

## Germany

### Overview of the Vocational Education and Training System

2008

eKnowVet – Thematic Overviews



**CEDEFOP**

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**Abstract:**

This is an overview of the VET system in Germany. Information is presented according to the following themes:

1. General policy context - framework for the knowledge society
2. Policy development - objectives, frameworks, mechanisms, priorities
3. Institutional framework - provision of learning opportunities
4. Initial vocational education and training
5. Continuing vocational education and training for adults
6. Training VET teachers and trainers
7. Skills and competence development and innovative pedagogy
8. Accumulating, transferring and validating learning
9. Guidance and counselling for learning, career and employment
10. Financing - investment in human resources
11. European and international dimensions, towards an open area of lifelong learning

This overview has been updated in 2008 and its reference year is 2007. The latest versions can be viewed from October 2009 onwards at:

[http://www.cedefop.europa.eu/etv/Information\\_resources/NationalVet/Thematic/](http://www.cedefop.europa.eu/etv/Information_resources/NationalVet/Thematic/) where more detailed thematic information on the VET systems of the EU can also be found.

**Keywords:**

training system; training policy, initial training, continuing vocational training, training of trainers, skill development, vocational guidance, recognition of competences, validation of non formal learning; financing of training

**Geographic term:**

Germany

## TABLE OF CONTENTS

<b>01 GENERAL POLICY CONTEXT - FRAMEWORK FOR THE KNOWLEDGE SOCIETY.....</b>	<b>6</b>
0101 - Political And Socio-Cultural/Economic Context.....	6
0102 - Population And Demographics .....	6
0103 - Economy And Labour Market Indicators.....	7
0104 - Educational Attainment Of Population .....	9
<b>02 POLICY DEVELOPMENT - OBJECTIVES, FRAMEWORKS, MECHANISMS, PRIORITIES.....</b>	<b>11</b>
0201 - Objectives And Priorities.....	11
<b>03 INSTITUTIONAL FRAMEWORK - PROVISION OF LEARNING OPPORTUNITIES .....</b>	<b>13</b>
0301 - Legislative Framework For Vocational Education And Training.....	13
0302 - Institutional Framework: IVET .....	14
0303 - Institutional Framework: CVET .....	16
<b>04 INITIAL VOCATIONAL EDUCATION AND TRAINING.....</b>	<b>18</b>
0401 - Background To The IVET System And Diagram .....	18
0402 - IVET At Lower Secondary Level .....	20
0403 - IVET At Upper Secondary Education (School-Based And Alternance) .....	20
0404 - Apprenticeship Training .....	23
0405 - Other Youth Programmes And Alternative Pathways .....	24
0406 - Vocational Education And Training At Post-Secondary (Non Tertiary) Level .....	27
0407 - Vocational Education And Training At Tertiary Level.....	28
<b>05 - CONTINUING VOCATIONAL EDUCATION AND TRAINING FOR ADULTS .....</b>	<b>30</b>
0501 - Background information on continuing vocational education and training .....	30
0502 - Publicly Promoted CVET For All .....	32
0503 - Training For Unemployed People And Others Vulnerable To Exclusion In The Labour Market.....	34
0504 - CVET At The Initiative Of Enterprises Or Social Partners .....	35
0505 - CVET At The Initiative Of The Individual.....	37

<b>06 - TRAINING VET TEACHERS AND TRAINERS.....</b>	<b>38</b>
0601 - Types Of Teachers And Trainers In VET.....	38
0602 - Types Of Teachers And Trainers In IVET.....	39
0603 - Types Of Teachers And Trainers In CVET.....	43
<b>07 - SKILLS AND COMPETENCE DEVELOPMENT AND INNOVATIVE PEDAGOGY.....</b>	<b>45</b>
0701 - Mechanisms For The Anticipation Of Skill Needs.....	45
0702 - Bridging Pathways And New Educational Partnerships.....	46
0703 - Renewal Of Curricula.....	47
<b>08 - ACCUMULATING, ACCREDITING AND VALIDATING LEARNING .....</b>	<b>49</b>
0801 - Accumulating, Accrediting And Validating Formal Learning .....	49
0802 - Accumulating, Accrediting And Validating Non-Formal/Informal Learning.....	50
0803 - Impact Of EU Policy Cooperation .....	51
0804 - Facilitating EU Mobility.....	53
<b>09 - GUIDANCE AND COUNSELLING .....</b>	<b>54</b>
0901 - Strategy And Provision .....	54
0902 - Target Groups And Modes Of Delivery .....	54
0903 - Guidance And Counselling Personnel .....	56
<b>10 - FINANCING - INVESTMENT IN HUMAN RESOURCES.....</b>	<b>57</b>
1001 - Background Information Concerning Financing Arrangements For Training.....	57
1002 - Funding For Initial Vocational Education And Training .....	57
1003 - Funding For Continuing Vocational Education And Training, And Adult Learning.....	59
1004 - Funding For Training For Unemployed People And Other Groups Excluded From The Labour Market .....	60
1005 - Perspectives And Issues: From Funding To Investing In Human Resources.....	60
<b>11 - EUROPEAN AND INTERNATIONAL DIMENSIONS, TOWARDS AN OPEN AREA OF LIFELONG LEARNING .....</b>	<b>62</b>
1101 - National Strategies Related To Policy Priorities, Programmes And Initiatives At EU Level.....	62
1102 - Impact Of Europeanisation/Internationalisation On Education And Training .....	65
1103 - Authors, Sources And Bibliography .....	65

## 01 - GENERAL POLICY CONTEXT - FRAMEWORK FOR THE KNOWLEDGE SOCIETY

### 0101 - POLITICAL AND SOCIO-CULTURAL/ECONOMIC CONTEXT

Germany is a republic and a democracy; it is a federal state based on the rule of constitutional law and social justice. Berlin is both the country's capital city and the seat of government. During its founding phase, the federal republic of Germany chose to adopt a social market economy, combining free enterprise within a competitive economy with social progress. This central idea is reflected in the conviction that a social market economy is most successful when controlled by market forces, with State intervention only as a corrective or supportive measure.

The Federal President is the Head of State. He is elected by the Federal Convention for a five year term of office, and is essentially responsible for functions involving representation. The Federal Chancellor is the Head of Government. Within the Federal Government, he has the authority to decide on government policy. The *Bundestag* (Lower House of Parliament) and the *Bundesrat* (Upper House) are the two legislative bodies. The *Bundestag* is elected by popular vote every four years.

Germany comprises 16 *Länder*, each having some of the features of a state. Each has its own powers within certain spheres, which it exercises through its own legislature, executive and judiciary. There is a distinct cooperative federalism within the State sector, both horizontally between the *Länder* and between the *Länder* and the Federal Government.

Unless specified otherwise in the Constitution (*Grundgesetz*), state responsibilities fall within the sphere of competence of the *Länder* which also have legislative power in certain areas. Furthermore, through the *Bundesrat*, the *Länder* play a part in the Federation's lawmaking and management and in European Union issues.

Educational and cultural legislation and administration is primarily the responsibility of the *Länder*. In the field of VET the Federal Government is responsible for in-company vocational training, while the *Länder* are responsible for vocational training in schools, and hence also for vocational schools. Vocational training in enterprises has developed a third system situated between market and State, in the form of joint control. The German political system is characterised by this social partnership.

### 0102 - POPULATION AND DEMOGRAPHICS

Germany comprises an area of 357.093 km<sup>2</sup>. On 31 December 2006, the population was 82.35 million (Statistisches Bundesamt, 2007c, p. 34). Since 2003 the population has been decreasing slightly since the immigration surplus now no longer compensates for the drop in the birth rate (ibid.). If the birth rate remains as low, population decline will not only continue, but also accelerate in the longer term. According to the mean variant of the Federal Statistical Office's 11<sup>th</sup> (2006) coordinated population forecast (assumptions: increase in life expectancy to 83.5 for men and 88.0 for women by 2050;

immigration surplus of at least 200,000 persons a year), the population will fall to 74.0 million by 2050. In parallel, there will be a marked shift in the age structure (see *Table 1*). The predicted decrease of young people aged 20-25 might lead to a shortage of people to work in certain regions, sectors and occupations.

Table 1: Age-specific demographic trends				
	2005	2010	2020	2030
<b>0-19</b>	20.0%	18.3%	16.9%	16.6%
<b>20-59</b>	55.1%	55.4%	52.9%	47.6%
<b>60+</b>	24.9%	26.2%	30.2%	35.8%

Source: Federal Statistical Office, 11th Coordinated Population Forecast, 2006.

### 0103 - ECONOMY AND LABOUR MARKET INDICATORS

In recent decades, there has been a steady decrease in economic growth rates (down from an average of 2.6% across 1981-1991 to 1.7% across 1992-2001) (Konsortium Bildungsberichterstattung, 2006, p. 8). In 2002 and 2003, growth almost completely stagnated. Increased international competition, German reunification (1990) and the introduction of the Euro (2002) have had an impact. Following a slight recovery in 2004 and 2005, in 2006 and 2007 economic growth exceeded 2% (see *Table 1*).

Table 1: Growth rate of GDP in real terms – percentage change compared with the previous year, 2002-2007			
	GERMANY	EU-25	EU-27
<b>2002</b>	0.0	1.2	1.2
<b>2003</b>	- 0.2	1.3	1.3
<b>2004</b>	1.1	2.5	2.5
<b>2005</b>	0.8	1.9	1.9
<b>2006</b>	2.9	3.1	3.1
<b>2007</b>	2.5	2.9	2.9

Source: Eurostat, National Accounts, online database; Date of extraction: 27/07/2008.

Germany has undergone a substantial shift from an industrial to a service economy. The service sector is the largest sector of the economy, in terms of both gross value added and income structure (see *Table 2*).

Table 2: Economic composition (GDP) and employment (active work force) by sector 2006

SECTOR	CONTRIBUTION TO GDP	EMPLOYMENT <sup>(1)</sup>
AGRICULTURE	1.0%	2.2%
PRODUCTION	26.0%	25.5%
SERVICES	73.2%	72.4%

(1) Preliminary result.

Source: Federal Statistical Office, Statistical Yearbook 2007, p. 82, 653

The labour market situation in Germany has changed for the better in the last two years. Nevertheless, the unemployment rate in 2007 (8.4%) was still above the EU average (EU-27: 7.1%; EU-25: 7.2%). Within this figure, youth unemployment (those aged 15-24) has remained below the EU average (see Table 3).

Table 3: Unemployment rates in Germany, EU-25 and EU-27, 2002-2007 (in %)

	GERMANY				EU-25				EU-27			
	WOMEN	MEN	OVERALL	15-24	WOMEN	MEN	OVERALL	15-24	WOMEN	MEN	OVERALL	15-24
<b>2002</b>	7.9	8.8	8.4	9.1	9.6	8.1	8.8	17.4	9.7	8.3	8.9	17.9
<b>2003</b>	8.7	9.8	9.3	9.8	9.8	8.3	9.0	17.8	9.7	8.4	9.0	18.0
<b>2004</b>	9.1	10.3	9.8	11.9	9.9	8.4	9.0	18.2	9.8	8.4	9.0	18.4
<b>2005</b>	10.1	11.2	10.7	14.2	9.7	8.3	8.9	18.2	9.6	8.3	8.9	18.3
<b>2006</b>	9.4	10.2	9.8	12.8	9.0	7.5	8.2	16.9	8.9	7.6	8.2	17.1
<b>2007</b>	8.3	8.5	8.4	11.1	7.9	6.6	7.2	15.1	7.8	6.6	7.1	15.3

NB: The unemployment rate is the percentage of unemployed workers in the working population.

Source: Eurostat, EU Labour Force Survey, online database; Date of extraction: 20/08/2008.

The employment rate in Germany has remained largely unchanged in the past six years and has risen slightly in comparison with 2002 (see Table 4). This is due, in particular, to the increasing proportion of women in employment.

Table 4: Employment rates (among persons aged 15-64) in Germany, EU-25 and EU-27 by gender, 2002-2007 (in %)

	GERMANY			EU-25			EU-27		
	WOMEN	MEN	OVERALL	WOMEN	MEN	OVERALL	WOMEN	MEN	OVERALL
2002	58.9	71.8	65.4	54.7	71.0	62.8	54.4	70.3	62.3
2003	58.9	70.9	65.0	55.2	70.9	63.0	54.9	70.3	62.6
2004	59.2	70.8	65.0	55.8	70.9	63.3	55.5	70.4	62.9
2005	60.6	71.3	66.0	56.6	71.4	64.0	56.3	70.8	63.5
2006	62.2	72.8	67.5	57.6	72.1	64.8	57.3	71.6	64.5
2007	64.0	74.7	69.4	58.6	73.0	65.8	58.3	72.5	65.4

(: ) No data available.

Source: Eurostat, EU Labour Force Survey, online database; Date of extraction: 20/08/2008.

Relative to GDP, expenditure on educational institutions shows the priority given to education by each country in terms of allocating its overall resources. This indicator covers expenditure on those educational institutions that are engaged in instruction as well as expenditure on non-instructional educational institutions (i.e. institutions that provide administrative, advisory or professional services to other educational institutions, although they do not enrol students themselves). In Germany, the expenditure on educational institutions is stagnating in recent years and lies below the OECD country mean (5.1% vs. 5.6%, respectively, in 2005) (OECD, 2008, p. 237).

Public expenditure on education as a percentage of total public expenditure indicates the value placed on education relative to that of other public investments such as health care, social security, defence and security. This indicator includes direct public expenditure on educational institutions as well as public subsidies to households (e.g. scholarships and loans to students for tuition fees and student living costs) and to other private entities for education (e.g. subsidies to companies or labour organisations that operate apprenticeship programmes). In 2005, Germany spent 9.7% of total public expenditure on education (OECD average: 13.2%) (ibid., p. 262)

#### 0104 - EDUCATIONAL ATTAINMENT OF POPULATION

A high proportion of people in Germany have upper secondary level qualifications (60% in 2007 compared to an EU average of 47%, see Table 1). One reason for this is the longstanding tradition of the dual system of

vocational training. For higher education, Germany approximates the EU average. The proportion of young people aged 15 to 24 with a low level of qualification was constantly below the EU average in the last six years (see *Table 2*).

Table 1: Educational attainment of the population aged 25-64 by ISCED level, % (2007)			
LEVEL OF EDUCATION			
	ISCED 0-2	ISCED 3-4	ISCED 5-6
GERMANY	16%	60%	24%
EU-27	29%	47%	23%

ISCED 0-2: Pre-primary, primary and lower secondary education

ISCED 3-4: Upper secondary and post-secondary non-tertiary education

ISCED 5-6: Tertiary education

Source: Eurostat; EU Labour Force Survey, online database; Date of extraction: 27/05/2008

Table 2: Percentage of the population, aged 18 to 24 with at most lower secondary education and not in further education and training (2002-2007)						
YEAR	2002	2003	2004	2005	2006	2007
GERMANY	12.6	12.8	12.1	13.8	13.9	12.7
EU-25	16.6	16.1	15.4	15.1	15.0	14.5
EU-27	17.1	16.6	15.9	15.5	15.2	14.8

Low level of education: levels 0-2 (ISCED 1997)

Source: Eurostat; EU Labour Force Survey; Date of extraction: 29/05/2008

## 02 - POLICY DEVELOPMENT - OBJECTIVES, FRAMEWORKS, MECHANISMS, PRIORITIES

### 0201 - OBJECTIVES AND PRIORITIES

In Germany, training under the dual system is a key element of innovative strength, competitiveness and social cohesion. Its relevance to practical work and its closeness to the labour market enable high transfer rates from vocational training to working life and thus ensure that the economy's demand for qualified workers is met. Vocational training gives young people medium- and long-term employability and therefore job and career prospects. These factors are a prerequisite for people's self-determination and participation in society. The structural changes of the economy and of society, current demographic developments, and globalisation make it necessary to adapt the vocational training system to new requirements. In order to tackle future challenges and to improve the VET system's structure and transition opportunities, the Federal Minister of Education and Research appointed two task forces, the "Innovation Circle on Vocational Education" (*Innovationskreis Berufliche Bildung - IKBB*) and the "Innovation Circle on Continuing Education and Training" (*Innovationskreis Weiterbildung - IKWB*), in spring 2006 to lay foundations for new structures in IVET and CVET. Both innovation task forces were recruited from high-level representatives from business, research, industry associations, trade unions and *Länder* administrations.

In July 2007 the *IKBB* set out ten guidelines on the reform of vocational education (BMBF, 2007a). The stated objective of the *IKBB* was to identify the central challenges for innovation in the German vocational education and training system, and to work out concrete options for improving the structures of vocational education and training. The recommendations of the *IKWB* which were published in March 2008 follow on from the "Strategy for Lifelong Learning in the Federal Republic of Germany" agreed in 2004 by the Federal and *Länder* governments as represented by the Bund-*Länder* Commission for Educational Planning and Research Promotion (*BLK*) (BMBF, 2008c). They build on diverse range of previous initiatives and approaches to strengthen lifelong learning and are embedded in current initiatives. The main aim is to increase the number of people who participate in lifelong learning. In view of the fact that the level of participation in continuing education in Germany is too low compared to that of other countries, the experts of the *IKWB* have proposed a new education policy target: increasing the participation of people between the ages of 25 and 64 in lifelong learning to 80% by 2015. As regards formalized continuing education, the experts suggest an increase from 43% to 50%, and from 28% to 40% for low-skilled workers.

In addition, the Federal Government set up a "Qualification Initiative" in January 2008 (BMBF, 2008a). It pools a wide range of different measures in the areas of general education, higher education, and VET, with the aim of giving young people good career and life prospects, regardless of their social background, and opening up new opportunities in the areas of training and qualification. Implementation and further measures are coordinated with the *Länder*, companies and social partners.

