Helmut Pütz

## Vocational Education and Training – An Overview

Federal Institute for Vocational Training · Bonn

Federal Institute for Vocational Training



Researching

Advising

Shaping the future

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### Preface

The publication of "Vocational Education and Training – An Overview" was preceded by a lengthy period of development which began at the Federal Institute for Vocational Training with Hermann Schmidt's "Qualifying the Workforce – Education and Training for an Age of Uncertainty" in 1994. For many years there has been a high demand for publications in English about the German system of vocational and further training, and particularly for a short, schematic representation which can serve as a template, which in turn can be used in English language presentations. Now the members of the board of the Federal Institute for Vocational Training have also requested an outline of this type, not least in order to be able to manage their frequent presentations in English for foreign listeners better.

This publication is therefore aimed at anyone involved in vocational and further training who needs to present and explain the German system of vocational training at home and abroad. Often, however, the requisite up-to-date English language skills are unfortunately lacking. The following representation, which can easily be converted into slides, is intended to serve as a thematic, linguistic and descriptive framework in such cases.

This outline may be of use to any type of vocational training specialist, politicians and researchers involved in the vocational training field, teachers in tertiary education, instructors and teachers at vocational training colleges, representatives of chambers of trade, trade unions and trade associations and anyone else involved in the field who is regularly or occasionally required to explain the specifics of our vocational training system either to foreign visitors to Germany or on trips abroad.

The following publication is to a certain extent work in progress and is not a finished, printable product. It is a living, developing compendium of professional vocational and further training in Germany. It will need to be updated regularly, and the English used and subject matter presented in it will need to be developed further and improved. On-the-ground experience at home and abroad will give rise to suggestions and improvements, particularly in terms of the English (and American) language used, and we would like to receive such feedback. Please send your suggestions for modifications and enhancements to the following address: strohmaier@bibb.de. The latest templates for copying can be downloaded at: <a href="http://www.bibb.de/de/4798.htm">http://www.bibb.de/de/4798.htm</a>

This material evolved from my teaching activities and work with students, from previous publications and from range of materials from the Federal Institute for Vocational Training, the Federal Ministry of Education and Research, the Carl-Duisberg Gesellschaft (CDG), the Gesellschaft für technische Zusammenarbeit (GTZ) and others, to whom I owe a great debt of thanks. It was standing on their shoulders that I was able to develop this outline.

My wish is for this work to be carried on and improved further – for other authors to stand on my shoulders in future, as it were.

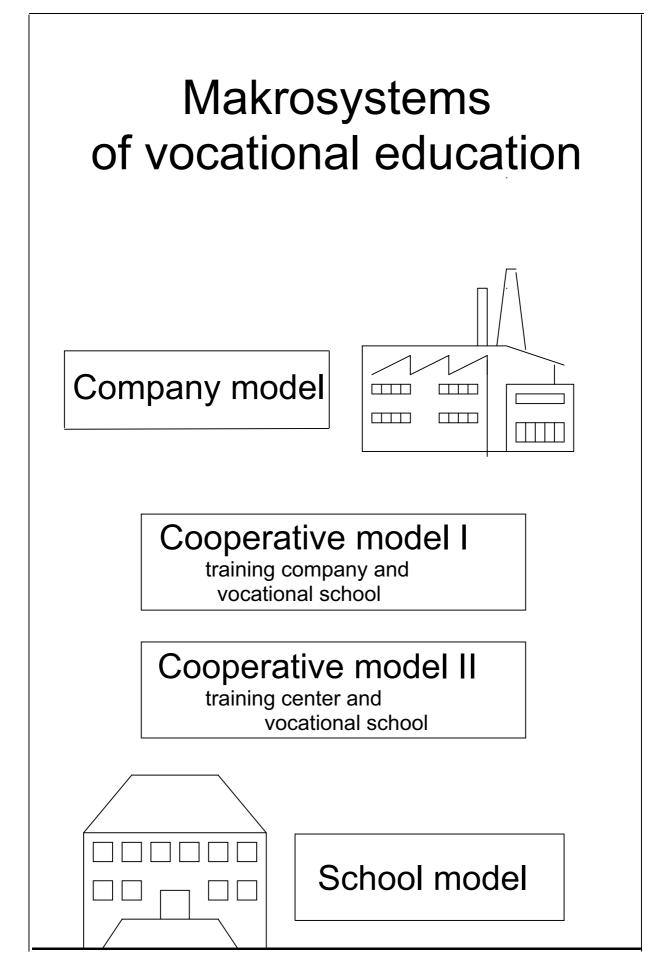
Bonn, September 2002

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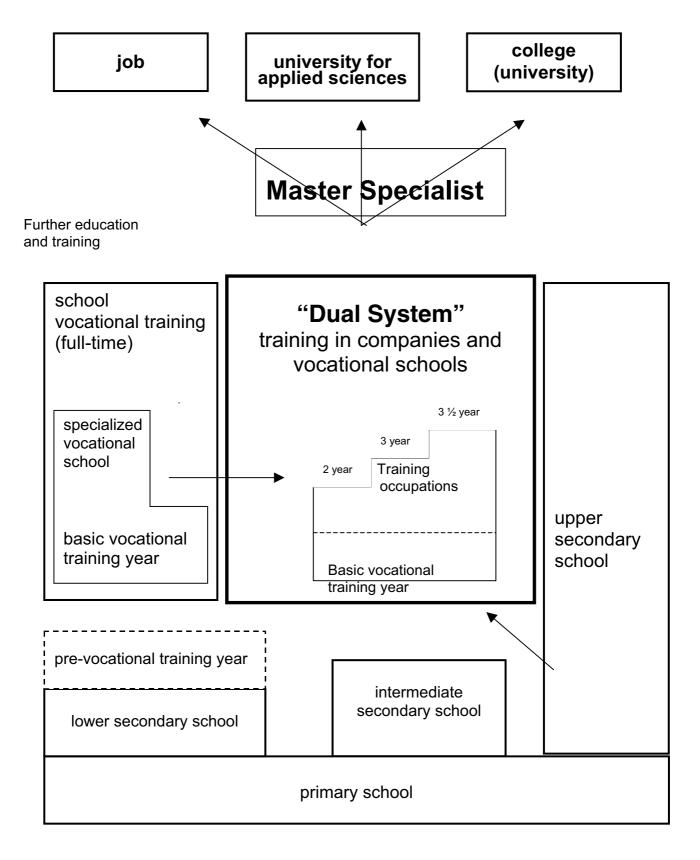
(Prof. Dr. Helmut Pütz) Federal Institute for Vocational Training, Bonn

| education/vocational training       | $\longleftrightarrow$   | learning at work   |
|-------------------------------------|---|--|
| training<br>training places         | $\longleftrightarrow$   | continuing training<br>("upper classes of the DS")                                   |
| young people/<br>adults             | $\longleftrightarrow$   | problem groups<br>disadvantaged/gifted   |
| tradition<br>"occupational concept" | $\longleftrightarrow$   | innovation<br>modules  |
| company<br>training regulations     | $\longleftrightarrow$   | school, vocational school,<br>specialized vocational school<br>(skeleton curriculum) |
| trainer                             |   | teacher  |
| big companies<br>(industry)         | $\longleftrightarrow$   | small companies/<br>local training initiatives<br>(craft, partly commerce)           |
| commercial                          | $\leftrightarrow$   | technical,<br>social   |
| employers                           | $\longleftrightarrow$   | trade unions   |
| Government<br>"consensus"           | $\longleftrightarrow$   | trade and industry<br>"differentiation"  |
| federal government                  | $\longleftrightarrow$   | 16 federal state govern-<br>ments<br>regional aspects                                |
| national<br>BBiG                    | $\longleftrightarrow$   | international<br>EU, globalisation   |
| Fede                                | BIBB<br>BerBiFG<br>eral state institu<br>Research<br>Services | utes   |











### Germany's **Dual System of Vocational Education**

### What does the 3-year training mean for:

### The individual

- the transition from school to work is facilitated by the 2 to → 3-year period of training
- working and learning are combined →
- investigation of opportunities and own abilities →
- attainment of social standing and income →

### the company

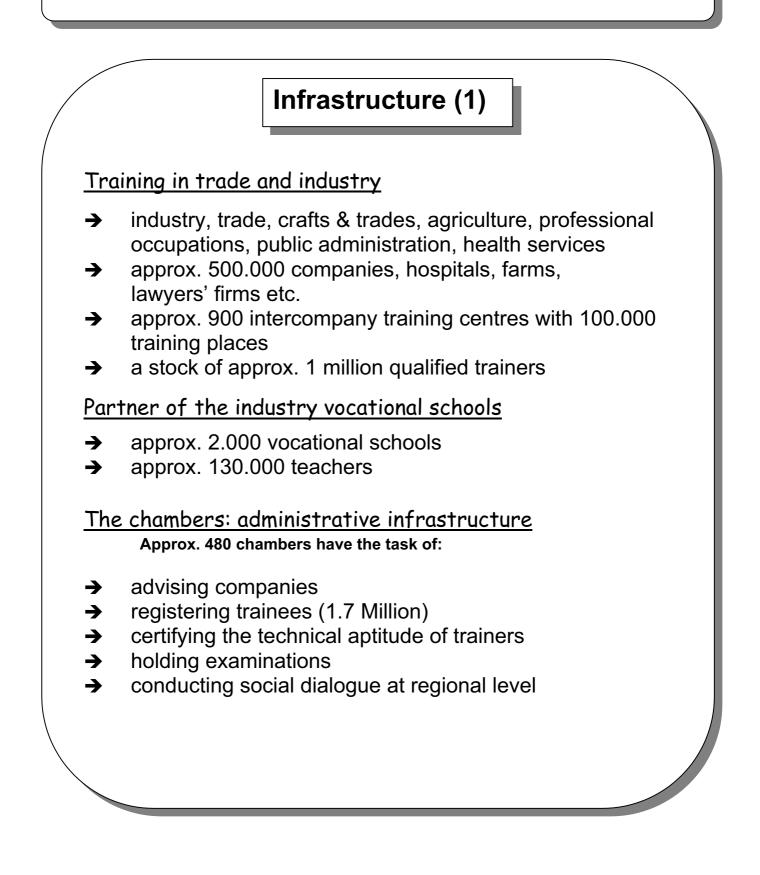
- competent workforce for the future ➔
- low personnel recruitment costs →
- low labour costs →

### the government

- uniform national qualifications standards are guaranteed →
- maintenance of Germany's competitiveness →
- lower training costs for the government →
- social stability social dialogue →

