterprise and the apprentice is established by the training contract which must be concluded in writing before the beginning of the training. The following is regulated in the training contract, incl.:

- type, structure and especially the goal of the training
- beginning and duration of the training
- training measures
- duration of the regular daily time of training
- duration of the probation period
- payment method and amount of trainee allowance
- duration of the leave
- preconditions for termination

The training contract must be submitted to the competent authority – in Germany these are corresponding competent chambers – and there it must be registered in the “List of vocational training relationships“ if the training suitability of the enterprise is verified.

1.1 Division of responsibilities

The responsibilities in the dual system in Germany are divided as follows.



1) Framework of the federal law

All the parties involved in the dual education (federation, states and economy) act within the legal framework determined by the Vocational Training Act (BBlG). In addition further labor law provisions of various branches of law are also obligatory for the professional education and further training. So legal provisions and legal principles which are valid for the labour contracts are also valid for this training contract provided that special regulations are not stipulated in the BBlG.

2) Federal Government

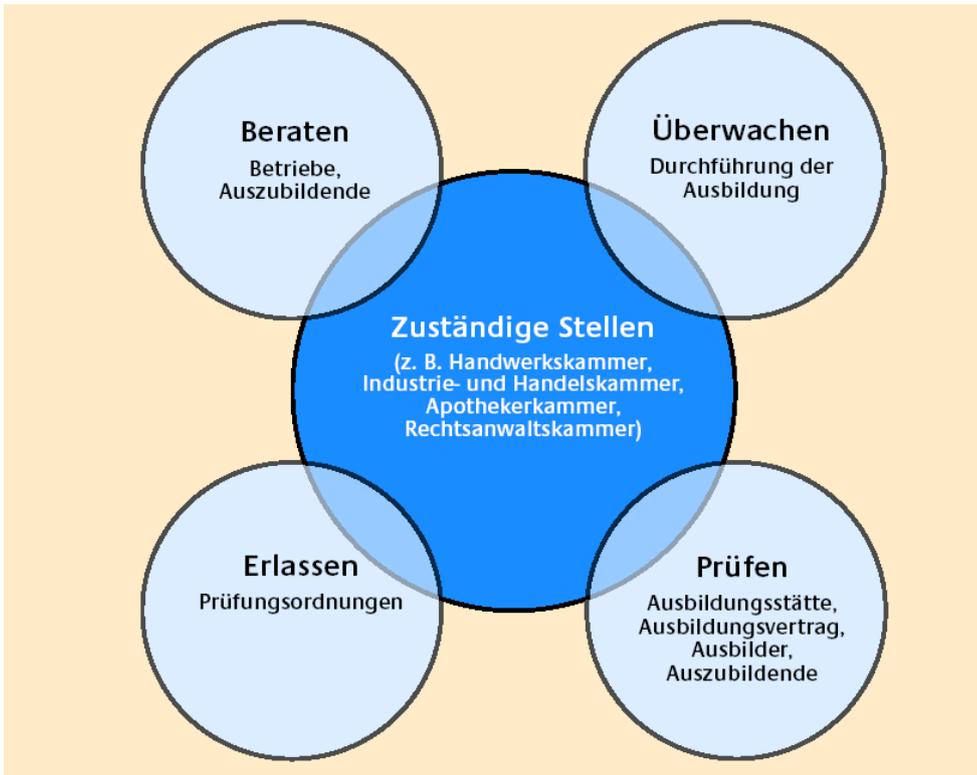
The Federal Government is responsible for the contents of the qualified jobs acknowledged by it, provided that the training does not take place at schools. Through the obligatory acknowledgement of qualified jobs in the whole Federation the threshold figures elaborated together with the economies and the states are implemented and at the same time it is ensured that the training for the acknowledged qualified profession may be performed only according to the training regulations issued by the Federal Government.

3) Lands

The lands are fully and solely responsible for the school system. In the dual education it means, that according to the agreement of the states between each other and with other parties involved in the dual education – in respect of the corresponding qualified profession each state shall issue a curriculum for its training at the vocational school. Besides states perform legal supervision of the chambers.

4) Economy (employer and unions)

Suggestions for the development or revision of training regulations provided by the economy are taken up by the Federal Government only when they were elaborated in consensus of employers and unions. Independently from the Federal Government the tariff partners stipulate further regulations for the vocational training on the basis of their tariff autonomy especially the amount of training remunerations. In some labour contracts in addition thereto other agreements are stipulated, for example, related to the temporary further employment of apprentices after the training.



5) The chambers

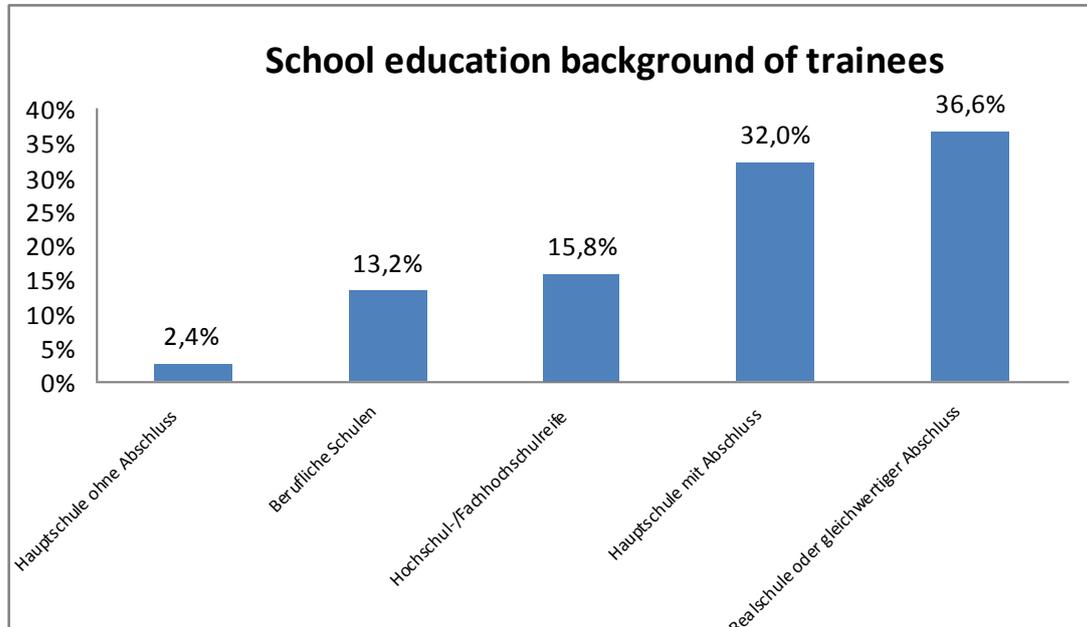
as self-governing bodies of economy – within the framework of the dual training were assigned public tasks. They include the consulting and the supervision in respect of separate training relationships. Training consultants of the chambers check the training suitability of enterprises and trainers and also consult enterprises and the trainees. They accept training contracts, check and register them. The chambers organize the whole examination procedure by determining the terms and appointing examination commissions, which conduct the examinations. In addition thereto the chambers issue examination and graduation certificates. Examination commissions consist of representatives of employers, employees and vocational schools. Regarding important issues of vocational training the chamber shall hear the vocational training commission, which is to be established and which shall consist in equal proportions of representatives of enterprises, of employees and also of vocational schools in an advisory capacity.