Table 1: Policy priorities in VET in Germany

No.	POLICY PRIORITY	POLICY APPROACH / MEASURES
1.	TRAINING PLACES FOR ALL	<p>Continuation of the National Pact for Career Training and Skilled Manpower Development in Germany (<i>Nationaler Pakt für Ausbildung und Fachkräftenachwuchs in Deutschland</i>), originally concluded in June 2004 between the Federal Government and the top-level organisations of German industry, until 2010</p> <p>Conversion of the previous special programme “Introductory training for young people” (<i>Einstiegsqualifizierung Jugendlicher - EQJ</i>) into universal Introductory Training (<i>Einstiegsqualifizierung - EQ</i>) which is now available to job-seekers of any age as a routine entitlement and an integration mechanism</p> <p>Improvement of regional IVET structures: BMBF “JOBSTARTER” and “Training places for the eastern states” (<i>Ausbildungsplatz Ost</i>) programmes</p> <p>Introduction of a training bonus (<i>Ausbildungsbonus</i>)</p> <p>Training module programme</p> <p>Use of extra- and inter-company training capacities for repeat applicants (<i>Altbewerber/innen</i>)</p> <p>Expansion of practical classes</p> <p>“Vocational qualification prospects” (<i>Perspektive Berufabschluss</i>) programme</p> <p>Recruitment of companies in innovative and research-based sectors and in growth sectors for IVET, e. g. targeted sector campaigns</p>
2.	ADVANCEMENT THROUGH EDUCATION	<p>Award of an advancement bursary to talented completers of dual-system apprenticeships wishing to proceed directly into higher education study</p> <p>Raised level of grant support for upgrading training</p>
3.	IMPROVING PERMEABILITY AND INTEGRATION BETWEEN EDUCATION SECTORS, ESPECIALLY SMOOTHING THE TRANSITION FROM SCHOOL TO UNIVERSITY	<p>Higher Education Pact 2020</p> <p>Stepping up information campaigns, e.g. through the German international schools and the “Routes into study” (<i>Wege ins Studium</i>) network in which the Federal and <i>Länder</i> governments support academic counselling jointly with other partners</p> <p>Stepping up promotion of study at German universities via the German international schools</p> <p>Development of additional qualifications at the interfaces between initial and continuing vocational education and training</p> <p>Creation of additional, differentiated options for crediting prior qualifications towards a higher education degree</p>
4.	STRENGTHENING THE EUROPEAN DIMENSION DURING IVET	<p>Development of a German Qualification Framework (<i>Deutscher Qualifikationsrahmen - DQR</i>)</p> <p>Development and piloting of a credit transfer system for VET</p> <p>Opening up the German system of training and further training regulations to Europe</p> <p>International training for apprentices</p> <p>Reinforcement of VET on the dual system and dual principle within Europe</p>
5.	SIGNIFICANT INCREASE IN PARTICIPATION IN CONTINUING EDUCATION, PARTICULARLY THE PARTICIPATION RATE OF LOW-QUALIFIED WORKERS, BY 2015	<p>Strengthening the motivation and responsibility of individuals for their lifelong learning</p> <p>Enhancing recognition and acceptance of lifelong learning</p> <p>Improving permeability and integration between education sectors</p> <p>Ensuring transparency and high quality vocational guidance, development of guidance opportunities</p> <p>Improving integration of migrants into the education system</p> <p>Boosting the appeal of continuing education opportunities for older people, e. g. the Federal Employment Agency’s special programme “Continuing vocational education and training for low-qualified and older workers in companies” (<i>Weiterbildung Geringqualifizierter und beschäftigter Älterer in Unternehmen - WeGebAU</i>)</p> <p>Introduction of a learning subsidy (<i>Bildungsprämie</i>) (saving for continuing education and training)</p>

Source: Compiled by the authors

### 03 - INSTITUTIONAL FRAMEWORK - PROVISION OF LEARNING OPPORTUNITIES

#### 0301 - LEGISLATIVE FRAMEWORK FOR VOCATIONAL EDUCATION AND TRAINING

The system of VET in Germany is founded on a legal system with differing levels and specifications of regulations. Initial training in enterprises is regulated by a series of federal Laws and regulations. The most significant framework conditions are the free choice and practice of an occupation, as provided for in the Constitution (*Grundgesetz*: Article 12 (1)) and Federal Government competence for legislation for out-of-school vocational training (Article 72 (1), (2) and Article 74 (1)).

Of crucial importance for the organisation of out-of-school vocational training is the Vocational Education and Training Act (*Berufsbildungsgesetz - BBiG*). It was reformed in 2005 to improve training opportunities for young people regardless of their social or regional origin. Major innovations were the recognition of time-limited training periods abroad, the amendment of the Enabling Standard for the promulgation of training regulations by the Federal Institute for Vocational Education and Training (*BIBB*), and the amendment of the crediting of prior VET to the training period. Other important legislation for the organisation of out-of-school vocational training includes the Regulation on Craft Trades (*Handwerksordnung - HwO*), the Ordinance on Trainer Aptitude (*Ausbildereignungsverordnung - AEVO*), and the Protection of Young People in Employment Act (*Jugendarbeitsschutzgesetz - JArbSchG*).

*Länder* legislation forms the legal basis for school education, including vocational schools and the few private schools. Article 7 (1) in conjunction with Article 30 and Articles 70 to 75 of the Constitution confers legislative competence in these areas on the *Länder*.

The legal bases for the promulgation of training regulations are Section 25(1) BBiG and

Section 25(1) HwO. These sections provide that the Federal Ministry of Economics and

Technology (*Bundesministerium für Wirtschaft und Technologie - BMWi*) or the otherwise competent ministry, by agreement with the Federal Ministry of Education and Research (*Bundesministerium für Bildung und Forschung - BMBF*), may publicly recognise training occupations via statutory instrument and may issue training regulations for training occupations.

Training regulations are prepared by the *BIBB*. The *BIBB* also carries out research projects and helps in the further development of in-company VET by means of development, promotional and advisory work.

The Standing Conference of Ministers for Education and Cultural Affairs (*Ständige Konferenz der Kultusminister der Länder - KMK*) issues framework curricula for vocational education at vocational schools. These framework curricula are harmonised with the Federal Government's training regulations.

Curricula for general education at vocational schools are essentially developed by the individual *Länder*.

Continuing vocational training is legally regulated on both federal and *Länder* levels. Among the federal laws the following, in addition to those mentioned above in the context of initial training, are also relevant: the Social Code III (*Sozialgesetzbuch III - SGB III*), the Career Advancement Training Promotion Act (*Aufstiegsfortbildungsförderungsgesetz - AFBG*) and the Distance Learning Protection Act (*Fernunterrichtsschutzgesetz - FernUSG*). The Works Constitution Act (*BetrVG*) plays a complementary role. In 14 of the 16 *Länder*, Laws on continuing and adult education, passed between 1974 and 1995, regulate primarily general education and - more marginally - CVET. 12 *Länder* have passed Laws on educational leave (*Bildungsurlaub*) that provide for the short-term release of employees to attend continuing training courses.

Please find a complete list and some more details under the following link:

[Initial training and Continuing Vocational Training](#)

## **0302 - INSTITUTIONAL FRAMEWORK: IVET**

### **ROLE OF THE EUROPEAN UNION**

EU involvement in VET in Germany is mainly in the context of the European Commission's programme Leonardo da Vinci (part of the Lifelong Learning Programme 2007-2013). Leonardo da Vinci focuses on raising the quality and relevance of VET, and provides an opportunity for organisations to build European partnerships, exchange best practice, increase the expertise of their staff and develop the skills of learners. In Germany, the national agency Education for Europe at the Federal Institute for Vocational Education and Training (*Bundesinstitut für Berufsbildung - BIBB*) is in charge of conducting the programme.

The European Social Fund (ESF) is the EU's main financial instrument for investing in people. Since 2000, the ESF has been a key part of the EU's Lisbon strategy for growth and jobs. It supports the EU's goal of increasing employment by giving unemployed and disadvantaged people the training and support they need to enter jobs. Member States and regions devise their own ESF Operational Programmes in order to respond to the real needs 'on the ground'. In Germany, the Federal Ministry of Labour and Social Affairs (*Bundesministerium für Arbeit und Soziales - BMAS*) is responsible for implementing measures under the ESF. For 2007-2013, ESF priorities are:

- investing in the future: improving the level of basic competences;
- transformation of systems to make Lifelong Learning (LLL) a reality for all;
- increasing the quality and attractiveness of VET.

## ROLE OF CENTRAL GOVERNMENT

Within the Federal Government, the Federal Ministry of Education and Research (*Bundesministerium für Bildung und Forschung - BMBF*) is responsible for policy, coordination and legislation for: out-of-school vocational training and continuing education; training assistance; the general principles of the higher education system; as well as the expansion and construction of institutions of higher education. The Federal Ministry of Economics and Technology (*Bundesministerium für Wirtschaft und Technologie - BMWi*) or the otherwise competent ministry may publicly recognise training occupations via statutory instrument and may issue training regulations for training occupations by agreement with the *BMBF*.

The core institution at the national level for consensus building between all parties involved in VET is the Federal Institute for Vocational Education and Training (*BIBB*). *BIBB* conducts research into in-company vocational training and fulfils service and consultancy functions to the Federal Government and vocational training providers. The four-party Main Board (*Hauptausschuss*) advises the Federal Government on fundamental issues of in-company vocational training.

## ROLE OF REGIONAL/LOCAL GOVERNMENT

The Constitution (*Grundgesetz*) provides that competence for school education lies with the *Länder* Ministries of Education and Cultural Affairs. This responsibility both entitles and obliges them to cooperate with one another and to work together with the Federal Government. The Ministers of Education and Culture of the *Länder* cooperate in a Standing Conference (*KMK*) to ensure a certain measure of uniformity and comparability, especially in school and higher education policies. Decisions of the *KMK* are recommendations and only become legally binding when passed by individual *Länder* parliaments. The *Länder* have committees for vocational training, with equal representation of employers, employees and the highest *Länder* authorities. They advise the *Länder* governments on vocational training issues in schools.

## ROLE OF SOCIAL PARTNERS

The main feature of the German VET system is the close partnership between employers, trade unions and the government. Social dialogue and codetermination are important for the acceptance of reforms. Management and labour exert considerable influence on the content and form of VET to ensure that their requirements and interests are taken into account. Responsible action of all participants, over and above each group's particular interests, is a precondition for the efficiency of the dual system.

At **national level** social partner involvement is established with the Main Board (*Hauptausschuss*) of the Federal Institute for Vocational Education and Training (*Bundesinstitut für Berufsbildung - BIBB*) on a four-party basis (Federal Government, *Länder*, employers, employees). As stated in the Vocational Education and Training Act (*Berufsbildungsgesetz*) the Main Board has to advise the Federal Government on all VET issues. One task is the involvement in standard setting and designing training regulations.

At **Länder level** there are committees for vocational training, with equal representation of employers, employees and *Länder* authorities. They advise *Länder* governments on vocational training issues and also influence concepts and schemes, for example those for providing support for disadvantaged youths, and opportunities for additional qualifications requiring school training.

At **regional level**, the Competent Bodies (*Zuständige Stellen*) play a crucial role. They include the chambers of industry and commerce for the industrial sector, the chambers of crafts, the appropriate professional boards for the liberal professions as well as various federal and *Land* authorities. Their tasks are: to ensure the suitability of training centres; monitor training in enterprises; support vocational training with advice to training enterprises, instructors and trainees; to establish and maintain a list of training contracts; and to institute the system of examinations and hold final examinations. In every Competent Body there is a vocational training committee with tripartite representation from employers, trade unions, and teachers. It has to be informed and consulted on all important VET issues. Moreover, the committee decides which legal regulations are passed for implementing VET.

At **sectoral/enterprise level**, the Works Constitution Act (*Betriebsverfassungsgesetz - BetrVG*) applicable to the private sector and the Staff Representation Acts (*Personalvertretungsgesetze - PersVG*) of the *Länder* for the public service grant works councils or staff councils numerous co-determination and involvement rights both in initial and continuing training. These rights are exerted within collective bargaining on the remuneration of trainees, planning and implementing in-company training, appointing instructors, realising special in-company education and training measures, concluding employment contracts upon completion of training, and educational leave.

### ROLE OF OTHER NON-GOVERNMENTAL ORGANISATIONS (NGOs)

Although the majority of vocational schools are State regulated and publicly funded schools a growing proportion is privately maintained, e.g. church-run (notably the Catholic Church). During the 2006/2007 school year 21.0% of all vocational schools were private schools, which would not necessarily preclude the possibility that they also receive government assistance (cf. *Statistisches Bundesamt, Private Schulen, Schuljahr 2006/2007*, p. 39). The right to establish private schools is expressly guaranteed by the *Grundgesetz* and, to some extent, by provisions in the constitutions of the individual *Länder*. Generally, private schools are subject to state supervision.

### 0303 - INSTITUTIONAL FRAMEWORK: CVET

#### ROLE OF THE EUROPEAN UNION

See 0302.

#### ROLE OF CENTRAL GOVERNMENT

Responsibilities refer to CVET outside the school sector and regulated further vocational training. The promotion of vocational further education under the

Federal Government's Social Security Code III (*Sozialgesetzbuch III*) is the responsibility of the Federal Employment Agency (*Bundesagentur für Arbeit - BA*). The Career Advancement Training Promotion Act (*Aufstiegsfortbildungsförderungsgesetz - AFBG*) provides a comprehensive nationwide means for financing vocational career advancement training. The joint responsibilities of the Federation and the *Länder* include research and pilot schemes in all sectors of continuing education as well as for preparing statistics and reports in their respective areas of responsibility.

### ROLE OF REGIONAL/LOCAL GOVERNMENT

The prerequisites and principles for the promotion and funding of continuing education are laid down in continuing education and employment legislation of the *Länder*. Legislation describes continuing education as an independent education sector which incorporates continuing general and political education and continuing vocational training and the development of which is the responsibility of the public sector. Continuing education legislation guarantees a diverse range of institutions maintained by a variety of organisations and lays down a state approval procedure for them. All *Land* legislation includes regulations which recognise their freedom in the preparation of curricula and independence in staff selection. Furthermore, specific issues relating to continuing education were regulated in collective bargaining contracts, company agreements and contracts of employment.

In addition to continuing education legislation, school legislation at *Land* level contains regulations on continuing education within the school system (e.g. the attainment of school-leaving qualifications). For example, regulation regarding continuing education provision at vocational academies (*Berufsakademien*) is contained in the *Berufsakademie* legislation.

In 12 of the 16 *Länder*, legislation allows employees to attend continuing education courses (paid educational leave - *Bildungsurlaub*) for several working days per year (usually five) with no loss in earnings, provided that certain conditions are fulfilled.

### ROLE OF SOCIAL PARTNERS

Examinations in further training courses are covered by the Vocational Education and Training Act (*Berufsbildungsgesetz - BBiG*) and the Regulation on Craft Trades (*Handwerksordnung - HwO*), which place the responsibility to the Competent Bodies (*Zuständige Stellen*), usually the chambers (e.g. chambers of handicrafts, chambers of industry and commerce) which define examination content. They deliver, amongst other things, the vocational knowledge, skills and competences that enable individuals to assume middle and sometimes also higher management responsibilities within companies.

### ROLE OF OTHER NON-GOVERNMENTAL ORGANISATIONS (NGOs)

In CVET, the private sector is more significant than in IVET due to its market character. In 2007, 41.3% of the some 17.000 CVET providers in Germany were private-sector establishments (*Dietrich/Schade/Behrendorf, 2008, p. 26*)

## 04 - INITIAL VOCATIONAL EDUCATION AND TRAINING

### 0401 - BACKGROUND TO THE IVET SYSTEM AND DIAGRAM

In Germany children enter compulsory full-time schooling aged 6. This schooling period lasts 9 years (10 years in 5 *Länder*). On completion, young people who do not attend any full-time-school are required to attend part-time (vocational) school for 3 years. This means in practice that young people are required to attend school from the ages of 6 to 18. Trainees in the dual system (even those older than 18) are also subject to compulsory schooling.

After 4 years of primary school, pupils move into different educational branches either: secondary general school (*Hauptschule*), intermediate school (*Realschule*) or grammar school (*Gymnasium*). Often these different pathways merge through the dual system.

The **dual system** is the largest provider of education at upper secondary level. In 2007, 66.2% of the school-leavers from general education opted for a dual-system apprenticeship (cf. BMBF, 2008b, p. 42). After completing their training in the dual system, the majority of participants then take up employment as a skilled worker – later on, many of them make use of the opportunities for continuing vocational training. Under certain conditions, however, those who have qualified may also obtain the academic standard required for entrance to a *Fachhochschule* in one year at school full-time, and go on to higher education. Successful participants in continuing vocational training are also increasingly permitted to study at colleges.

Of the vocational schools, the **full-time vocational schools** have the highest numbers of students. These schools prepare students for an occupation **or** for vocational training, usually in the dual system. Under certain conditions, attendance at a full-time vocational school is credited as the first year of training in the dual system. Entitlement to study at a college or *Fachhochschule* can be acquired in some educational programmes in the full-time vocational schools. Educational programmes last one to three years, depending on the particular vocational orientation and objective. Around one in six students at a full-time vocational school is learning a recognised dual-system training occupation. In such cases, the schools' final examinations may be given parity with examinations in the dual system by means of Federal statutory instruments.

Large numbers of students also attend the **schools for nurses, midwives, etc.**, which provide training for non-academic occupations in the healthcare sector, such as nursing and paediatric nursing, midwifery, therapeutic massage and occupational therapy. As regards organisation and premises, many of these schools are attached to hospitals, in which both theoretical and practical training takes place.

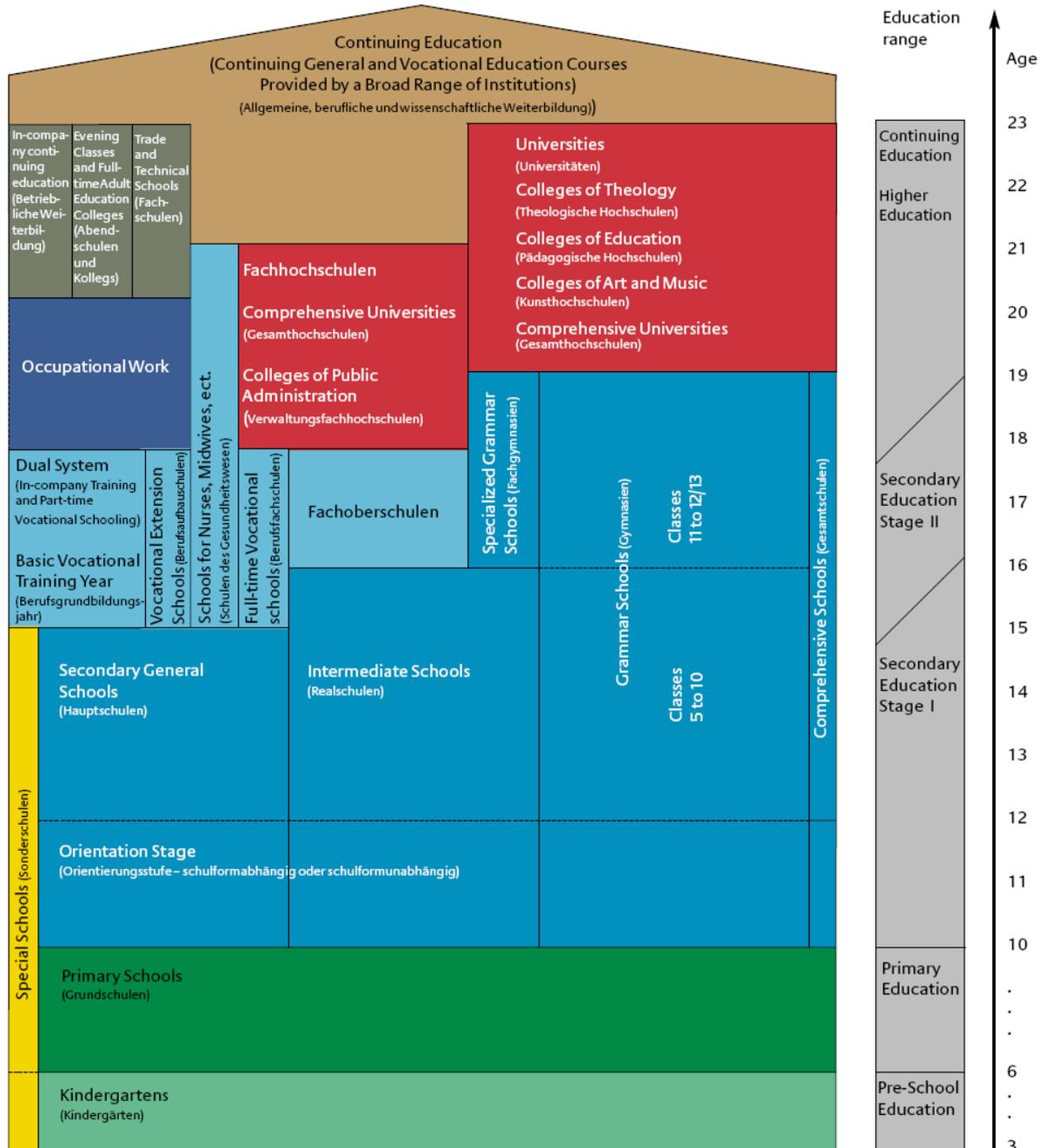
**Senior technical schools (*Fachoberschulen*) and senior vocational schools (*Berufsoberschulen*)** normally build on vocational training in the dual system, consolidate vocational knowledge and lead to the academic standard required for entrance to a college. Overall, there are many points of

transition between school-based and dual vocational training and from vocational training to colleges.