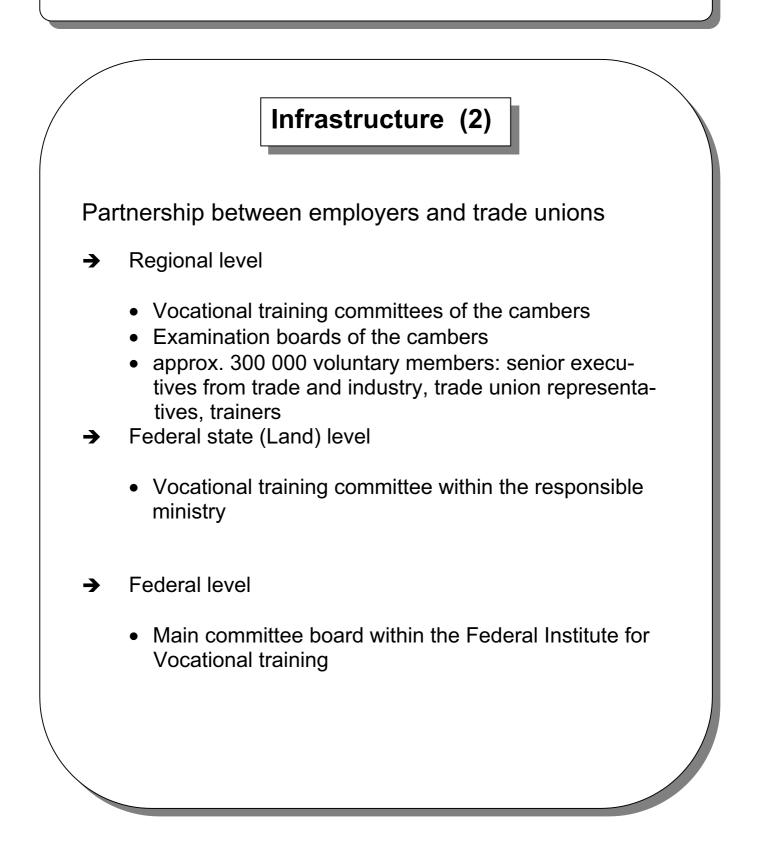


### Germany's **Dual System of Vocational Education**

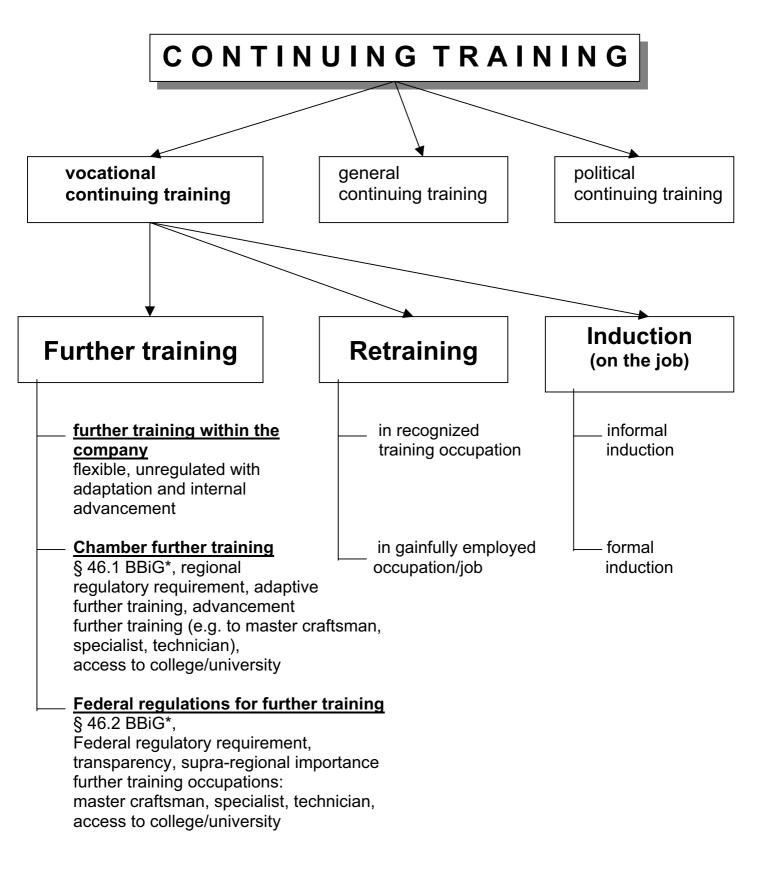




### Germany's **Dual System of Vocational Education**

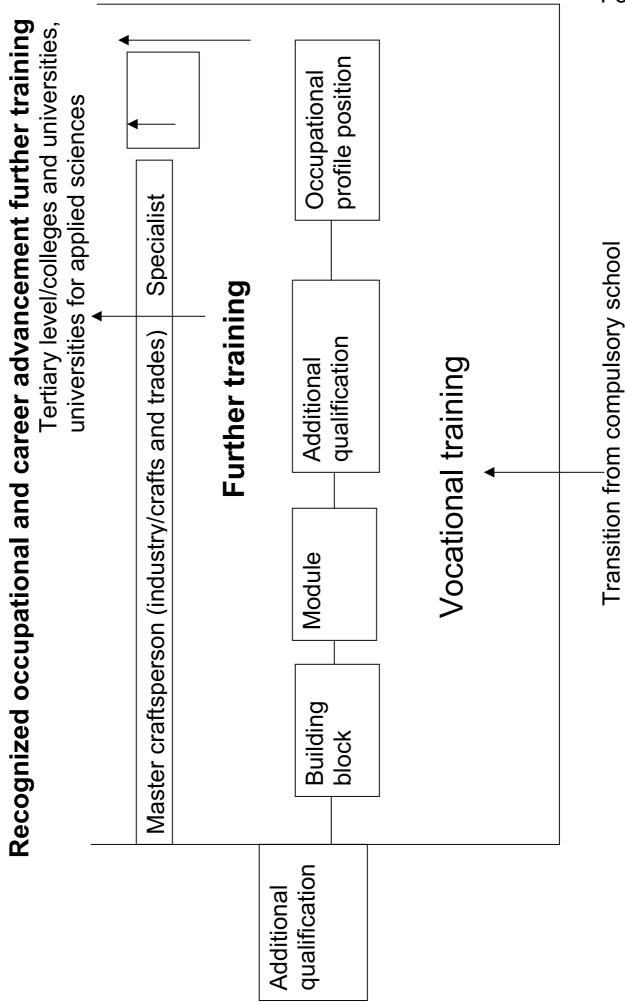






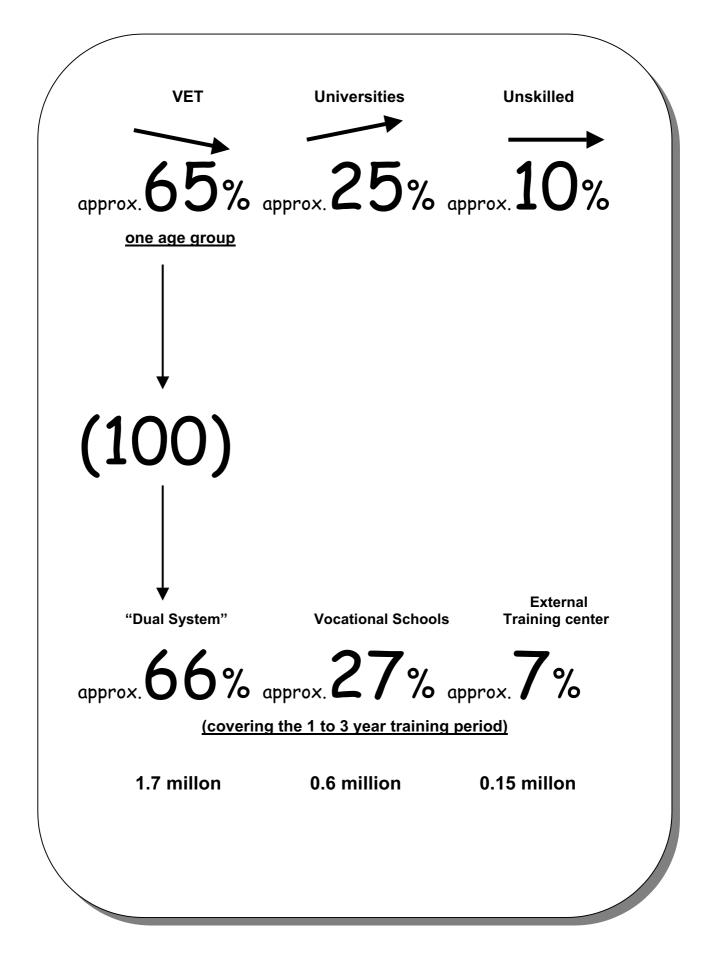
\* Berufsbildungsgesetz (1969): Vocational Training Act







Folie 8





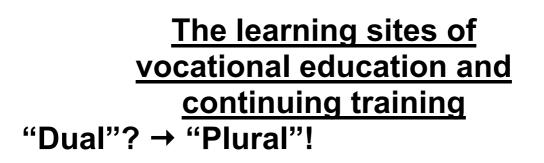
|                        | :                          |   | -   | -  | L   |  |
|------------------------|----------------------------|---|---|--|---|--|
| ng Bonn 20             | 3 Organizational<br>forms: | Dual System<br>(various locations)  | /stem<br>ocations)                                      | Scnool<br>(sometimes with work<br>placements)                    | External<br>training centers                                      | Iters                                  |
| 02                     |                            | 3-years as a rule   | as a rule   | 2 or 3 years   | 3 years   |  |
| F                      | Training sites:            | Company part-<br>- workplace voca<br>- in-house scho<br>training workshop<br>- intercompany training<br>centres | part-time<br>vocational<br>school<br>shop<br>r training | specialized vocational<br>schools<br>full-time<br>health service | external<br>training centre<br>(practical<br>vocational training) | part-time<br>vocational<br>school<br>) |
|                        |                            | ~ 3 days  | ~ 2 days  | ~ 5 days   | ~ 3 days  | ~ 2 days                               |
| Institute for <b>B</b> |                            | 66  | 66 %  | 27 %   | %   |  |

# <u>Organizational forms of</u> <u>Vocational training in Germany</u>

Folie 10

Federal Institute for **BIBB** Researching Vocational Training **BIBB** Shaping the future



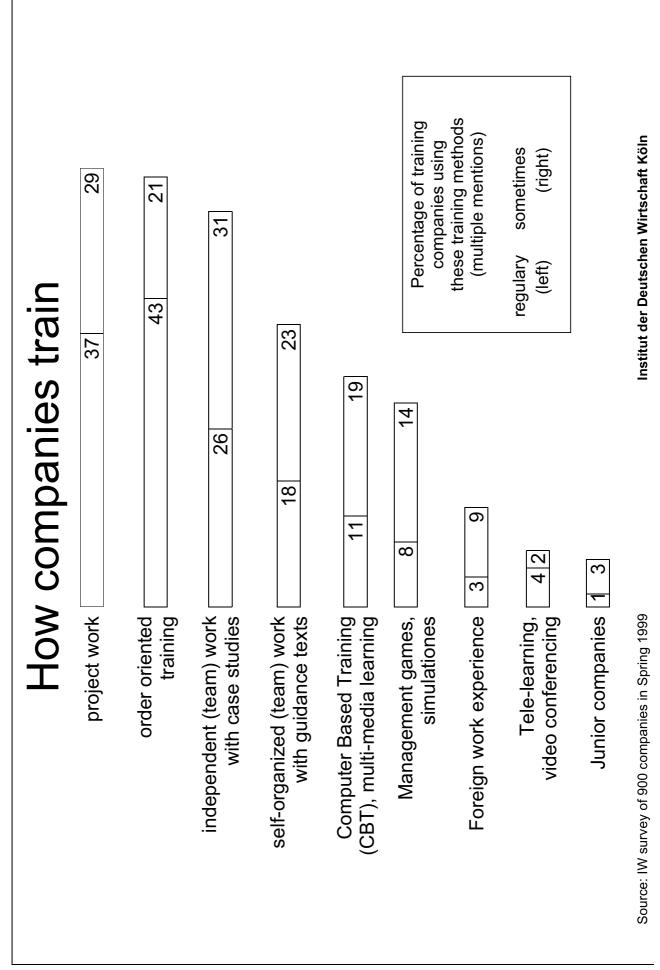


- Company, e.g. crafts & trades, building site, **Customer order**
- Training workshop, big companies
- Vocational school, part-time vocational school
- (full-time) vocational school, specialized vocational school (BFS)
- external training centre
- intercompany training centre (ÜBS)
- external continuing training seminar/private body
- interactive, multi-media Computer Based learning/training (CBL/CBT), virtual training centre

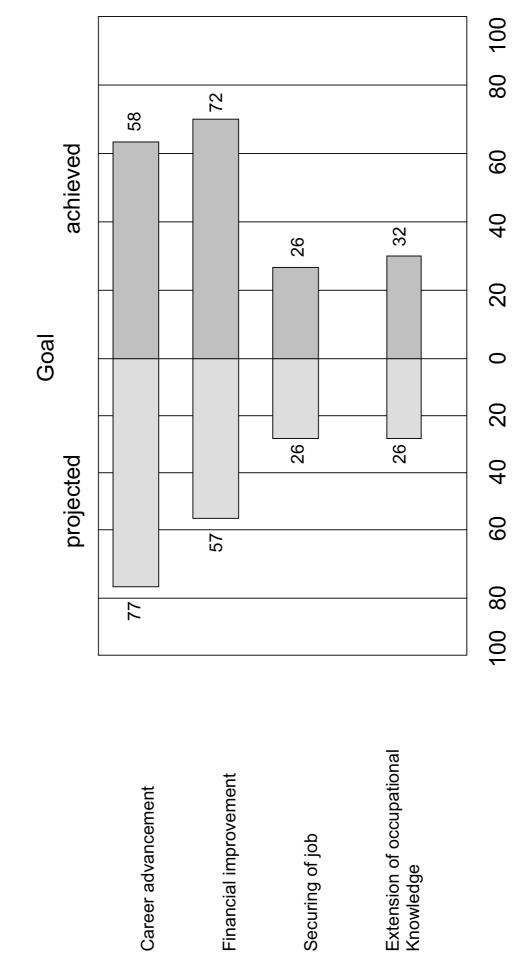


Forms of cooperation between the two training sites company (B) / vocational school (S) + the teachers လ + C transferable? Siemens teachers? SMEs? **IGB** GDR centres, intercompany training other training sites = full-time workshops, external training vocational schools, training centres, Computer Based Training (CBT) primarily F / It m work placement (in addition)

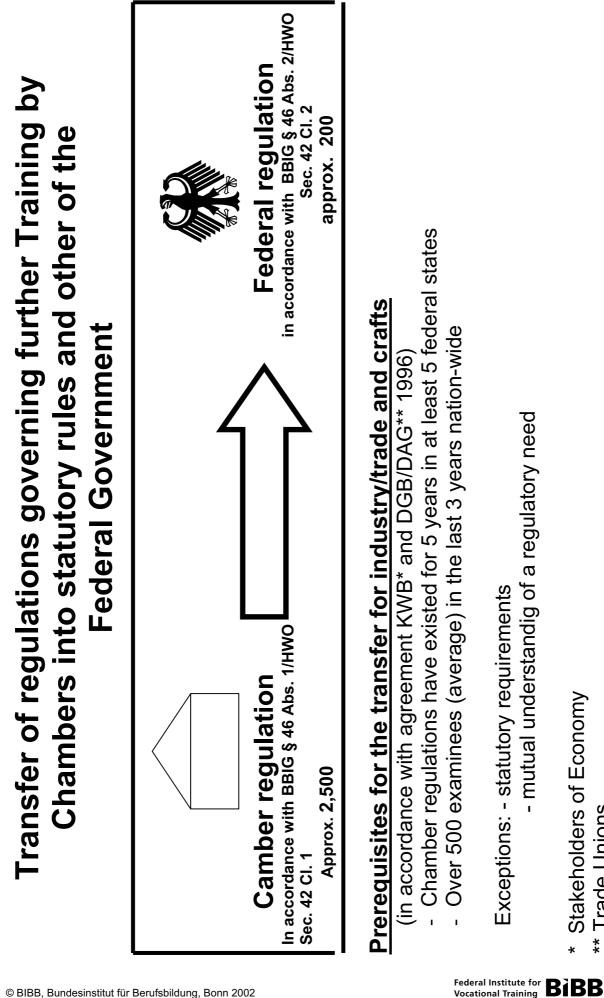
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Goals of participants in continuing training measures Multiple designations in percent