1.2 School education background of the trainees

The statutory requirement for compulsory schooling in Germany begins as a rule at the age of 6 and lasts (depending on the Federal State) 9-10 years. After four years of elementary school the students make a decision about the secondary school within the general three-tier school system:

- the gymnasium, which demanding curriculum is oriented at the acquisition of the general entitlement to study at universities
- the middle school (Realschule), which curriculum leads to obtaining the middle school certificate which certifies broad general educational and vocational preparation qualifications, and

- the secondary modern school (Hauptschule) which is customized for students with practical skills or interests and leads to the secondary school leaving certificate (e.g. introduces to the world of labour).



Different paths often meet up each other in the professional education. Unlike full-time vocational schools, which require a middle school graduation certificate, in the dual system there are no admission requirements for the admission to the education; basically, it remains open for everybody. In practice 36,6 % of the training beginners possess a middle school graduation certificate, 32 % have secondary modern school graduation certificate and 15,8 % have general entitlement to study at universities while 2,4 % have no school graduation certificates. In addition 13,2 % of trainees have completed the vocational school basic education year (BGJ), the vocational preparation year (BVJ) or one-year vocational schools.

The education in the dual system is organized content-wise, so that it can be mastered by young people with at least secondary modern school graduation certificates. To compensate possible level differences on the basis of different educational background the Vocational Training Act or the Crafts Code envisages the reduction and also the extension of the period of training. Thereby it shall counteract the excessive or the insufficient demands in respect of the trainees.

1.3 Training centers in the dual vocational training system

1.3.1 Training center - Enterprise

Trainees usually spend 3-4 days a week in a company providing vocational training, where they are trained in practice on the basis of the training plan according to the provisions of the training regulations prepared with regard to the corresponding profession. The training regulations regulate e.g. the duration of training, describe the job and determine the requirements to examinations.

Durchschnittliche monatliche Ausbildungsvergütung (brutto) nach Ausbildungsjahren im Jahr 2009/2010



¹ Deutschland; DGB, Institut für Sozialpädagogische Forschung Mainz; September 2009 bis Mai 2010

Quelle: DGB

Monthly average traineeship salary (brutto) in regard to the year of training in 2009/2010

The characteristic feature of education is the acquisition of the required professional experience connected with the transfer of knowledge and skills. It guarantees that the training is performed under the same conditions, under which the studied profession will be exercised later. Only at the enterprise the trainee learns, on one hand, how to cope with the changing requirements of the professional practice and, on the other hand, he discovers the various social relations existing in the world of work. Additionally, promoted are independence and the sense of responsibility, because the trainee can demonstrate the obtained knowledge and skills through specific working tasks and in the real working conditions of the working, experiencing the success of his efforts.

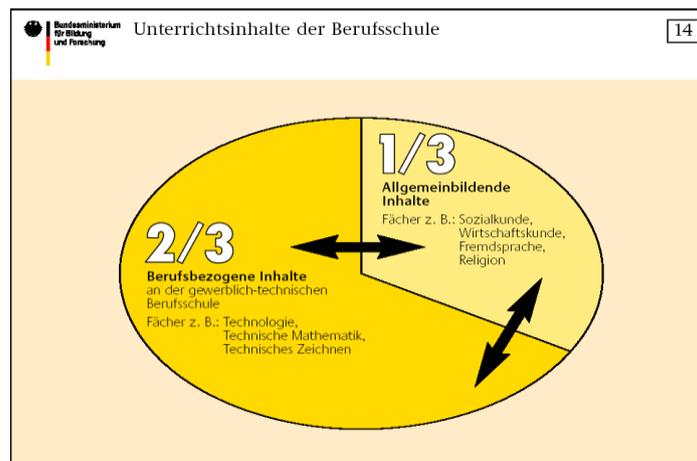
During the training the trainee receives remuneration, which increases each year and amounts at the average to one-third of the starting salary of a qualified worker. In 2009/2010 the average monthly educational remuneration (gross) in the first year amounted to 532,97 €, in the second year it was 590,39 € and in the third educational year it amounted to 648,22 €.

1.3.2 Training center – Vocational school

The practical education is supplemented with the theoretical course at vocational schools where students study about 12 hours a week. The teaching takes place on specific days during the week or in blocks.

In vocational schools one-third of the lessons consist of the cross-occupational learning and two-thirds consist of the work-related subjects according to the framework curriculum, which is prepared for separate professions by the Conference of the Ministers of Education and Cultural Affairs for the work-related branch and by lands individually for the cross-occupational learning section. The cross-occupational branch includes, for example, contents of such subjects as

Social Studies, Economics, German, Foreign Language, Religion and Sports. It is closely connected to the work-related contents, but addresses it in a different manner.



1.3.3 Inter-company training centers

It is not always possible for small and medium-sized enterprises to provide complete vocational training in a recognized profession within their own enterprise. In order to facilitate or to enable the provision of vocational training for these enterprises intercompany training centers are available. Besides, not all enterprises possess all the new technologies. Therefore, intercompany training centers offer courses related to new technologies as well as other educational events, which supplement the professional education at small and medium-sized enterprises. These training activities supplementing the application within the three-year period of training in crafts as a rule last four to six weeks, and in the construction industry they last 26 weeks. Number, contents, amount, duration etc. of these supplementary training activities are determined in each case by separate chambers according to the regional conditions with legally binding effect for the corresponding chamber region. The intercompany schooling activities are a part of the in-company vocational training (of the company educational center). The interplant training centers are usually financed by the chambers or alternatively by the employers' associations.