**Tertiary education** includes the colleges and other institutions offering programmes of study providing vocational qualifications for students who have completed upper secondary education with an entitlement to study at a college or *Fachhochschule*.

Diagram 1: Education in Germany

Basic structure of the Education System of the Federal Republic of Germany



- Diagrammatic representation of the typical structure of the education system of the Federal Republic of Germany. In individual Länder there are variations from the above pattern.
- The age given for attendance at the various educational institutions refers to the earliest possible typical entry.

## **0402 - IVET AT LOWER SECONDARY LEVEL**

Lower secondary education comprises grades 5 to 10 or 7 to 10 of school (pupils are aged 10-15). Its function is to prepare pupils for upper secondary level. Accordingly, lower secondary education is predominantly of a general nature. Lower secondary education is public and free of charge.

At secondary general school (*Hauptschule*) and intermediate school (*Realschule*) an introduction to the working world is a compulsory component of all courses. Instruction is given either in a separate subject (pre-vocational studies - *Arbeitslehre*) or as part of the material used in other subjects. Work experience placements, especially for pupils in the two last grades provide first-hand insight into the working world and guidance in choosing an occupation. The *Länder* have continuously developed their activities in order to communicate a basic knowledge of the world of business and commerce. This has also taken place outside of lessons, for example, via model businesses set up by pupils (*Schülerfirmen*) or cooperation projects between the schools and the world of business and commerce.

After finishing lower secondary level education and completing compulsory schooling, pupils may enter into vocational training in full time schools or within the framework of the dual system (see 0404) or seek employment.

For those who do not start a regular vocational course there is compulsory vocationally oriented schooling in a pre-vocational training year (*Berufsvorbereitungsjahr - BVJ*) their typical age would be 15 or 16. Participants are with social disadvantages or learning difficulties and migrants with an inadequate command of German who need special assistance to begin and complete a course of training. Young people who are not yet ready to enter vocational training have to participate in a full time pre-vocational training year, which serves as vocational orientation and as an introduction to one, two or three occupational fields.

## **0403 - IVET AT UPPER SECONDARY EDUCATION (SCHOOL-BASED AND ALTERNANCE)**

Upper secondary education leads either to a higher education entrance qualification or a vocational qualification for skilled work. The vocational track means that pupils may enter into vocational training in full time schools or within the framework of the dual system (see 0404), or seek employment.

School-based IVET (*vollzeitschulische Berufsausbildung*) at upper secondary level includes the *Berufsfachschule*, the *Fachoberschule*, the *Berufliches Gymnasium* or *Fachgymnasium*, the *Berufsoberschule* and other types of school that exist only in individual *Länder* or only on a very small scale.

Young people with social disadvantages, learning difficulties or handicaps and young people with migrant backgrounds with an inadequate command of German have different possibilities for pre-vocational training (*Berufsausbildungsvorbereitung* - see 0405).

### FULL-TIME VOCATIONAL SCHOOL (*BERUFSFACHSCHULE*)

These introduce students to one or more occupations, provide them with partial vocational training in one or more training occupations, or take them through to a vocational training qualification in one occupation. The range of training provision in schools of this type is extremely diverse. There are full-time vocational schools for, for example, commercial occupations, occupations involving foreign languages, craft occupations, household and caring occupations, healthcare occupations and artistic occupations.

Where these schools do not offer a full vocational qualification, attendance at a full-time vocational school can be credited as the first year of vocational training in the dual system if certain conditions are met. The requirement for entrance is normally the secondary general school certificate or the final certificate from intermediate school. The duration of educational programmes at full-time vocational schools varies (from one to three years) depending on the specialisation.

### SENIOR TECHNICAL SCHOOL (*FACHOBERSCHULE*)

*Fachoberschulen* cover classes 11 and 12 and build on the final certificate from intermediate school (*Mittlerer Schulabschluss*) or a qualification recognised as equivalent. The first year comprises in-company specialised practical training and teaching, while the second year involves general and specialised teaching. It leads to the academic standard required for entrance to a *Fachhochschule*. *Fachoberschulen* are subdivided into the following specialisations: business and administration, technical skills, healthcare and welfare, design, nutrition and home economics, and the agronomy. Teaching takes place in the following subjects: German, foreign languages, mathematics, natural sciences, economics and social science, and in a specialised subject. Students who have completed a course of vocational training, e.g. dual training, can enter class 12 of a *Fachoberschule* direct.

### SENIOR VOCATIONAL SCHOOL (*BERUFSOBERSCHULE*)

In connection with the deliberations of the Standing Conference of Ministers for Education and Cultural Affairs *Länder* (*Ständige Konferenz der Kultusminister der Länder - KMK*) on the equivalence of general and vocational education, *Berufsoberschulen* have increased in importance. In some *Länder* (e.g. Bavaria, Baden-Württemberg, Berlin), they have been established to enable those completing vocational training in the dual system to obtain a higher education entrance qualification. In two years of full-time education, *Berufsoberschulen* lead to the subject-restricted higher education entrance qualification (*fachgebundene Hochschulreife*) and, with a second foreign language, to the general higher education entrance qualification (*Allgemeine Hochschulreife*). *Berufsoberschulen* may also operate on a part-time basis, with a correspondingly longer duration. Admission to the vocational secondary school requires the final certificate from intermediate school (*Mittlerer Schulabschluss*) and at least two years' successful vocational training or at least five years' relevant practical experience.

*Berufsoberschulen* offer training in the fields of technical skills, business, agronomy, nutrition and home economics, social affairs and design. The allocation of students to a training orientation is based on the initial vocational training already completed or the occupation already worked in.

### UPPER LEVEL OF THE GYMNASIUM WITH A VOCATIONAL BIAS (*BERUFLICHES GYMNASIUM/FACHGYMNASIUM*)

Schools of this type are known as vocational grammar schools (*Berufliches Gymnasium*) in some *Länder* and trade and technical grammar schools (*Fachgymnasium*) in others. Unlike grammar schools, vocational or trade and technical grammar schools have no lower or intermediate level (classes 5-10). They normally lead to the general higher education entrance qualification (*Allgemeine Hochschulreife - Abitur*).

In addition to the educational range offered by grammar schools providing a general, education, these specialised grammar schools offer vocational subjects and priorities, such as business, technical skills, nutrition and home economics, agronomy, healthcare and welfare, and information and communication technology.

Some vocational/trade and technical grammar schools also offer the opportunity to acquire more than one qualification (educational programmes leading to dual qualifications): an academic qualification (entitling holders to study at a college or *Fachhochschule*) and a vocational qualification under *Land* law (e.g. for working in an occupation as an assistant). Courses of education leading to dual qualifications last three to four years.

### STUDENTS IN UPPER SECONDARY EDUCATION BY PROGRAMME ORIENTATION (GENERAL/VOCATIONAL)

In line with the EU-25-average, in Germany more students choose the vocational secondary education pathway (60.3 %) than general and pre-vocational programmes (see *Table 1*). This is mainly due to the importance of the dual system that is still pursued by the majority of young people after leaving the general education system (see *0401*).

Table 1: Students in upper secondary education by programme orientation, Germany (2005)	
<b>UPPER SECONDARY EDUCATION TOTAL ENROLMENT</b>	2 837 136
<b>VOCATIONAL PROGRAMMES (%)</b>	60.3%
<b>GENERAL AND PRE-VOCATIONAL PROGRAMMES (%)</b>	39.7%

Upper secondary education: ISCED 97 level 3

Source: Eurostat, UOE data collection; Date of data extraction: 26/05/2008

## 0404 - APPRENTICESHIP TRAINING

The system is described as dual because training is conducted in two places of learning: companies and vocational schools. It normally lasts three years (some occupations only require two years and there are also regulations allowing a reduction in the training period for trainees with an *Abitur* - the school leaving certificate allowing entry to higher education)

The aim of training in the dual system is to provide, in a well-ordered training programme, broad-based basic vocational training and the qualifications and competences required to practise an occupation as a skilled worker in one of the 351 currently recognised training occupations (<http://www2.bibb.de/tools/aab/aabberufeliste.php>, status: 1.8.2008; cited 27.8.2008). Compulsory full-time education must have been completed by the time of commencing vocational training. There are no further requirements for access to training in the dual system; it is essentially open to all although the majority of trainees hold either the intermediate certificate or the *Abitur*.

Training takes place on the basis of a private-law vocational training contract between a training enterprise and a young person. The apprentice is trained in an enterprise for three to four days a week and in the vocational school for up to two days a week. Enterprises bear the costs of the in-company training and pay the trainee remuneration as regulated by collective agreement which increases with every year of training, and averages about one third of the starting pay for a trained skilled worker.

The professional competences in occupations to be acquired in in-company training are specified in a training regulation and included by the training enterprise in an individual training plan. For the teaching in the vocational school, a framework curriculum, harmonised with the training regulations, is drawn up for every recognised training occupation.

### ENTERPRISES AS PLACE OF LEARNING

Training places are offered in both private and public enterprises, in practices of the liberal professions and, to a very limited extent, also in private households. Enterprises enter into a contract with trainees, in which they undertake to provide them with the professional competences in the occupation provided for in the training regulation for the relevant training occupation.

The binding requirements of the training regulations guarantee a uniform national standard which corresponds to the requirements in the relevant occupation. Training may take place only in training enterprises in which the skills required by the training regulation can be imparted by training personnel who are appropriate both personally and in terms of specialised knowledge. The suitability of training enterprises and in-company training personnel is monitored by the relevant autonomous industrial bodies (Chambers). Proper provision of the training itself is also monitored by the Chambers.

The training enterprise draws up an in-company training plan for trainees, which must correspond to the training regulation in terms of its practical and time structure, but may deviate from it if particular features of company practice require it.

Small and medium-sized enterprises are often unable to provide all the learning content: they may lack suitable training personnel, or, owing to their particular specialisation, they do not cover all the training content themselves. There are various ways of overcoming these problems:

- Educational institutions offer inter-company training periods (*inter-company vocational training centres - ÜBS*), designed to supplement in-company training. They are often sponsored by autonomous bodies in the relevant sectors of industry. The Federal Ministry for Education supports the sponsors with investment subsidies. The *BIBB* bears statutory responsibility for implementing the sponsorship.
- Enterprises form coherent training structures (*Ausbildungsverbände*). There are four traditional models for this, e.g. the 'lead enterprise with partner enterprise' model, in which the lead enterprise bears overall responsibility for training, but parts of the training are conducted in various partner enterprises, or the 'training to order' model, in which some periods of training take place outside the regular enterprise, perhaps in a nearby large enterprise with a training workshop, on the basis of an order and against reimbursement of costs.

## VOCATIONAL SCHOOL AS PLACE OF LEARNING

In the dual system, the vocational school is an autonomous place of learning. Its task is to provide basic and specialised vocational training and to extend previously acquired general education.

Under a *KMK* decision (*Rahmenvereinbarung über die Berufsschule* of 15 March 1991: [www.kmk.org/doc/beschl/rvbs91-03-15.pdf](http://www.kmk.org/doc/beschl/rvbs91-03-15.pdf)), vocational schools must provide at least 12 hours' teaching a week, normally eight hours for vocational subjects and four hours to general subjects such as German, social studies/business studies, religious education and sport. Appropriate account is also to be taken of foreign language teaching, depending on its importance to the training occupation concerned. Vocational schools decide on how to allocate teaching in consultation with training enterprises, the schools inspectorate and the competent industrial bodies. The aim of the various organisational forms is to ensure that trainees spend as much time in the enterprise as possible while, at the same time, allocating teaching in a way that is tenable in terms of both pedagogics and the psychology of learning.

## 0405 - OTHER YOUTH PROGRAMMES AND ALTERNATIVE PATHWAYS

According to a microcensus of 2005 16.1% of all young people aged 20-29 had no vocational qualification: 12.1% of German nationals and 38.4% of foreign nationals in this age group (cf. BMBF, 2008b, p. 110). Consequently, education and VET policy aims to provide opportunities for all young people wishing to obtain a qualification. For certain groups of young people, it is

extremely difficult to participate e.g. for young people not (yet) in possession of an entitlement to training or with learning difficulties or with disabilities, unskilled and semi-skilled young people, socially disadvantaged, and young immigrants. Specific support is required to enable these people to access training or work.

For people with learning difficulties or social disadvantages who would find it difficult to participate in a recognised training occupation or equivalent vocational training, there is the option of pre-vocational training (*Berufsausbildungsvorbereitung*). Pre-vocational training provision in schools includes:

- Foundation vocational training year (*Berufsprüfungsjahr - BGJ*): Basic vocational education can be completed either in the form of a year at school full-time or in cooperative form in an enterprise and a school. Successful completion of the BGJ can be credited as the first year of vocational training in the training occupations assigned to the relevant occupational field. In the BGJ, students receive basic education in a specific occupational field (e.g. metalworking techniques, electrical engineering, business and administration).
- Pre-vocational training year (*Berufsvorbereitungsjahr - BVJ*): The BVJ is a one-year course of training usually offered by schools in full-time form and designed to prepare young people for the demands of vocational training. A clear majority of participants do not have a secondary general school certificate. However, this can be acquired in the course of the BVJ, thus improving the holder's prospects on the market for training places.

The German Federal Government attaches particular value to support for young people without a vocational qualification. One example of this is the former special programme "Introductory Training for Young People" (*Einstiegsqualifizierung Jugendlicher - EQJ*). It was launched on 1st October 2004 as a sub-element of the "National Training Pact". From 1st October 2006 the capacity of the EQJ programme was expanded from 25,000 to 40,000 places per year. With the publication of the Fourth Act to amend the Third Book of the Social Code (*Sozialgesetzbuch - SGB*) in October 2007, Introductory Training was incorporated into employment promotion law as a routine entitlement (Section 16 (1) SGB II in conjunction with Section 235b SGB III). Company-based Introductory Training (*Einstiegsqualifizierung - EQ*) consists of a prevocational work experience placement in a company lasting 6 to 12 months.

Young people have the opportunity to obtain partial qualifications in a training occupation via qualification modules (*Qualifizierungsbausteine*) and specific vocational modules (*berufsfeldspezifische Module*). On the basis of a testimonial from the enterprise, the successfully acquired entry-level qualification is certified by the Competent Body (e.g. Chambers of Industry and Commerce, Craft Chambers). Six months' training can then be credited to subsequent training. The target group for Introductory Training consists primarily of young apprenticeship applicants whose prospects of finding a placement are limited, and young people who have not fully reached the

requisite level of apprenticeship maturity. Since Book III of the Social Code specifies no age limit for support of young people, in a departure from the rules of the previous EQJ Programme, the new statutory provision (Section 235b SGB III) defined no age limit either.

A further example is the “Vocational qualification prospects” (*Perspektive Berufsabschluss*) programme of the Federal Ministry of Education and Research (*BMBF*), which was launched at the beginning of 2008 to improve vocational training opportunities for disadvantaged young people and to offer second-chance qualifications for young adults. The intention of the programme is to optimise the regional transition management system to support young people requiring special support (e.g. young people with learning difficulties, at a social disadvantage or without a lower secondary school-leaving certificate, and young migrants) and to make more use of the possibility of second-chance training for a qualification for semi-skilled and unskilled young adults from German as well as migrant backgrounds. The two funding priorities of “Regional transition management” and “Qualification-oriented modular second-chance training” acknowledge the fact that two types of measures are necessary to help disadvantaged young people access training and ensure their long-term integration into the employment system: preventative measures to assist them in gaining educational and occupational certificates, and reintegrative measures to enable second-chance training and retaking of vocational qualifications. The programme is supported with funding from the Federal Government and from the European Social Fund (ESF). For the period from 2008 to 2012 a total of EUR 35 million will be made available.

In addition, the Federal Employment Agency (*Bundesagentur für Arbeit - BA*) provides prevocational training measures (*berufsvorbereitende Bildungsmaßnahmen - BvB*) under Section 61 of the *Sozialgesetzbuch (SGB III)*. The target group for these measures includes young people and young adults who have not undergone initial vocational training, are not yet 25, and have completed their compulsory general education. Furthermore, the Federal Agency for Vocational Training also subsidises the vocational training of disadvantaged young people. The measures involved are:

- training support (*abH*) in the form of remedial tuition and socio-pedagogic support within the framework of an in-company training relationship;
- vocational training in non-company establishments (*BaE*) in a training occupation recognised under the Vocational Education and Training Act (*BBiG*) and the Regulation on Craft Trades (*HwO*), with a qualification on completion;
- transitional support (continuation of training support following completion or discontinuation of training);
- support for integration into employment, in the form of remedial tuition and socio-pedagogic support within the framework of an in-company training relationship.

There are also supporting measures that take account of the particular concerns of disabled people (see 1004).

## 0406 - VOCATIONAL EDUCATION AND TRAINING AT POST-SECONDARY (NON TERTIARY) LEVEL

There are many ways in which school-leavers can enter working life: options to combine work and study are becoming more prevalent.

### ADDITIONAL QUALIFICATIONS (*ZUSATZQUALIFIKATIONEN*)

Additional qualifications (*Zusatzqualifikationen*) to supplement initial vocational training open up the possibility of acquiring additional competences, such as foreign-language classes or particular engineering courses. In April 2008 14,292 such offers were listed in the database "AusbildungPlus" ([www.ausbildungplus.de/](http://www.ausbildungplus.de/)) (cf. BIBB, 2008a, p. 4). In the period from 30 April 2007 to 30 April 2008, 77,724 trainees were working to acquire additional qualifications (cf. *ibid.*). This represents about 5 % of all trainees in Germany (reference figure: total number of trainees in Germany in 2006: 1,570,615, cf. BMBF, 2008b, Übersicht 22). Additional qualifications are primarily offered by training enterprises and vocational schools. Other important providers of additional qualifications include the Chambers of Industry and Commerce, Craft Chambers and their education centres.