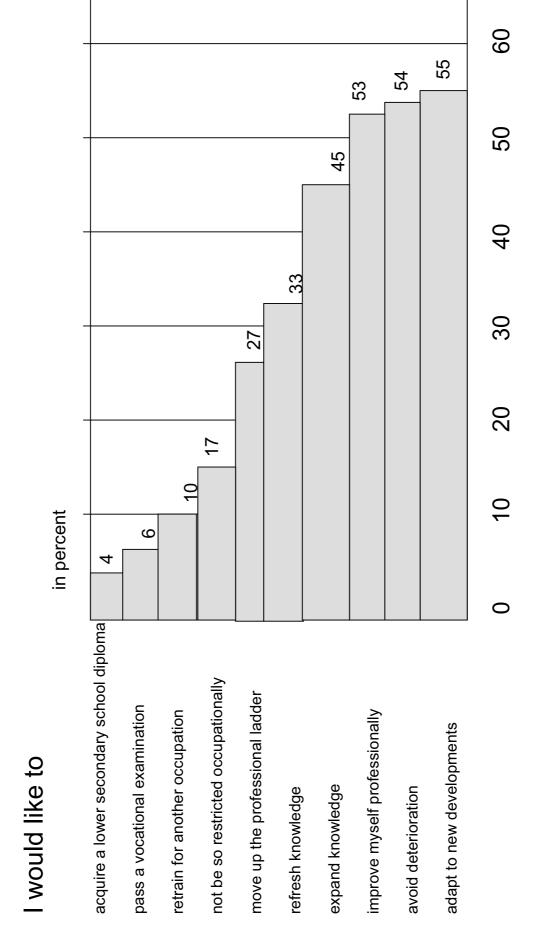


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Folie 16

70

What gainfully employed persons say about continuing training

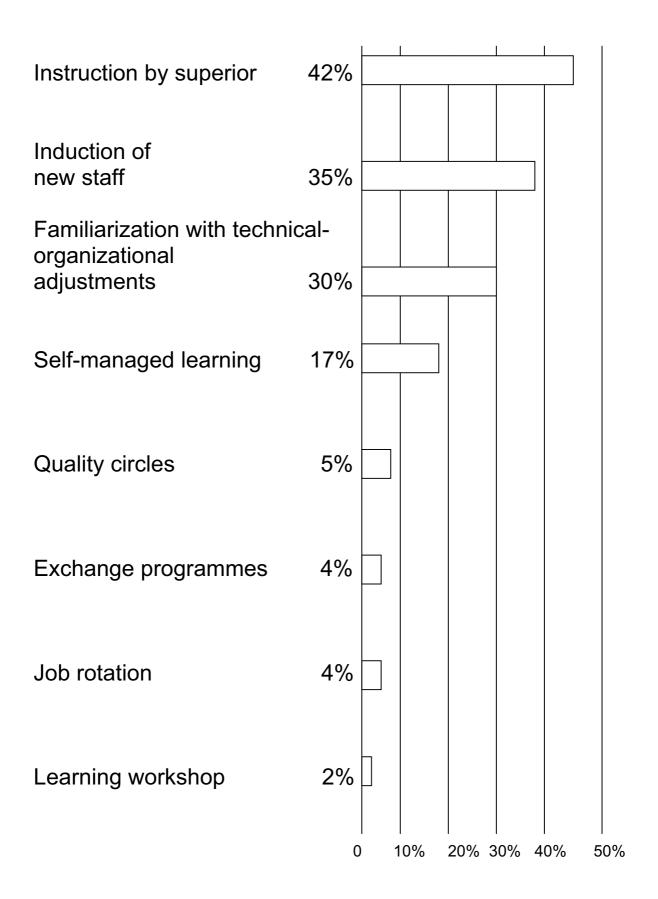


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### In-company continuing training





100 87,911 80 09 0 40 in thousands 27,033 24,915 24,145 19,028 Number of events 20 14,714 3,14 0 6 months to 1 year 1 week to 1 month 3 days to 1 week 1 to 3 months 3 to 6 months 1 to 2 years 1 – 3 days

Length of continuing vocational training events

Federal Institute for Vocational Training BBBB Researching Advising Shaping the future



Folie 18

### **Definitions**

- Training Regulations (AO)
- Occupational profile/occupational profile **Positions/modules**
- General training plan
- In- company training plan
- Skeleton curriculum (vocational school)
- Regulations governing further training



Folie 20

**Skeleton Curriculum** (vocational school)

- Fields of Learning (thematic)
- Learning goals (result)
- Study contents (technical)
- Suggested time allocation (hours of instruction)



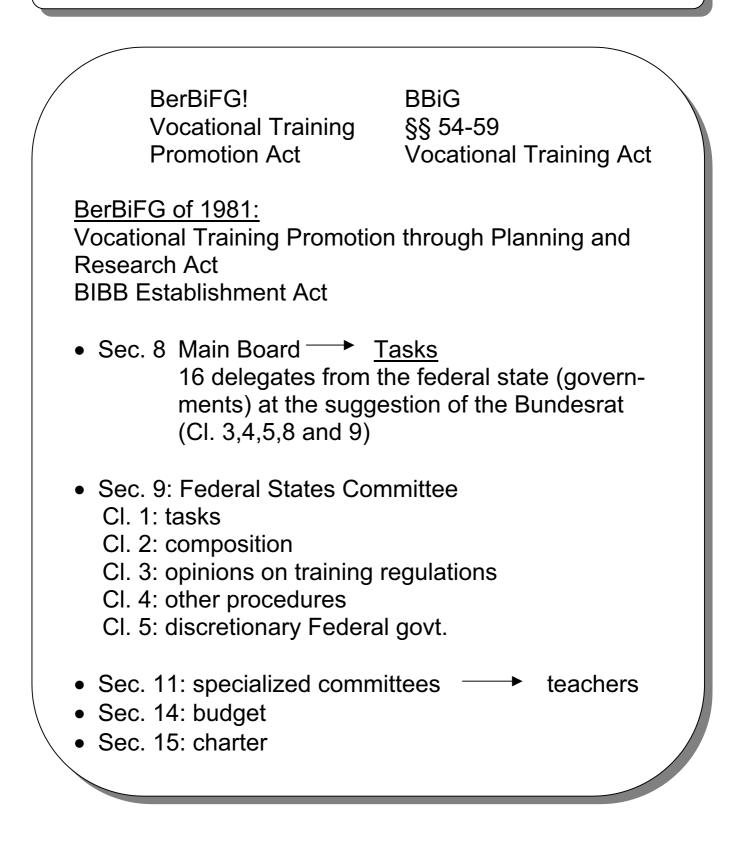
### Folie 21

# Legal foundations of vocational Education and Training

| - Vocational Training Act, 1969   | - BBiG  |  |
|---|---|--|
| <ul> <li>Crafts regulation code, 1965<br/>(Act for the Regulation of Crafts)</li> </ul>   | - HwO   |  |
| <ul> <li>Vocational Training Promotion Act, 1981<br/>(Training Places Promotion Act, 1976,<br/>APIFG)</li> </ul>                  | - BerBiFG -   |  |
| - Social Security Code III, 1997  | - SGB III -   |  |
| - Employment Promotion Act, 1969  | - AFG -   |  |
| - Employees' Representation Act, since 1953   | - BetrVG -  |  |
| - Employment Protection of Young Persons Act, 1976  | - JArbSchG  |  |
| <ul> <li>Basic vocational training year</li> <li>Vocational school year</li> <li>Accountable ordinance (s), since 1978</li> </ul> | - BGJ-AV -  |  |
| <ul> <li>Ordinance on Trainer Aptitude, since 1972<br/>(new since 1998)</li> </ul>  | - AEVO -  |  |
| - "Joint results protocol"  |   |  |
|   |   |  |
|   | <ul> <li>Crafts regulation code, 1965<br/>(Act for the Regulation of Crafts)</li> <li>Vocational Training Promotion Act, 1981<br/>(Training Places Promotion Act, 1976,<br/>APIFG)</li> <li>Social Security Code III, 1997</li> <li>Employment Promotion Act, 1969</li> <li>Employees' Representation Act, since 1953</li> <li>Employment Protection of Young Persons Act,<br/>1976</li> <li>Basic vocational training year<br/>Vocational school year<br/>Accountable ordinance (s), since 1978</li> <li>Ordinance on Trainer Aptitude, since 1972<br/>(new since 1998)</li> <li>Coordinantion Training Regulations/skeleton c<br/>- "Joint results protocol"</li> </ul> | <ul> <li>Crafts regulation code, 1965<br/>(Act for the Regulation of Crafts)</li> <li>Vocational Training Promotion Act, 1981<br/>(Training Places Promotion Act, 1976,<br/>APIFG)</li> <li>Social Security Code III, 1997</li> <li>SGB III -</li> <li>Employment Promotion Act, 1969</li> <li>AFG -</li> <li>Employees' Representation Act, since 1953</li> <li>BetrVG -</li> <li>Employment Protection of Young Persons Act,<br/>1976</li> <li>Basic vocational training year<br/>Vocational school year<br/>Accountable ordinance (s), since 1978</li> <li>BGJ-AV -</li> <li>Ordinance on Trainer Aptitude, since 1972<br/>(new since 1998)</li> <li>Coordinantion Training Regulations/skeleton curriculum:</li> </ul> |



### Federal govt. and Länder working in combination in vocational training



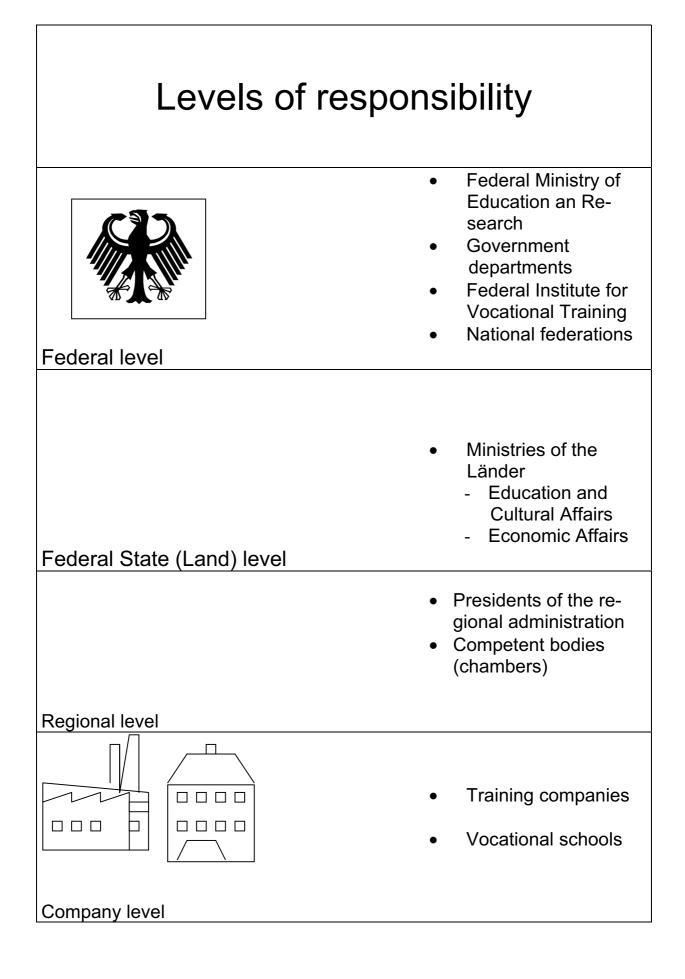


### **Cooperation between the Federal Government**

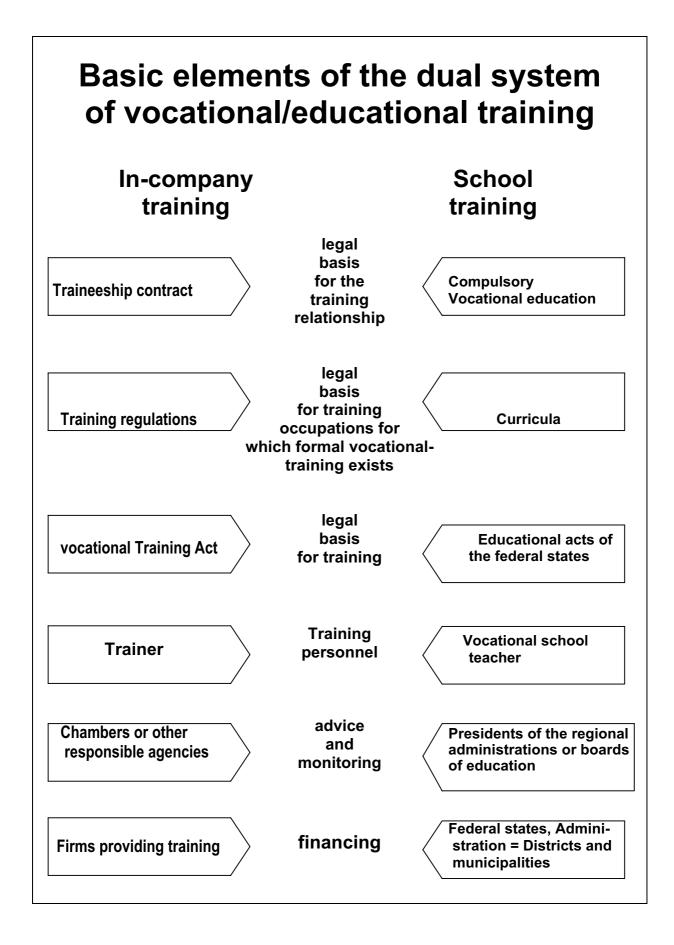
and Federal states on vocational training

| BBiG       | v. 1969, HwO v. 1965   |
|------------|--|
| - Sec. 54: | Federal state committees   |
|            | <ul> <li>+ formation, composition</li> <li>+ rules and regulations</li> <li>+ voting</li> </ul>  |
| - Sec. 55: | Tasks  |
|            | <ul> <li>+ advising the federal state government</li> <li>+ uniform voc. training → cooperation</li> <li>further development of schools</li> </ul> |
| - Sec. 56: | Vocational training committee of the responsible agency/ chambers  |
| - Sec. 57: | <ul> <li>formation, composition,<br/>appointing the members<br/>compensation, recall, deputy, chair<br/>Quorum, voting</li> </ul>                  |
|            |  |
| - Sec. 58: | <u>Tasks:</u> information, hearings, legal regula-<br>tions  |
| - Sec. 59: | Rules and regulations  |
|            |  |