1.4 Faculty staff in the dual educational system

At vocational schools one can distinguish among two categories of faculty, on one hand, faculty for the purpose of theoretical teaching at vocational schools (vocational school teachers) and, on the other hand, specialist practice faculty (specialist teachers). Vocational school teachers need a university or an equivalent degree and a specialized didactic education. Specialist teachers do not need high school degrees, as a rule they have a respective professional background as a master or specialist (industry) or assistant (crafts). The continuing education for teachers is obligatory and takes place in the form of seminars at state institutions for the continuing education of teachers.

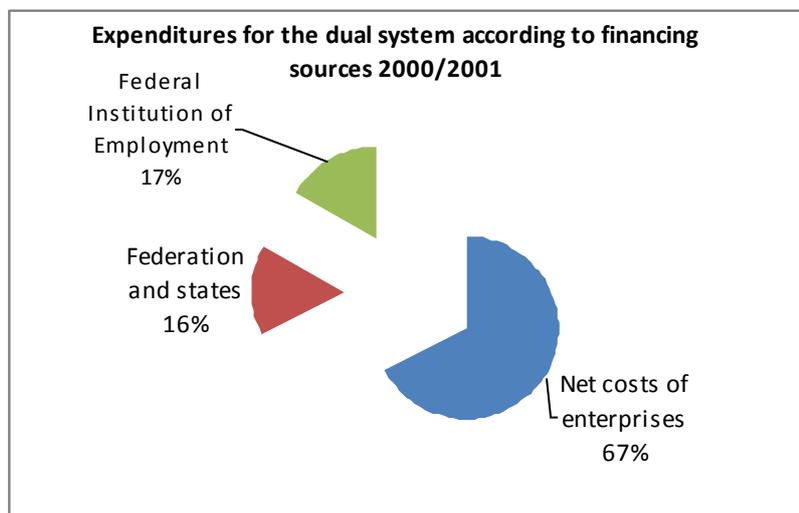
The requirements set for the company trainers are regulated by the Vocational Training Act and in the Ordinance on Trainer Aptitude. According to it trainers must have passed the final examination under the specialty corresponding to the qualified job and possess working pedagogic knowledge. The obligatory trainer aptitude examination was temporarily suspended in August 2003 in order to stimulate the

companies to offer more training places; on August 1, 2009 it was introduced again. For company trainers there are no legal requirements for further training.

1.5 Financing of the dual system

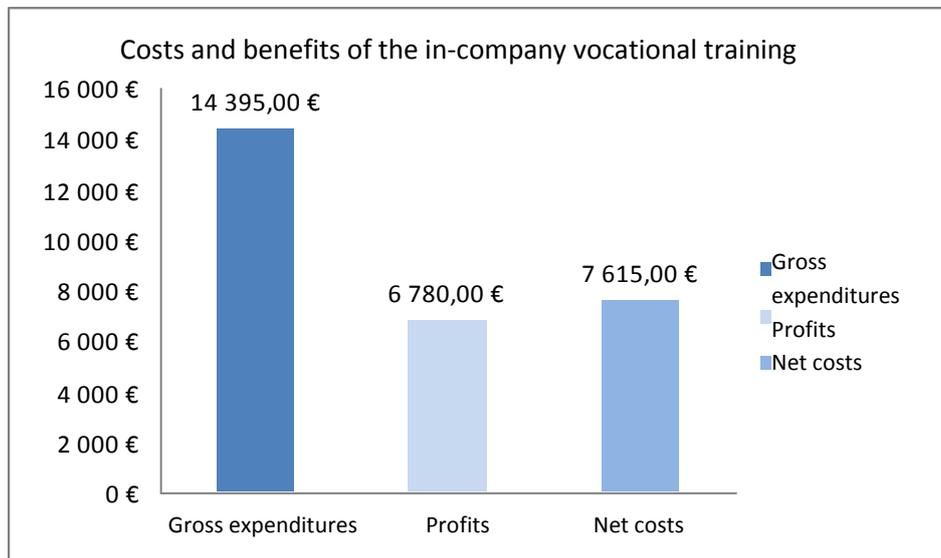
Federation, lands and communities as well as the Federal Labor Office spend about 92 bn. € on education which is about 4,1 % of the gross domestic product. Approximately 7,2 bn. € or 7,9 % of them go to the professional education in the dual system.

The financing of the dual vocational training is performed according to the division of responsibilities: the enterprises perform the financing of the company part and the Federal States or the local public authorities finance the schooling part of education.



The diagram shows that the total expenses for the dual vocational training in the year 2000 amounted to about 21,8 bn. €. About two-thirds of expenses for the vocational training at the amount of 14,7 bn. Euro (net costs, including trainee remuneration, minus production profit) were borne by the enterprises while the Federal States spent 3,4 bn. Euro on vocational schools. Further 3,7 bn. Euro were incurred by the Federal Labor Office.

In financing of the dual education the companies are given an extremely important role. In 2000 the Federal Institute for Vocational Education and Training has performed the collection of educational costs from the enterprises. According to that the gross expenditures of a crafts company for the education in the dual system in the year 2000 amounted to 14.395 Euro per each trainee. If one takes into account the productive output created at the enterprise by the trainee at the amount of 6.780 Euro the net burden of the employers amounted to 7.615 Euro.



The personnel costs of the trainees, i.e. the remuneration including statutory, tariff and voluntary social benefits, are the half of the total gross educational expenditures. Beside personnel costs the companies invest in material and equipment costs (for example, workplace), in teaching materials, perhaps external courses and registration as well as examination fees. The gross expenditures of the companies can be represented as follows:



The educational costs of the companies are confronted by a range of advantages. For example, in comparison to the recruitment of external teaching staff own education incurs comparatively lower costs. The costs are also avoided through wrong choice or vacant posts.

