

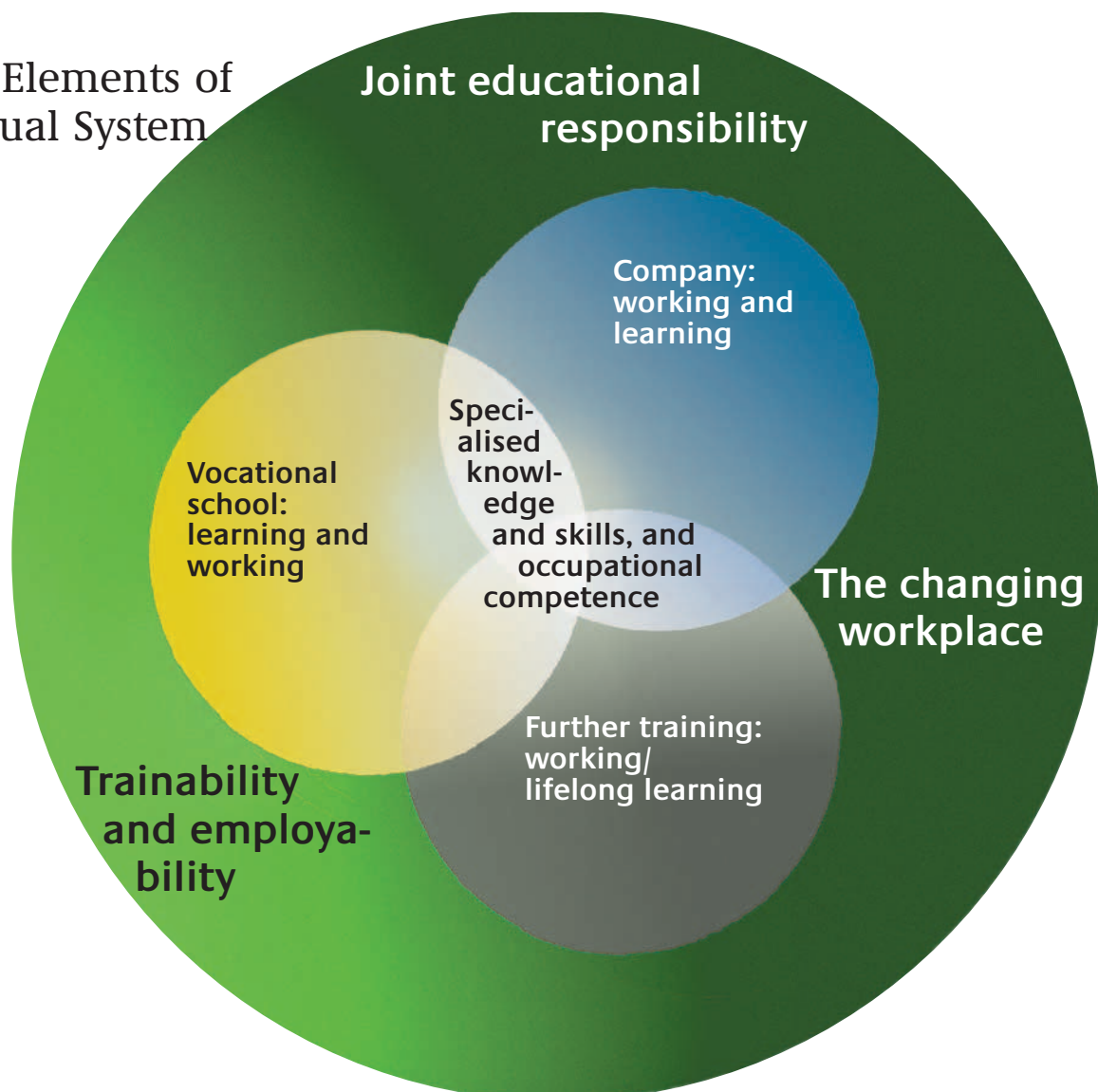


Slide presentation

Germany's Vocational Education at a glance

Basic Elements of
the Dual System

BMBF PUBLIK



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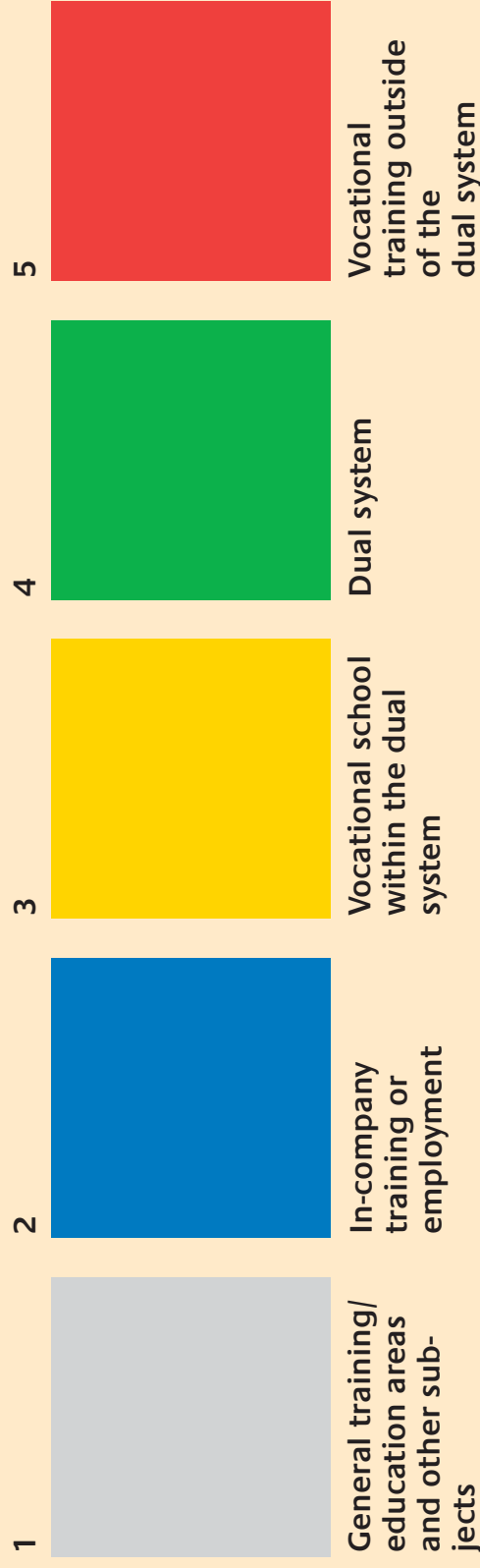
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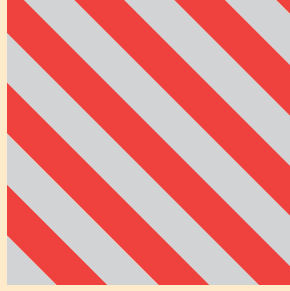
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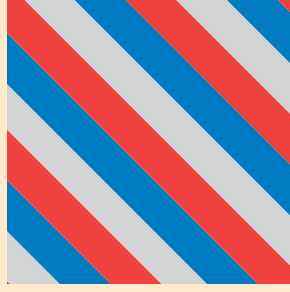
The colour-coding system used in the figures



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Combinations of colours indicate combinations of components, in keeping with the same coding system

Example: Figure 1

A general word about the figures

This collection of figures is aimed at vocational-training experts and managers in other countries who would like to learn about the German vocational training system (for example, through lectures and presentations, etc.). It answers the questions that foreign experts frequently ask about Germany's vocational training system.

The CD-ROM version of the collection, which is available in both German and English, consists of a pdf file that can be read (with the Acrobat Reader) under both Windows and Macintosh operating systems.

The full-colour figures

- can be printed from the CD-ROM on to transparencies for overhead projectors
- or can be projected directly from the CD-ROM with a beamer (data/video projector).