### DUAL STUDY PROGRAMMES

Dual study programmes combine in-company vocational training with a course of study at a *Fachhochschule*, university, vocational academy (*Berufsakademie*) or administration and business academy. In recent years there has been a steady increase in provision of such dual study programmes. Enterprises obtain highly qualified and motivated young workers and institutions of higher education benefit from the extensive contact with the world of work and create a distinctive image for themselves by offering demand-based courses of study. Students obtain high-quality training that improves their labour market and career prospects and benefits them both financially and in terms of time. Dual study programmes integrated with training have the following characteristics:

- alternate between theory phases in the institution of higher education or academy and practical phases in the training enterprise;
- regulate the practical training in a training, student-employee or unpaid-trainee contract;
- are characterised by close dovetailing of the content of vocational activity in the training enterprise and the acquisition of theoretical knowledge in the institution of higher education/academy;
- involve close coordination of and cooperation between institution of higher education/academy and enterprise.

The commonest combination is a course of business management plus commercial training. However, a course in engineering or computer science can also be combined with technical training. Overall, there is a very wide

range of possible subject areas, with insurance, mechatronics, commercial law, health economy, mathematics and media informatics being just a few examples. The total number of dual study programmes was 687 in April 2008 (cf. BIBB, 2008a, p. 11).

## **0407 - VOCATIONAL EDUCATION AND TRAINING AT TERTIARY LEVEL**

The higher education sector comprises various types of institutions of higher education and, to a limited extent, some *Länder* have vocational academies (*Berufsakademien*) offering courses leading to vocational qualifications for those who have completed upper secondary education with at least a qualification entitling them to attend a university of applied sciences (*Fachhochschule*). Under the ISCED classification, the vocational schools, the vocational academies in Bavaria and the schools for nurses, midwives, etc. offering two- and three-year courses also come under the heading of higher education.

### **UNIVERSITIES OF APPLIED SCIENCES (*FACHHOCHSCHULEN*)**

The course structure and the way in which teaching and study are organised in the *Fachhochschulen* are characterised by an emphasis on application and focus on the requirements of occupational practice.

Of 353 institutions of higher education, 189 are *Fachhochschulen* or other colleges without the right to award doctorates ([www.hochschulkompass.de/](http://www.hochschulkompass.de/); status: 8.8.2008). The numbers of students and the programmes of study offered vary widely with these variations contributing to particular subject and regional profiles for individual *Fachhochschulen*.

Entitlement to study in *Fachhochschulen* is provided by a certificate confirming the academic standard required for admission to higher education (*Hochschulreife*), a subject-based certificate confirming such a standard, or a certificate confirming the academic standard required for entrance to a *Fachhochschule*. Courses normally run for 8 semesters. *Fachhochschulen* offer, in particular, courses of study in the following fields: engineering sciences, economic sciences/commercial law, social affairs, administration and administration of justice, computer science, design, mathematics, information and communication technology, healthcare/nursing.

### **VOCATIONAL ACADEMIES (*BERUFSAKADEMIEN*)**

These are higher education establishments providing academically based VET that is at the same time geared to practice through a dual training system. They exist in Baden-Württemberg, Bavaria, Saxony, Thuringia and Berlin. Enterprises bear the costs of the in-company training and pay the trainee remuneration for training, including for theoretical training in the vocational academy. Depending on the law of the *Land* concerned, to enter a vocational academy, applicants must have a certificate confirming the academic standard required for admission to higher education (*Hochschulreife*), a subject-based certificate confirming such a standard, or a certificate confirming the academic standard required for entrance to a *Fachhochschule*, and also a training contract. Again depending on the law of the *Land*, applicants without one of

the above certificates but with a vocational qualification may be able to sit an entrance examination. Once they have concluded a training contract, applicants are registered with the vocational academy by their training enterprise. Training leads to bachelor qualifications. Courses of study are offered in the fields of economics, engineering and social affairs in particular. The relevant *Land* law normally lays down a period of study of three years.

## 05 - CONTINUING VOCATIONAL EDUCATION AND TRAINING FOR ADULTS

### 0501 - BACKGROUND INFORMATION ON CONTINUING VOCATIONAL EDUCATION AND TRAINING

Continuing education and training is understood to be the continuation or resumption of organised learning following completion of an initial phase of education of varying scope (Deutscher Bildungsrat, 1970, p. 197). In addition to continuing 'vocational' education/training, this includes continuing general and political education, which is subsumed under the heading of 'adult education'. The field of CVET in Germany is characterised by: a pluralism of providers, a largely market character, and a comparatively minimal degree of regulation by the state. Only a small part of provision leads to a formal vocational qualification.

A distinction must be made between two kinds of regulated continuing training, namely **further vocational training** and **vocational retraining** (defined in the Vocational Education and Training Act). Another distinction can be made between further training making advancement in the occupation possible (further training for advancement) and further training aimed at maintaining or extending vocational knowledge, skills and competences, or updating them in line with technical or economic developments (adaptive further training). To participate, a completed course of vocational training or appropriate vocational experience, or both, is normally required.

National standardised further vocational training and retraining is based on statutory regulations which specify content, objective, examination requirements and conduct, conditions for authorisation and designation of the qualification (master, business administrator, graduate in business administration, skilled worker). These regulations are laid down by the Federal Ministry of Education and Research (*BMBF*) by agreement with the competent ministries and following consultation with the Main Board (*Hauptausschuss*) of the Federal Institute for Vocational Education and Training (*BIBB*).

Many bodies undertake further vocational training measures, including enterprises, Chambers, employers' and trade associations, employee organisations and vocational schools.

### LIFELONG LEARNING

The government wants to establish individual and company commitment towards training, lifelong learning and continuing education throughout working life. Since 2004, the "Strategy for Lifelong Learning in the Federal Republic of Germany", jointly developed by the Federal and *Länder* governments, has set out an education policy approach for Germany in which substantial significance is attached to the validation of non-formally and informally acquired skills and competencies as a development focus within the promotion of lifelong learning for all (cf. BLK, 2004). In relation to VET, the "Innovation Circle on Vocational Education and Training" (*Innovationskreis Berufliche Bildung - IKBB*) appointed by the Federal Minister of Education issued

recommendations in 2007 which included improving transfer opportunities and credit for prior learning to increase permeability between education and training sectors.

Furthermore, a variety of research projects and pilot experiments have been introduced supported by the Federation and the European Union. One example is the programme 'Learning Regions - Providing Support for Networks' (*Lernende Regionen - Förderung von Netzwerken*). In this programme, the Federal Ministry of Education and Research (*BMBF*) supports the establishment and development of networks at regional level across different institutions and areas of the education and training system, in order to develop, test and put into practice innovative and integrated services for lifelong learning. The programme, for which a total of EUR 135 million is available for the full term from 2001 to 2008 - about 50% of which comes from the European Social Fund (ESF) - involves the relevant actors both in the regions and at national level (including Competent Bodies, social partners, training establishments, schools, businesses, local authorities and the labour administration). Currently 76 Learning Regions are being supported throughout Germany.

### ACCESS TO LEARNING

Distance learning provides working adults the opportunity to take up continuing education on a flexible basis while remaining in employment. Courses offered by private organisations must be approved under the Distance Learning Protection Act (*Fernunterrichtsschutzgesetz - FernUSG*). Approval is given by the Central Office for Distance Learning (*Staatliche Zentralstelle für Fernunterricht - ZFU*) of the *Länder*. The approval procedure includes checks on the factual and didactic quality of the teaching material in relation to the course objective, as well as on advertising and on the form and content of the distance learning agreement to be concluded between the student and the distance learning institute. The range of subjects is wide and comprises social sciences, education and psychology, humanities, languages, business and commerce, mathematics, natural sciences and technology, leisure, health and housekeeping, school leaving qualifications - e.g. *Hauptschulabschluss*, *Realschulabschluss*, *Abitur* -, qualifications for state-certified business manager, engineer and translator, computer courses.

In 2007, there were a total of 2,029 licensed distance-learning programmes (2006: 2,045). Of these, 1,390 (68.5 %) relate to VET. In 2007, there were 335 institutes offering distance-learning programmes (2006: 319; an 5.0 % increase). (BMBF, 2008b, p. 203f.)

The e-learning continuing training database *ELDOC* ([www.eldoc.info/](http://www.eldoc.info/)), operated by the **Federal Institute for Vocational Education and Training (BIBB)**, lends support to those planning their continuing training and interested in finding suitable e-learning or blending learning provision. Those searching the database, which currently contains 1,077 continuing training offers from 121 providers (status: 26.8.2008), receive a transparent and comparable presentation of the relevant providers and the courses they offer. The main focuses of the *ELDOC* database are the areas of computers/IT, economics

and law, cross-curricular qualifications, languages, technology and the natural sciences. There are also useful links to other continuing training databases, checklists and general information on topics related to continuing training and e-learning.

## PLANNING AND FORECASTING MECHANISMS

Germany's CVET needs are not determined on a continual, nationwide or systematic basis, which is partly due to the diversity and plurality of providers. A number of projections regarding jobs and qualification levels have been made to help assess how the labour market will develop in the face of globalisation and technical progress (cf. inter alia Dostal/Reinberg/Schnur, 2002).

The 'continuing education and training reporting system' (*Berichtssystem Weiterbildung - BSW*) is an instrument for monitoring developments and since 1979, data on the continuing education and training conduct of the population aged 19-64 have been compiled at three-yearly intervals on behalf of the *BMBF*. The 2007 survey represents the tenth cross-sectional survey (von Rosenblatt and Bilger, 2008).

## 0502 - PUBLICLY PROMOTED CVET FOR ALL

### TARGET GROUPS

Publicly promoted CVET is targeted at various groups, from unemployed people with no school-leaving or vocational qualifications to executives. The aims, content and duration of courses vary accordingly. Only some of these courses are designed to lead to qualifications which are recognised by law or awarded by industry's self-governing organisations (chambers).

### PROVIDERS AND TYPES OF COURSE/QUALIFICATION

The most important providers/types of CVET courses/programmes are:

- **Trade and technical schools (in full-time or part-time form) and master's schools** provide a further intermediate qualification building on the vocational training completed, e.g. master or technician to become a middle manager. Further vocational training as a 'master' entitles the holder to practise a craft trade independently and to employ and train apprentices and opens up access to courses at craft academies and *Fachhochschulen*. Trade and technical schools offer courses in agronomy, design, engineering, business and social affairs, with over 160 subjects. Like master's schools, they end with a final state examination under *Land* law. The conditions for entrance vary depending on the subject area, for trade/technical school an applicant normally requires a qualification in a recognised training occupation of relevance to the objective of the subject concerned, and relevant work experience of at least one year, or a qualification from a full-time vocational school and relevant work experience of at least five years. During the 2006/2007 school year, 144,507 people attended a trade or technical school (51.0% female, 49.0% male). 55.0% of the students

were aged under 25, 21.7% were aged 25 to 28 years old and 23.3% were 29 or older. 58.9% of the students had completed intermediate school (*Realschule*) or an equivalent level of education. 11.1% had completed secondary general school (*Hauptschule*), 11.3% had acquired a qualification for admission to universities of applied sciences (*Fachhochschulreife*) and 9.4% a qualification for admission to any institution of higher education (*Allgemeine und fachgebundene Hochschulreife*). (Statistisches Bundesamt, 2007a, p. 15, 255f.)

- **Career Advancement Training Promotion Act (AFBG, known as 'Meister-BaföG')**: This law, jointly financed by the Federation and the *Länder*, gives craftsmen and other skilled workers a statutory individual entitlement to financial assistance with further training. The financial assistance comprises subsidies (or, as from a certain amount, bank loans at favourable rates) for the course and examination fees of master's courses or other courses leading to a comparable further training qualification. In 2006, the number of individuals assisted was approx. 136,000, a slight decline of around 3.5 % from the year 2005. The proportion of women receiving assistance under 'Meister-BaföG' levelled off in 2006 compared to the previous year (32 %). (BMBF, 2008b, p. 220)
- **Vocational Training Programme for the Highly Talented (*Begabtenförderung Berufliche Bildung*)**: Since 1991 the Federal Ministry offers particularly gifted young workers a grant for individual CVET (a similar programme exists in academic education). One of its aims is to underline the importance of continuing training throughout working life rather than to view training as being finished on achievement of an initial qualification. In 2007, 5,220 new persons were selected for promotion. The majority of new grant recipients were from fields under the chambers of industry and commerce (50.9%), followed by those from occupational fields overseen by a chamber of crafts (26.2%). 10.1% came from skilled health care occupations, 6.5% from liberal professions, 3.4 % from the agricultural sector and 2.8% from the civil service. (BMBF, 2008b, *Table 22*)
- **Adult education centres**: these are facilities that focus primarily on general CVET courses which since 1998 include programmes classed as 'work and career'. In 2006, 11 % of attendees took a course related to work and career The majority of which (51.9%) were aged between 25 and 49. The share of older students has increased in recent years: in 2006, 20.9 % of the participants were aged between 50 and 64 (compared to 15.3 % in 2000), and the share of the 65 years old or older persons was 10.6% (compared to 3.8 % in 2000). More women (62.2%) than men (37.8%) took part in 'work and career' related courses. (Deutsches Institut für Erwachsenenbildung, 2007, p. 31, 38, 41)

## QUALITY ASSURANCE MECHANISMS

Since 2001 *BIBB* surveys CVET providers to gather information on practitioners' views of current topics and problems in CVET (*wbmonitor*). The 6<sup>th</sup> survey of autumn 2005 analysed the usage of quality management systems and product tests by CVET providers. It showed, that self-evaluation is the predominant approach although external quality assurance systems, especially the ISO 9000 approach, are becoming more important.

*Stiftung Warentest*, an independent foundation for testing product quality, has established a separate department for carrying out CVET tests. The aim is to develop comparative training tests that can complement existing quality assurance systems. Publication of test results enhances awareness, on the part of providers that accept vouchers of credit for education/training, of the importance of quality in the measures they provide. From July 2002 to December 2007, *Stiftung Warentest* carried out around 100 tests of CVET courses as part of a project funded by the Federal Ministry of Education and Research (*BMBF*). Since 2008, CVET tests have been allocated routine funding by the *BMBF*.

## 0503 - TRAINING FOR UNEMPLOYED PEOPLE AND OTHERS VULNERABLE TO EXCLUSION IN THE LABOUR MARKET

### ADMINISTRATIVE STRUCTURE

Promotion of CVET for unemployed people and those at risk of unemployment is the responsibility of the Federal Employment Agency (*Bundesagentur für Arbeit - BA*). The BA is under the jurisdiction of the Federal Ministry of Labour and Social Affairs (*Bundesministerium für Arbeit und Soziales - BMAS*).

### TARGET GROUPS

In 2003, the first law on modernising labour market services (*Erstes Gesetz für moderne Dienstleistungen am Arbeitsmarkt*) was introduced. The main change was the introduction of an education voucher (*Bildungsgutschein*). This can be issued by employment agencies to unemployed people or somebody at risk of unemployment to access subsidised continuing vocational training after an advisory discussion. The education voucher shows, among other things, the training objective and time needed to achieve it, the scope of regional validity, and the duration of validity (three months maximum). The education voucher can be redeemed by the participant with a provider of his choice authorised to finance continuing training.

### PROVIDERS AND TYPES OF COURSE/QUALIFICATION

Promotion of CVET under the Federal Government's Social Code III (*Sozialgesetzbuch III - SGB III*) includes the following measures:

- further vocational training: schemes to assess, maintain, extend or adapt the vocational knowledge and skills of adults who have a vocational qualification or appropriate work experience;

- vocational retraining leading to a qualification in a recognised occupation requiring formal training (*anerkannter Ausbildungsberuf*): targeted mainly at unemployed people with no vocational qualifications.

The most important providers are private-sector educational/training establishments. Others include public-sector establishments, chambers, establishments of trade and professional associations, social welfare/church establishments and universities/colleges.

In 2006, the Federal Employment Agency launched the special programme 'Continuing vocational education and training for low-qualified and older workers in companies' (*WeGebAU*) which supports training for older employees (over the age of 45 in companies with fewer than 250 employees) and unskilled workers (cf. BMBF, 2008b, p. 198f.). To qualify for support, the continuing education measure must be more than just a refresher course, i.e. it must contribute to the acquisition of an occupational qualification or a module towards such a qualification. Both the training course costs and a wage subsidy can be paid.

#### QUALITY ASSURANCE MECHANISMS

In 2004, a Directive on Recognition and Licensing of Continuing Training (*Anerkennungs- und Zulassungsverordnung - Weiterbildung - AZWV*) was introduced to improve competition and transparency in vocational continuing education as promoted by the Federal Employment Agency (*Bundesagentur für Arbeit - BA*). The employment agencies entrusted external certification bodies to inspect continuing education providers. Certification is necessary to offer courses and participants can only receive support if they attend approved providers in accordance with the Social Security Code III (*Sozialgesetzbuch III*). Amongst other things, providers must prove that they apply a recognised quality assurance system.

#### 0504 - CVET AT THE INITIATIVE OF ENTERPRISES OR SOCIAL PARTNERS

In-company CVET may take place in the company or outside but it is usually the company that pays for provision and it usually takes place during regular working hours. Recently there seems to be a tendency towards stronger involvement of the employees in the financing of CVET and also towards having it take place outside of the regular working hours (see Weiss, 2003, p. 10, and Werner, 2006, p. 7).

There are a large number of collective agreements that contain training provisions (often in conjunction with other issues requiring regulation such as industrial safety and environmental protection, personnel and skills development, company and work organisation, remuneration arrangements, working hours etc.) (Faulstich, 2003, p. 46). The Collective Agreement on Training (*Tarifvertrag zur Qualifizierung - TVQ*) in the metal and electricity industry of 2001 has led the way. In that agreement, continuing in-company training is defined as qualification measures which serve to enable employees to:

- understand the constant development of specialised, methodological and social knowledge in the context of one's own field of work (maintenance qualification);
- to meet the new requirements in one's own field of work (adaptation qualification);
- to assume another, equally skilled or higher skilled task.

In addition to the collective agreements on sectoral/regional level there are more than 200 agreements at company level (Busse and Heidemann, 2005).

The definition of CVET plays a central role when calculating the percentage of employees taking part in in-company provision. The main question is whether the definition should be restricted to formal courses and seminars or whether it should also include non-formal and/or informal forms, e.g. information events, on-the-job-learning, job rotation and self-regulated learning. The following three studies can be used for analysing the structure of participation in in-company CVET:

- Company Panel conducted by the Institute for Employment Research (*Institut für Arbeitsmarkt- und Berufsforschung - IAB*) which is a survey of employers. It was first carried out in 1993. The basic set includes companies with at least one employee subject to social insurance contributions. The questionnaire combines standard topics with *ad hoc* issues (in-company CVET was a focal point in the 1997, 1999 and 2003 surveys);
- Surveys of the Institute for Business Research Cologne (*Institut der deutschen Wirtschaft Köln - IW*) carried out every three years since 1992. It is based on a representative sample of enterprises in the chambers of industry and commerce, the chambers of crafts and the chambers of agriculture. The sample is drawn anew for each survey;
- German survey in the context of the EU Continuing Vocational Training Surveys CVTS I, II and III (1994, 2000 and 2006).