1.6 Educational reasons for companies

In total about a quarter of all companies in Germany provide vocational training at the

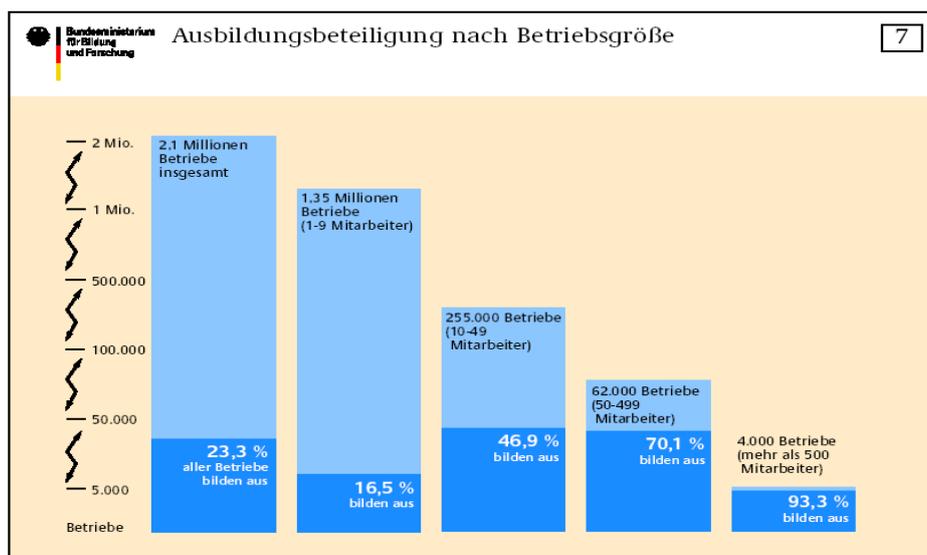
moment. Thereby the training rate (share of training companies in the total number of companies) increases with the size of the company. However the division of trainees according to the class of the company size shows that the small and medium-sized enterprises offer the lion's share of training places.



Since 1999 the number of in-company training places has dramatically decreased. Thereby a “training gap” appeared because the officially registered demand for in-company training places at the same time has decreased only to a smaller extent. However within the framework of the so-called “Training pact” it could be achieved

that the number of newly concluded training contracts has increased again till 2007.

The apprehension that the economic crisis of the last years would cause serious cuts in the professional education has not come to reality. Indeed the offer of training places by the enterprises has decreased in 2009 by approximately 10 % in comparison to 2007, however this decline was compensated by the downward swing of demand caused by demographic reasons. Actually the offer of in-company vocational training places is significantly higher than the demand.



The benefit of education for the companies consists of a variety of different elements which can only partly be assessed in monetary terms. In 2007 the Federal Institute

for Vocational Training conducted a research and asked the enterprises about reasons for providing in-house training and the value of benefit. The statement that the company provides training to qualify young specialists meeting specific company requirements was by far the most popular answer, with a share of 84 %. Large segments of the sample also agreed with the following statements, indicating that enterprises are very interested in hiring their trainees following completion of training and in providing high-quality training:

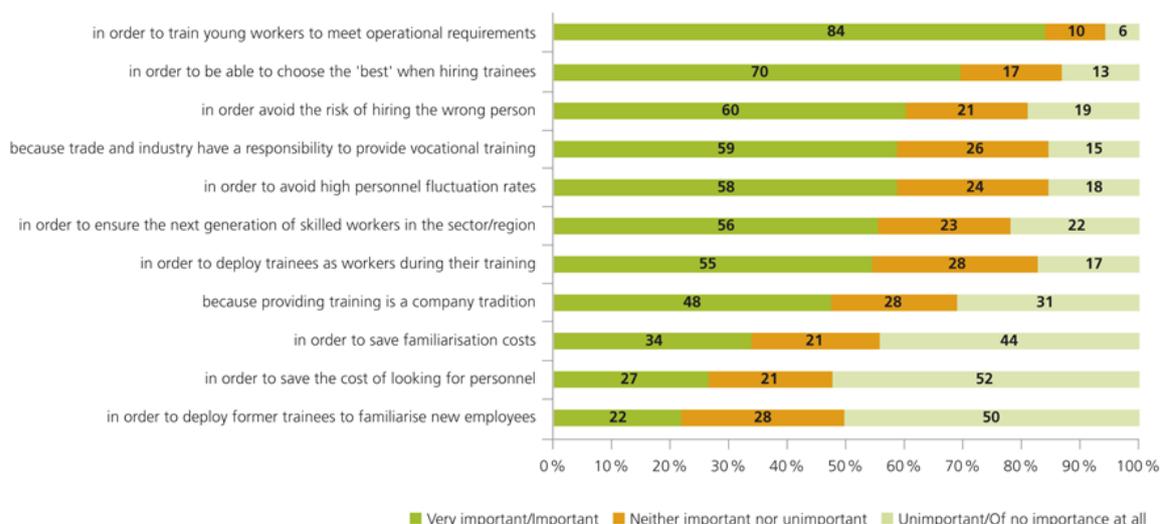
- Enterprise provides in-company vocational training in order to be able to choose “the best” trainees to retain (70%),
- Enterprise provides in-company vocational training in order to avoid hiring the wrong person when recruiting workers from outside (60%)

By comparison, reducing familiarization costs (34%), saving the cost of recruiting outside personnel (27%) and using company-trained employees to familiarize new employees (22%) are of less importance.

Chart 6

Importance of reasons for providing in-company vocational training (in %)¹²

Our enterprise provides in-company vocational training ...



Source: BIBB 2007 Cost-Benefit Survey

Besides, the results of the survey show that enterprises generally benefit from providing in-company vocational training for youths. Although enterprises bear numerous costs as a result of providing training, these costs can be compensated for by retaining trainees upon completion of their training, thus eliminating the costs of externally recruiting and familiarizing new skilled workers. The costs are also offset by other less easily quantified factors such as image gains. At any rate, one third of the enterprises generate positive net gains by putting their trainees to productive use. The majority of firms surveyed are satisfied with the balance between costs and benefits, only 11% are dissatisfied. The majority also view positively their ability to meet their training needs by providing dual vocational training. More than half of the enterprises surveyed said they were satisfied with the dual vocational training system, while only some 14% were not.

1.7 Strong points of the dual vocational training system

The practice-oriented training of specialists in the dual system has led Germany to the economic success and has contributed to its international reputation. The strong points of the system have been already discussed in the previous chapters and can be summarized as follows:

- In Germany the vocational training is firmly anchored in the society and has a high reputation. It prepares young people for a large spectrum of professions.

The professional qualification certificates obtained in this system are still valued at the labor market and the system has remained flexible enough in order to take care of elimination of unsatisfying educational programs and to answer to the appearance of new economic and professional fields with the development of new educational programs.

- The dual system in Germany is developed especially well and combines learning at the enterprise with learning in school in order to prepare the trainees for the successful transition to the labor world. It results in the fact that

the unemployment among young people in the international comparison is very low. The special pedagogy of the schooling part of the dual system is strongly oriented at solving problems and combines theory and practice in the innovative manner.