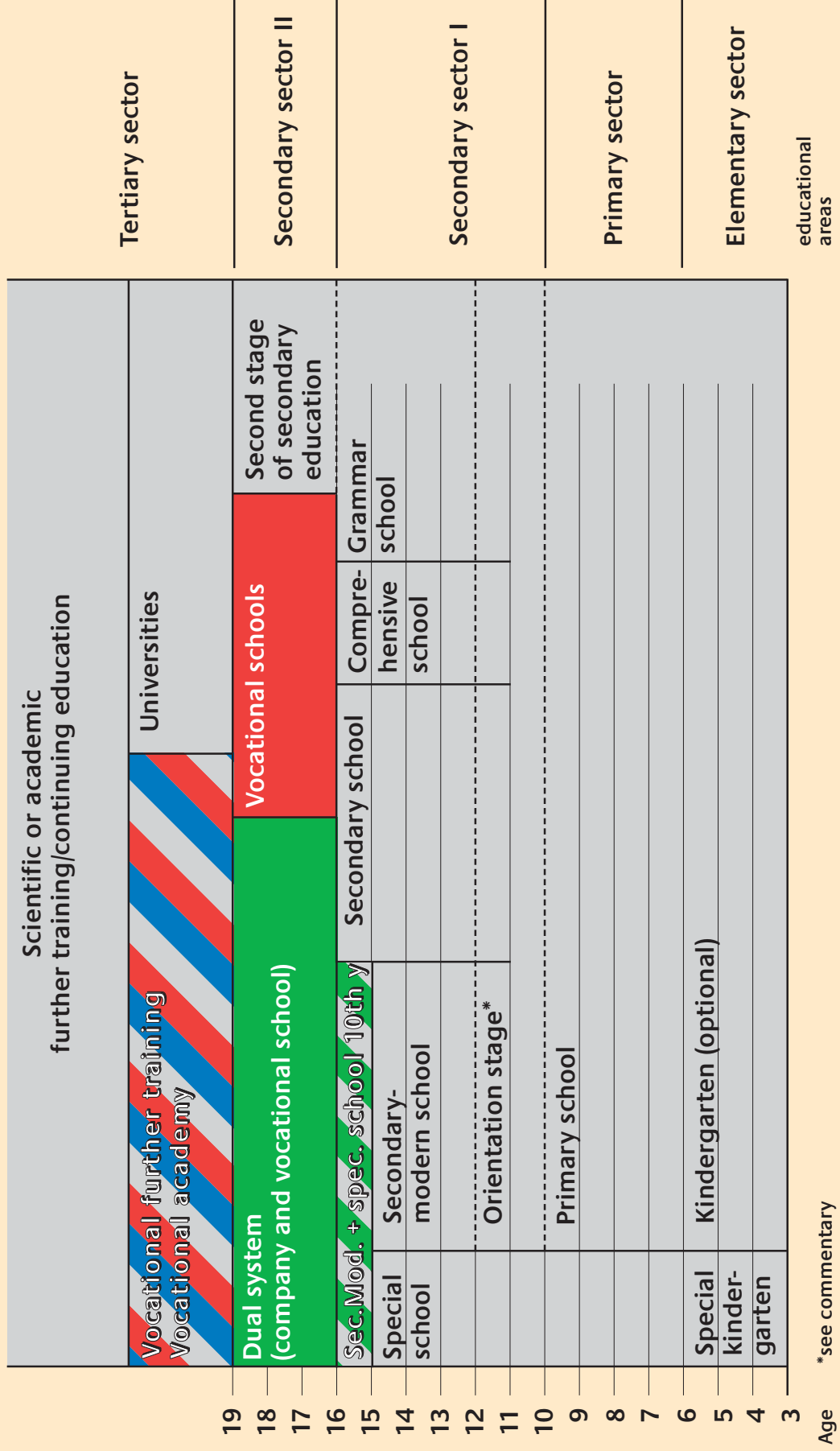
Please note that the technical quality of overhead projector transparencies can vary considerably, depending on what resolution is used in printing.

The dual system, a central and largely standardised part of the German vocational training system, is a central focus of this collection. Vocational training in full-time schools and further vocational training are discussed only peripherally.

The most important aspects of each topic have been described as clearly and simply as possible. Due to space limitations, the figures can provide only summaries and overviews. To compensate for this limitation, supporting commentary has been provided for each figure.

Wherever possible, the statistical data is in keeping with that provided in the Report on Vocational Education and Training for the Year 2002. Other references included the «Basic and Structural Data» 2000/2001 of the Federal Ministry of Education and Research (BMBF) and «The Education System in the Federal Republic of Germany 2000», published by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK). More recent statistical data is available in the annual Reports on Vocational Education and Training. On the other hand, readers do not necessarily require the most recent data in order to understand Germany's vocational training system.

The figures, including those showing the vocational training system, are colour-coded in keeping with the scheme explained in the figure on the left (which does not include the figures' margin areas, which are all the same colour).



* see commentary

The figure provides a **highly simplified overview** of the basic structure of the education/training sector in the Federal Republic of Germany, divided by training areas/types of schools.

The correlations between age groups and education areas refer, in each case, to the earliest possible entry age for the relevant area. The width of the various blocks is not necessarily proportional to the relevant numbers of pupils.

A great many different types of pathways can be pursued within this basic structure. Children enter **compulsory full-time schooling** at the age of six. This schooling period lasts nine years (in five Länder, it lasts ten years). After completing it, young people who do not attend any full-time-school are required to attend part-time (vocational) school for three years. Very simply: in Germany, 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 the four-year primary-school period, which all pupils complete, educational pathways diverge within Germany's «divided school system», which consists of secondary-modern schools (Hauptschule), secondary schools (Realschule), grammar schools (Gymnasium) and, in nearly all Länder, comprehensive schools (Gesamtschule). The different pathways often reconverge within the dual system, which accepts graduates of special schools, secondary-modern schools, secondary schools, comprehensive schools, vocational schools and grammar schools.

The **dual system** is far and away the largest educational area within secondary sector II: two-thirds of each age group learn a recognised occupation requiring formal training. The great majority of graduates of dual-system training then work as skilled employees – and many later make use of opportunities for vocational further training. Under certain circumstances, graduates of such training can also acquire a university entrance certificate, in a year of full-time schooling, and then go on to university studies. And successful participants in vocational further training are also increasingly being admitted to university studies.