The IW survey uses a broad concept of CVET that encompasses not only internal and external courses but also participation in information events and retraining measures, learning in the work situation and self-regulated learning using media. According to the recent 2005 study of the Institute for Business Research, 84.4% of companies invested in CVET activities of their employees (cf. *Werner*, 2006, p. 2).

In CVTS other types of CVET (e.g. information events, job rotation and quality circles) are considered. According to the CVTS III of 2006, 69.5% of enterprises offered some kind of CVET in 2005. In terms of industry branches, participation rates vary: While in the insurance and loans industry nearly every company (99%) made available CVET for its staff, this share was only 52.7 % in the hotel and restaurant sector (cf. *Schmidt*, 2007, p. 705).

Both, the IW survey and CVTS III underline the increasing importance of less formal and more open forms of learning. But also the content of in-company CVET has changed. While in the past imparting qualifications related to a specific subject field was one of the most important areas, now key competences, particularly methodical and personal competences (self-dependent action, capacity for teamwork, customer orientation) come to the fore (Busse and Heidemann, 2005).

### **0505 - CVET AT THE INITIATIVE OF THE INDIVIDUAL**

Individuals take part in CVET primarily to expand their skills and develop their personalities as well as to safeguard or improve their occupational situation.

Since 1994, the subject of informal vocational learning has been one of the focal areas covered by the 'continuing education and training reporting system' (*Berichtssystem Weiterbildung - BSW*). According to the 10<sup>th</sup> BSW survey conducted in 2007, roughly 68% of salaried employees in Germany participated in one or more forms of informal learning in 2006 (von Rosenblatt and Bilger, 2008, p. 16). The two most frequently selected forms were 'self-learning through experimentation and observation' (49%) and 'study of occupation-related literature' (43%), respectively 27 % received instruction from co-workers and from superiors (cf. *ibid.*, p. 17). The survey results also show that 39% of the respondents had learnt something on their own off the job at least once during 2006 (*ibid.*, p. 18).

## 06 - TRAINING VET TEACHERS AND TRAINERS

### 0601 - TYPES OF TEACHERS AND TRAINERS IN VET

Teachers are employed in the various vocational schools, while trainers are skilled workers in enterprises, who provide trainees with the knowledge and practical skills required for an occupation. In addition to teachers and trainers, the staff of VET workshops for disabled people also include psychologists, doctors and social education workers. There are different types of learning facilitators, e.g. the training counsellors of the chambers who advise trainees and employers on all problems connected with training, and the vocational guidance counsellors employed by the Federal Employment Agency (*Bundesagentur für Arbeit - BA*). The *following table* provides an overview of the types of teachers and trainers in the German VET system.

Table 1: Types of teachers and trainers in the German VET system	
TYPE OF TRAINING	TYPE OF STAFF
<b>IVET</b>	
Dual System of Training	<ul style="list-style-type: none"> <li>• <b>Trainers</b> (instructors) or masters within companies (including in big companies the responsible VET managers);</li> <li>• <b>VET teachers</b> in the vocational schools (two categories: 1. university trained teachers for job-related theory and general education subjects; 2. <i>Werklehrer</i> (master craftsmen or technicians with additional further training) imparting practical skills)</li> <li>• <b>Instructors</b> and <b>trainers</b> within inter-company VET centres (<i>ÜBS</i>)</li> </ul>
Special VET for disadvantaged leading to dual system diplomas	<b>VET teachers/trainers</b> within private institutions
Full-time Vocational Schools	<b>VET teachers</b> in vocational schools ( <i>see above</i> )
Learning facilitators	<b>Youth workers</b> in training schemes for the disadvantaged, <b>training counsellors</b> in the chambers, <b>vocational guidance counsellors</b> employed by the Federal Employment Agencies etc.
<b>CVET</b>	
	<ul style="list-style-type: none"> <li>• <b>VET teachers</b> in vocational schools</li> <li>• <b>VET teachers/trainers</b> of <i>Volkshochschulen</i> (adult education centres)</li> <li>• <b>VET teachers/trainers</b> within CVET institutions (state recognised or not) or <b>freelance individuals</b></li> <li>• <b>Company employees</b> concerned with CVET</li> </ul>

Source: Compiled by the authors

There are differences between the various types of VET personnel in terms of: formal qualification, legislation governing their activities, type of work contract, salary etc.

- Teachers are subject to the non-profit educational world with a lifelong job guarantee and with salaries not based on achievement considerations. The relevant legal standards include the laws and regulations on teacher training, the study directives on study programmes for the teaching profession, the training regulations on teaching practice and the examination directives for the first and second state examinations. The examinations are the responsibility of state examination offices or *Land* examination commissions.
- On-the-Job trainers are subject to the industrial world and are vulnerable to economic developments and dismissal. The requirements for in-company trainers in initial training are governed by the Vocational Education and Training Act (Sections 28-30 *BBiG*) and the Ordinance on Trainer Aptitude (*AEVO*); there are no explicitly formulated training provisions for staff working in continuing vocational training.

## 0602 - TYPES OF TEACHERS AND TRAINERS IN IVET

### IVET TEACHERS

Teachers at vocational schools are responsible for the theoretical part of vocational training. They teach part-time courses in their subject fields and assess student (apprentice) performance. Courses are based on curricula defined by the *Länder* authorities. Experienced teachers may be promoted to become *Fachleiter* (senior teachers) in their subjects where they can also take part in school management and develop the curriculum within the boundaries provided by the *Länder* authorities. IVET teachers can be divided into two groups (see Table 1):

1. **Teachers for classes in vocational schools/vocational schoolteachers** (teachers giving theory and general job-related lessons): These teachers provide young people with the necessary subject-specific theoretical knowledge and with in-depth and extended general education in the context of their future occupation. They teach both vocational subjects (e.g. metalworking techniques, electrical engineering, home economics, healthcare) and general subjects (e.g. German, English, mathematics, politics, physics). **T**
2. **Teachers teaching vocational practice** (practical skills teachers (*Werklehrer* or *Fachlehrer* in some *Länder*) e.g. in school workshops, builder's training yards, business training offices, school kitchens, laboratories, demonstration workshops): Their task is to provide young people undergoing in-company training with subject-specific practical teaching. They teach in industrial/technical and home economics schools and, in some *Länder*, also in business schools. In vocational **T**

schools (industrial/technical schools), state-examined technicians or certified masters are used to teach vocational practice. In home economics schools, specialised teachers teach home economics and crafts. In business schools, specialised teachers are trained to teach word processing and office management.

Table 1: IVET teachers at part-time and full-time vocational schools	
PLACE OF WORK	TYPE OF OCCUPATION/TRAINING
Vocational school (part-time or full-time)	VET teachers with a university diploma ( <i>Lehrer an beruflichen Schulen</i> ) Among them: VET teachers at industrial VET schools, VET teachers at commercial VET schools, VET teachers with other specialisations.
Vocational school (part-time or full-time)	Teachers imparting practical skills ( <i>Werklehrer, Fachlehrer</i> )

Source: Compiled by the authors

### PRE-SERVICE (INITIAL) TRAINING FOR IVET TEACHERS

Pre-service training for all teachers comprises two phases:

The **first phase** comprises a course of study at a university or university equivalent. Depending on the *Land* concerned, the course normally lasts eight to ten semesters. It includes:

- an academic component involving at least two subjects – a main vocational subject (with a choice of 16 options, e.g. economics and administration, electrical engineering, textile engineering and clothing, colour techniques and interior design, nutrition and home economics, social education) and a second subject from general education (e.g. German, English, mathematics, politics, physics, sport);
- the relevant specialised teaching methods which;
- an educational science component, with obligatory study of pedagogy and psychology;
- supporting periods of teaching practice, in some cases for several weeks.

Candidates for teaching courses must have their *Abitur*, or, with restrictions, the subject-based certificate of entitlement to higher education. Secondly, the applicant must either possess a relevant vocational qualification in the occupational field or demonstrate prior practical vocational training for 3-12 months (work experience in an enterprise or work in the relevant occupational field), depending on the *Land* concerned. The course of study ends with the first state examination (teaching posts in upper secondary level vocational subjects or in vocational schools).

The **second phase** of teacher training is teaching practice (*Referendariat*). It consists of sitting in on classes, teaching with guidance and independent teaching in designated training schools, and a pedagogic and educational science component in practical seminars (study seminars), in which the experience acquired through practice is reappraised and consolidated. Teaching practice normally lasts two years and ends with the second state examination. Some *Länder* currently shorten the teaching practice to 18 months, and in some cases to 12 months, partly by crediting semesters of practical experience, other practical studies, etc.

The **third phase** is lifelong 'on-the-job learning'. It covers the whole of the career and provides for further development, maintenance, updating and extension of teachers' vocational competence.

No higher education is required to work as a teacher teaching vocational practice in the VET school system. As a rule, such teachers have a vocational background as a foreman or skilled worker (industry) or a qualified craftsman (crafts). Training takes place in teaching practice in a school and in pedagogic vocational seminars (single-stage training). In most *Länder*, the requirement for access is to have passed the master craftsman's qualifying examination or to have a qualification from a trade/technical school and a number of years of vocational experience.

#### **IN-SERVICE (CONTINUING) TRAINING FOR IVET TEACHERS**

The goals are laid down by most *Länder* in their teacher training legislation or school legislation. Other details about organisations which provide further teacher training and about applications, admission and release from teaching duties for attendance of courses are regulated by directives. In all the *Länder*, the obligation of teachers to undertake further training is expressly laid down by law or statutory regulation. The employer (usually the Ministry of Education) is in turn obliged to ensure appropriate training measures.

State further teacher training (*staatliche Lehrerfortbildung*) serves to maintain and extend teachers' vocational competence. The content may relate to school subjects (e.g. introduction to new curricula), types of school, education and teaching objectives or certain key current topics (e.g. intercultural learning or new technologies). The courses usually take place in the form of seminars. There are also study groups, conferences, study trips and colloquia, as well as distance learning provision. It is not the same as continuing teacher training (*Lehrerweiterbildung*), which enables teachers to teach another subject or in an additional special field. Courses for further teacher training culminate in a supplementary examination (*Erweiterungsprüfung*) to the first state examination. Below this level there are continuing training courses leading to a teaching, e.g. entitlement to provide teaching a certain subject or at a certain type of school. Many continuing training courses serve to prepare teachers for special responsibilities (for example, work as a counselling teacher). Continuing teacher training usually lasts for a longer period.

## IVET TRAINERS

In Germany, the designation ‘trainer’ is used in association with in-company training as an umbrella term. Trainers instruct trainees as their main or secondary job. In small or medium-sized enterprises with few trainees, training is often the trainer’s secondary job. In larger enterprises, training is usually the trainer’s main job and they work in training departments. Those responsible for training are of particular importance as they are skilled workers who, in addition to their specialised tasks, take on training tasks in the enterprise’s departments, on assembly lines, in commercial and engineering offices or in the service sector. As trainees pass through the enterprise, trainers provide them with the knowledge and skills required in their job.

To assure the quality of in-company training, the Chambers of Industry and Commerce are responsible for monitoring the Regulation on Trainer Aptitude and the occupation’s relevant training regulation. If it is not possible for all the necessary knowledge and skills to be provided in full, the missing content can be provided or supplemented by training measures outside the place of training, for example via cooperation with other enterprises, inter-company vocational training centres (*überbetriebliche Berufsbildungsstätten - ÜBS*) or coherent training structures (*Ausbildungsverbände*).

TYPE OF TRAINING	TYPE OF STAFF	WORK PLACE
Dual system	Trainers (instructors) or masters within companies (including in big companies the responsible VET managers).	Companies
Dual system	Instructors and trainers within inter-company VET centres ( <i>ÜBS</i> ).	Training centres usually run by the chambers.
Dual system	VET teachers in the vocational schools, two categories: university trained teachers for job-related theory and general education subjects; master craftsmen or technicians with additional further training ( <i>Werklehrer</i> ) imparting practical skills.	Part-time vocational schools ( <i>Berufsschule</i> )
Special VET for disadvantaged (and disabled) leading to dual system diplomas	VET teachers/trainers (see above)	(private) training institutions offering special training courses for disadvantaged or disabled youngsters

Source: Compiled by the authors

## PRE-SERVICE (INITIAL) TRAINING FOR IVET TRAINERS

Pre-service training for trainers is governed by Federal law. Under the statutory provisions of the Vocational Education and Training Act (Sections 28-30 *BBiG*) and the Regulation on Craft Trades (Section 21 *HwO*), trainers must be suitable both personally and in terms of specialised knowledge to train young people. Subject aptitude involves, in particular, the specialised vocational skills and knowledge required for the relevant occupation. As a rule, trainers must have a qualification in a subject area appropriate to the training occupation. However, vocational training also includes knowledge of the educational theory of the occupation and job. Until 31 July 2003, a test of trainer aptitude was required in accordance with the Ordinance on Trainer Aptitude (*Ausbilder-Eignungsverordnung - AEVO*). On 1 August 2003, for a trial period of five years this was suspended with the aim of making in-company training easier and promoting the provision of in-company training places. Due to the findings of a study that the Federal Institute for Vocational Education and Training (BIBB) conducted in cooperation with the SALSS research group from October 2006 to November 2007 (*Ulmer/Jablonka, 2007*) the BMBF decided to reintroduce the *AEVO* with the beginning of the training year 2009/2010 at 1<sup>st</sup> August 2009. Until then, the companies do not have to furnish proof of an appropriate certificate of their training staff in accordance with the *AEVO*.

The Chambers' responsibility for monitoring training quality remained unaffected by the suspension of the *AEVO*.

## IN-SERVICE (CONTINUING) TRAINING FOR IVET TRAINERS

There is no obligation for IVET trainers to participate in CVET. There are, however a number of in-service courses on offer. In large companies, in the context of staff development, for example, further and continuing training is often offered in their own training departments or in external premises and educational establishments, by their own or external personnel. Trainers in SMEs have the option of attending courses of further training organised by Chambers or professional associations.

## 0603 - TYPES OF TEACHERS AND TRAINERS IN CVET

In Germany there is a wide variety of staff acting as teachers or trainers in CVET (see Table 1). Their formal qualifications range from none to a university diploma, their occupational status from retired or unemployed to qualified employees in training institutions. No common standard exists of what constitutes a CVET teacher/trainer.

Where continuing vocational training takes place in public-sector establishments (e.g. trade and technical schools, colleges), the training, employment and activities of the staff teaching in them are based on the criteria laid down in the relevant *Land* legislation for teaching staff.

Table 1: CVET teachers and trainers	
PLACE OF WORK (MOST IMPORTANT PROVIDERS OF CVET)	TYPE OF OCCUPATION
Private or public VET schools.	Teachers (see IVET)
State CVET institutions, i.e., colleges of continuing education sponsored directly by the state, which offer provision for public employees. The most significant of these are the in-service training courses for teachers run by the Länder.	Teachers
Community adult education centres (Volkshochschulen): these exist throughout the country.	unpaid volunteers, people that teach a few hours aside from their normal job (often school teachers), free-lance workers that sell their courses on a commercial basis.
Chambers of industry and commerce, and of craft trades and agriculture, which offer a broad range of CVET and contribute particularly to the professionalisation and training of the workforce by recognising qualifications.	Subject specialist with varied specific educational qualification (full-time, part-time, freelance)
Company-based CVET. Many large companies have built up their own internal training centres.	Company employees (full-time, part-time or volunteer)
The German Federation of Trade Unions (DGB) maintains the largest institutions of vocational continuing education.	Subject specialist with varied specific educational qualification (full-time, part-time, free-lance)
Commercial CVET institutions, whose number and range of provision have grown considerably. They target those who can pay, particularly in the areas of foreign language teaching and data processing, and take an active part in competing for public funds, notably under the Employment Promotion Act.	Employees and free-lance subject specialist
Institutes of distance education.	Employees and free-lance subject specialist
Training organisations of the various economic sectors, which organize vocational and industrial continuing education, especially in SMEs.	Employees and free-lance subject specialist
Higher education institutions, which have an obligation to CVET under the Basic Higher Education Act. Some 30 higher education institutions and vocational higher education institutions have their own CVET centres. Many offer CVET in cooperation with other providers, trade unions and employers.	Teacher

Source: Compiled by the authors

### 0701 - MECHANISMS FOR THE ANTICIPATION OF SKILL NEEDS

Systematic recording and research of the development of future skills needs in Germany was initiated in the resolutions passed in 1999 by the “Alliance for Jobs, Training and Competitiveness” (*Bündnis für Arbeit, Ausbildung und Wettbewerbsfähigkeit*, <http://www.bmbf.de/pub/buendnar.pdf>) and implemented within the subsequent initiative for the early identification of skills needs launched by the Federal Ministry of Education and Research (*BMBF*). The main part of this initiative is the research network “Early Identification of Skills Needs in the Network” (*FreQueNz*, [www.frequenz.net/](http://www.frequenz.net/)). It includes several research institutions, an education organisation, the Federal Institute for Vocational Education and Training (*BIBB*), the German Confederation of Trade Unions (*DGB*) and the German Employers’ Organisation for Vocational Training (*KWB*). The aim of *FreQueNz* is the timely identification of future skills needs and their evaluation in respect of their impact on VET. The emphasis is on recording changes in the market to enable a more rapid reaction to occupational skills trends. The task is to use these requirements to derive or develop models for future skills and occupational profiles.

Apart from the projects within the *FreQueNz* network, the *BMBF* also supports the development of a “Labour market radar” (*Arbeitsmarktradar*), a system of future-oriented labour market monitoring.

At the Federal Institute for Vocational Education and Training (*BIBB*), new skills needs are identified using a range of complementary investigative approaches, such as company surveys, analyses of job advertisements, follow-up surveys of advertisers, employee questionnaires, regular surveys of continuing training providers (*wbmonitor*, <http://www.bibb.de/de/11920.htm>), analyses of continuing training provision in the *KURSNET* database (<http://infobub.arbeitsagentur.de/kurs/index.jsp>) and identification of innovative continuing training measures through the prize for innovation in continuing training ([www.bibb.de/de/1898.htm](http://www.bibb.de/de/1898.htm)).

The *Länder*, and several regions in different *Länder*, pursue their own region-specific activities for early identification (e.g. regional monitoring of qualification developments, surveys on skill needs).

The social partners are also involved in early identification issues, mainly in the context of modernising initial and further training regulations (Scharlowsky, 2007). When renewing training regulations in the dual VET system, due to changed qualification demands, experts from the social partners form working groups (see 0703). All these activities are important contributions to the early identification of qualification needs. At the same time, they contribute to the implementation and transfer of measures to meet qualification needs within the VET system.

Besides that, investigations on skill needs and qualification development are carried out by:

- sector-specific associations, such as: the Association of Engineers (*VDI*) and the German Association of Information Technology, Telecommunications and New Media (*BitKom*);
- the Institute for Employment Research (*IAB*);
- several foundations, such as the *Hans-Böckler* Foundation, *Friedrich-Ebert* Foundation, *Konrad-Adenauer* Foundation and the *Bertelsmann* Foundation;
- other stakeholders.

## **0702 - BRIDGING PATHWAYS AND NEW EDUCATIONAL PARTNERSHIPS**

For ageing societies like Germany, it is important for competences to be acquired on a lifelong basis to maintain the population's level of qualification. Education and training policy is therefore geared to increasing permeability by an improved recognition of competences in transferring between fields of education and training. It is important for VET to dovetail with not only general education, but also institutions of higher education. Two approaches will be cited here, in which transitions are made easier or possible for learners.