- There are fewer and fewer qualified specialists at the labour market. The one, who provides vocational training to own specialists, becomes independent from the labor market, remains competitive and retains appropriate personnel at the enterprise for a long time.
- An especially important feature of the dual system is the fact that young people are already at a very early stage exposed to the social competences, which are of critical importance for the professional success. To learn how to work in differently composed teams, to resolve conflicts with the superiors or colleagues, to treat customers or embrace an initiative and to solve problems in several steps – these are the competences, which hardly can be learnt in the classroom only.
- Training also contributes to qualification at the enterprise itself, as enterprises providing vocational training always stay up to date with technologies.
- A high identification of employees with the company leads to lower personnel change and reduces costs related to the fluctuation.
- Thanks to the time of training in the dual system it is possible for the employer to obtain information about the quality and the productivity of his young specialists relatively cost-effectively, and that enables him to appoint trainees specifically after their training or to part ways with them without having to take the risk of employing the wrong person later. The average net costs of training of young people are opposed by costs related to the search for a trained external expert, which are not incurred. In addition to that during the time of learning the company has the chance to compensate any drawbacks in the knowledge of the future specialists through targeted instruction at times and to transfer training, which is advantageous for the enterprise.
- Due to the nationwide acknowledgement and comparability of dual graduation certificates there is an advantage for the trainees, as they can utilize their education at other enterprises despite a high share of company-specific knowledge.

- Additionally, the dual education system offers the possibility to obtain a tertiary educational qualification after the completed vocational training. So it is possible that the graduates obtain a high-school entrance qualification at a vocational school without a high school diploma.
- One of the greatest advantages of the dual system is the high level of active engagement of employers and other social partners. The system is also characterized by a complex network of checks and balances at the level of the

federation, of the federal states, of the community and the company. Thereby it is guaranteed that more common educational political and economic goals of

- the vocational training system are not suppressed by short-term needs on the part of employers. A positive influence in the dual system has also the clear division of tasks between the federation, states and the private sector, which is anchored at the statutory level and was prudently developed further throughout the years.
- The financial allocation for the vocational training system is generally good, whereby private and public financing is added to support not only the dual system and the vocational full-time schools, but also a broad range of transition programs for young people who require additional help before they can start vocational training. Despite the economic recession the vocational training system in Germany obtained further strong financial support and the employers have maintained the offer of vocational training places in order to react to the rise of unemployment among young people and in some cases also in order to avoid the threatening future personnel bottlenecks as a result of the demographic change.
- Within the dual system the chambers have a strong position. This takes some burden off the state, supports the responsibility of the economy, enables practice-oriented and company-related solutions and generally strengthens the economic self-management.
- On the federal level Germany has a research institution with high reputation, the BIBB (Federal Institute for Vocational Training) and also a nationwide network of smaller research centers, which study different aspects of the vocational training system. As a result Germany invests much more in formative research for the promotion of continuing innovation and improvement process than other countries. This is another indication of the priority attributed to the vocational training in Germany, and it makes the essential contribution to the success of the German vocational training system.

1.8 Weak points of the German vocational training system

Despite many strong points, which the German vocational training system has, there are also several challenges, which shall be primarily considered within the transfer of experiences. Thereby among other things one should mention the following points:

- The quality of cooperation between vocational schools and employers providing vocational training is improvable. Within the framework of the survey of companies providing vocational training the cooperation was considered to be very important, however the companies indicated that the cooperation is too low in practice and is often limited only to the exchange of information.
- Due to the quickly changing requirements in the world of work the educational profiles must be timely updated. Besides it is important to establish new

professions to be trained on an ongoing basis and according to the demand.

- In view of the young age at which the students in Germany are expected to make a decision concerning the profession it is extremely important that everyone has access to the high-quality information and consulting. The quality of vocational counseling varies strongly in Germany.
- The assessment of the students in the dual system after the completion of the vocational training is performed using, first of all, the vocational final examination conducted by the chambers and determining whether one obtains

their vocational training completion certificate (apprenticeship diploma, certificate of proficiency etc.). The study records at vocational schools are not considered officially at the vocational training final examination. This should not lead to the fact that students neglect training at vocational schools. This risk is low due to the fact that teachers from vocational schools are still members of the examination commission.

- The economic vulnerability of vocational training offers can be a problem. Nevertheless Germany always succeeded in provision of sufficient vocational training places – even during economically difficult times with very high number of school graduates in the 1980 years.

2. Trends and consequences for vocational education

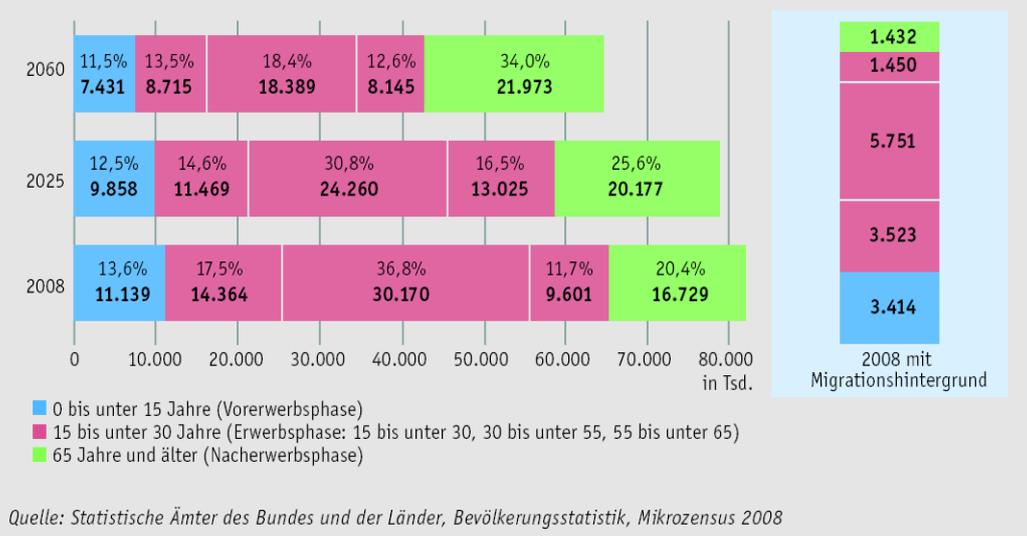
2.1 Demographics

An important challenge in Germany and all other European countries is the demographic change leading to a higher rate of older groups in comparison to younger groups, which at the same time are shrinking. The age group of under 30 years relevant for the education will decrease from the present 25,5 million to 21,3 million in the year 2025.