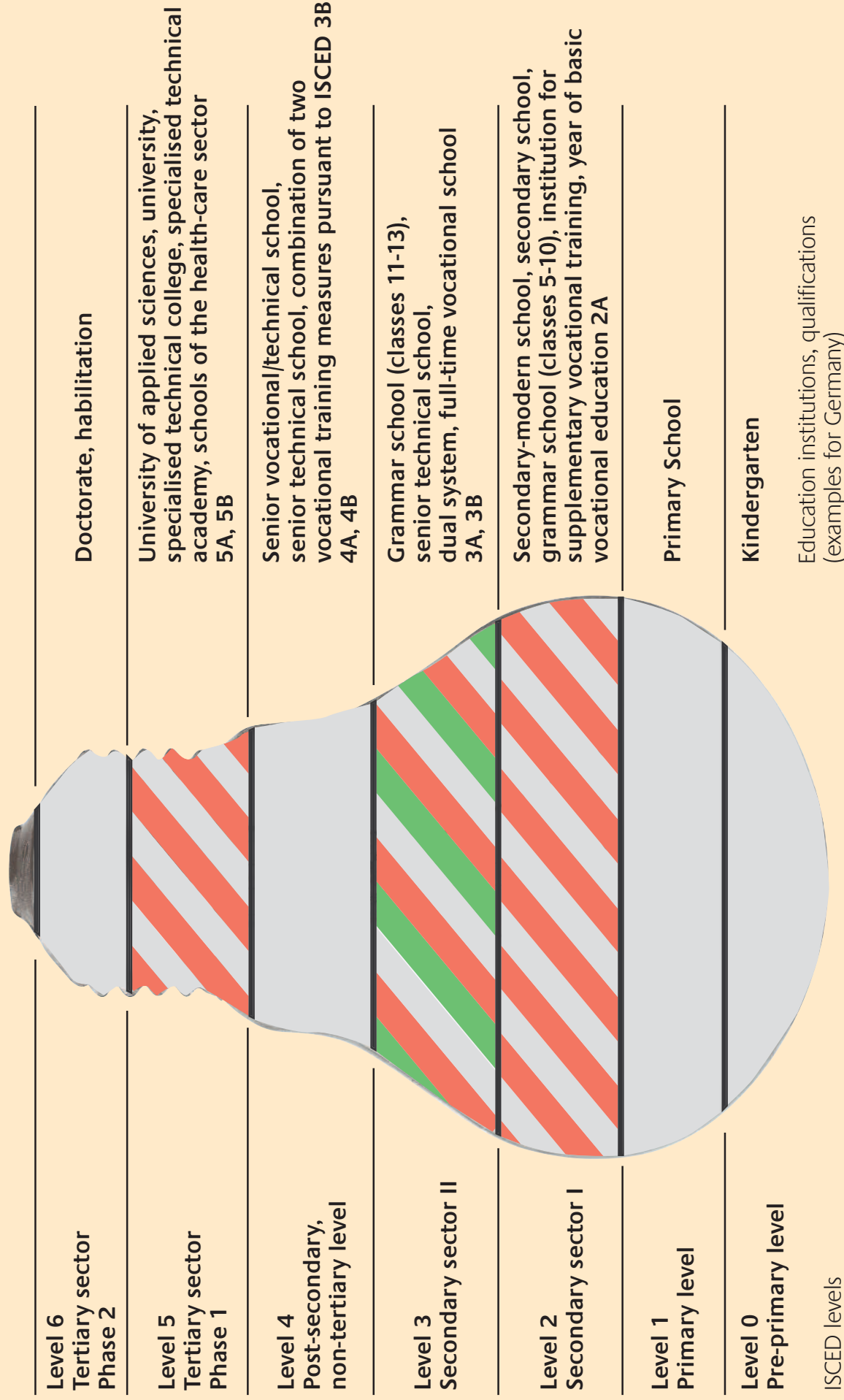
Among all vocational (full-time) schools, the **full-time vocational schools** known as «Berufsfachschulen» have the largest numbers of pupils. These schools prepare pupils for occupations or for vocational training – usually within the dual system. Under certain circumstances, attendance at a full-time vocational school can be credited as the first year of training within the dual system. Some programmes of full-time vocational schools lead to a (restricted) university entrance certificate. Such programmes last from one to three years, depending on the occupational field and the relevant aims and emphases. One out of about every six pupils at full-time vocational schools learns a recognised occupation requiring formal training, within the dual system. Federal ordinances have been enacted that now permit final school examinations for such cases to be harmonised with the relevant examinations in the dual system.

Schools within the health-care sector – for example, schools that train hospital personnel – also have large enrolments.

Senior technical schools (Fachoberschulen) and **senior vocational schools** (Berufsoberschulen) normally build on vocational training within the dual system. They teach specialised occupational skills and theory and confer university entrance certifications.

On the whole, there are many possibilities for transition between school-based and dual-system vocational training and for transition from vocational training to higher education. Some 20 % of all first-year students come to higher education after having completed training in the dual system.

*Age-group stages 5 and 6 always represent a phase of special support, observation and orientation, regardless of how these stages are organised. In some countries, an orientation or support stage has been established as a separate type of school.



The **education levels pursuant to ISCED** (International Standard Classification of Education) serve as UNESCO's standards for international comparisons of country-specific education systems. They are also used by the OECD.

The left side of the figure shows the education levels pursuant to ISCED. The right side provides examples to show how they are applied to the German education system.

The figure provides a basis for a first comparative orientation. It also shows that the ISCED scheme can yield only a very rough approximation of the German education system. This holds especially for vocational further training (outside of schools), which plays a significant role in Germany, but it also applies to any correlations between Germany's health-care-sector schools or senior technical schools and the ISCED levels.

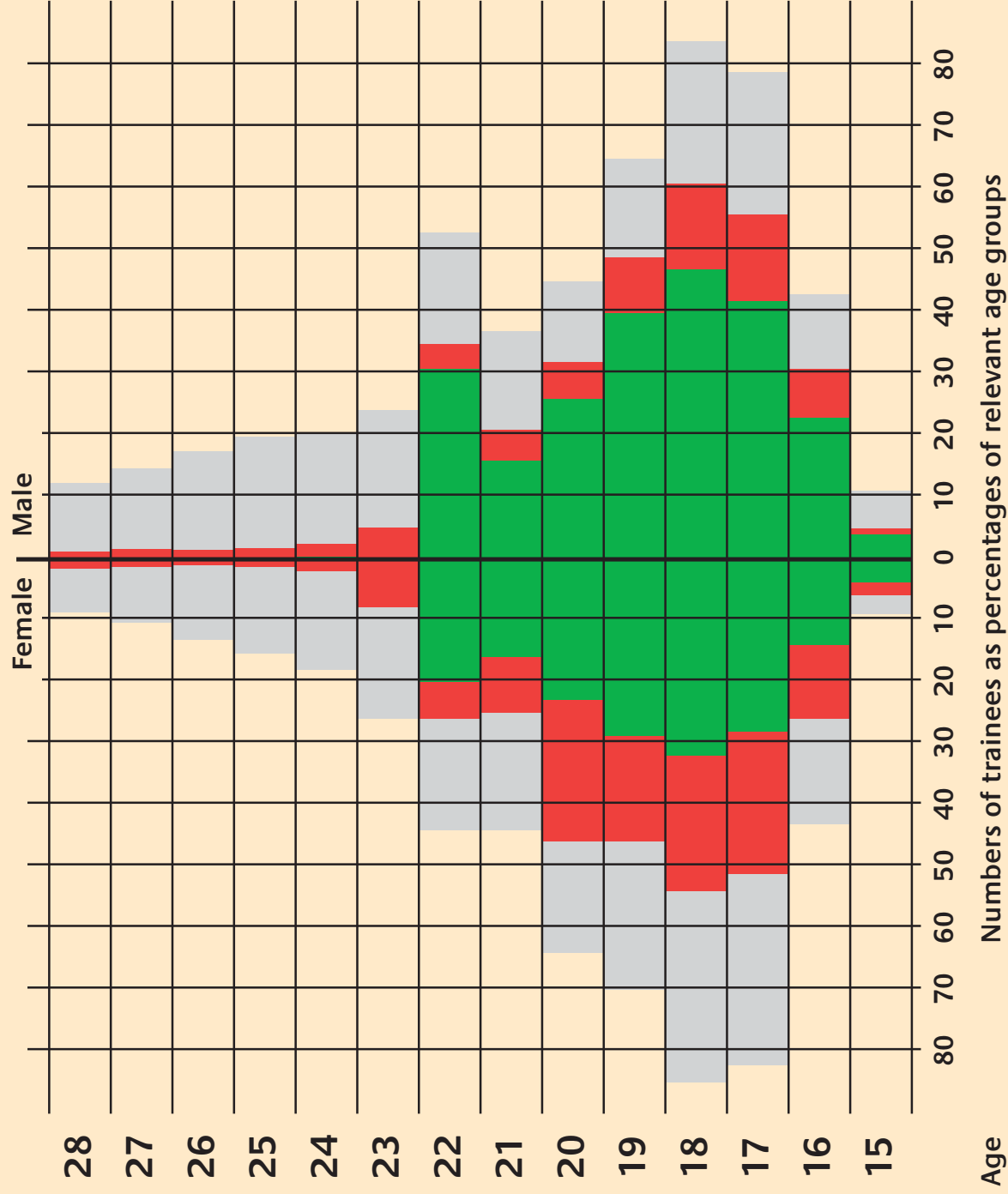
Such difficulties in correlation must also be taken into account in international statistical comparisons.

The German education system is based on «qualifications»: each educational institution that a person attends normally determines what subsequent education programmes he or she may pursue on the next higher level. This would seem to facilitate correlation. And yet the system also provides many opportunities for correcting such decisions made by educational institutions – for example, by means of intermediate or combined educational programmes. And the dual system has absolutely no legal admission prerequisites.

The ISCED system cannot fully reflect this great diversity of opportunities – including acquisition of university-level qualifications, via vocational further training outside of schools.