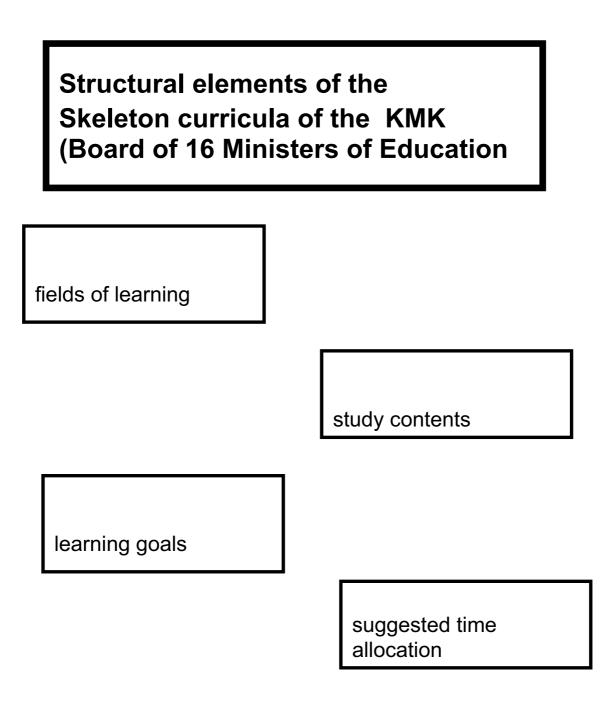












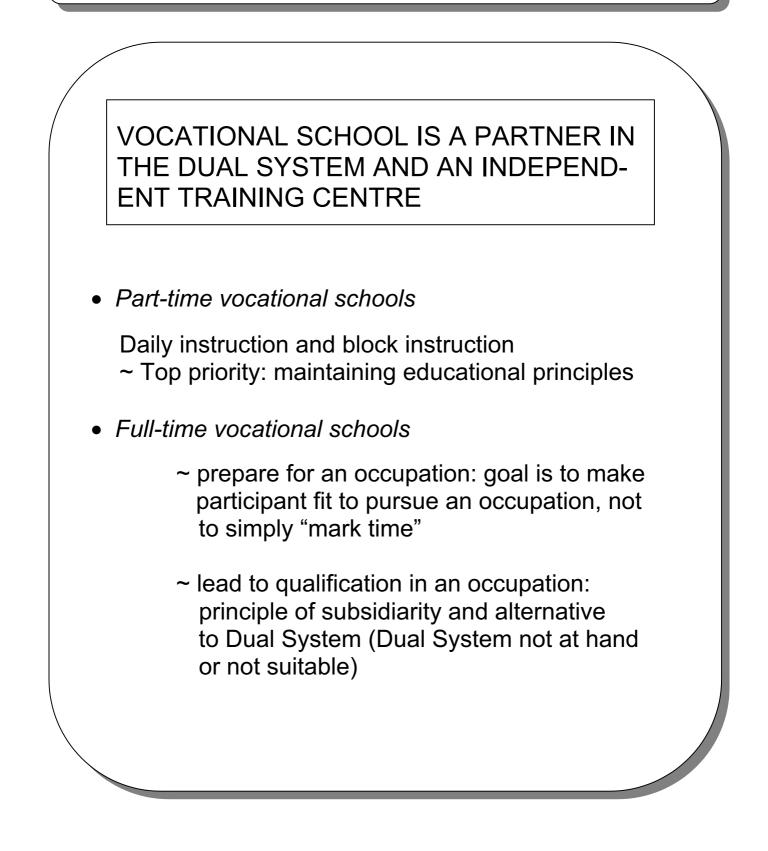
Instruction at vocational schools: 1/3general / 2/3 specialized instruction

social studies German foreign language sports/religion

technology economic fields of learning

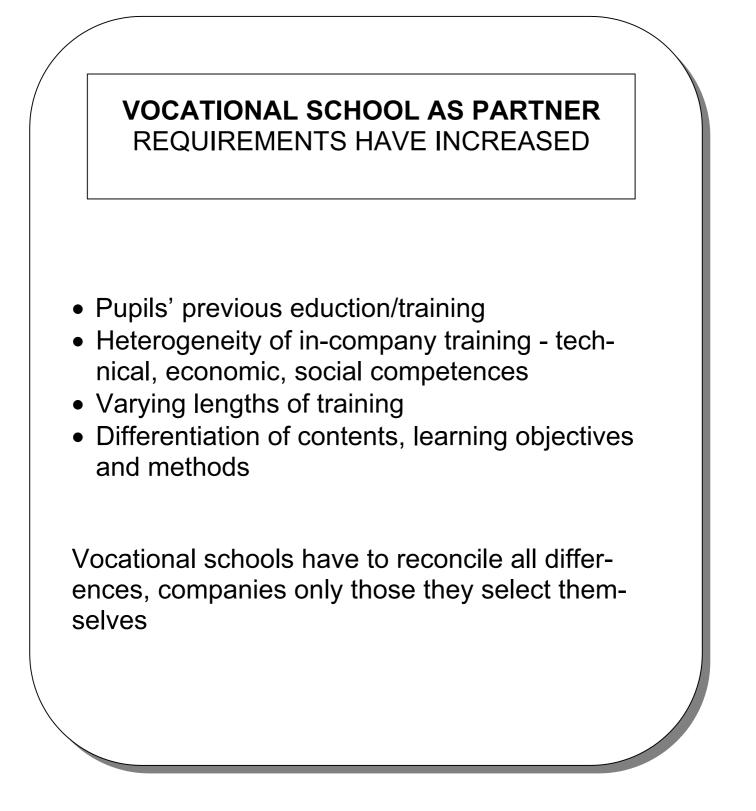


### THE ROLE OF THE VOCATIONAL SCHOOL





### THE ROLE OF THE VOCATIONAL SCHOOL







### THE ROLE OF THE VOCATIONAL SCHOOL

### **VOCATIONAL SCHOOL AS PARTNER**

**CONTENTS OF INSTRUCTION - DEFINED STAN-**DARDS OF THE FEDERAL GOVT. AND AUTONOMY OF THE FEDERAL STATES

- Defined subject standards of the training regulations
- Educational task of the vocational school: Personality development, subject competence
- End of the industrial/commercial division? Example: IT occupations
- End of training/continuing training divison?
- Future of teacher training



### THE ROLE OF THE VOCATIONAL SCHOOL

### **VOCATIONAL SCHOOL AS AN INDEPENDENT** TRAINING CENTRE LEADING TO A RECOGNISED QUALIFICATION FULL-TIME SCHOOLS WILL INCREASE

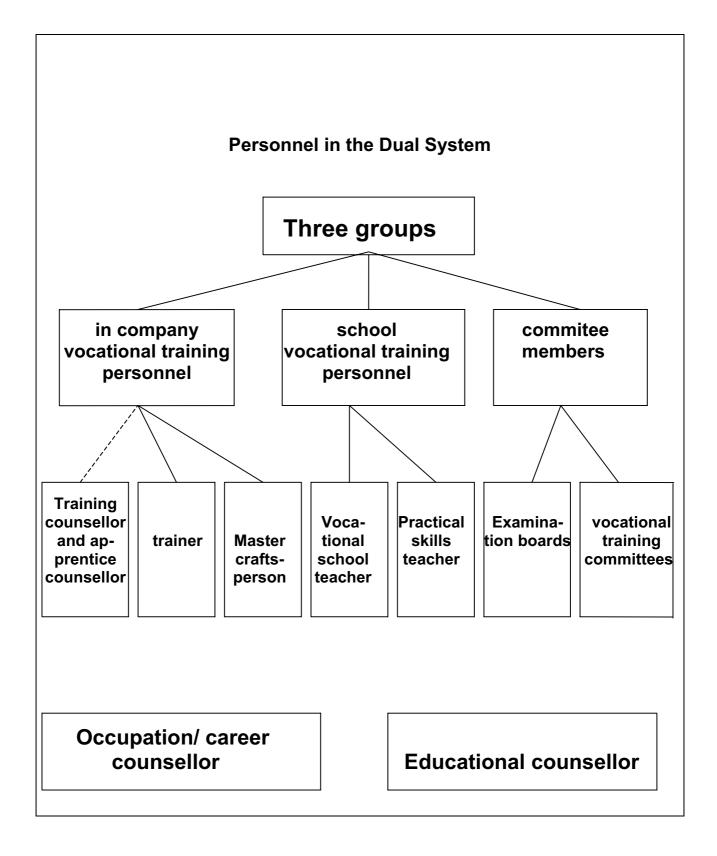
### Reasons

- Manual work is on the decrease; theoretically-based practice is on the increase; the importance of language and mathematics is growing; systematic knowledde logical abstract thingking are demanded in all occupations
- Lack of training places in Dual System or alternative model?

### LEARNING SITE COOPERATION ~ AN UNSOLVED PROBLEM

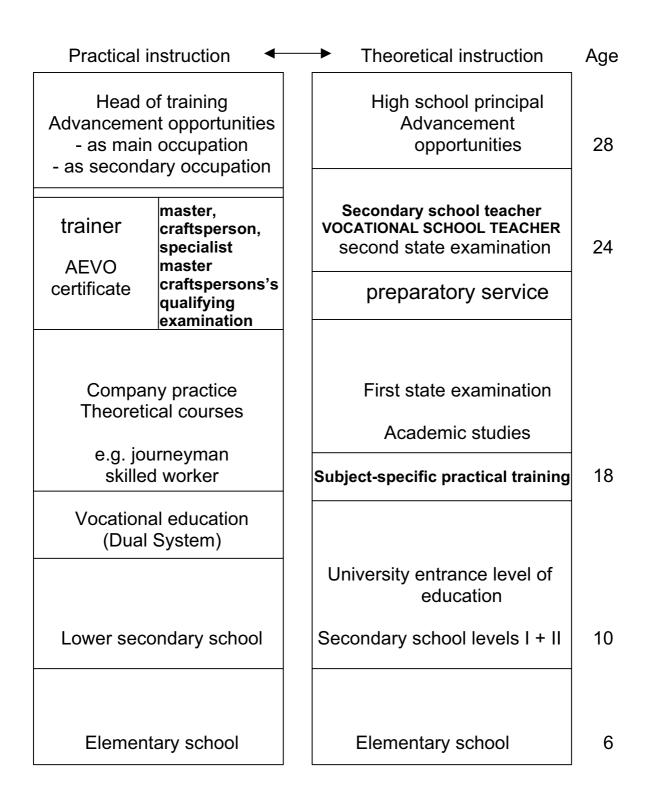
- Results of BIBB studies
- Dialogue blockade: who can speak to whom?
- Learning site dialogue as a precursor to learning site cooperation
- Joint platform and organization
- How will central training workshops/external and intercompanie training centres/specialized vocational schools be included?