Till 2025 the population in the working age will decrease from 54,1 million by 10 % to 48,8 million. At the same time the age groups of those of 65 years old or older will increase from 16,7 million in 2008 to 20,2 million, or by 21% in the year 2025.

As shown in the following table these changes in the age structure of the population will continue after 2025 according to the same trend and partly also even stronger and they will represent huge challenges for the education.

Abb. A1-3: Anteile der Altersgruppen an der Bevölkerung insgesamt 2008, 2025 und 2060 sowie für die Bevölkerung mit Migrationshintergrund 2008



These demographic developments lead to employers having fewer apprenticeship applicants to choose from. Besides it leads to the competition between individual branches of economy (industry, crafts, administration, universities). First of all, there is danger for the crafts of not attracting enough young specialists and being pushed back to lower qualification levels.

In addition the demographic change means that in view of a smaller number of enrollers for the vocational training it will be even more important to utilize the potential of every young man and to ensure that everyone gets his chance to study a profession.

2.2 Structural change, globalization and skill levels

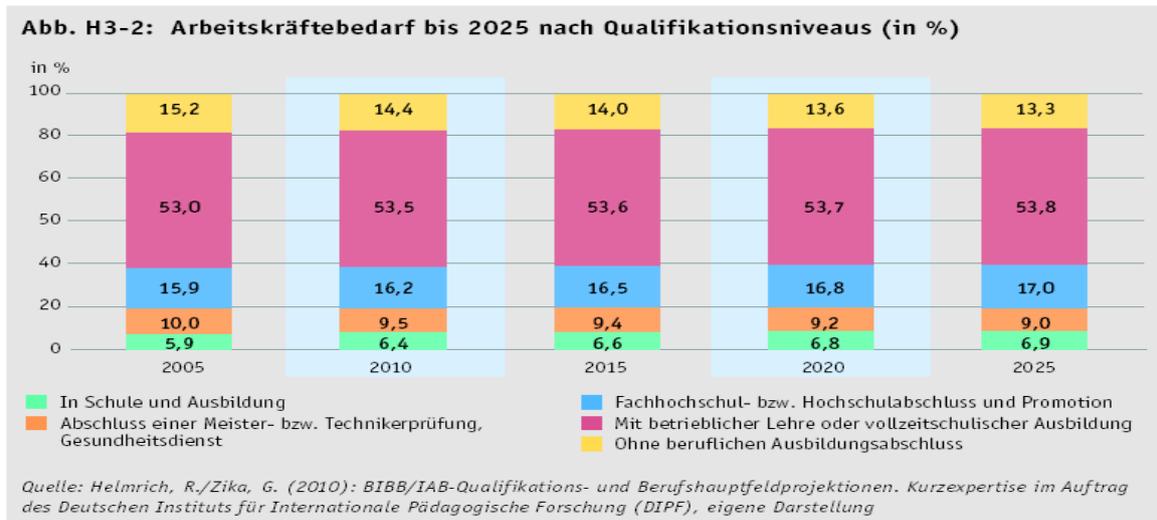
In the past decades a structural change could be observed in the German economy. The services sector expanded while the economic significance of other branches (agriculture and forestry, manufacturing industry) has clearly decreased. While in 1970 about 48 % of gross added value belonged to the services sector, in the year 2009 it was already 73 %.

As a result of the structural change and of the technical progress the fields of activity and thereby the requirement profiles of the working population have changed in almost all the sectors and professional fields. While manual skills have lost their significance, in the society of services and knowledge such competencies as computer knowledge and communication skills are in greater demand.

The German economy is very strongly incorporated in the world market. In the year 2007 Germany was ranked the first among the exporting states with the share of about 10 % of the world export of the goods. In 2009 as well, together with China, Germany was a leader among the exporters of goods. Approximately a quarter of all the working population employed in Germany depend on export.

Internationalization and globalization have repercussions for the system of education, as it also affects the activities and requirements profiles shaped by the structural change and the technological progress. These developments lead to a lower demand for low-qualified workers and strengthen the need for well-trained professionals. The

transfer of international qualifications such as e.g. language skills or understanding of foreign markets and enterprise structures must be given stronger consideration in the future.



If one observes the demand in the labor market in terms of labor forces dependence on the qualifications level, the chart shows that in the following years there will be a decrease of low-qualified works and an increase of highly qualified activities. The labor forces with a graduation certificate from the dual or in the schooling vocational training system will hardly see a change in their share in the total of working population and it will be by far the largest qualification group, accounting for half of the employees.

2.3 Theses on consequences for Baltic Sea Region²

Opportunities for the future Baltic Sea Region

The Baltic Sea Region is deemed the most innovative and economically strong region of Europe which has not exploited its potential yet. At the same time, however, there is the emergence of revolutionary developments which can strongly limit the economic dynamics of the Baltic Sea Region and which require an increased

commitment, especially in terms of educational policy. Accordingly, one of the five ambitious goals of the EU strategy “Europe 2020” is education.

Changes in labor markets

Such an evolution of educational policy is the key to the design of a fulfilling life and the social integration of each young person. Such improvements are also prominent in the interest of the economy which faces a completely different labour market situation.

Quantitative and qualitative constraints

In the next 20 years, the number of employed persons in all the Baltic States with the exception of Sweden will decrease by 5 - 20 per cent. The quantitative problems cause a substantial intensification of qualitative constraints. The requirements of companies towards trainees are high and still increasing. Personal and social skills

² Objectives and Strategies for education policies in the Baltic Sea Region, Baltic Sea Academy, Volume 2, Hamburg 2012

are equally important to the factual knowledge. In most Baltic Sea States an increasing number of graduates lack the required competences.

Increased competition

There is a growing competition for skilled young people among SMEs, large enterprises, universities/colleges and government agencies. Moreover, small and medium-sized enterprises, which provide about 70 per cent of jobs, threaten that they become losers and are pushed towards lower levels. Securing trainees with good qualifications and high level of innovation is a question of survival for SMEs in the Baltic Sea Region.

Local employment potential and immigration

Increased immigration to the Baltic Sea Region is required; attractive educational offers are a crucial factor here. The society must open up and meet the multicultural challenges. Above all, the domestic potential should be exploited in a better way. Educational policy must ensure that the proportion of young people leaving school without qualifications as well as non-trainable adolescents is reduced significantly. No young person should be excluded, everyone deserves a second chance.