Demography with respect to education

Secondary sector II and tertiary sector



The figure shows numbers of trainees, as percentages of relevant age groups and classified by basic educational areas, who undertake **training in the secondary sector II and the tertiary sector**. The figure applies a simplified differentiation between the dual system, vocational full-time schools and «others», the latter of which includes especially the secondary stage of secondary education (grammar schools) and higher education institutions. The specialised technical colleges (vocational further training) have been grouped with the vocational full-time schools.

Only very few 15-year-olds are shown to be already in secondary sector II; the great majority are still in secondary sector I, which is not shown in the figure. Over 80 % of all 17-year-old and 18-year-old young men and women attend secondary sector II schools.

Among people between the ages of 19 and 21, more young women than young men, percentage-wise, are involved in education; many young men in this age group perform military or substitute civil service. In older age groups, the education-participation rate of men is higher than that of women.

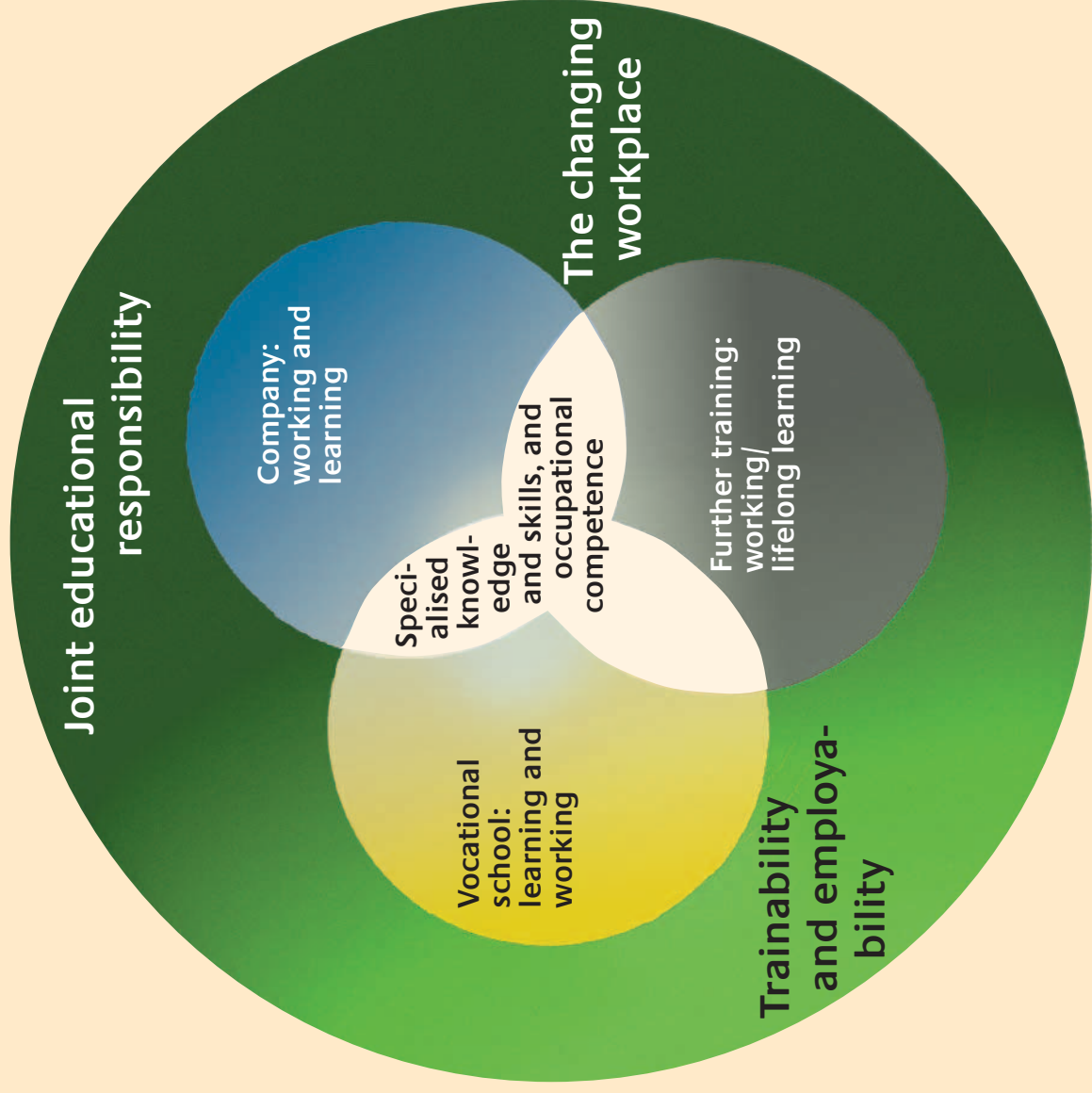
The figure highlights the significance of vocational training in secondary sector II and the dual system's importance within vocational training in Germany.

The figure also shows that more young women than men attend vocational full-time schools and that more young men than young women are trained in the dual system: the dual system's emphasis is still on the industrial and technical sector, while vocational full-time schools emphasise the services sector.

Over 70 % of all trainees in the dual system are 18 years of age and older. This is due to the great diversity of the educational pathways leading into the system: young people who complete the secondary stage of grammar school or who first attend a vocational full-time school will naturally begin their vocational training later than people who begin their training after completing secondary-modern school or secondary school. The largest percentage of trainees, with respect to the total size of the relevant age group, is found among 18-year-olds: the early beginners in this group are still undergoing their training, while many later beginners have just begun their training.

The growing percentages of full-time vocational-school pupils seen among some older age groups primarily represent people in specialised technical colleges (vocational further training).

Education statistics do not record participation, by age groups, in non-school vocational further training. As a result, such participation cannot be shown in the figure.



The dual system **does not have any formal admission prerequisites**: by law, all school-leavers, regardless of what school-leaving certificates they have, can learn any recognised occupation requiring formal training. In actual fact, however, opportunities for admission, and the actual numbers of people who enter certain occupations, depend on pre-qualification.

In the dual system, **a combination of learning and working** provides the basis for teaching vocational skills. The system seeks to teach theory and practice, and to impart **structured knowledge and active competence**, in their proper context. The different learning sites involved, the company and the vocational school, interact in keeping with their different emphases, but their tasks are not rigidly divided: school is not reserved solely for teaching theory, and in-company training involves more than simply practice.