### **INTERFACE BETWEEN SCHOOLS PROVIDING GENERAL EDUCATION AND INITIAL VOCATIONAL TRAINING**

The introduction of qualification modules are designed to make it easier for young people to enter training. They are particularly helpful for socially disadvantaged young people and those who find learning difficult. Qualification modules in pre-vocational training (see 0405) contain vocational elements of recognised training occupations. With the agreement of those involved (trainee, enterprise), qualifications acquired can count towards subsequent vocational training. The provider (e.g. Chambers of Industry and Commerce, Craft Chambers, the *BIBB*) must draw up a description of each module, which must include designation, the training occupation on which it is based, the qualification aimed at, the activities to be provided for this purpose, with reference to the skills and knowledge contained in the framework training plan of the relevant training regulation, the duration of provision and the nature of the performance observed (qualification picture). The *BIBB* maintains a database of qualification modules ([www.good-practice.de/bbigbausteine/](http://www.good-practice.de/bbigbausteine/)), which now contains over 500 (as of August 2008).

To meet the needs of the so called "repeat applicants" (*Altbewerber/innen*) (young people who have been applying for an apprenticeship place for a year or more without success), in 2007 the "Training modules" (*Ausbildungsbausteine*) programme was launched. In 11 (in addition with the creditable two-year training occupations: 14) significant occupations within the dual system, training modules were developed with a view to helping repeat applicants to transfer to regular dual training and have their previously

acquired learning outcomes credited towards the regular training period or to enable their admission as external candidates to chamber examinations (Frank and Grunwald, 2008). In both cases the aim is the award of full qualifications in the dual system. The testing of the training modules will be conducted in the framework of the new BMBF programme “Jobstarter Connect” (<http://www.jobstarter.de/de/1208.php>), which will start at the beginning of 2009.

## INTERFACE BETWEEN VET AND HIGHER EDUCATION

Training in vocational academies (*Berufsakademien*) takes place partly in accordance with study or training plans drawn up by agreement (*Studienakademien*) between academies, enterprises and social facilities, and also partly through vocational-academy training and examination directives in accordance with framework criteria from the relevant ministries (for vocational academies, see 0407). In October 2004, the Standing Conference of Ministers for Education and Cultural Affairs of the *Länder* (*KMK*) decided that training programmes at vocational academies leading to Bachelor’s qualifications should be accredited as equivalent to Bachelor’s qualifications from institutions of higher education, thus opening up access to Master’s courses. Equivalence criteria relate to teaching staff and to the scope of the theory- and practice-based training elements.

## 0703 - RENEWAL OF CURRICULA

For in-company training, the vocational competences to be acquired are laid down in a training regulation. For teaching in vocational schools, there is a framework curriculum drawn up in line with the training regulation for every recognised training occupation. In view of the speed of technological and organisational change, many training regulations are revised every few years.

As a rule, the initiative for updating the occupational profile of a training occupation or for developing an entirely new occupation comes from trade associations, employers’ associations, trade unions or the Federal Institute for Vocational Education and Training (*BIBB*). As a first step, vocational training regulations’ benchmarks (*bildungspolitische Eckwerte*) are defined during an “application meeting” at the competent ministry (usually the Federal Ministry of Economics and Technology). After hearing all players involved, the competent federal ministry decides in consultation with the *Länder* governments whether to proceed. In many cases, the *BIBB* issues an advisory opinion or, particularly when larger-scale revisions are being considered, conducts a research project before the ministry takes its decision. During the drafting and coordination phase, the training regulations (for firms providing in-house vocational training) and framework curriculum (for vocational schools) are drafted for the particular occupational profile and coordinated with one another. The *BIBB* asks the employers’ associations and trade unions to designate experts who, acting as experts on behalf of the Federal Government (representatives of actual in-house vocational training practice), then develop new training regulations or revise existing training regulations together with the Institute. Proceeding in concert with the work done by the Federal Government’s experts, the *Länder*’s experts develop a draft curriculum for instruction held at part-time vocational

schools. At the end of the drafting phase, the two groups of experts meet to discuss the two drafts and bring their respective content and timetables in line with one another.

Once the two have been coordinated with one another, the draft training regulations are forwarded to the Main Board (*Hauptausschuss*) of the *BIBB* for its comments. When the Main Board issues a positive position on the draft regulations, its statement also serves as the recommendation to the Federal Government to “issue” the particular vocational training regulations in the submitted form. The “Federal-Länder Coordination Committee for Vocational Training Regulations / Framework Curricula” eventually approves the new vocational training regulations and the framework curriculum that has been coordinated with it. The competent ministry in conjunction with the Federal Ministry of Education and Research (*BMBF*) subsequently issues the training regulations and publishes them in the Federal Gazette. The date that a new set of regulations goes into force is usually the start of the next training year - in Germany, 1 August. They are also published together with the respective framework curricula and training profiles in the Federal Gazette.

On 1.8.2008 there were a total of 351 state-recognised training occupations (<http://www2.bibb.de/tools/aab/aabberufeliste.php>, cited 27.8.2008). Between 1998 and 2008 alone, 62 new training occupations were developed and 162 were modernised (cf. *BIBB*, 2008b).

The preparation and issuing of advanced training regulations for advanced vocational qualifications is carried out by the Federal Government. The procedure is in principle the same as for initial dual training regulations without the development and co-ordination of the school curriculum.

## 08 - ACCUMULATING, ACCREDITING AND VALIDATING LEARNING

### 0801 - ACCUMULATING, ACCREDITING AND VALIDATING FORMAL LEARNING

Vocational training in Germany mainly takes place in a formalised way whereby qualifications rather than competences are the central outcome. The dual system approach to initial vocational training (certified theoretical and practical training) creates recognised career progression routes which exclude those whose competencies were acquired from non-formal or informal learning. The concept of *Beruflichkeit* (alignment of training with state-recognised skilled occupations) guarantees the practical relevance of training but also has a restrictive effect on flexibility.

The primary aim of training is to enable young people to acquire comprehensive vocational competence designed to make them capable of fulfilling their duties as employees efficiently, effectively and innovatively, autonomously, and in cooperation with others. Vocational competence is based on subject-based, social and methodological competences. The capacity to practise an occupation in a qualified fashion includes, in particular, autonomous planning, implementation and control. This bundle of competences must be demonstrated in examinations regulated by law (Vocational Education and Training Act).

Final training examinations are geared to vocational practice, i.e. to the work requirements and processes of the occupation. As a rule, a final examination covers four or five fields typical of the occupation. Performance in general subjects, such as languages and mathematics, is evaluated within the framework of school reports. Various methods are used in examinations depending on the occupation and duration may vary especially in practical examination tasks. For written tasks, a period of two hours is usually allocated for the examination, and oral examinations usually last 30 minutes.

Enterprises and vocational schools conduct training, but the Chambers (Competent Bodies) are responsible for holding examinations. To this end, the Chambers have to set up examination committees for each occupation which comprise at least three members (one representative each of employers and employees and a vocational schoolteacher). The examination certificate is issued by the Chamber. The structure of examinations is laid down by individual training regulations (see 0703) which are applicable nationwide and specify a uniform standard.

After obtaining a vocational qualification and gaining work experience, it is possible to take an **upgrading qualification** (e.g. as a technical engineer, master craftsman, business specialist or certified senior clerk - *BBiG* Sections 53 ff). At Federal level there are currently around 200 such qualifications, of which master craftsman qualifications account for 170. This **formal advanced training** must be distinguished from **continuing education and training**. Continuing vocational education and training (CVET) differs from other parts of the education and training system in the diversity and volume of providers. It is organised as an open market. There are no formal access requirements.

## GENERAL EDUCATION - IVET

The transition from school to initial vocational training is considered risk-laden in Germany due to the high number of apprenticeship dropouts (almost 30 % in craft trades), the increasing number of young people unqualified for initial vocational training, and the declining supply of in-company training places, among other factors.

One instrument intended to ease the transition particularly for young people with learning difficulties or social disadvantage, is the **qualification module** approach whereby the basics of vocational proficiency are taught in the form of modules. Their content is developed from the curricula for recognised training occupations or equivalent IVET programmes. In the event that all parties agree, particularly the company and the chambers, credit for the completed qualification modules can be awarded towards a subsequent initial vocational qualification. The legal for this is the Directive on Certification of Bases of Vocational Competence in the Context of Pre-Vocational Training (*Berufsausbildungsvorbereitungs-Bescheinigungsverordnung - BAVBVO*).

## IVET - CVET

**Additional qualifications** (*BBiG* Section 49) were introduced to ensure that learning in formal, non-formal or informal contexts is complementary to state-recognised qualifications. Thus any one of the standard national qualifications can be brought up to date and tailored more closely to requirements. Additional qualifications can serve the purpose of rounding off an initial vocational training programme, substantially extend an initial training profile, or even anticipating elements of a formal advanced training occupation.

## IVET - HE / CVET - HE

Formally unrestricted access to universities is obtained by means of the *Abitur* or *Hochschulreife* (higher education entrance qualification), the upper secondary leaving certificate from the *Gymnasium* (university-track secondary school) awarded after completion of 12 or 13 years of schooling. This coexists with forms of restricted entitlement to enter higher education, namely the *Fachgebundene Abitur* or the *Fachhochschulreife* (subject-specific entrance qualifications to higher education, giving access to particular courses of study at universities or universities of applied sciences).

## 0802 - ACCUMULATING, ACCREDITING AND VALIDATING NON-FORMAL/INFORMAL LEARNING

Legally, the acceptance of competences acquired from non-formal and informal learning is not recognised. Moreover, the issue is widely viewed as less important by those involved in policy and practice. Little use is made of competencies acquired informally (including commitment to social and community service) for the purposes of the formal education system (admission procedures, training and study programmes, certification at upper secondary level and in higher education). The various qualitative and quantitative certification procedures (examination boards, assessments etc.) are not used to recognise competences acquired outside the formal system.

The most important way in which the measurement and assessment of non-formal and informal learning outcomes is taken into account is through the admission to final examinations under Section 45 (2) of the Vocational Education and Training Act (*BBiG*), known as the **Externen-Prüfung** (examination for external candidates, i.e. those not involved in a formal vocational training programme). Under this provision, people can be admitted to the final examination for a recognised occupation requiring formal training if they furnish evidence that they have been employed in the occupation for which they wish to take the examination for a period at least one and a half times as long (i.e. normally 4½ years) as is prescribed for the period of initial training. A similar provision exists in higher education with the **Immaturenprüfung** (examination for higher education applicants without a higher education entrance qualification), which is regulated differently in the different *Länder*. By offering **admission examinations** they provide for the possibility of recognising informal learning. Both the *Externenprüfung* and the *Immaturenprüfung* recognise informally-acquired competences for admission procedures only; no recognition is awarded which would shorten the length of education or training programmes.

In continuing education and training, the Federal Institute for Vocational Education and Training (*BIBB*) supervises the development of a system of further training profiles (cf. *Mucke/Grunwald, 2005*). The objective is to provide skilled workers in the information technology sector with career paths and career progression via three qualification levels (Level 1: Specialist, Level 2: Operative Professional and Level 3: Strategic Professional). The IT further training system requires a high degree of comparability at the level of operational and strategic professionals with higher education qualifications such as Bachelor's and Master's which creates opportunities for credit transfer.

In the past five or six years, a trend has been apparent for competences to be recorded and documented with the aid of continuing training passes:

The '*ProfilPASS*', introduced in 2006, aimed at 'self-diagnosis' of individual competences and at making them visible ([www.profilpass-online.de/index.php](http://www.profilpass-online.de/index.php)). Users are guided through and supported in this process by a list of questions. The *ProfilPASS* takes account of all places of learning in which the learner has acquired competences.

The 'qualification pass' designed for the second-chance qualification of adult employees. This makes it possible to document and compile vocational qualifications and experience acquired both within and outside the framework of traditional training and continuing training ([www.qualifizierungspass.de](http://www.qualifizierungspass.de)).

### **0803 - IMPACT OF EU POLICY COOPERATION**

European activities under the framework of the Bruges-Copenhagen process, such as the development of a European Qualifications Framework (EQF), a European Credit Transfer System for Vocational Education and Training (ECVET) and the EUROPASS, have provided the initiative for national processes despite national sovereignty over general and vocational education. The German Qualification Framework (DQR) currently being prepared is likely to make a key contribution to a broader culture of recognition (see 1101). A question of crucial importance is how the existing occupational system, geared

towards formal certificates, will relate to a competency-based system, i.e. the debate over *Beruflichkeit* (alignment with recognised occupations) and modularisation.

The Bologna Declaration also made reference to the interface of higher education with vocational education. The national goal declared in 2002 is to credit transfer towards higher education programmes for qualifications obtained via the vocational route. This will be facilitated by the joint implementation of a credit points system in CVET. To implement this form of transition a recommendation of September 2003 issued by the Federal Ministry of Education and Research (*BMBF*), the Standing Conference of the *Länder* Ministers for Education (*KMK*) and the Association of Universities and Other Higher Education Institutions in Germany (*HRK*) on the award of credit points in advanced vocational training and the transfer of credit towards higher education degree programmes. The challenge is now to create a way to award credit points for advanced vocational training and grant credit transfer towards higher education at a level which satisfies the academic standards of the relevant degree course.

The *BMBF* initiative “Accreditation of Prior Learning from Vocational Education and Training and work for Higher Education Programmes” (*Anrechnung beruflicher Kompetenzen auf Hochschulstudiengänge - ANKOM*) is an important project geared towards practical implementation. The overriding purpose of *ANKOM* is to foster learning pathways from VET and CVET to higher education. During the first funding period (autumn 2005 - June 2008), twelve development projects were supported which developed and piloted concrete recognition and credit transfer procedures for competencies acquired on a specific CVET course (Seidel et al., 2008, p. 47ff.). The scientific monitoring in the second funding period (July 2008 - June 2009) aims at generating a system-wide reference framework for recognition of vocational learning and informally-acquired competences and credit transfer towards higher education programmes based on the findings in the individual development projects.

The goal of the pilot initiative “DECVET - Development of a credit system for vocational education and training” (see 1101) is to contribute to the educational mobility within and between the different subsystems of the vocational educational system through the collection, recognition and the transfer of learning outcomes.

In the field of initial vocational training, the main option that allows in principle learning outcomes achieved non-formally and informally to be measured and evaluated is admission to the final examination in a recognised training occupation (Section 45(2) BBiG), known as the external examination (*Externenprüfung*). To be admitted, applicants must prove that they have worked for at least one and a half times the training period in the occupation in which the examination is to be sat, i.e. normally 4½ years. Since the reform of the Vocational Education and Training Act in 2005, consideration of “foreign vocational training qualifications and periods of employment abroad” has been explicitly stipulated in this procedure.

## 0804 - FACILIATING EU MOBILITY

There is no standard system of recognition and credit transfer for competencies acquired informally or non-formally within Germany or for learning outcomes achieved abroad.

The Standing Conference of the Ministers of Education and Cultural Affairs of the *Länder* (*KMK*) has set up an information office (the Central Office for Foreign Education - *Zentralstelle für ausländisches Bildungswesen*) which deals with questions relating to the recognition of educational qualifications - but not competences - acquired abroad. It assesses foreign educational qualifications of individual applicants upon request from those authorities that are legally empowered to decide on individual cases of recognition. It also provides a database (<http://www.anabin.de/>) which serves as information medium for the evaluation of foreign certificates. For unregulated occupations and professions, it is the labour market itself which regulates and it is up to recruiting firms to decide which applicants to employ. Large companies have developed their own competence assessment methods.

The EUROPASS Mobility provides information on the content, purpose and duration of an actual stay abroad. Unlike its predecessor, the EUROPASS Mobility documents any kind of learning experience abroad, no matter on which level or with which aim. The high level of acceptance of the EUROPASS Mobility via the national database is a great achievement for Germany. Since the database was implemented in October 2005, 28,623 EUROPASS Mobilities have been applied for (as of 5 May 2008).

A number of institutions are involved in promoting international exchange in Germany, including the Federal Employment Agency (*Bundesagentur für Arbeit - BA*), *InWent* (*Internationale Weiterbildung und Entwicklung gGmbH*, Capacity Building International), the Educational Exchange Service (*Pädagogischer Austauschdienst - PAD*), the German Academic Exchange Service (*Deutscher Akademischer Austauschdienst - DAAD*) and the **International Youth Exchange and Visitors' Service of the Federal Republic of Germany** (*Internationaler Jugendaustausch- und Besucherdienst der Bundesrepublik Deutschland - IJAB*).

In the area of international training for young German experts and executives, *InWent* (<http://www.inwent.org/>) supports 7,000 participants every year. They gain experience abroad on practical advanced training programmes, and develop both their professional and intercultural skills. The main target groups are apprentices and junior employees, students, graduates, and staff in vocational and adult education. Programmes are aimed at potential participants from all kinds of disciplines and sectors, although the commercial and technical fields account for the largest proportion. The main programme for the promotion of apprentices' mobility is the Leonardo da Vinci programme within the superordinate "Lifelong Learning Programme" (see 1101). The Information and Guidance Centre for Advanced Training Abroad (*Informations- und Beratungsstelle zur beruflichen Weiterbildung im Ausland - IBS*) at *InWent* maintains an online database of advanced training opportunities abroad (*Wege ohne Grenzen*, <http://www.inwent.org/ibs/index.php.de>).

## 09 - GUIDANCE AND COUNSELLING

### 0901 - STRATEGY AND PROVISION

In Germany, the employment agencies (*Agenturen für Arbeit*) have a statutory responsibility to provide vocational and careers guidance, but it may also be offered and provided by other players (for example, other public-sector institutions such as schools and Chambers, and also private service providers).

The statutory bases for careers guidance are laid down in Volume III of the *Sozialgesetzbuch* (Sections 29-33 of *SGB III*). Its main aim is to support young people in making the transition from school to training, higher education and an occupation, and hence to help in realisation of the individual's education and training prospects.

Careers guidance is designed to motivate and enable the individual to plan a precisely targeted path through work and life. The aim is to develop and consolidate the ability to choose an occupation as early as possible via careers guidance measures. For these aims to be achieved there is a need for general and vocational schools and the Federal Agency for Employment to work together and to cooperate with other players such as parents, youth welfare, business (companies, associations, Chambers), unions and institutions of higher education.

### 0902 - TARGET GROUPS AND MODES OF DELIVERY

#### EMPLOYMENT AGENCIES (AGENTUREN FÜR ARBEIT)

As a core function of employment agencies, careers guidance is available to all people, irrespective of their age, training status and personal working and living situation. Employment agencies provide information and guidance on all questions of choosing an occupation or course of study and all labour market questions. They employ a range of techniques and have developed diagnostic tools for assessing readiness for training and vocational aptitude. They also support schools in issues of personal careers guidance and of the training and labour markets, including finding training places.

The International Placement Service (*Zentrale Auslands- und Fachvermittlung - ZAV*) of the Federal Employment Agency offers information on training, studying and working abroad, consultancy and placement services. It consists of 12 regional teams of advisors and mediators who focus on job-seekers and a centralized employers' service in Bonn.