#### Trainers and vocational school teachers





| Technology model  | Human ressources model  |
|---|---|
| <ul> <li>Capital assets</li> <li>Technological progress</li> <li>Hierarchy</li> <li>Clockwork mechanism</li> <li>Lack of training</li> <li>The employee is a small<br/>wheel in a process deter-<br/>mined by others</li> </ul> | <ul> <li>&gt; Human resources include<br/>all staff members of a com-<br/>pany</li> <li>&gt; Organizational<br/>developments</li> <li>&gt; Teams</li> <li>&gt; Consideration of the indi-<br/>vidual in the overall con-<br/>stellation, identification with<br/>the company, corporate<br/>culture</li> <li>&gt; Training for all employees</li> <li>&gt; The individual employee<br/>has a clearly defined posi-<br/>tive role</li> </ul> |
|   | The individual employee<br>has a clearly defined posi-  |

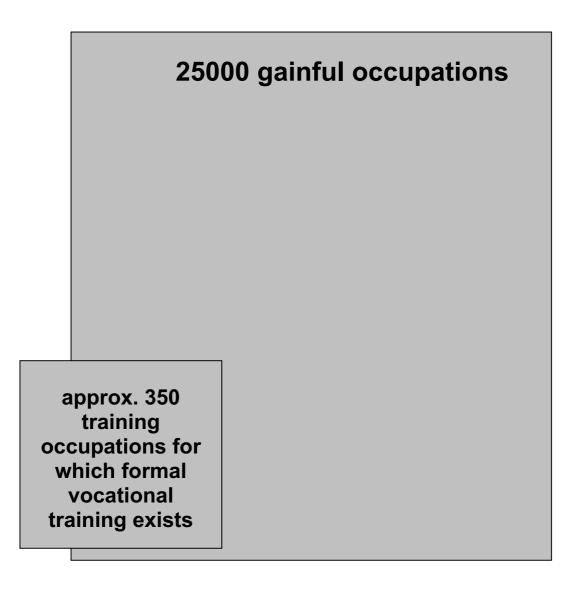


#### An example: the motor vehicle industry

| before Japan<br><b>B.J.</b>   | after Japan<br>A.J.  |  |  |
|---|--|--|--|
| Work  | prganization   |  |  |
| assembly/production line<br>mass production   | flexible,computer-controlled<br>just-in-time- and lean<br>production; small and large<br>Series also;<br>Assembly/production line  |  |  |
| Pers  | l<br>sonnel  |  |  |
| Hierarchical organization   | organization in teams  |  |  |
| <ul> <li>engineer:<br/>supervision<br/>planning</li> <li>skilled worker:<br/>logistics</li> <li>unskilled workers:</li> </ul> | management, engineers,<br>technicians and skilled<br>workers work together in<br>teams/groups<br>every team member must be<br>able to plan, carry out and<br>monitor his/her work in this<br>process independently |  |  |
| assembly/productior   |  |  |  |
| line  | 1  |  |  |

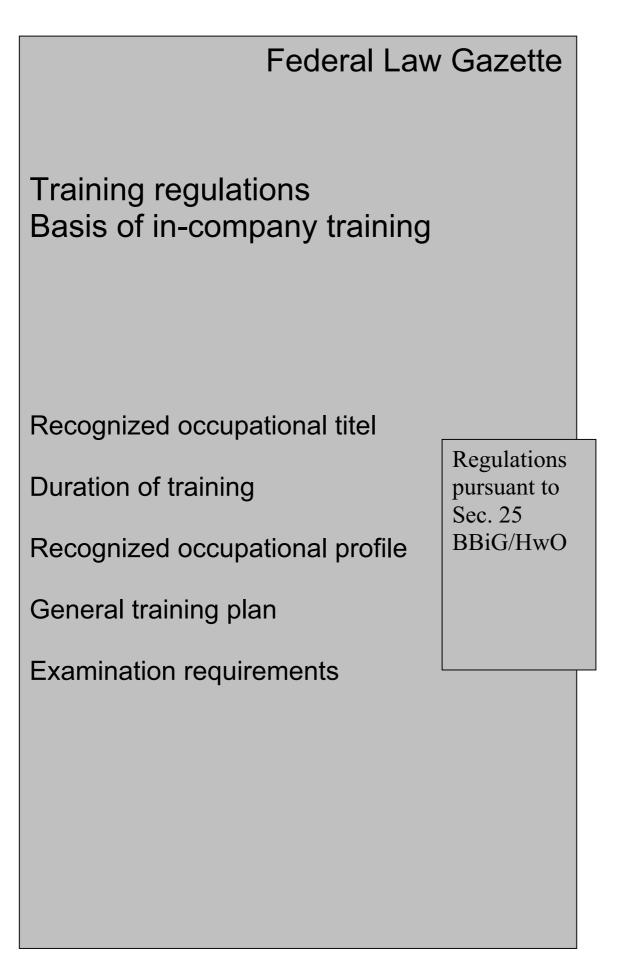






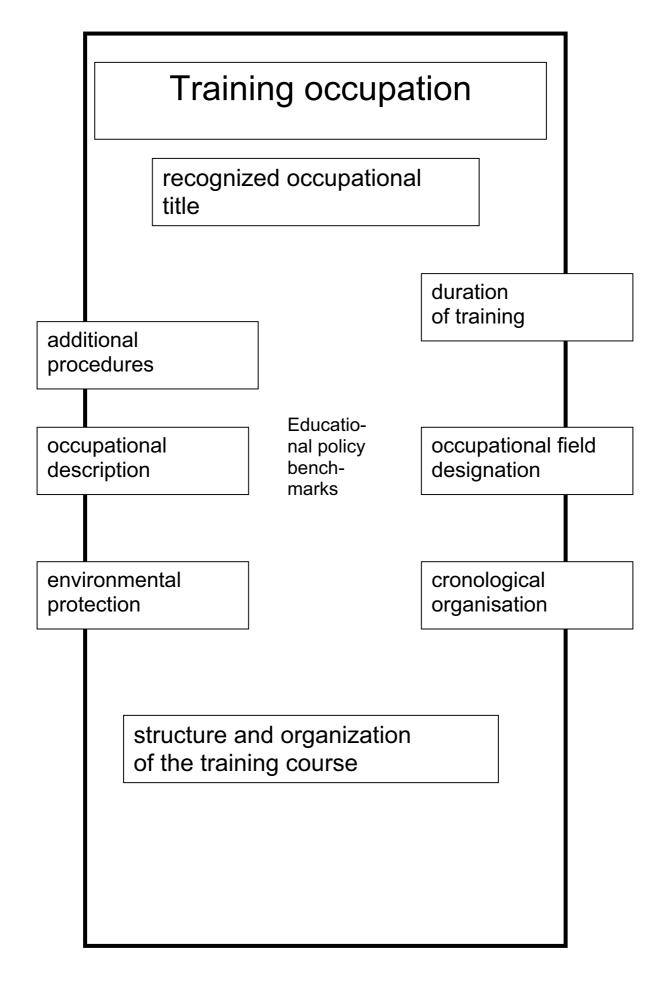
The approx. 350 state-recognized occupations are the basis for a structured and uniform vocational education to skilled worker/employee level. They open the door to a variety of occupational activities and to further training. There are approx. 25,000 gainful occupations.





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| 12 months | Brick layer<br>Concretor<br>Heating and chimney technician | Joiner/carpenter<br>Stuccoist<br>Tile and mosaic layer<br>Floor layer | Insulation technology specialist<br>Dry construction builder | Road builder<br>Pipeline fitter<br>Canal construction worker | Well builder<br>Special underground construction<br>worker<br>Rail track builder |
|-----------|--|---|--|--|--|
|           |  |   |  |  |  |
| 12 months | Skilled structural<br>engineering<br>worker                |   | Skilled finishing  | worker   | Skilled civil<br>Engineering<br>worker   |
|           |  | -   |  |  |  |
| 12 months |  | Common  | and skills   |  |  |

Phased training in the construction industrie



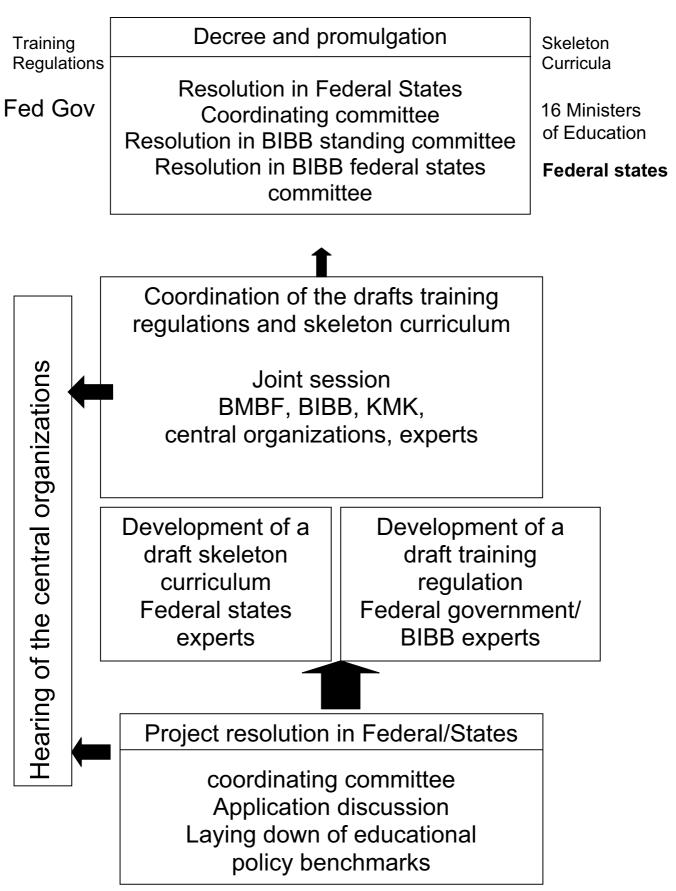
Training occupations according to school leaving qualifications

| University entrance level of education                  | Bank clerk<br>Industrial clerk<br>Wholesale and retail clerk<br>Office clerk  | 12,278<br>10,541<br>6,574<br>4,547 |
|---|---|------------------------------------|
| Intermediate secondary<br>school leaving<br>certificate | Retail clerk<br>Medical assistant<br>Car mechanic<br>Office clerk   | 12,311<br>9,896<br>8,506<br>8,378  |
| Lower secondary school<br>leaving certificate           | Car mechanic<br>Painter and varnisher<br>Retail clerk<br>Hairdresser  | 10,731<br>10,569<br>9,946<br>9,721 |
| No lower secondary<br>school leaving certificate        | Painter and varnisher<br>Disabled occupations in crafts and trades<br>Disabled occupations in domestic sciences<br>Bricklayer | 1,756<br>1,576<br>992<br>758       |

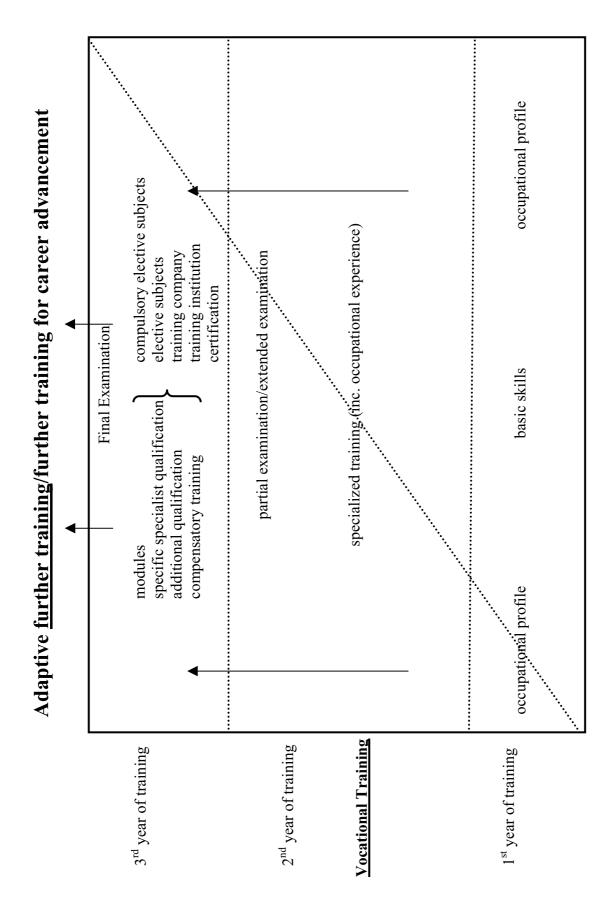


Folie 40

#### **Training Regulations** and skeleton curricula







Folie 41

| Basic skills                         | Specific occupational skills                    | Flexibility                   |
|--------------------------------------|---|-------------------------------|
| for                                  | <ul> <li>Information and</li> </ul>             | through                       |
| all tour occupations<br>in the group | Communications Systems                          | elective<br>deployment areas/ |
| -                                    | electronics technician                          | specialist areas              |
|                                      | <ul> <li>Skilled computer technician</li> </ul> | within the<br>framework       |
|                                      | <ul> <li>Information and</li> </ul>             | of the specialist             |
|                                      | Communications Systems                          | qualification                 |
|                                      | clerk   |                               |
|                                      | <ul> <li>Computer clerk</li> </ul>              |                               |



| Structural concept for the media industry – | combination of compulsory and optional modules |
|---|--|
|---|--|

| training units to be<br>chosen by<br>trainer/instructor or<br>trainee | <ul> <li>2 training units<br/>(common selection<br/>list)</li> <li>2 training units from<br/>subject-related<br/>selection list l</li> <li>1 training unit from<br/>subject-related<br/>selection list ll</li> </ul> |
|---|--|
| subject-specific training<br>units                                    | <ul> <li>media consulting</li> <li>media design</li> <li>media operating</li> <li>media technology</li> </ul>  |
| common training<br>units  | media designer for<br>digital and print<br>media   |



Structural concept for laboratory occupations – Linking up of initial and continuing training

|               | continuing<br>training                          | ratory                              |
|---------------|---|-------------------------------------|
|               | g unit  | coating laboratory<br>technician    |
| training unit | specialist training<br>compulsory training unit | biological laboratory<br>technician |
| elective      | basic training                                  | chemical laboratory<br>technician   |



#### Goals of modularisation 'occupational careers" > Training continuing training initial and continuing training Educational quotas distributed among

- Improving links between vocational and general education
- links between different learning sites
- Integration of target groups not located close to education and postqualification

Working life

- Individual learning needs qualification requirements of the companies
- ➢ facilitating learning process \_\_\_\_ flexible work organization/
- **O-Development** → self-management of learning facilitating "open learning" processes
- step-by-step acquisition of certificates and gualifications: "credits"
- improved comparability between national gualification systems = EU, vocational training portfolio
- testing of new economic financing models
- promotion of disadvantaged and gifted at all educational levels
- "additional qualification(s)", also compensatory

#### Definition

Module = Bundle of self-contained initial and continuing Training contents Which leads to useful, more complex partial qualifications (can be accumulated to achieve full occupational competence) and are certifiable/(state) recognized