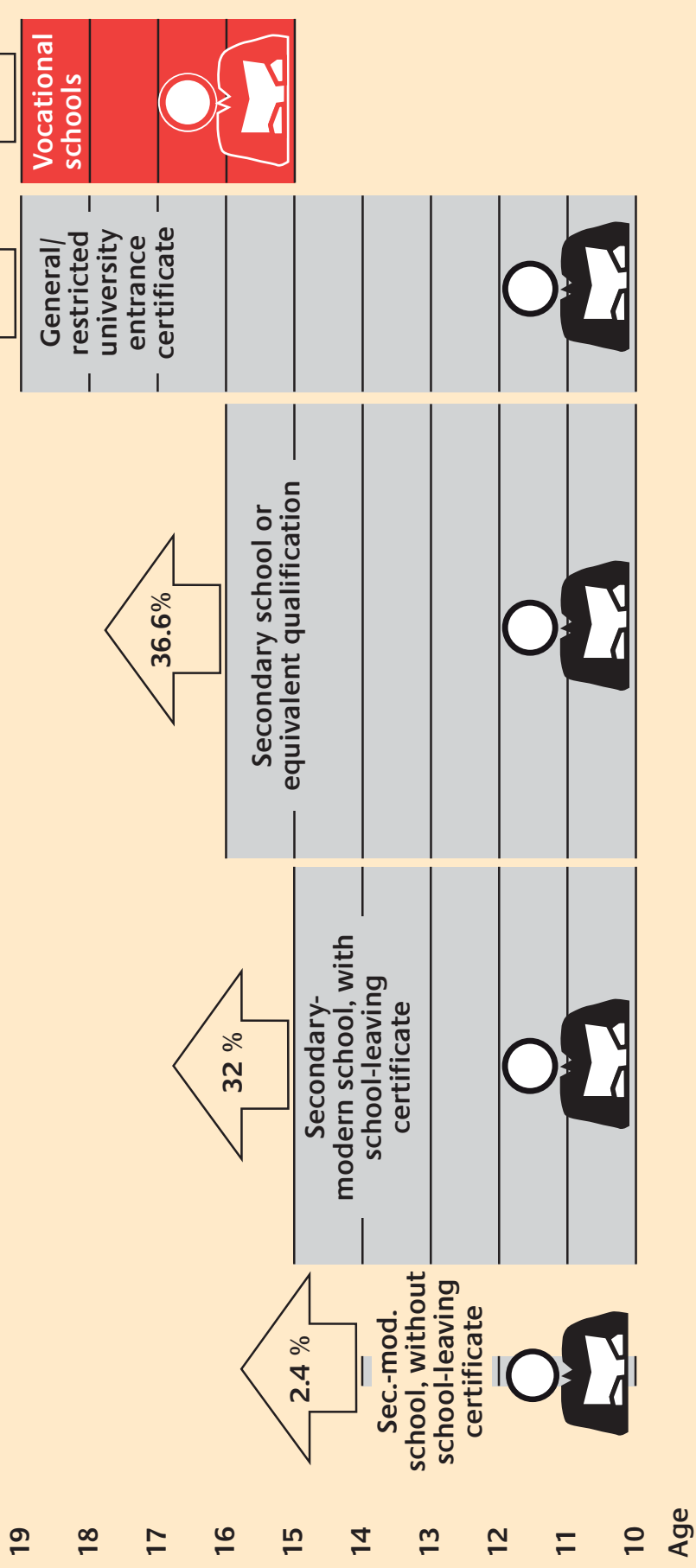
Under the dual system, **vocational schools and companies** have a **joint educational responsibility**. Trainees spend one or two days in vocational school and three or four days in their company. Vocational schools also establish specialised classes oriented to the various relevant occupations – and they do so on a supra-regional basis for less-popular occupations. The state co-ordinates its **framework regulations** for training in companies and training in vocational schools. In final examinations, trainees must show that they have acquired «the necessary skills, the necessary practical and theoretical knowledge» (from their companies) and that they have mastered «the course material, as taught in vocational schools, that is central to the vocational training in question».

Vocational training in the dual system is based on the **occupational concept**: occupations requiring formal training should be oriented to the **groups of qualifications that are typical for the relevant work processes**. Specialisation is permitted, as a complement to the basic qualifications required for each occupation in question, but it must be taught within an occupation context. Vocational training should prepare people for specific occupations, to be pursued immediately after the completion of training, but it should also prepare people for further learning. Vocational training must build **«bridges to further training»**. For this reason, two of its important components include promoting **willingness to learn** and fostering **personality development**. To work in the knowledge society, people must be able to **plan, carry out and check their work** independently. Vocational training within the dual system should be oriented to this aim. **Additional qualifications**, in addition to regular training, can support this aim and lead to further training.

The system's central aim is to promote **employability** in a changing workplace – a workplace that is shaped both by technical development and by the people who work in it.

For this reason, state-accredited occupations requiring formal training, and federal regulations on examinations for further training, are designed **in co-operation with the social partners** (employers' and employees' representatives). This applies to overarching structural issues as well as to individual legal provisions. This approach thus fully reflects the workplace's requirements and the need to foster learning and personal development.

Dual system



The figure provides an overview of the schooling that young people bring to vocational training in the dual system. About two-thirds of all trainees have a school-leaving certificate from a secondary-modern school or a secondary school, or an equivalent qualification.

The figure shows the origins of **new entrants into the dual system in 2000**, i.e. the schools from which young people came to the dual system.

The heading «secondary-modern school without school-leaving certificate» also includes graduates of special schools.

The group of new entrants from vocational schools includes graduates of the «year of basic vocational training in school» (Berufsgrundbildungsjahr - BGJ), of the «year of vocational preparation» (Berufsvorbereitungsjahr - BVJ) and of full-time vocational schools with one-year programmes.

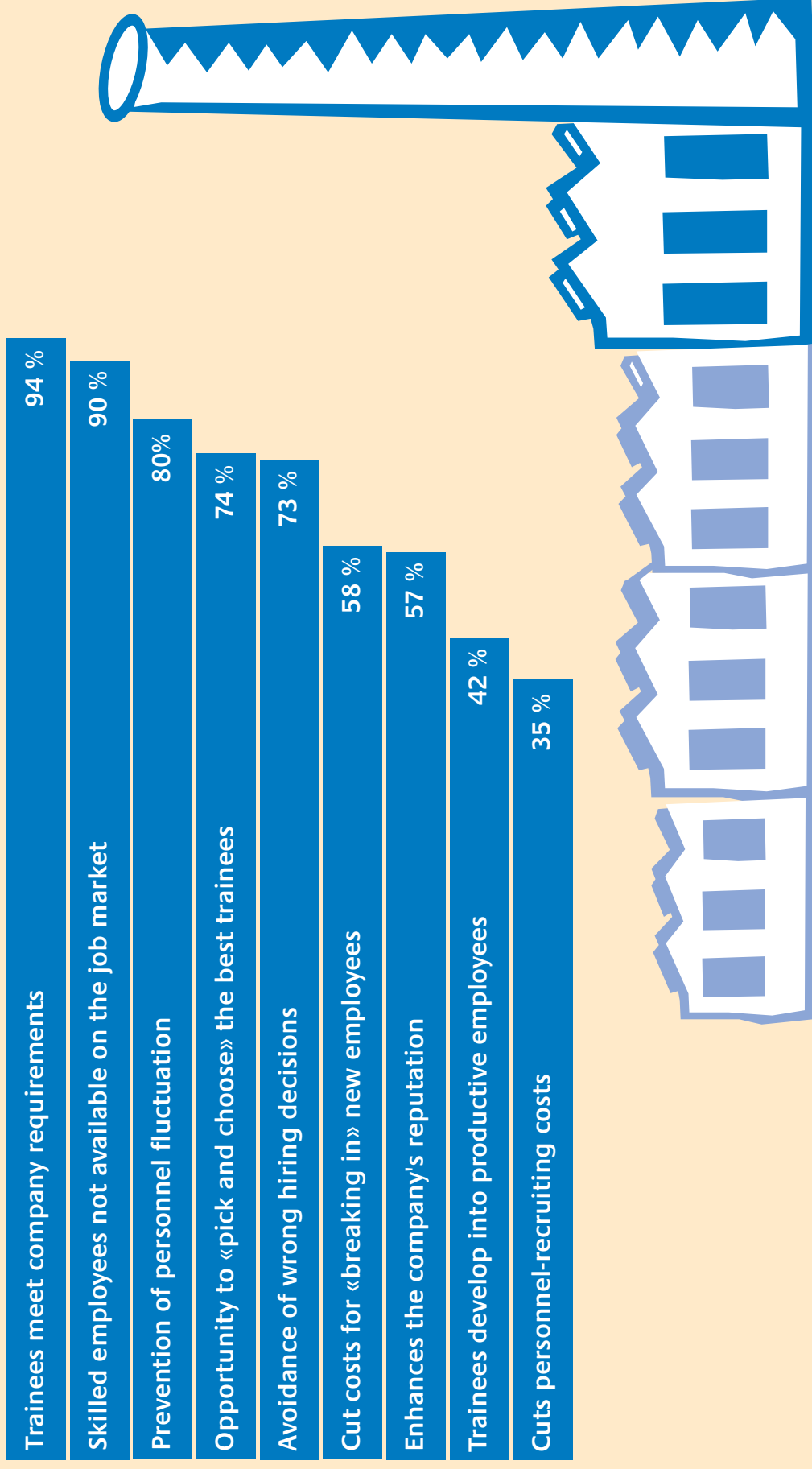
Training curricula in the dual system are tailored to young people with at least a school-leaving certificate from a secondary-modern school. To compensate for possible differences in trainees' education levels, resulting from differences in their preparatory schooling, the Vocational Training Act and Handicrafts Regulation Act (Handwerksordnung) provide for shortening or lengthening of training periods. This helps keep trainees from being overchallenged or underchallenged.