Another guidance service provided by employment agencies is information on labour market and employment prospects following higher education. The Federal Agency maintains special higher education teams on the sites of larger institutions of higher education, to provide guidance for students and to help them to find work. In addition to individual guidance, these teams also offer presentations, workshops and seminars on many subjects associated

with higher education, careers and the labour market – often in cooperation with the institutions' own guidance services.

## SCHOOLS

Course and careers guidance has become an established element of school curricula in all the *Länder*. Most vocational schools teach preparation for working life (*Arbeitslehre*) as a subject in its own right, but in schools providing general education it tends to be incorporated into other subjects such as economics, engineering or home economics (in grammar schools it is also incorporated into teaching of social sciences). Careers guidance in class is often supplemented, in classes 9 or 10, by visits to enterprises and periods of work experience in enterprises lasting from one to three weeks.

## INTER-COMPANY VOCATIONAL TRAINING FACILITIES

Early, practice-oriented, systematic vocational guidance is being provided at inter-company vocational training centres (*überbetrieblichen Berufsbildungsstätten - ÜBS*) and similar vocational training facilities to make the transition from school to 'dual' vocational training easier for pupils at schools offering a general school-leaving certificate. The Federal Ministry of Education and Research (*Bundesministerium für Bildung und Forschung - BMBF*) is flanking this process within the scope of its public mandate for education by supporting training facilities to fulfil this new task of occupation-specific vocational guidance. The *BMBF* is making available EUR 15 million per year for this programme until the year 2010. This funding will enable the development of suitable measures to be piloted, and the establishment of permanent structures which are expected to become independent of federal funding in the long term. A sustainable improvement of transition management should be the outcome. In 2008 around 50,000 vocational guidance measures can be carried out, so that approx. 25% of the forecast number of lower secondary school-leavers will be reached. These vocational guidance measures give young people the opportunity to spend two weeks at a vocational training facility gaining practical experience in three occupation-specific workshops. Supervised by a trainer, they do practical work as a means of exploring their aptitude and interest in three selected occupations. A final certificate is awarded at the end of the vocational guidance activity, which is intended to guide pupils' final career choices or convince potential apprentice trainers to offer them an apprenticeship. The Federal Institute for Vocational Education and Training (*BIBB*) has been tasked not only with implementing the programme but also with evaluating it.

## INSTITUTIONS OF HIGHER EDUCATION

Under the Framework Law on institutions of higher education (Section 14(4) *HRG*), institutions of higher education are obliged to teach students and course applicants about the course options, and to provide them with support throughout their courses in the form of complementary specialised guidance. The institutions are also required to cooperate with the bodies responsible for careers guidance and state examinations. Most universities and some *Fachhochschulen* have set up course guidance centres.

## **SOCIAL PARTNERS AND ENTERPRISES**

Employers' organisations, Chambers, unions and individual enterprises have been involved in certain forms of vocational and careers guidance for a very long time, such as careers fairs, exchange programmes or continuing training fairs. For some years, they have also been increasingly involving themselves in school careers guidance provision.

## **PRIVATE SUPPLIERS**

With the replacement of the Employment Promotion Act (*AFG*) by Volume III of the *Sozialgesetzbuch (SGB III)* on 1 January 1998, the BA's monopoly of careers guidance was abolished and the market was opened up to private suppliers. This has led to the establishment of a somewhat opaque market of private service providers, with major variations as regards quality and the range of provision. There is a career guidance register (*BBR*) ([www.bbregister.de/praeambel.htm](http://www.bbregister.de/praeambel.htm)) created in 1998, produced by the German Association for Educational and Careers Guidance (*dvb*) which ensures a degree of transparency. Career advisers and institutions offering guidance can apply to be included in this register if they can prove sufficient qualification and experience. They submit themselves to both national and international quality standards, including for example the ethical standards of the International Association for Educational and Vocational Guidance (*IAEVG/AIOSP*). Every four years the register is reviewed to determine who fulfils these criteria and can continue to be recommended.

## **0903 - GUIDANCE AND COUNSELLING PERSONNEL**

Since 2006, there are two courses of study leading to a Bachelor's degree open to staff working in the employment agencies: 'labour market management' and 'employment-oriented guidance and case management'. Both are provided at the higher education institution of the Federal Agency for Employment, a state-recognised *Fachhochschule* for labour market management. The labour market management course qualifies participants for the tasks of mediation and integration, service provision and resource management in the employment agencies. The employment-oriented guidance and case management course qualifies participants to perform vocational and careers guidance tasks and the tasks involved in employment-oriented case management. The full-time course takes three years and ends with a recognised higher education qualification, Bachelor of Arts. During the course, students are employed by an employment agency. Four periods of work experience of relevance to the examination are spent in various parts of the employment agencies and form an integral element of the course.

## 10 - FINANCING - INVESTMENT IN HUMAN RESOURCES

### 1001 - BACKGROUND INFORMATION CONCERNING FINANCING ARRANGEMENTS FOR TRAINING

In Germany, financing of vocational training and continuing training is based on a system of mixed financing with a variety of different backers, both public and private. They include the Federal Ministry of Education and Research (*BMBF*), the Federal Ministry of Economics and Technology (*BMWi*), the Federal Employment Agency (*BA*), The *Land* Ministries of Employment, Economics, Education or Cultural Affairs, the European Union, local authorities, companies, unions, Chambers, associations, private institutions and, lastly, individuals themselves.

### 1002 - FUNDING FOR INITIAL VOCATIONAL EDUCATION AND TRAINING

The school-based element of dual vocational training is financed by *Land* and local authority public funds. The *Länder* bear the costs of internal school affairs (e.g. supervision of schools, implementing curricula, teacher training, teachers' pay), and local authorities are responsible for financing external school affairs (e.g. construction, maintenance and renovation of school buildings, ongoing management, procurement of teaching and learning resources).

Enterprises are responsible for financing the in-company training element – the individual enterprises decide independently whether and in what training occupations they will provide training, how many trainees they will take within the framework of the statutory provisions, and how much they will spend. In some sectors (e.g. the construction industry, the roofing trade), financing regulations have been collectively agreed whereby all enterprises pay into a joint fund (e.g. through giving a percentage of the total wage bill). The fund is used to reimburse enterprise expenditure on training.

Training in a full-time vocational school outside the dual system and special measures to promote VET, such as *Land* programmes to create additional training places, are financed out of *Land* budgets.

Inter-company vocational training centres (*überbetriebliche Berufsbildungsstätten - ÜBS*), in which supplementary instruction of trainees takes place on behalf of SMEs, are funded by mixed financing - subsidies from the Federal Agency for Employment, central government (capital grants from *BMBF* resources) and the *Länder* are added to the resources of the body responsible.

The financing of coherent training structures (*Ausbildungsverbände*) depends on their organisational form. In the 'lead enterprise with partner enterprises' model, the lead enterprise normally finances remuneration of training, while the partner enterprises bear the personnel, plant and equipment costs that arise in their area of responsibility. In the 'training to order' model, in principle each party to the contract can provide training services against reimbursement

of costs, but in practice SMEs usually finance the training services contracted out to a large enterprise with a training workshop.

In view of the lack of apprentice training places in enterprises, central government also finances various programmes designed to create additional places and to improve in-company training conditions. An example of this is 'JOBSTARTER - Für die Zukunft ausbilden' (training for the future), launched in 2006 by the Federal Ministry of Education and Research (*BMBF*) to promote innovation and structural development in VET. The *BMBF* subsidises the programme by EUR 125 million (for 2006 to 2010), and the programme is being co-financed with ESF funding.

The Federal Employment Agency (*BA*) is also involved in financing training. In certain cases it gives young people a grant for vocational training or for pre-vocational training measures. As a new instrument to support apprenticeship places for young people who have left school one year or more previously and have since been applying for apprenticeships without success ("repeat applicants"), the training bonus (*Ausbildungsbonus*) was adopted in June 2008. It can be claimed by companies that conclude apprenticeship contracts with repeat applicants requiring special support. Depending on the level of the particular training allowance, the bonus amounts to between EUR 4,000 and 6,000. To qualify for this support, apprenticeships must begin between 01.07.2008 and 31.12.2010. In addition, the vocational training of disadvantaged young people and the training and vocational rehabilitation of disabled persons are also subsidised from *BA* funds (see 1004).

Table 1: Financing of vocational training 2006	
FINANCING BODIES	EXPENDITURE (IN EUR BILLIONS)
<b>ENTERPRISES</b>	27.7*
<b>FEDERATION AND LÄNDER</b>	
Part-time vocational schools (dual system)	2.8
Full-time vocational schools	2.4
Other school types providing VET (e.g. specialised grammar schools, <i>Fachoberschulen</i> )	1.6
Inter-company VET centres ( <i>ÜBS</i> )	0.03
Teaching courses and programmes	0.31
<b>FEDERAL AGENCY FOR EMPLOYMENT (BA)</b>	3.9

\*Gross costs, i.e. training costs without allowing for training income. The information is based on a representative survey of enterprise training costs, last conducted by the BIBB for 2000.

Source: Berufsbildungsbericht 2007, p. 146

### 1003 - FUNDING FOR CONTINUING VOCATIONAL EDUCATION AND TRAINING, AND ADULT LEARNING

Enterprises, the state, the Federal Agency for Employment and private individuals themselves are involved in financing continuing vocational education and training (CVET).

Enterprises bear the majority of costs of in-company continuing training measures for their employees. They finance CVET from sales revenues, interest income, income from leasing and direct State subsidies, from credits and loans in anticipation of future income and from transfer of retained earnings from previous periods. Tax relief in the form of tax reductions or mitigation of tax liabilities for enterprises showing a profit may subsidise in-company continuing training indirectly.

The Continuing Vocational Training Surveys (CVTS), referring to 1993 (CVTS I), 1999 (CVTS II) and 2005 (CVTS III) provide data concerning the enterprises' expenditure on CVT courses for their employees. The *Table* shows the total costs of CVT courses as a proportion of total labour costs. Total expenditure on CVT courses is the sum of direct costs, labour costs of participants and balance of contributions to national or regional training funds and receipts from national or other funding arrangements. As in more than half of the participating countries, also in Germany the share of CVT courses in the total labour costs dropped between 1999 and 2005 (from 1.5% to 1.3%). Nevertheless, the gap between the German value and the EU average shrank from 0.8 percentage points in 1999 to 0.3 percentage points in 2005. The *Table* also shows that, as in almost all countries, small enterprises spend a lower proportion of their labour costs on CVT than large ones.

Table 1: Total costs of CVT courses as % of total labour costs (all enterprises) (2005 vs. 1999), by size class								
	SIZE CLASS (NUMBER OF EMPLOYEES)							
	TOTAL (%)		10 TO 49 (%)		50 TO 249 (%)		250 OR MORE (%)	
	CVTS3	CVTS2	CVTS3	CVTS2	CVTS3	CVTS2	CVTS3	CVTS2
EU-25	1.6	2.3	1.1	1.5	1.4	2.4	1.9	2.3
DE	1.3	1.5	0.9	0.9	1.1	1.4	1.5	1.8

Source: Eurostat; 2nd and 3rd continuing vocational training survey in enterprises (CVTS II and CVTS III), online database; Date of extraction: 20/08/2008.

Central government, *Länder* and local authorities make funding available from their budgets primarily for continuing training of public sector employees. In addition, there are various state-subsidised continuing training programmes, e.g. the Vocational Training Programme for the Highly Talented (*Begabtenförderung Berufliche Bildung*) and the Career Advancement Training Promotion Act (*AFBG*, known as '*Meister-BaföG*') (see 0502).

The Federal Employment Agency supports continuing training measures for unemployed people and for people at risk of unemployment. The budget is made up of employers' and employees' unemployment insurance contributions, grants from the Federal budget and other income.

Individuals use mainly direct sources of funding for continuing vocational training such as recourse to current income, advances on future income (credit, loans) and transfer of capital (savings or inheritances). Furthermore, individuals can claim tax relief when they are liable to pay tax on income and are acquiring qualifications for a new occupation (special expenses) or are undergoing further training in their present occupation (income-related expenses).

#### **1004 - FUNDING FOR TRAINING FOR UNEMPLOYED PEOPLE AND OTHER GROUPS EXCLUDED FROM THE LABOUR MARKET**

Active labour market policy involves many state measures to prevent unemployment and promote employment. In 2006, the overall expenditure of the Federal Employment Agency (*BA*) and central government was EUR 74.5 billion (2005: EUR 82.9 billion), from which EUR 18.5 billion (24.8 %) were devoted to active employment promotion (Bundesagentur für Arbeit, 2007, p. 143f.).

Particular attention is given to support disadvantaged young people and young adults who, at the end of their compulsory education, are unlikely to find training places or jobs without specific help (see 0405).

There is still a statutory duty to provide individual and institutional support for the participation of disabled persons in working life (defined in the *Sozialgesetzbuch, SGB III*, as people whose prospects of participating in working life are fundamentally reduced on a permanent basis owing to the nature or severity of their disability). In 2001, a volume specifically covering the rehabilitation and participation of disabled persons was created in Volume 9 of the *Sozialgesetzbuch (SGB IX)* which summarises the statutory rules governing their benefit entitlement. The Support for the Training and Employment of Seriously Disabled Persons Act, which entered into force in April 2004, was aimed above all at improving training opportunities.

#### **1005 - PERSPECTIVES AND ISSUES: FROM FUNDING TO INVESTING IN HUMAN RESOURCES**

Developing vocational schools and the quality of training on offer through delegating more autonomy is at the heart of reform efforts. Delegating financial responsibilities by giving them more freedom in budgetary allocation is one key element. This path is being followed to a different extent in the individual *Länder*.

For in-company training, the financial burden has increasingly shifted from enterprise to public-sector financing given the need to encourage enterprises to provide more training places.

To raise participation in lifelong learning, the German Federal Government approved a model for continuing training savings, the “learning subsidy” (*Bildungsprämie*), in April 2008. The learning subsidy is particularly intended to mobilise participation in CVET by low and middle income groups. The model is scheduled for introduction in October 2008 and will run for an initial three-year period without regional limitation. Essentially it encompasses the following three components:

- State learning subsidy (maximum EUR 154) granted to everyone on condition that they are contributing at least an equal amount towards their course participation fees. To keep the administrative costs in proportion with the instrument’s benefits, a “trivial sum” excess of EUR 30 prevents applications for the learning subsidy to fund measures with very low participation fees. Only course fees of EUR 338 or more attract the maximum subsidy amount.
- Facility to withdraw savings deposits for the purposes of CVET before the end of the lock-in period without losing the employee savings bonus, by amendment of the Capital Formation Act (*Vermögensbildungsgesetz - VermBG*). Depending on the number of years and the monthly rate of saving, this component could even cover the cost of medium to long-term training. Under savings schemes, for example, it is possible to build up deposits of EUR 3,500-4,000. For lower-cost measures it will not generally be necessary to liquidate the entire deposit.
- Continuing education loans (*Weiterbildungsdarlehen*) at favourable interest rates, whereby funds are made available for training at a moderate rate of interest after an obligatory guidance consultation but without an individual credit check. The provision is not dependent on the level or form of income. It serves the purpose of financing more cost-intensive measures. Living costs can also be taken into account.

## 11 - EUROPEAN AND INTERNATIONAL DIMENSIONS, TOWARDS AN OPEN AREA OF LIFELONG LEARNING

### 1101 - NATIONAL STRATEGIES RELATED TO POLICY PRIORITIES, PROGRAMMES AND INITIATIVES AT EU LEVEL

As an export-oriented country with nine neighbour countries and located as it is in the heart of Europe, Germany has a special interest in promoting a European education area. In addition to the promotion of mobility and co-operation arrangements in cross-border education projects in the EU, the developing European Education and Employment Area (Lisbon and Copenhagen process) increasingly makes possible structural measures to enhance the recognition, crediting and transparency of qualifications and school leaving certificates.

### EU TOOLS TO IMPROVE THE TRANSPARENCY AND TRANSFER OF VET QUALIFICATIONS

There is a consensus at the European and at the national level about the goal of sustainably shaping education and training so that it promotes life-long learning and the employability of the men and women citizens. In this connection the Federal Government regards such current European developments as the European Qualification Framework (EQF) and the European Credit System in Vocational Education and Training (ECVET) as a positive challenge at both the European and national level to promote more mobility, transparency and recognition.

The European Qualification Framework (EQF) is meant to function as a common frame of reference for learning results and competence levels that should simplify the comparison of competencies and thus contribute to better recognition of existing qualifications. The EQF is conceived as a meta-framework, so that it can function as a translation tool between national frames of reference and the EQF. The learning outcomes acquired through different forms of learning and at different learning venues are to be comparable with one another and credits are to be transferable both nationally and at the European level.

The function of a German Qualification Framework (DQR) is both to take account of and reflect the specific nature of the German system of education and training and to develop a structure of levels of reference that are as compatible as possible with the EQF. In the process the permeability between and within the fields of education and training is to be improved and hence learning time and resources utilised more effectively. This refers to the access of vocationally qualified persons to university, to the transitions between vocational preparation and vocational training and to the interlocking of initial and continuing education and training. In January 2007, the Federal and *Länder* governments set up a co-ordinating group to formulate a DQR. Meanwhile, this co-ordinating group agreed on structural starting-points for the formulation of a DQR intended to ensure a high degree of complementarity with the EQF. On that basis, the draft of a DQR is to be prepared jointly with

representatives of the social partners and the science and education organisations and then fine-tuned in a national consultation process by the end of 2010.

The European Credit System in Vocational Education and Training (ECVET) will further promote the recognition of foreign qualifications, since ECVET has the goal of improving the transparency and acceptance of partial qualifications as well and making it possible to distinguish between them in terms of value and weighting. Such a system, properly defined, could in principle enable learners to have more flexible and individual learning and career pathways. Greater efficiency – especially cost efficiency – and attractiveness through avoidance of duplication of training could be the potential advantages for education providers such as schools, enterprises and further education and training establishments. In autumn 2007 the Federal Ministry of Education and Research (*BMBF*) started the pilot initiative "Development of a credit system in vocational education and training" (DECVET, <http://www.decvet.net/>). The initiative focuses on the implementation of pilot projects for the systematic testing of a credit system for recording, transferring and giving credit for learning outcomes and competencies from one sub-area of the vocational education and training system to another. The following interfaces are taken into account in this process:

- vocational training preparation and dual vocational training,
- within the dual system of vocational education and training, at the interface of common vocational education and training-transcending qualifications in a vocational field,
- dual and full-time school vocational education and training,
- interface between dual and vocational further training.

The education policy goal is to develop and test transferable accreditation mechanisms. This is meant to open up education pathways and make them more permeable. Moreover, this initiative is supposed to contribute to better linkage of learning modes and co-operation between educational establishments. At the end of 2007, ten projects in different branches were selected for exemplary testing. They are under the responsibility of the Federal Institute for Vocational Education and Training (*BIBB*) and are being monitored scientifically by a university research group. In addition, the initiative is being counselled by a committee of representatives of the trade union and employer organisations and the state governments.