#### **Dual-/modular training**

Petrol Station attendant (3 years)

general knowledge of the occupational branch

> commercial activities

customer and travel service

damage elimination

fuel and accessories sale

knowledge of motor vehicles and accessories

accident and fire safety regulations

petrol station and garage operation

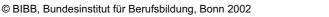
basic knowledge of procucts

car and motorcycle care

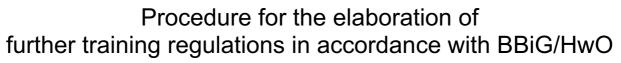
motor vehicle attendant (ap. 3 months) brakes tires body cooling system oil change ignition system battery

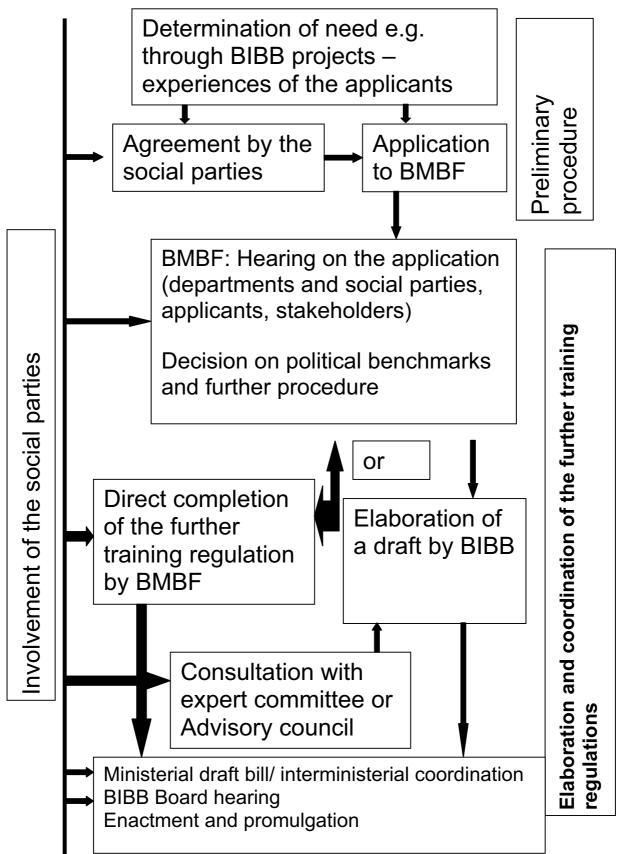
training module/ partial qualification (approx. x days)

battery



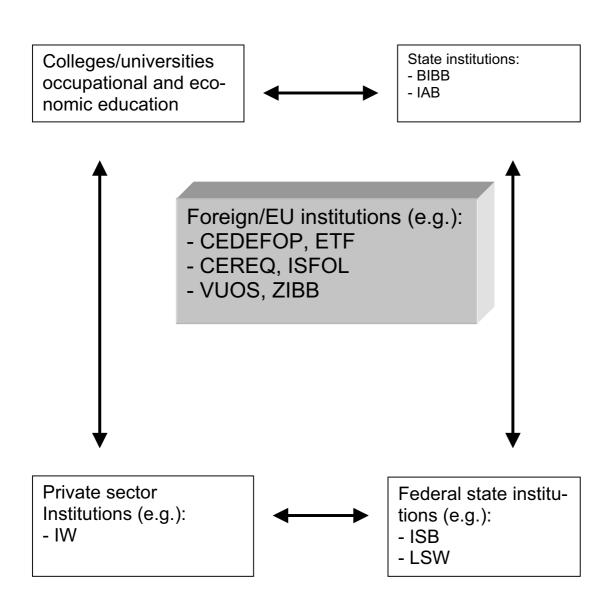








#### The players in vocational training Research and occupational research



#### Vocational training practice



#### **Main Board of BIBB**

#### Federal government 5 Representatives 16 Votes

employers 16 representatives/16 votes

Consultative body of the Federal Government Vocational training report Fundamental questions of vocational training Decision-making body of the institute Charter - budget - reserarch programme

trade unions 16 representatives/votes

Federal Institute for **BIBB** Researching Advising Shaping the future

Federal states 16 Representatives 16 Votes

Consultative:

1 representative of the federal labour office 1 representative of the federal association of municipalities

#### Folie 50

|   |                                   |  |   |  |  |   |  | ŀ  | -olie 50  |
|---|-----------------------------------|--|---|--|--|---|--|--|---|
| <b></b> ]                                 | ](                                |  | []  |  |  |   | BÌBB   | Bundesinstitut tur<br>Berufsbildung<br>53043 Bonn<br>≅ 0228-107-0<br>⊡ 0228-107-2977<br>⊠ zentrale@bibb.de     | Address:<br>Friedrich-Ebert-Allee 38<br>53113 Bonn  |
|   | 0                                 | ions   |   | Central Services   | Z 1<br>Personnel, in-house initial and<br>continuing vocational education<br>and training  | Z 2<br>Budgeting, Finance   | Z3<br>Legal affairs, Legal issues relating to<br>vocational education and training,<br>Organization                                      | Z 4<br>Internal services,<br>Building management   |   |
| Office of the Board                       | Management Office                 | Press, Public Relations                      | Audit Office  | Dept. 4<br>Structure and Regulation of<br>Vocational Education and<br>Training   | Section 4.1:<br>Commercial service occupations<br>and occupations in the media<br>business. Occupations in initial and<br>continuing vocational education and<br>training (A.WE.B) | Section 4.2:<br>Industrial production occupations,<br>Crafts  | Section 4.3:<br>Company-related service occupations,<br>Structures of continuing vocational<br>education and training                    | Section 4.4:<br>Section 4.4:<br>Personal and social service occupations,<br>Committee for problems of disabled | Section 4.5:<br>Section 4.5:<br>Quality standards, Certifications,<br>Examinations, Editing of ordinances |
| President,                                | Secretary General                 | Permanent Representative of the<br>President | Deputy Secretary General, Head of<br>Research                               | Dept. 3<br>Teaching and Learning<br>Formats in Vocational<br>Education and Training  | Section 3.1:<br>Education and training pathways,<br>Competence development, Learning<br>trajectories   | Section 3.2:<br>Training technology, Training personnel,<br>Learner-trainer cooperation   | Section 3.3:<br>Pilot projects, Innovation and<br>transfer   | Section 3.4:<br>Distance learning, Open learning   |   |
|   |                                   |  |   | Dept. 2<br>Sociological and Economic<br>Principles of Vocational<br>Education and Training   | Section 2.1:<br>Needs analyses, Training supply<br>and demand  | Section 2. 2:<br>Early warning systems, New fields of<br>employment, Vocational education and<br>training statistics                          | Section 2.3:<br>Costs, Benefits, Financing   | Section 2.4:<br>Training behaviour, Career paths,<br>Target group analyses                                     | Section 2.5:<br>Learning venues, Promotion of central<br>training facilities                              |
| "Education for Europe"<br>National Agency | iMOVE<br>International Vocational | Iraining and Education<br>Marketing Division | Communication and<br>Information Centre for<br>Professional Training - KIBB | Dept. 1<br>Research and Service<br>Concept Development,<br>International Vocational<br>Training and Education<br>Education Marketing | Section 1.1:<br>Research and service planning,<br>Vocational Education and Training<br>Report, Task Force  | Section 1.2:<br>Product marketing, Dissemination of<br>specialist information, information systems<br>Publications<br>Information technology: | Project management "Innovations in<br>Vocational Education and Training and<br>Continuing Vocational Education and<br>Training" (PTIAW): | Section 1.3:<br>International cooperation in vocational<br>education and training, Education<br>marketing      | As of: 1 October 2002   |

Federal Institute for **BIBB** Researching Vocational Training **BIBB** Shaping the future

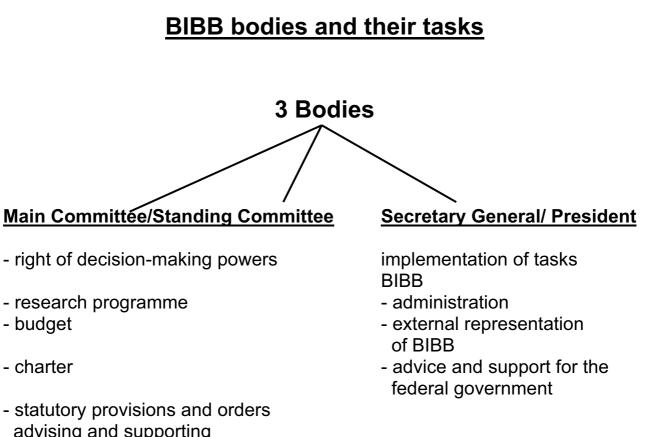


#### Legal form of the Federal Institute of Vocational Training (BIBB)

#### Sec. 6 Cl. 1 of Vocational Training Promotion Act (BerBiFG):

"A Federal Institute for Vocational Training with legal capacity directly responsible to the Federal Government shall be established."

"...within the framework of the educational policy of the Federal government."



advising and supporting the Federal government on basic questions of vocational training



| <ul> <li>Vocational training report</li> <li>Vocational training statistics</li> <li>Promotion of pilot projects</li> </ul> | <ul> <li>2. Administrative tasks</li> <li>Intercompany training centers (sec. 6 Cl. 2 Nr. 2 BerBiFG)</li> <li>Directory of recognized training occupations (sec. 6 Cl. 2 Nr. 4 BerBiFG)</li> </ul> | <ol> <li>Research tasks</li> <li>Vocational education/training research</li> <li>Media research</li> <li>Distance learning research (sec. 6 Cl. 2 Nr. 5d BerBiFG)</li> </ol> | <ul> <li>4. Consultative tasks</li> <li>Advice to distance learning institutions and participants (sec. 6 Cl. 2 Nr. 5e BerBiFG)</li> </ul> |
|---|--|--|--|
| • • •   | 2. Admi<br>• Into<br>(Se<br>(Se<br>(Se   | <ol> <li>3. Rese</li> <li>40</li> <li>40</li> <li>40</li> <li>40</li> <li>10</li> </ol>  | 4. Cons<br>• Ad  |

# 5. International cooperation in vocational education/training (sec. 6 Cl. 2 Nr. 1e BerBiFG) (directive task)

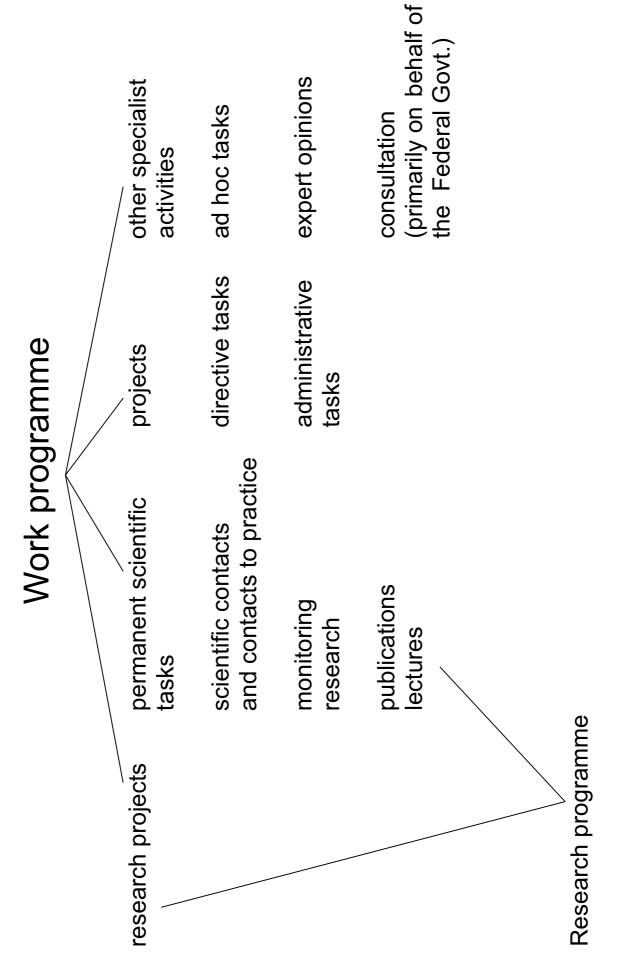
Training regulations, other statutory rules in accordance with BBiG/HwO

• •

Instruction-bound tasks (sec. 6 Cl. 2 Nr. 1 BerBiFG)

Task Catalog in accordance with BerBiFG

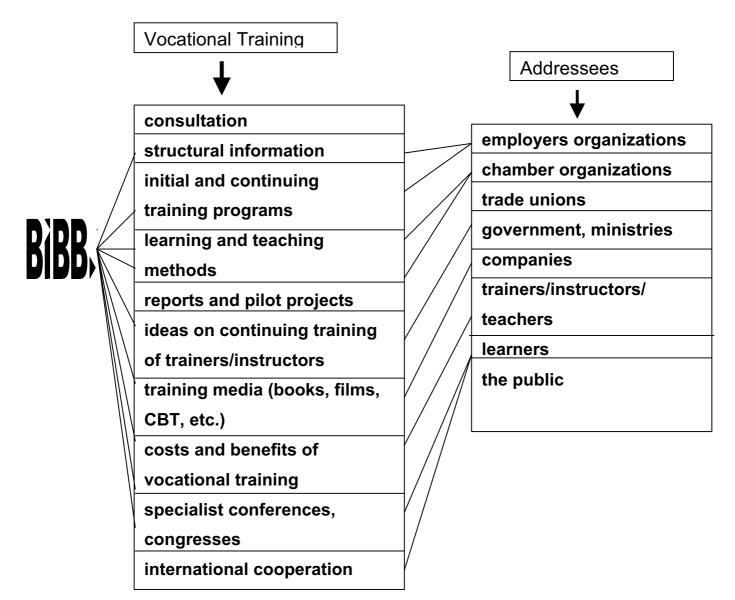




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Federal Institute for Vocational Training BBBB Researching Advising Shaping the future