Schooling prior to training influences occupational choices. Some 50 % of all trainees in the crafts sector have a school-leaving certificate from a secondary-modern school, while large percentages of trainees with secondary-school certificates or equivalents choose civil-service occupations or liberal professions. Trainees with restricted or general university entrance certificates tend to choose training in commercial occupations and civil-service positions.

There are many reasons why the dual system is attractive to young people in Germany: vocational training, depending on its type, duration and extent, can confer social prestige, provide an early opportunity to live on one's own, open up life opportunities and enhance one's social security.

Reasons why companies offer training

6



There are a number of good reasons why companies are willing to offer training. The figure shows the relative importance, to companies, of the various benefits of providing training – it presents the most frequently mentioned **reasons for offering training**. This data is based on a study («Why training pays») published in 2000 by the Federal Institute for Vocational Training (BIBB), the Institute of German Industry (Institut der Deutschen Wirtschaft - IW) and the Institute for Employment Research (IAB).

The most frequently mentioned reason for providing training: training can develop employees directly in line with company requirements. This assessment, mentioned by 94 % of all companies offering training, goes hand-in-hand with the view that practically oriented, directly applicable qualifications can be obtained only in «real-life» situations in companies. In particular, in-company training can develop the social skills and personal characteristics that are needed for successful work within a company.

Significantly, 90 % of companies offering training maintain that they cannot find skilled employees, with the desired skills and work habits, on the job market. These companies report difficulties in meeting their personnel requirements via recruiting from the general labour pool.

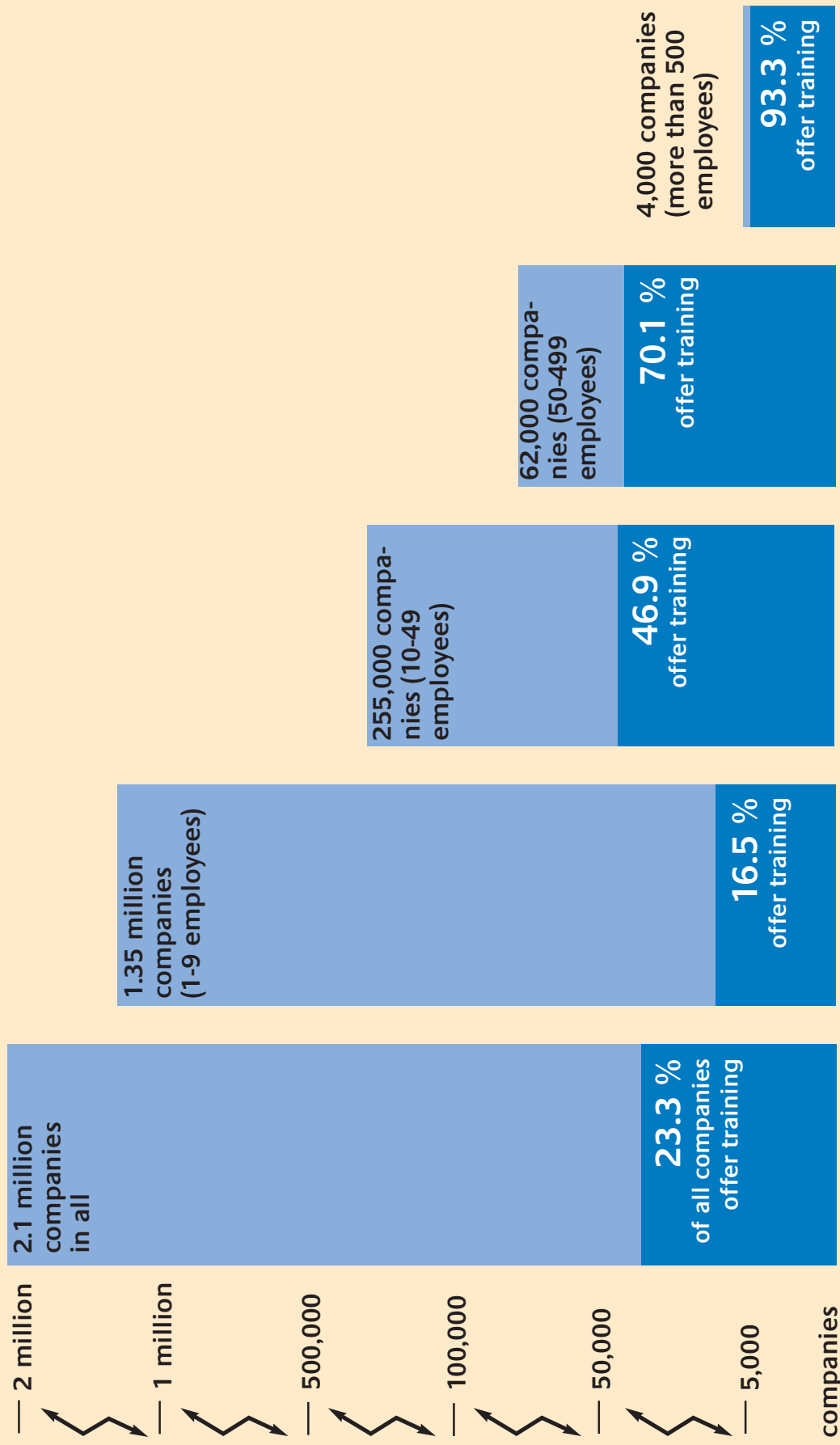
The third most important reason, mentioned by 80% of all companies, is that companies can prevent personnel fluctuation by offering training, since trainees develop ties to «their» company during their training period.

The fourth and fifth most important reasons, each mentioned by about three-fourths of all companies, are that a) by offering training companies can review trainees carefully and pick and choose the best ones for permanent positions, and b) companies that offer training are less likely to make wrong hiring decisions, which can easily occur in consideration of people from outside the company.

These reasons go hand-in-hand with the sixth most important reason – that by offering company-specific training, companies can eliminate the costs they would normally have in «breaking in» new employees from outside the company.

The seventh most important reason, that companies can enhance their reputations by offering training, has a direct impact on revenue. The «this company offers training» («Dieser Betrieb bildet aus») symbol functions as a sort of seal of quality, and it fosters consumer confidence in companies' products.