Holistic education

The overvaluation of purely intellectual ideals of education has to be contrasted with the eminent character of education which appeals to all senses and encourages the acquisition of all intellectual, artistic and manual skills equally. School education always seems to lead to more uniformity. Much more individualized instruction with personal learning objectives and success is urgently needed.

Promoting weaker learners and strong learners

Such holistic education with a promotion of individual talents is needed urgently for both weaker and stronger learners. An elite education is not sufficiently pronounced in many countries and it should no longer be a taboo. Systematic promotion of the

strongest without the exclusion of the weakest is the decisive factor for the integration for all.

Increasing attractiveness and quality in vocational education

The attractiveness of vocational training has decreased very sharply in all Baltic States and in some countries it reached a proportion of 10-15 per cent of graduates going through vocational training, which is an alarmingly low level. The proportion of practice in vocational education must be increased significantly, especially in countries with school systems. Wherever possible, training should take place in the dual system.

Admission requirements and differentiation

The introduction of uniform Baltic Sea Region entrance requirements of vocational training which is determined job-specifically is desirable. Specific ways of vocational education need to be introduced with complete transparency for children with learning difficulties but also for stronger learners.

Openness and transparency of the educational system

Vocational education is too separated from other branches of education and quickly leads to dead ends. A complete transparency in vocational education as well as between vocational education, general education and university education with smooth transitions and recognition possibilities is urgently needed. This includes also the Baltic-wide right to study with fellowship or specialist degree, following the example of some Baltic States.

Open up for employees outside the profession

Small and medium sized business, particularly the craft sector, must open up more strongly for employees outside the profession and to win them over to a permanent employment. Tailor made teaching phase, precise further education as well as opening of the education systems and improvement of the permeability support this process.

Dual degree courses of study

Young people avoid vocational training and prefer studies. However, most courses are largely theoretical and not sufficiently focused on the practical issues of SMEs, which cannot obtain a sufficient number of entrepreneurs and skilled workers despite a large number of students. Dual courses of study which combine vocational training or activity with studies have to be established on a broad basis.

International exchange

Stays abroad during training and professional activities promote increasingly important international knowledge and experience, and at the same time personal and social skills. The Baltic-wide un-bureaucratic recognition of vocational training and further training qualifications is a crucial prerequisite.

Educational and regional economic policy

Moreover, the reduced transport and communication costs increase the mobility of production factors. Companies migrate to locations with higher potential of professionals and workers, to locations with attractive educational opportunities and diverse labour markets. The local competition for (highly) skilled workers is more intense. A uniform educational policy in the Baltic Sea Region has to be anchored in the EU Baltic Sea strategy and ensure that this competition takes place not only within the Baltic Sea Region; to the contrary, through excellent education it strengthens the competitiveness of the whole Baltic Sea Region towards other regions and expands the existing projections.

Highest priority for the educational policy

The considerable opportunities of the Baltic Sea Region can only be exploited at the highest level of innovation and excellent qualifications. Educational policy is also to a large extent connected with locational, regional and spatial planning policy.

Education promotes innovations and competitiveness and includes the main support task for small and medium-sized enterprises. Educational policy must therefore be superior to all other policies and needs to enjoy highest priority also in the EU Baltic Sea Strategy. In accordance with the EU strategy "Europe 2020" politics, economy and society of the Baltic Sea Region must address their outstanding position of educational policy and recognize that the investment in human capital is the safest and the most profitable investment.

2.4 Formulate strategies for vocational education³

Within the framework of school education it is still necessary to provide students with comprehensive information concerning the possibilities of vocational training, particular professions, requirements and future opportunities. Close contact with

³ Objectives and Strategies for education policies in the Baltic Sea Region, Baltic Sea Academy, Volume 2, Hamburg 2012

companies and institutions of economic self-management, presentations of companies, masters and trainers facilitate the information and identification process. Repeated internships and experience in entrepreneurial skills should be mandatory for all students.

The guidance requires significant intensification. This should be addressed not only in formal entry requirements and conditions such as school degree and grades. More important is the development of job-specific competency profiles, which are then compared with the carefully determined individual skills of each young person. Also a careful consultation and preparation for vocational training must achieve a significant reduction of too high ratios of exchanges and dropouts in professional training.

Different levels of performance and eligibility criteria should be set for the whole Baltic Sea Region as a basis for individual competence assessment and analysis of potential and then approved to be transparent. These criteria help trainers and trainees, and the companies to get employees who are ready for the performance of the task and develop a sense of achievement in the case of young people who can be thus motivated for further work. The high number of dropouts and the risk of dead-end jobs will be significantly reduced. Vocational training must adequately take into account individual skills and capabilities and require extensive differentiation.

Through the introduction of different levels, young people from different educational backgrounds, with different competences and learning progress can have an opportunity to obtain education which matches their specific skills:

- Level 1: Specific vocational training for weaker learners for a period of 2 years, enabling focused and practical learning, will be completed with an independent recognized qualification.
- Level 2: Middle vocational training courses with the mediation of theory and practice for a period of 3 years and a recognized qualification as a skilled worker or journeyman.
- Level 3: Advanced vocational training courses for the study of skills with a duration of 3 - 3,5 years, which provide additional qualifications or training preferable in the initial training and which will be completed with recognized degrees above the present trade or journeyman's examination.

With such a differentiated system of professional training, high permeability is needed. Each graduate at a lower level needs to have an unlimited possibility to reach a higher level, according to their progress in learning and actual achievements; taking into account already completed parts of the training. And vice versa, there should be an exchange of courses of a higher level to a lower level courses taking into account the already covered training periods.

In an open and transparent system gradual learning according to individual skills and potential is realized in every respect. Depending on the learning achievements and developments, each individual can achieve in principle the completion of education and training, although in different ways.

Also in vocational training every young person deserves a second chance. This requires specific actions of preparation and promotion which need to be developed and implemented in close co-operation with enterprises, inter-company training workshops and vocational schools.

Vocational training should preferably ensue in the dual system which combines

practical training in the enterprises with accompanying theoretical courses in vocational schools and ends with a recognized vocational education degree. For school-based vocational training, practical learning activities under field conditions and corporate learning times should include at least 50% of the total training time.

The mediation of theory should be possible alongside the practical training. In the case of larger theoretical issues which require related presentation, longer teaching blocks can be chosen to provide theoretical training to a certain extent.