#### **Federal Institute for Vocational Training**



Fundamental principles of the work of BIBB

- principle of consensus in regulatory work
- practical orientation (participation of experts from companies)
- integrated task perception (prerequisite: corresponding links between basic research and application-oriented qualification of the staff, work experience)
- connection between pure research and realization-oriented research (principle of effect on the outside world)
- freedom of research in the implementation of projects and the publishing of results



#### Folie 55

#### Germany's Dual System of vocational education

#### Training in Germany: two systems grow together

| Old            | 1989  | New                                |
|----------------|---|------------------------------------|
| federal states |   | federal states                     |
| 500 000        | training companies  | 4 500                              |
| 1.6 millon     | trainees  | 360 000                            |
| 3              | trainees/company  | 80                                 |
| 70%            | share of small com-<br>panies                                   | 10%                                |
| 380            | occupations for which<br>formal vocational trai-<br>ning exists | 308                                |
| private/state  | relationship<br>company: school                                 | state only                         |
| 3 years        | duration of training  | 2 years                            |
| free           | access  | access (3<br>stages) via<br>grades |
| 700            | interfirm workshops<br>(intercompany train-<br>ing centres)     | 0                                  |
| 0.5%           | boarding schools  | 35%                                |
| 0.3%           | in-house vocational schools                                     | 75%                                |



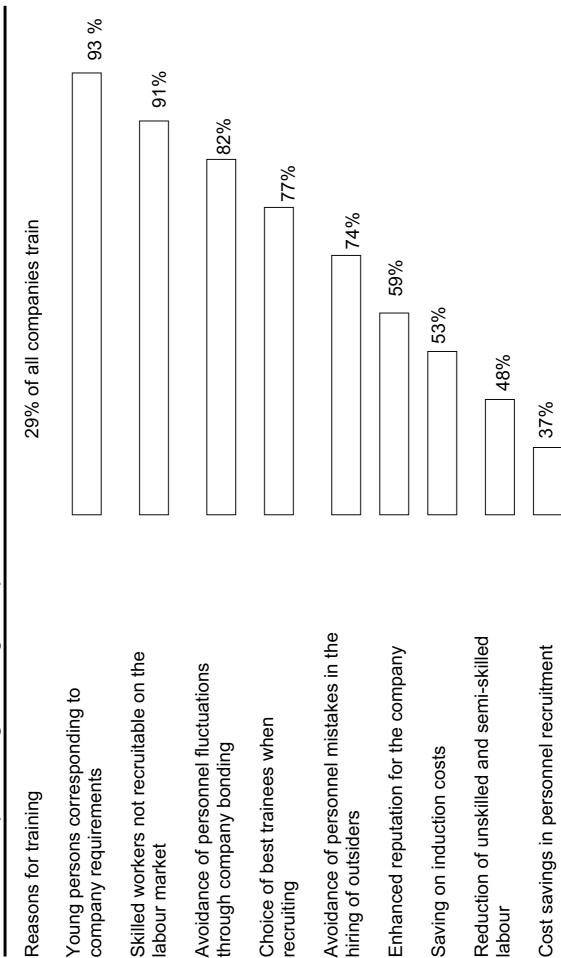
47% 38% 9% 3% 2% 1% Trainees according to fields of training Professional occupation Trade and industry Crafts and trades Domestic science Public sector Agriculture

4.7% 4.4% 4.3% 3.4% 3.4% 2.9% 2.9% 2.8% 2.8% 2.5% male/female total ≈ 33.8% wholesale and foreign trade clerk (trade/industry) medical assistant (professional occupations) The ten most attended training occupations bank merchant (trade and industry) industrial clerk (trade and industry) office clerk (trade and industry) retail clerk (trade and industry) painter and varnisher (craft) electrical fitter (craft) car mechanic (craft) hairdresser



Folie 57

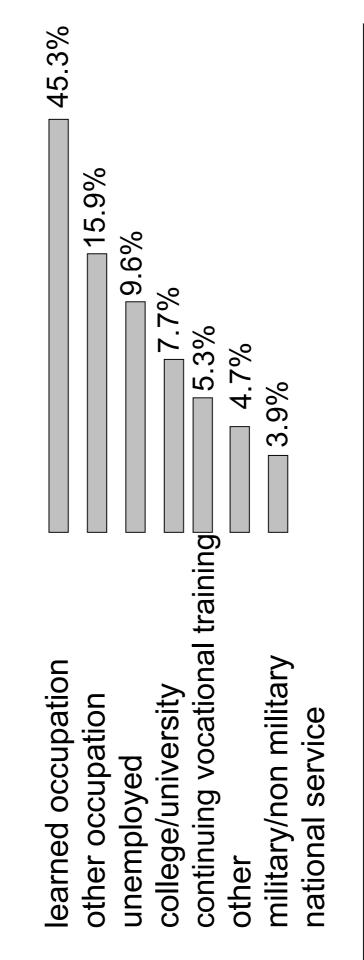
Reasons for providing training companies







Where abouts of those who have completed training in the Dual System in the new federal states



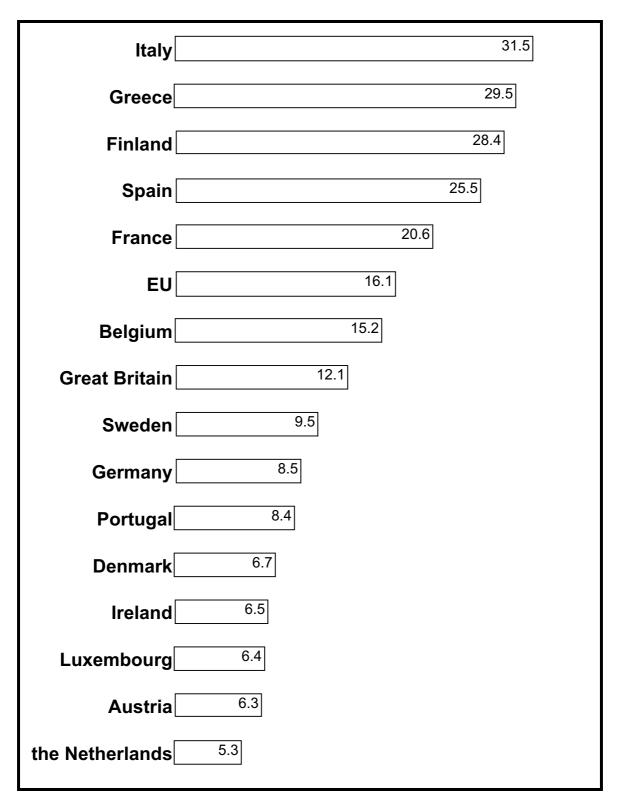
Folie 59

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#### Folie 60

#### Unemployed young persons under 25 years in EU



Annual average 2000 Original data: Eurostat



#### Measures to improve the Training places situation (I)

- 1. Will for reform: not a Problem of knowledge but of realization!
- 2. Faster and more "new occupations" in particular in the services sector, "specialist occupational groups"
- 3. Restriction of the "principle of consent" through setting of deadlines by the Federal gouvernment?
- 4. Flexibilisation of the Training Regulations (new IT occupations): modularisation in 3<sup>rd</sup> year of training, dovetailing of initial and continuing training/compulsory and optional modules
- 5. More training in **local training initiatives**, support measures
- 6. Reform and expansion of part-time vocational schools
- 7. Training site cooperation
- 8. More differentiation and individualization:
  - Promotion of disadvantaged youth = compensatory, "simple" occupations
  - Promotion of gifted young people = additional qualifications
- 9. Develop and expand the "upper classes of the Dual-System ".



#### Measures to improve the Training places situation(II)

- 10. Specific training and continuing training in independence/business start-ups
- 11. Inclusion of specialized schools (BFS)as another Dual System
- 12. New financing aids:
  - Additional tax relief for (socially responsible) training provision
  - "Freezing" of training allowances/"apprentice wages"?
  - Fund-levy financing?
- 13. Reform of the examination system (for chambers), Vocational schools + companies, "credits", "elongated examinations" Examinations: project/team work, customers orders
- 14. Practical equivalence/parity of general education/university & college entrance, universities for applied sciences

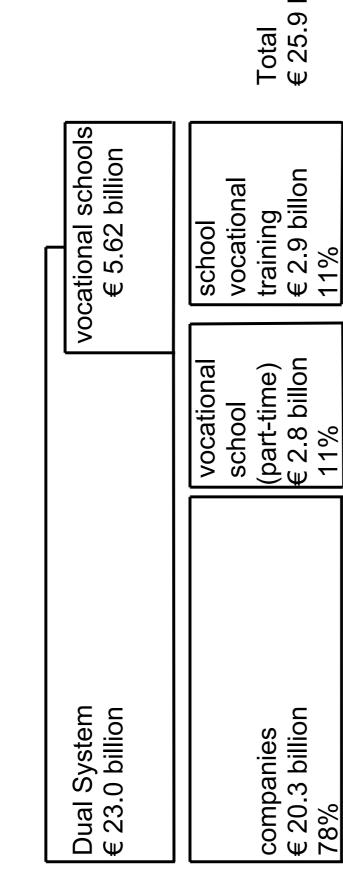


#### Costs

- 1. The firms bear the costs for their training measures themselves and pay a levy for the services of the chambers (administration, intercompany training centres, examinations etc.)
- 2. The training costs differ every year for each trainee, depending on
  - ratio of systematic training to training in the workplace
  - Training personnel (part-time or full-time trainers)
  - Training allowance
- 3. The government provides financial backing for special training measures, e.g. through
  - Integration programs, e.g. underachievers, minorities
  - Innovative experiments, e.g. new methods, new contents
  - Programs for small and medium sized enterprises (SMEs), e.g. intercompany training centres for systematic training and imlementation of state-of-the-art technology/skills/technology centers
- 4. The federal state governments bear the costs of the vocational school instruction, the municipalities for the school buildings



Financing of vocational education/ per year (Euro)







#### Discretionary costs (avoided)

► Recruitment costs (advertisements, interviews,

administration, induction, continuing training)

► Lower risk = miscasting

Bonding to company, corporate culture, group strengthening

More broadly deployable (illness, vacation), advantages over temporary employees

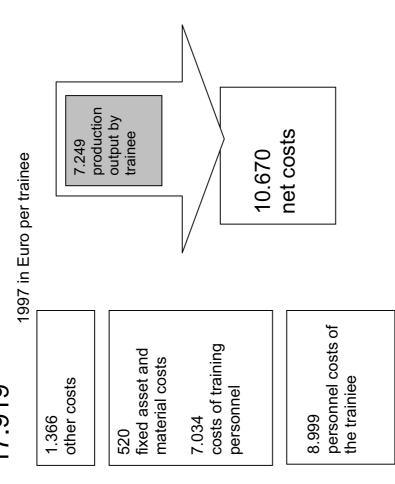
▶ "human capital awareness", image factor



In-company training: what a training place costs

## Gross costs

### 17.919



| Craft & trades | 10.086 7.680                      | 7.386 6.607                           | 661 351           | 1.523 1.174   | 19.656 15.812 | 6.954 7.606                            |  |
|----------------|-----------------------------------|---------------------------------------|-------------------|---------------|---------------|--|--|
| Industry       | Personnel costs<br>of the trainee | + costs of the training-<br>personnel | + fixed asset and | + other costs | = gross costs | - productions output<br>of the trainee |  |