Participation in training, by company size

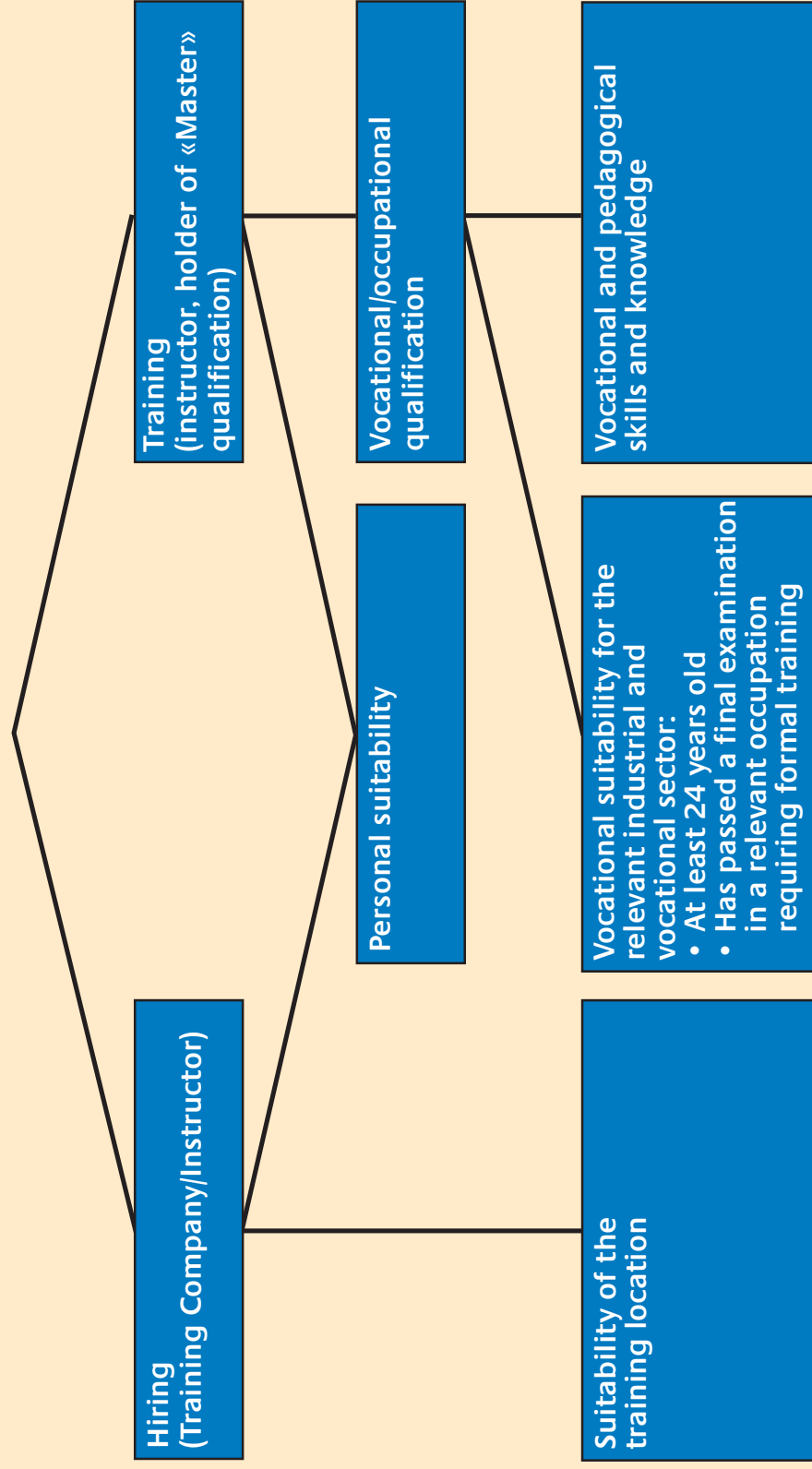
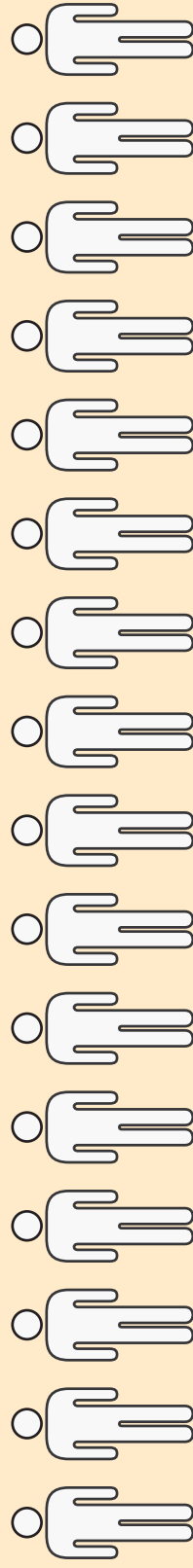


In 1999, Germany had a total of 2.1 million companies, somewhat more than half of which fulfilled the legal prerequisites for offering in-company training. As the figure shows, a total of 23.3 %, or **about one-fourth, of Germany's companies, offered training***. In addition, companies' involvement in training can be closely correlated to company size. The larger a company is, the more likely it is to offer training. This is revealed by a breakdown of training rates by company size. For example, 93.3 % of all large companies (more than 500 employees) offer vocational training. A total of 70.1 %, or about two-thirds, of companies with between 50 and 499 employees offer training.

A major opportunity to increase involvement in training is seen among companies with 10 to 49 employees. In 1999, some 46.9 %, or nearly half, of such companies offered vocational training. Among typical small companies (1 to 9 employees), only 16.5 % were involved in training. Even if this level, which represents nearly one-fifth of all relevant companies, seems low, it is significant that the largest absolute numbers of companies offering training are found in this group. In 1999, a total of 222,300 of companies in this group offered training.

A considerable number of small companies are unsuited for training – because their business is highly specialised or for other reasons – and thus cannot offer training.

* Source: Employment statistics (Beschäftigungsstatistik) of the Federal Employment Services as of 30 June 1999; newer data will next be published in 2003.



Nearly 500,000 companies in Germany offer training. Pursuant to the **Vocational Training Act**, companies must meet **certain suitability criteria**, with respect to company type and company facilities, in order to be certified for offering training.

A company that offers training must be suited for hiring trainees, i.e. concluding training agreements with them. Companies are not suited if they have repeatedly or seriously violated the Vocational Training Act or regulations and provisions issued on the basis of this act. Companies are also unsuited if they are not permitted to employ children and young people in any capacity.

In addition to having the proper personal qualifications, training instructors must have the necessary vocational and pedagogical qualifications. Instructors are normally considered occupationally (vocationally) qualified if they are at least 24 years old and have passed the final examination in a relevant occupation requiring formal training.

Alternatively, other examinations can be recognised if candidates can show suitable practical experience. Vocational and pedagogical qualifications include the ability to plan, carry out and monitor training independently, with an orientation to creative, construction action.

Each year, some 50,000 people pass instructor-aptitude examinations. Significant numbers of people also pass Master's examinations (2000: about 30,000), which also include the necessary testing for vocational and pedagogical qualifications.

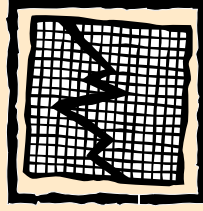
50.6 %
Industry and
commerce



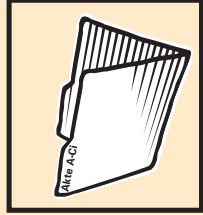
35 %
Skilled trades



8.6 %
Liberal
professions



2.7 %
Civil service



2.3 %
Agriculture



0.8 %
Other



The figure shows how trainees were distributed among the various training areas in 2000. The largest numbers of young people are trained in the area of industry and commerce. This area, like that of crafts, includes trainees trained in relevant occupations in other economic areas – for example, in the liberal professions or in civil service. Over 50 % of all trainees in the civil service sector learn such relevant occupations. The figure does not show numbers of trainees in specific economic areas; it shows the **general occupational structure** in training overall.

Over one-third of all trainees train in crafts companies. Significantly, this figure includes training in both skilled trades and in other occupations such as commercial clerks.