## **PARTICIPATION IN PROGRAMMES AND NETWORKS**

Mobility in VET is promoted in particular through the Leonardo da Vinci programme, one of the four sectoral programmes within the Lifelong Learning Programme (2007-2013). In Germany, more than 18.5 million euros from the Programme Budget for 2007 went to promoting mobility in vocational education and training. From those resources, about 7,500 trainees, 2,800

persons in the labour market and 1,400 vocational education and training specialists were supported.

To supplement the regular Leonardo da Vinci mobility projects, innovative project types have been developed in Germany that are tailored to individual training situations and the needs of the enterprises and institutions providing training:

- Small projects are directed in particular towards training enterprises and vocational education and training establishments that are participating in European programmes for the first time. Small projects provide support for three trainees at the most. The projects are not subject to the European application deadlines and can be applied for consecutively and with reduced effort.
- In pool projects, which are offered by Competent Bodies (Chambers) or education providers, individual grants are given to trainees or learners who have completed their training. Pool projects are intended mainly for trainees and SME staff who do not arrange mobility measures themselves.
- Qualification measures abroad lasting four or more months are supported with the transnational grid training concept. The project partners co-operate with one another throughout the training period and consult with one another on the content of training.

Close cooperation is in place with Cedefop. Coordination of networks such as ReferNet ([www.refernet.de/de/index.htm](http://www.refernet.de/de/index.htm)) and TTnet ([www.bibb.de/de/wlk18054.htm](http://www.bibb.de/de/wlk18054.htm)) and the national reference point for transparency of vocational qualifications ([www.bibb.de/de/wlk18071.htm](http://www.bibb.de/de/wlk18071.htm)) are under the aegis of the Federal Institute for Vocational Training (*BIBB*).

The initiative for early recognition of skills needs ('FreQueNz', see 0701), has played a part in the development of a European early recognition network (Skillsnet). Since January 2007, both the National Europass Centre (NEC) and the national coordination of Cedefop's programme of European study visits with the National Agency for Education for Europe have been based at the *BIBB*. Furthermore, a National Quality Assurance Reference Point is currently established at *BIBB* to provide active support to the implementation of the European Network on Quality Assurance in VET (ENQA-VET) work programme.

## **BILATERAL AND MULTILATERAL ACTIVITIES**

The internationalisation of VET and intensification of international cooperation are strategic objectives for the Federal Government. For example, cooperation on VET policy takes place within the framework of bilateral working parties with France, the Netherlands, Austria, Turkey, Norway and Russia (BMBF, 2007b, p. 270).

In addition to mobility activities under the EU's Leonardo da Vinci programme, the Federal Ministry supports bilateral vocational training and continuing training exchanges with the following countries: France, the UK, the Netherlands, Norway, Poland, the Czech Republic, Hungary and Israel (BMBF, 2007b, p. 271f.). Exchange activities are usually based on longer-term partnerships between training enterprises, vocational schools, Chambers and other players in VET. Since October 2004, there has also been a joint declaration between France and Germany on the general comparability of qualifications in vocational training ([www.bmbf.de/pub/gemeinsame\\_erklaerung\\_berufliche\\_bildung\\_dt-frz.pdf](http://www.bmbf.de/pub/gemeinsame_erklaerung_berufliche_bildung_dt-frz.pdf)), and also, since August 2005, a joint declaration with Austria on the comparability of vocational training qualifications ([www.bmbf.de/pub/annerkennung\\_berufsabschluesse\\_de-aust.pdf](http://www.bmbf.de/pub/annerkennung_berufsabschluesse_de-aust.pdf)).

In addition to cooperation with Cedefop, the ETF, Unevoc and Unesco, great importance is attached to development cooperation and systems guidance in VET (cf. BMBF, 2008b, p. 230f.). Many countries have acknowledged the need to develop and modernise VET and are seeking experience and support. In this context, Germany is in demand at international level as a cooperation and advisory partner.

## **1102 - IMPACT OF EUROPEANISATION/INTERNATIONALISATION ON EDUCATION AND TRAINING**

Impacts are described in 0302, 0803, 0804.

## **1103 - AUTHORS, SOURCES AND BIBLIOGRAPHY**

Beicht, U.; Krekel, E.; Walden, G. (2006). *Berufliche Weiterbildung: welche Kosten und welchen Nutzen haben die Teilnehmenden?* Bielefeld: Bertelsmann. (Berichte zur beruflichen Bildung; 274).

Berger, K. (2006). Öffentliche Ausgaben zur Förderung der beruflichen Weiterbildung. In: *Kosten, Nutzen, Finanzierung beruflicher Weiterbildung: Ergebnisse der BIBB-Fachtagung vom 2. und 3. Juni 2005 in Bonn*. Bielefeld: Bertelsmann, p. 167-194.

BIBB (2008a). *Jahresbericht Projekt AusbildungPlus 2008*. Bonn: BIBB.

BIBB (2008b). *Neue und modernisierte Ausbildungsberufe 2008: Kurzbeschreibungen*. Bonn: BIBB.

### **Available from Internet:**

[http://www.bibb.de/dokumente/pdf/a41\\_neue\\_modernisierte\\_ausbildungsberufe-2008.pdf](http://www.bibb.de/dokumente/pdf/a41_neue_modernisierte_ausbildungsberufe-2008.pdf) [cited 22.9.2008].

BIBB (2008c). *Schaubilder zur Berufsbildung: Strukturen und Entwicklungen in der dualen Berufsausbildung Deutschlands*. Ausgabe 2008. Bonn: BIBB.

**Available from Internet:**

[http://www.bibb.de/dokumente/pdf/a21\\_ausweitstat\\_schaubilder\\_heft-2008.pdf](http://www.bibb.de/dokumente/pdf/a21_ausweitstat_schaubilder_heft-2008.pdf) [cited 22.9.2008].

BIBB (2006). *Vocational training regulations and the process behind them*. 4th rev. ed. Bonn: BIBB.

**Available from Internet:**

[http://www.bibb.de/dokumente/pdf/a45\\_entstehung-von-ausbildungsordnungen\\_en.pdf](http://www.bibb.de/dokumente/pdf/a45_entstehung-von-ausbildungsordnungen_en.pdf) [cited 22.9.2008].

BLK (2004): *Strategie für Lebenslanges Lernen in der Bundesrepublik Deutschland*. Bonn: BLK. (Materialien zur Bildungsplanung und Forschungsförderung ; 115).

**Available from Internet:**

<http://www.blk-bonn.de/papers/heft115.pdf> [cited 22.9.2008].

Bundesagentur für Arbeit (2007). *Arbeitsmarkt 2006*. Nürnberg: Bundesagentur für Arbeit. (Amtliche Nachrichten der Bundesagentur für Arbeit, 55. Jahrgang, Sondernummer 1).

**Available from Internet:**

[http://www.pub.arbeitsamt.de/hst/services/statistik/000100/html/jahr/arbeitsmarkt\\_2006\\_gesamt.pdf](http://www.pub.arbeitsamt.de/hst/services/statistik/000100/html/jahr/arbeitsmarkt_2006_gesamt.pdf) [cited 22.9.2008].

BMBF (2008a). *Aufstieg durch Bildung: Qualifizierungsinitiative der Bundesregierung*. Bonn, Berlin: BMBF.

**Available from Internet:**

[http://www.bmbf.de/pub/qualifizierungsinitiative\\_breg.pdf](http://www.bmbf.de/pub/qualifizierungsinitiative_breg.pdf) [cited 22.9.2008].

BMBF (2008b). *Berufsbildungsbericht 2008: Vorversion*. Bonn, Berlin: BMBF.

**Available from Internet:**

[http://www.bmbf.de/pub/bbb\\_08.pdf](http://www.bmbf.de/pub/bbb_08.pdf) [cited 22.9.2008].

BMBF (2008c). *Empfehlungen des Innovationskreises Weiterbildung für eine Strategie zur Gestaltung des Lernens im Lebenslauf*. Bonn, Berlin: BMBF.

**Available from Internet:**

[http://www.bmbf.de/pub/empfehlungen\\_innovationskreis\\_weiterbildung.pdf](http://www.bmbf.de/pub/empfehlungen_innovationskreis_weiterbildung.pdf) [cited 22.9.2008].

BMBF (2007a). *10 Leitlinien zur Modernisierung der beruflichen Bildung – Ergebnisse des Innovationskreises berufliche Bildung*. Bonn, Berlin: BMBF.

**Available from Internet:**

[http://www.bmbf.de/pub/IKBB-Broschuere-10\\_Leitlinien.pdf](http://www.bmbf.de/pub/IKBB-Broschuere-10_Leitlinien.pdf) [cited 22.9.2008].

BMBF (2007b). *Berufsbildungsbericht 2007*. Bonn, Berlin: BMBF.

**Available from Internet:**

[www.bmbf.de/pub/bbb\\_07.pdf](http://www.bmbf.de/pub/bbb_07.pdf) [cited 22.9.2008].

BMBF (2007c). *Wachstumspotential der Weiterbildung nutzen: Eckpunktepapier zur Einführung des Weiterbildungssparens*. Bonn, Berlin: BMBF.

**Available from Internet:**

[http://www.bmbf.de/pub/Eckpunktepapier\\_Weiterbildungssparen.pdf](http://www.bmbf.de/pub/Eckpunktepapier_Weiterbildungssparen.pdf) [cited 22.9.2008].

BMBF (2005). *Die Reform der beruflichen Bildung: Berufsbildungsgesetz 2005*. Bonn: BMBF.

**Available from Internet:**

[http://www.bmbf.de/pub/die\\_reform\\_beruflichen\\_bildung.pdf](http://www.bmbf.de/pub/die_reform_beruflichen_bildung.pdf) [cited 22.9.2008].

BMBF (2004). *Schlussbericht der unabhängigen Expertenkommission – Finanzierung Lebenslangen Lernens: der Weg in die Zukunft*. 28 July 2004. Bonn: BMBF.

**Available from Internet:**

[http://www.bmbf.de/pub/schlussbericht\\_kommission\\_III.pdf](http://www.bmbf.de/pub/schlussbericht_kommission_III.pdf) [cited 22.9.2008].

Bundesregierung (2007). *Nationaler Pakt für Ausbildung und Fachkräftenachwuchs in Deutschland 2007-2010*. Berlin, 5 March 2007.

**Available from Internet:**

<http://www.bmwi.de/BMWi/Redaktion/PDF/M-O/nationaler-pakt-fuer-ausbildung-und-fachkraeftenachwuchs-in-deutschland-2007-2010,property=pdf,bereich=bmwi,sprache=de,rwb=true.pdf> [cited 22.9.2008].

Bundesregierung (2004). *Nationaler Pakt für Ausbildung und Fachkräftenachwuchs in Deutschland*. Berlin, 16 June 2004.

**Available from Internet:**

[http://www.bmbf.de/pub/ausbildungspakt\\_2004.pdf](http://www.bmbf.de/pub/ausbildungspakt_2004.pdf) [cited 20.8.2007].

Busse, G.; Heidemann, W. *Betriebliche Weiterbildung : Betriebs- und Dienstvereinbarungen. Analyse und Handlungsempfehlungen*. Frankfurt/Main: Bund-Verlag.

Deutscher Bildungsrat (1970). *Strukturplan für das Bildungswesen*. Stuttgart: Klett-Verlag.

Deutsches Institut für Erwachsenenbildung (2007). *Volkshochschul-Statistik: 45. Folge, Arbeitsjahr 2006*. Bonn: Deutsches Institut für Erwachsenenbildung.

**Available from Internet:**

<http://www.die-bonn.de/doks/reichart0702.pdf> [cited 22.9.2008].

Dietrich, S.; Schade, H.-J.; Behrendorf, B. (2008). *Ergebnisbericht Projekt Weiterbildungskataster*. 2 June 2008. Bonn: Deutsches Institut für Erwachsenenbildung.

**Available from Internet:**

<http://www.die-bonn.de/doks/dietrich0803.pdf> [cited 22.9.2008].

Dostal, W.; Reinberg, A.; Schnur, P. (2002). Tätigkeits- und Qualifikationsprojektionen: der IAB/Prognos-Ansatz. In: Kleinhenz, G. (Hrsg.): *IAB-Kompendium Arbeitsmarkt- und Berufsforschung*. Nürnberg, p. 547-556.

Eurydice (2007). *National summary sheets on education systems in Europe and ongoing reforms: 2007 edition Germany*. April 2007. Brussels: Eurydice.

**Available from Internet:**

[http://www.eurydice.org/ressources/eurydice/pdf/047DN/047\\_DE\\_EN.pdf](http://www.eurydice.org/ressources/eurydice/pdf/047DN/047_DE_EN.pdf) [cited 22.9.2008].

Frank, I.; Grunwald, J-G. (2008). Ausbildungsbausteine – ein Beitrag zur Weiterentwicklung der dualen Berufsausbildung. In: *Berufsbildung in Wissenschaft und Praxis*, Vol. 37, No 4, p. 13-17.

**Available from Internet:**

[http://www.bibb.de/dokumente/pdf/bwp\\_2008\\_04\\_frank\\_ausbildungsbausteine.pdf](http://www.bibb.de/dokumente/pdf/bwp_2008_04_frank_ausbildungsbausteine.pdf) [cited 22.9.2008].

Faulstich, P. (2003). Staatlicher Politikverzicht oder/und tarifliche und betriebliche Lernzeitpolitik. In: *Report*, No 1, p. 42-52.

Hippach-Schneider, U.; Krause, M.; Woll, C. (2007). *Vocational education and training in Germany: short description*. Luxembourg: Office for Official Publications of the European Communities. (CEDEFOP Panorama series ; 138).

**Available from Internet:**

[http://www.trainingvillage.gr/etv/Upload/Information\\_resources/Bookshop/465/5173\\_en.pdf](http://www.trainingvillage.gr/etv/Upload/Information_resources/Bookshop/465/5173_en.pdf) [cited 22.9.2008].

KMK (2008). *The Education System in the Federal Republic of Germany 2006: a description of the responsibilities, structures and developments in education policy for the exchange of information in Europe*. Bonn: KMK.

**Available from Internet:**

[http://www.kmk.org/dossier/dossier\\_en\\_ebook.pdf](http://www.kmk.org/dossier/dossier_en_ebook.pdf) [cited 22.9.2008].

Konsortium Bildungsberichterstattung (2006). *Bildung in Deutschland: ein indikatorengestützter Bericht mit einer Analyse zu Bildung und Migration*. Bielefeld: Bertelsmann.

**Available from Internet:**

<http://www.bildungsbericht.de/daten/gesamtbericht.pdf> [cited 22.9.2008].

Mucke, K.; Grunwald, S. (2005). *Hochschulkompatible Leistungspunkte in der beruflichen Bildung: Grundsteinlegung in der IT-Weiterbildung*. Bielefeld: Bertelsmann. (Berichte zur beruflichen Bildung; 272).

Niedlich, F. et al. (2007). *Bestandsaufnahme in der Bildungs-, Berufs- und Beschäftigungsberatung und Entwicklung grundlegender Qualitätsstandards*. Final report, May 2007. Hamburg: Ramboll Management.

**Available from Internet:**

<http://www.bmbf.de/pub/berufsbildungsforschung.pdf> [cited 22.9.2008].

OECD (2008). *Education at a glance: OECD indicators 2008*. Paris: OECD.

**Available from Internet:**

<http://www.oecd.org/dataoecd/23/46/41284038.pdf> [cited 22.9.2008].

Scharlowsky, V. (2007). The system of early identification of skill needs in Germany. In: Strietska-Ilina, O.; Tessaring, M. (eds.). *Systems, institutional frameworks and processes for early identification of skills needs*. Luxembourg: Office for Official Publications of the European Communities. (CEDEFOP Panorama series ; 135).

**Available from Internet:**

[http://www.trainingvillage.gr/etv/Upload/Information\\_resources/Bookshop/467/5176\\_en.pdf](http://www.trainingvillage.gr/etv/Upload/Information_resources/Bookshop/467/5176_en.pdf) [cited 22.9.2008].

Schimdt, D. (2007). Berufliche Weiterbildung in Unternehmen 2005: Methodik und erste Ergebnisse. In: Statistisches Bundesamt (ed.). *Wirtschaft und Statistik*, No 7, p. 699-711.

Seidel, S. et al. (2008). *Status of recognition of non-formal and informal learning in Germany within the framework of the OECD activity „Recognition of non-formal and informal Learning“*. Bonn, Berlin: BMBF.

**Available from Internet:**

[http://www.forschung.bmbf.de/pub/non-formal\\_and\\_informal\\_learning\\_in\\_germany.pdf](http://www.forschung.bmbf.de/pub/non-formal_and_informal_learning_in_germany.pdf) [cited 22.9.2008].

Sondermann, T. (2005). Das Berufsbildungsreformgesetz von 2005: was ist neu und anders? In: *Berufsbildung in Wissenschaft und Praxis*, Vol. 34, No 2, p. 5-8.

**Available from Internet:**

[http://www.bibb.de/dokumente/pdf/a1\\_bwp\\_02\\_2005\\_beitrag-sondermann.pdf](http://www.bibb.de/dokumente/pdf/a1_bwp_02_2005_beitrag-sondermann.pdf) [cited 22.9.2008].

Statistisches Bundesamt (2007a). *Berufliche Schulen, Schuljahr 2006/2007, Fachserie 11, Reihe 2*. Wiesbaden: Statistisches Bundesamt.

Statistisches Bundesamt (2007b). *Private Schulen, Schuljahr 2006/2007, Fachserie 11, Reihe 1.1*. Wiesbaden: Statistisches Bundesamt.

Statistisches Bundesamt (2007c). *Statistisches Jahrbuch 2007 für die Bundesrepublik Deutschland*. Wiesbaden: Statistisches Bundesamt.

Statistisches Bundesamt (2006). *Bevölkerung Deutschlands bis 2050 - 11. koordinierte*

*Bevölkerungsvorausberechnung*. Wiesbaden: Statistisches Bundesamt.

von Rosenblatt, B.; Bilger, F. (2008). *Weiterbildungsbeteiligung in Deutschland – Eckdaten zum BSW-AES 2007*. January 2008. Munich: TNS Infratest Sozialforschung.

**Available from Internet:**

[http://www.bmbf.de/pub/weiterbildungsbeteiligung\\_in\\_deutschland.pdf](http://www.bmbf.de/pub/weiterbildungsbeteiligung_in_deutschland.pdf) [cited 22.9.2008].

Weiss, R. (2003). Betriebliche Weiterbildung 2001 - Ergebnisse einer IW-Erhebung. In: *IW-Trends*, No 1, p. 1-17.

**Available from Internet:**

[http://liquide.de/content/infobrief/weiterbildung\\_2001.pdf](http://liquide.de/content/infobrief/weiterbildung_2001.pdf) [cited 22.9.2008].

Werner, D. (2006). Trends und Kosten der betrieblichen Weiterbildung - Ergebnisse der IW-Weiterbildungserhebung 2005. In: *IW-Trends*, No 1.

**Available from Internet:**

[http://www.iwkoeln.de/data/pdf/content/trends01\\_06\\_2.pdf](http://www.iwkoeln.de/data/pdf/content/trends01_06_2.pdf) [cited 22.9.2008].