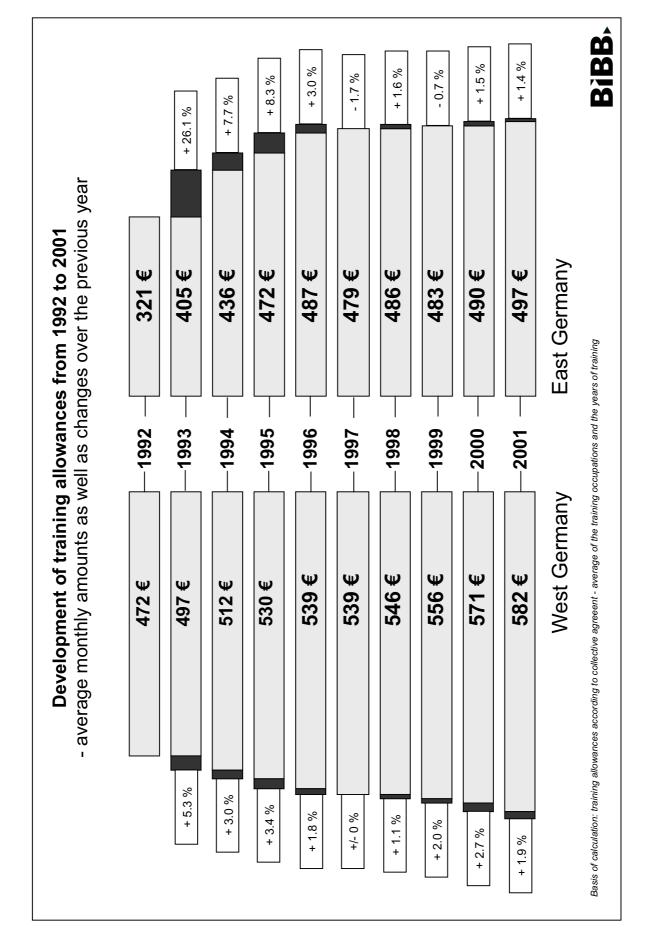


All sectors of the economy

8.206

12.702

= net costs



Folie 67



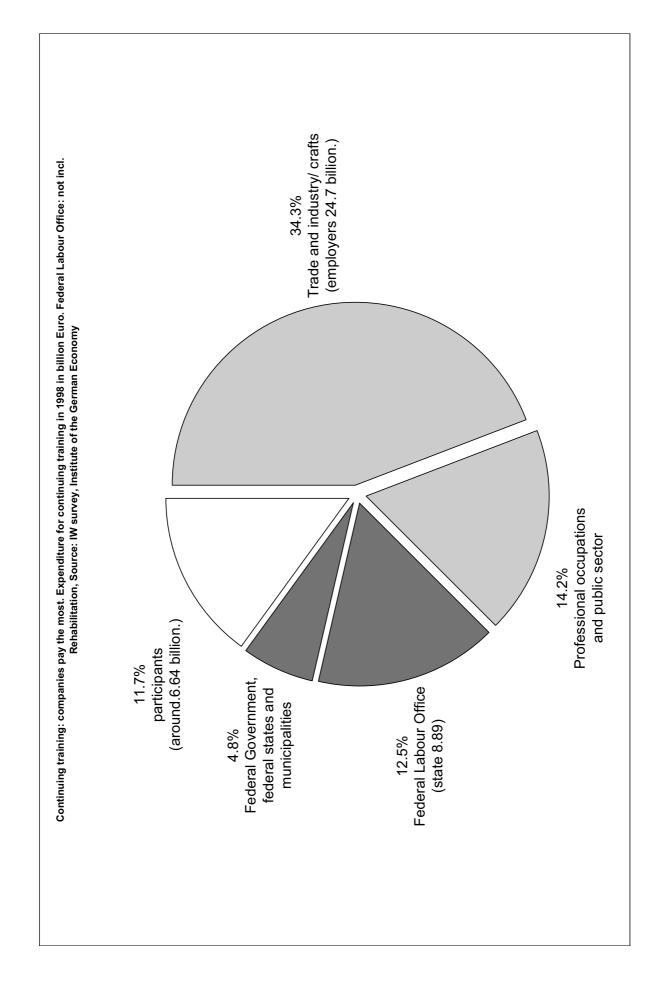
BÌBB Training allowances according to fields of training 2001 572€ 497 € 550 € 443€ 449 € 417€ East Germany Basis of calculation: collectively agreed training allowances - average for training occupations and years of training average monthly amounts -Crafts and trades Trade an industry Prof. occupations Public sector Agriculture Total West Germany 640 € 582€ 640 € 520€ 512€ 509€



| <b>–</b>   | Training allowa                  | ances in twenty selected occupations2001<br>- average monthly emuneration | occupations2001<br>n |
|--|----------------------------------|---|----------------------|
|  | 788 €                            | Bricklayer (C+I/C+T)  | 643€                 |
|  | 756 €                            | Insurance salesman (I+H)  | 756€                 |
|  | 741 €                            | Scaffolder (T+I/C+T)  | 621€                 |
|  | 674 €                            | Industrial mechanic (T+I)   | 661 €                |
|  | 670 €                            | Electronic power technican (T+I)  | 650€                 |
|  | 648 €                            | industrial clerk (T+I)  | 570€                 |
|  | 637 €                            | Administrative clerk (PS)   | 563€                 |
|  | 630 €                            | Retail clerk (T+I)  | 566€                 |
|  | 537 €                            | Office clerk (C+T)  | 439€                 |
|  | 536 €                            | Cook (T+I)  | 421€                 |
|  | 517 €                            | Medical Assistant   | 441€                 |
|  | 517 €                            | Car mechanic (C+T)  | 402€                 |
|  | 512€                             | Gardener (A)  | 420€                 |
|  | 509 €                            | Gas/fitter and plumber (C+T)  | 356€                 |
|  | 487 €                            | Painter and varnisher (C+T)   | 446€                 |
|  | 484 €                            | Electrical fitter (C+T)   | 361 €                |
|  | 474 €                            | Joiner/carpenter (C+T)  | 401€                 |
| T+I = Trade and Industry   | 455 €                            | Baker (C+T)   | 350€                 |
| C + T = Crafts and Trades<br>A= Agriculture  | 413€                             | Florist (T+I)   | 301€                 |
| P= Professional occupations  | 398 €                            | Hairdresser (C+T)   | 245€                 |
| Me   | West Germany                     |   | East Germany         |
| Berechnungsbasis: Tarifliche Ausbildungsvergütungen – Durchschnitt über die Ausbildungsjahre | ungen – Durchschnitt über die Au | sbildungsjahre  | BiBB                 |
|  |                                  |   |                      |



Folie 69





#### **PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED**

#### <u>YOUNG PEOPLE (I)</u>

#### Young People who require special Support

#### The problem/the magnitude

In Germany total without vocational gualification (per year and age group around. 13% around 100 000)

#### 1. The problem:

- vocational certification, preferably in state-recognized training occupations
- reduction of the number of young people without vocational gualifications
  - \* through new and differentiated paths, in order to achieve this goal
- restrictions by state SGB III financing (Social security code III)

#### 2. The main question:

- special vocational courses (also for disadvantaged youth) within the framework of the BBiG/HwO? (Vocational training act)
- modularisation of training courses (curricular didactic internal differentiation), perhaps also partial qualifications?



#### **PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED** YOUNG PEOPLE (II)

# **Principles**

- full skilled worker/journeymann/skilled employee qualifications
- state-recognized qualification in accordance with Training Regulations (AO)
- support measures/priority
- · educational needs of disadvantaged youth and requirements of the labour market
- agreement of social parties, Federal Government, federal state governments
- stabilization, modernization, further development of the vocational training system



#### **PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED YOUNG PEOPLE (III)**

#### **Findings:**

- At present, varying demand in industry for specific training occupations is recognisable
- But: from individual, sectors, companies, vocational training experts
- New generation of specialists in the future

Paths:

- Flexible, differentiated, individualized, phased
- rather a lengthening than a shortening of the period of training
- Support measures
  - socio-educational
  - school
  - training-attendant aid



#### **PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED YOUNG PEOPLE (IV)**

#### Emergency solution for the stigmatization of the "unskilled"

- without vocational qualifications subject to discrimination on the labour market
- integration/reintegration into working life through
  - modularized training courses
  - reduced learning-content training
  - less theory in examination
- new training occupations with labour market prospects

### Varied demands today

- around 350 state-recognized training occupations in Germany
- varied profile and requirement hierarchies
- two and three-year training occupations
- full social welfare protection in two-year training occupations through parties to a collective wage agreement (BSozGer - Federal Social Court)
- example: new: two-year now three-year occupations: scaffolder
- example: retailer/ upgraded retailer (Verkäufer, KiE)



#### **PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED YOUNG PEOPLE (V)**

#### Legal framework

BBiG/HwO (Vocational Training Act (Crafts and Trades Regulation Code)

- make possible special occupations/state recognized training regulations/"simple" occupational profiles (more easily learned by disadvantaged young people)
- make possible organization of training corses in modules when training leads to state-recognized qualification (differentiation and flexible shaping of the entire training course)

#### **Examinations**

- own "disadvantaged section" in BBiG und HwO with special examination regulations
- supplementary oral examinations for grade compensation
- extended processing time for theoretical examination
- forms which make the written examination easier
- recognition of examination sections taken as partial qualification with certificate (resolutions of the "Alliance for Work, Training and Competitiveness", 1999)



#### **PROMOTING VOCATIONAL TRAINING FOR DISADVANTAGED YOUNG PEOPLE (VI)**

### Programme-controlled compter work materials/ computers (BIBB projekt)

- successful pedagogical-didactic means for promotion
- intensification!
- the operation of programme-controlled (computer) tools can be learned
- promotion of motivation for initial and continuing training
- strengthening of feeling of one's own worth, social prestige and recognition among each other
- improvement in skills in language, arithmetic, writing, drawing, information technology
- "Qualifizierungsbausteine"/modules for qualification



# Support for gifted apprentices in Vocational training

Support for gifted young people in in-company training

- Occupational advancement paths/also inhouse support/in addition to vocational school/training and work place
- Identify and promote during training
- Federal Ministry for Education and Research support programme (since 1991, 4,500 annually/consolidation/ not just graduates/during in-company training
- In addition to proven measures (e.g. competitions, BBiG reduction) --> Using GDR experience: "inventors' schools", "gifted programmes"



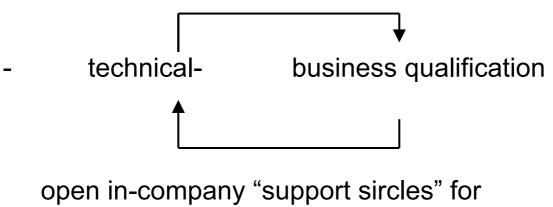
# Gifted (II)

- public "marketing"
  - attractiveness of Dual System
  - in-company selection of central theme
  - such as benefits for gifted pupils in schools and colleges, research
- targeted: girls and young women
- additional tasks/demanding and responsible/projects/clients/ building sites
- in-house preparation for competitions/ release
- special. foreign languages/IT/service (clients)/"Youth researches"
- heavier technical and non-business DLoccupations
- image factor/benefits/SMEs
- freer work design, task processing



# Gifted (III)

- "2<sup>nd</sup> threshold"/permanent job/ adaptive further training
- innovative trainers/more individual advice
- shortening of length/additional qualifications (certified)



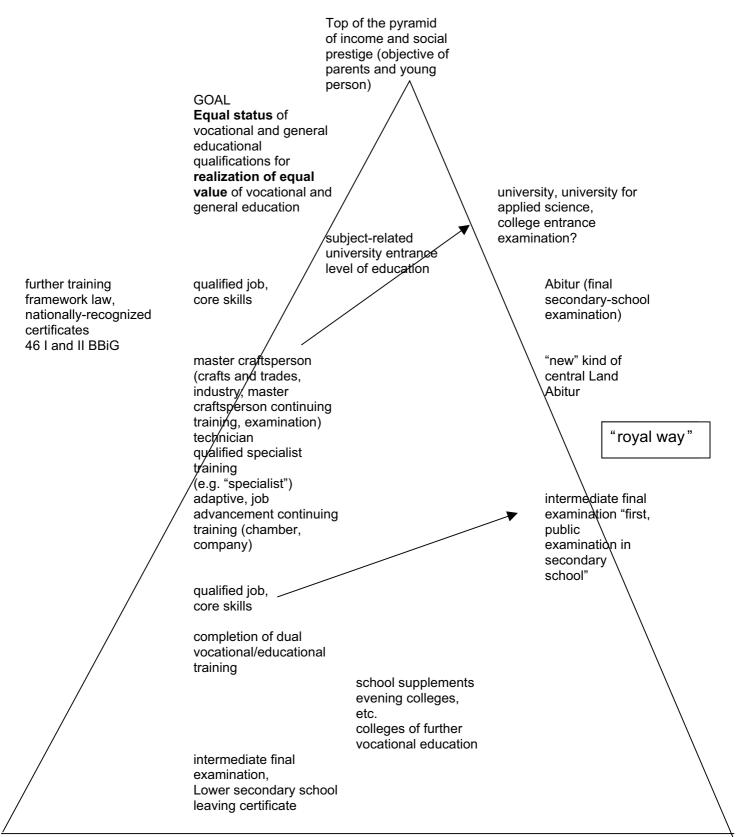
skilled workers/employees, "creative task pools"/simulations and management games — for apprentices/trainees





## Folie 80

#### Vocational education/ training is also a "royal way"



secondary modern school, intermediate modern secondary school (junior high school), "standard school", comprehensive school, Gymnasium (high school/junior school)





| for spe                              | for specialists with vocational certificate and no Abitur | ertificate and no A | bitur                  |
|--------------------------------------|---|---------------------|------------------------|
|                                      | (final school-leaving examination)                        | examination)        |                        |
|                                      | entrance  | probationary        | direct admission       |
|                                      | examination   | admission           |                        |
| <b>Baden-Württemberg</b>             | U/FH  |                     |                        |
| Bayern                               | preparation + examination*                                |                     |                        |
| Berlin                               |   | FH/U                |                        |
| Brandenburg                          | FH/U  |                     |                        |
| Bremen                               | FH/U  | FH/U                |                        |
| Hamburg                              | FH/U  |                     | FH/U with consultation |
| Hessen                               | FH/U  |                     |                        |
| <b>Mecklenburg-Vorpommern</b>        | FH/U  |                     |                        |
| Niedersachsen                        | FH/U  | FH/U                | FH/U                   |
| <b>Nordrhein-Westfahlen</b>          | FH/U  | FH/U                |                        |
| <b>Rheinland-Pfalz</b>               | U (or probationary admis-                                 | FH                  |                        |
|                                      | son)  |                     |                        |
| Saarland                             | FH/U  |                     | consultation           |
|                                      |   |                     | interview              |
| Sachsen                              | FH/U  |                     |                        |
| Sachsen-Anhalt                       | FH/U  |                     |                        |
| <b>Schleswig-Holstein</b>            | FH/U  | FH/U                |                        |
| Thüringen                            | FH/U  |                     |                        |
| FH = University for applied sciences | iences  |                     |                        |

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University/University of applied sciences FH entrance regulations



\*(1/2 year)

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U = University