The teaching of the theory (vocational schools) and practice (companies) requires close coordination and integration. Vocational schools also in this case have to prove that they have a very high degree of responsibility and flexibility and the content as well as the presentation forms (block or day classes, block lengths, project work, etc.) should be designed in a way specific for a given profession and in cooperation with enterprises. Vocational schools should be worn with a public funding from the economic self-government, at least the chambers have to be heavily involved in the management of professional schools. In doing so, intensive contacts to enterprises will be made resulting in cost-reduction and concurrent increase of quality. If a sponsorship of vocational schools by economic self-administration is not feasible, enterprises or their representatives of the economic self-governance have at least to be involved in an instrumental way in the design and implementation of the tasks of vocational schools.

Vocational education must qualify for the future requirements of employment. The superiority of the dual system is based – among others – on the fact that large parts of the education take place in the enterprises. Thus, there is a permanent orientation towards the actual and future economic challenges. Accordingly, school-based vocational training requires intensive contacts with enterprises. The teachers in vocational schools must cooperate intensively with the enterprises and should do internships in enterprises on a regular basis as well as realize intensive further education.

An internship abroad already during the studies needs to be further supported. In addition to the general broadening of international experience, gathered intercultural competence is strengthened, contacts are made and work methods and practices are learned abroad. Parts of the training acquired abroad and the periods of learning must be fully recognized for the vocational training in their home country.

The vocational qualifications of all the three levels must be proven in national examinations. On this basis, the system of professional training and the examinations will be transferred in the entire Baltic Sea area, just as a sovereign function of the chambers as responsible institution for vocational education. The acquired qualifications require mutual recognition in the Baltic States.

For this purpose, the development of the European Qualifications Framework (EQF) and a European system of credit points is conducted. These approaches are based

on transparency and mutual trust. The focus is the qualifications of skills of stronger learners and learning outcomes. In the implementation it is particularly important to provide non-bureaucratic systems, which would document acquired skills and competencies by certificates of the international recognition and equality, encourage

continuous learning, facilitate education and activities abroad and to motivate as well as facilitate the enterprises which are liable for their personnel decisions, provide information and transparency. The chambers in the Baltic Sea Region can - on the basis of a stable trust - perform the implementation of not-bureaucratic systems and a full introduction of a pioneering role and so reach innovation projections.

Not only the formal learning and knowledge, but also informal learning and skills of stronger learners acquired during training are crucial for a high level of qualification. They should therefore be documented in certificates, as well as assessments of enterprises and self-assessments. The Euro-Pass constitutes an orientation basis, which encompasses personal skills, competencies and recognized qualifications; it can be completed on the basis of the demand and should receive intensive support from the partners from the Baltic Sea Region.

The measures outlined above can also serve to enhance and increased attractiveness of the vocational education. In order to achieve these objectives complete outstanding permeability between vocational and higher education with recognition of competencies acquired earlier is needed. A Vocational degree including professional activity of 2 - 3 years should entitle to higher university education in all the Baltic States.

Furthermore, all measures of quality improvement and assurance taken in the professional training and comprehensive information and image campaigns need to be conducted. In this context, it is also necessary to highlight and clarify the immense nature of general education and vocational training, which demonstrates that particularly within vocational education a new elite of responsibility will be created and an elite promotion of achievement of all sorts of educational attainments and professional activities needs to be implemented.

Young people and their parents must be aware that facing the large and increasing proportion of university graduates professionals and managers who have completed vocational training as the most limited factor and therefore in comparison to many

academic degrees they have the best future prospects. However, vocational training may not lead to dead ends, but must be justified in an open and totally transparent system of continuous further education and university qualifications.

Further vocational training does not require government regulation and should be primarily the responsibility of the industry and its local self-administration. Employers and employees need to recognize much greater extent of the high and growing importance of training and heavily invest in it. In this context, new models of burden sharing should be developed, in which for example the enterprises bear the cost of the training and the employees can have their leisure time.

However, in general further vocational training requires intensive professional development and in particular some improvements. This includes various approaches, for example:

- Systematic development of certified training modules that can be combined and lead to accredited training qualifications.
- Creation of training professions and professional development of horizontal career paths.

- Establishment of equality of educational pathways and degrees of vocational, general and university education.
- Full permeability and enhanced links between vocational education, further training and general education, and in particular university education. Vocational training needs to be taken into account in relevant disciplines of study.
- Promotion of international exchange, implementation of professional activities and training abroad, while making the greatest possible transparency of the acquired skills.
- International recognition or equivalence of further education qualifications in the context of non-bureaucratic systems.

According to the regulation in Germany, the chambers in all Baltic Sea countries should maintain the authority of sovereign functions. The chambers should be able to issue official examination regulations with recognized degrees of further education programs (so called Chamber examination). Solely the chambers should be responsible for the examinations in further education programs.

The Qualification for Master Craftsmen has proved to be very successful. This qualification secures the theoretical and practical knowledge and skills of junior employees and managers. The Qualification for Master Craftsmen is essential for small and medium sized enterprises; it must be intensified and coherently provided in the entire Baltic Sea area. The Qualification for Master Craftsmen must entitle to start academic studies. The obtained qualification during the Master Craftsmen must be taken into account comprehensively for the study courses. It seems to be appropriate that achievements in the Qualification for Master Craftsmen will also be evaluated in Credit Points, which can then be taken into account for the study program. This creation of permeability will sustainably increase the attractiveness of vocational education in general and that of the Qualification for Master Craftsmen in particular. Any opening of the education systems with various educational carriers will satisfy individual affinities and abilities. Furthermore, it provides an opportunity to enterprises

to meet the increased demand for skilled labour. It corresponds to the dire necessity that employees from outside the profession can work in craft-based industries and small- and medium sized enterprises.

Bachelor courses should be much more practice-oriented and offered as a dual system. So studying at the university would be linked to vocational training or practical work in enterprises. Vocational training is completed with a separate degree and in a certain scope would lead also to credit points which are required for passing the Bachelor examination. Dual study programs could be combined with the Qualification for Master Craftsmen. The achieved credit points must be taken into account completely for the Bachelor exam.

Within the framework of dual courses of studies, each student should be obliged to complete a part of their studies or vocational training abroad. Hereby, the focus should be laid on vocational training or employment in a foreign enterprise, since this at the same time allows making contacts between enterprises.

Colleges and universities need to cooperate in teaching and research much more closely with small and medium-sized enterprises. Dual



degree programs can contribute significantly in the future to meet the high and growing demand of young entrepreneurs, managers and of professionals who have both practical and sound theoretical training. This training partnership between enterprises as well as colleges and universities is also an ideal starting point to knowledge sharing, technology transfer and implementation of practice-related research and development work.

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