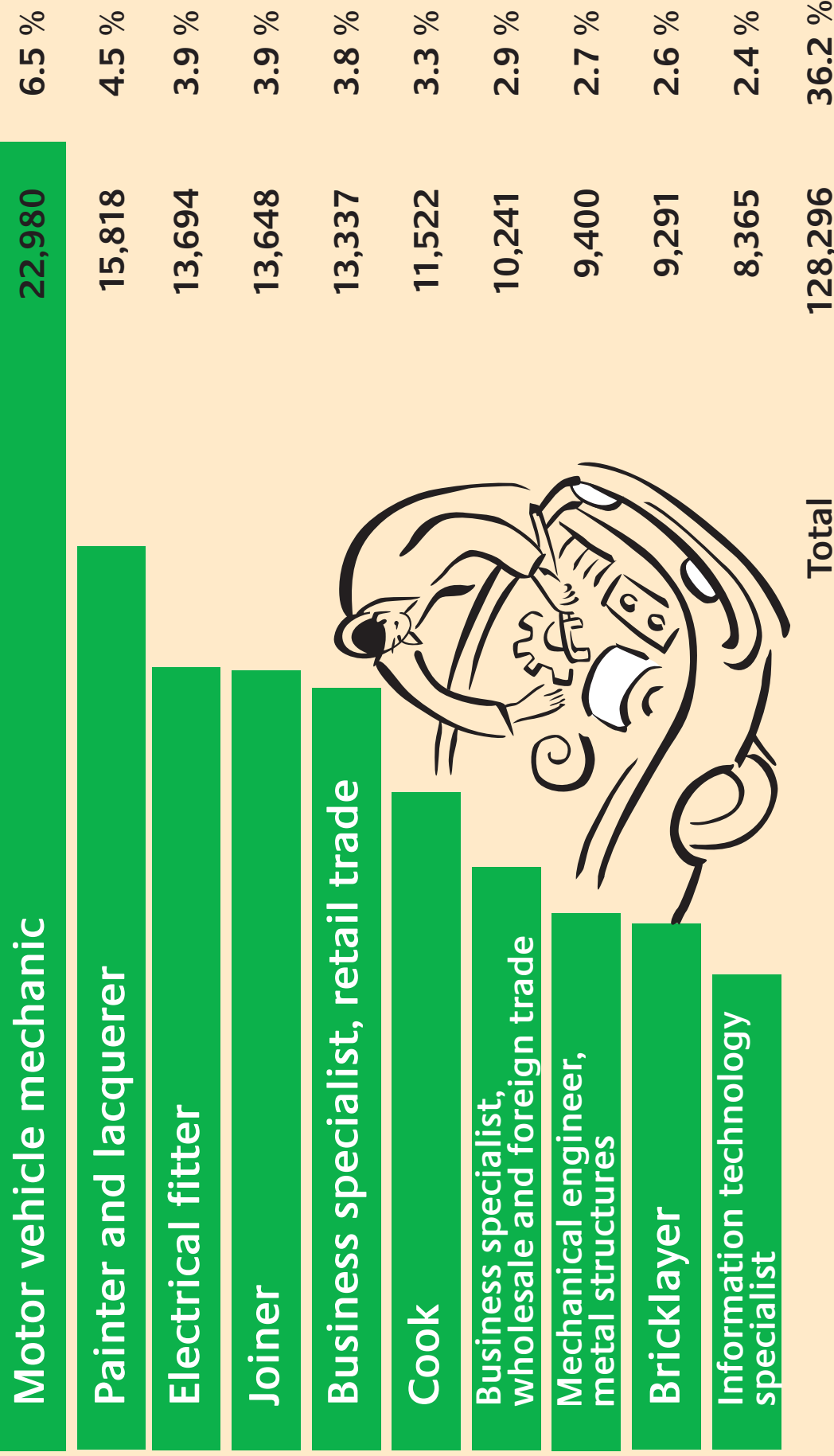
The average **duration of training**, pursuant to training regulations, is 37.7 months. The planned duration of training, depending on occupation, ranges from 2 to 3 1/2 years.

The average actual duration of training is about 35.5 months, because the regular training periods tend to be shortened, for a number of different reasons.

The ten most popular occupations requiring formal training

10

– young men New contracts overall: relevant percentages with respect to all new trainees



The ten most popular occupations requiring formal training – young men

10

Young male trainees are not distributed evenly among the 345 recognised occupations requiring formal training. A large share of all trainees is trained in just a few occupations. Note: the figures apply to trainees who began their training in 2000.*

About **one-third of all young men** learn one of the **ten occupations** listed, most of which are in industrial-technical areas and skilled trades. The occupation «information technology specialist» (Fachinformatiker), which was recently formally established, is now one of the most popular occupations for young men.

The distribution among the various occupations does not necessarily reflect the original career interests of the trainees involved; it is also the result of efforts to balance the available number of training places with the demand for training places.

Young peoples' career interests and actual career opportunities also vary by type of school-leaving certificate. The most popular occupations for graduates of secondary-modern schools (Hauptschule) are motor vehicle mechanic, business specialist in retail trade and hairdresser. The most popular occupations for graduates of secondary schools (Realschule) are business specialist in retail trade, commercial clerk and physician's assistant.

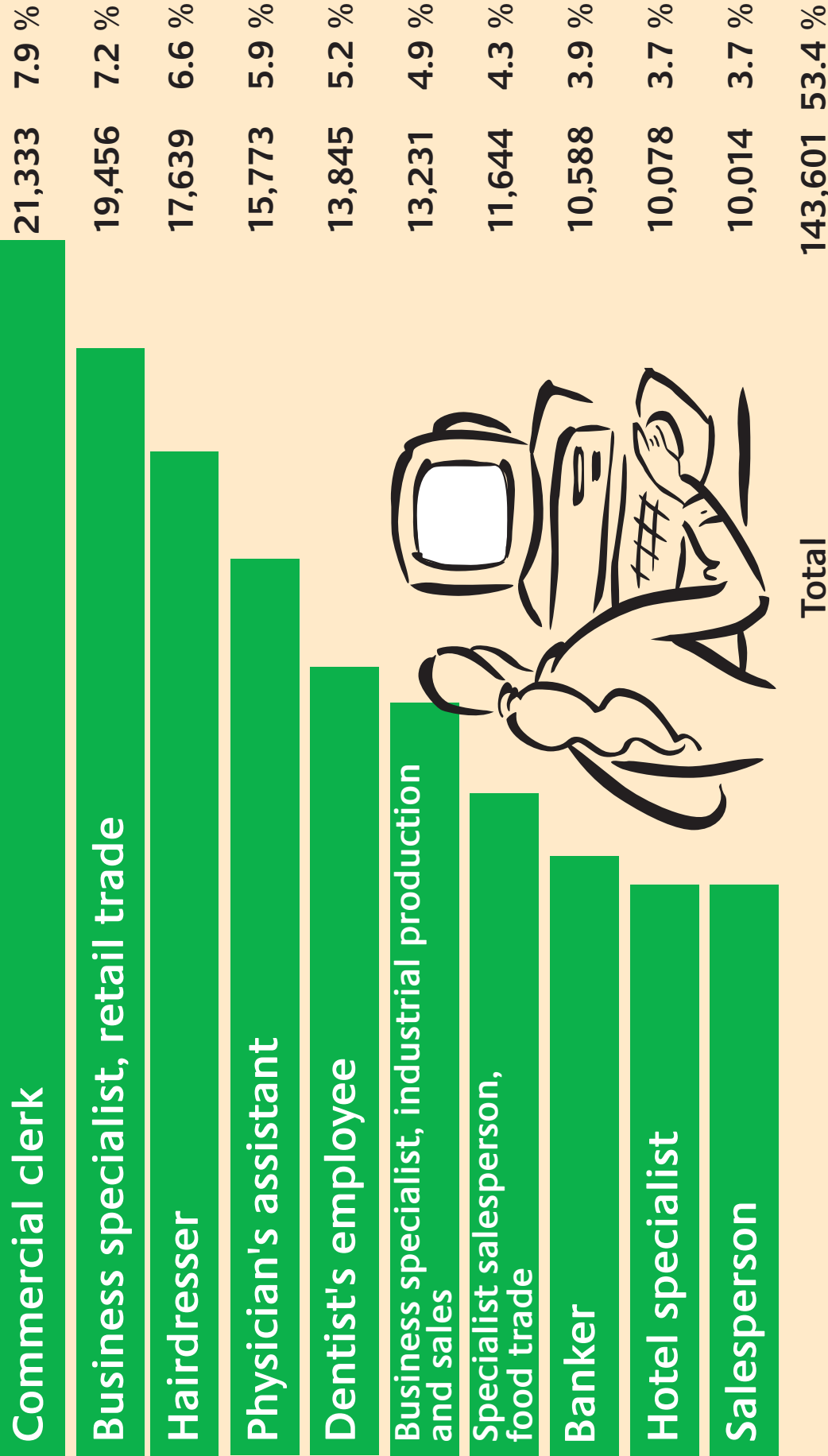
The most popular occupations (in order of popularity) for school-leavers with a university entrance certificate are banker; business specialist, industrial production and sales; and business specialist, wholesale and foreign trade.

* Source: (Survey of the Federal Statistical Office as of 31 December)



The ten most popular occupations requiring formal training 11

– young women New contracts overall: relevant percentages with respect to all new trainees



The ten most popular occupations requiring formal training – young women

11

The figures apply to female new trainees in 2000.

Some 41 % of all trainees are young women. This percentage has slowly been growing. Their distribution among the various occupations is different than that for young men, and the percentage of all female trainees in the ten most popular occupations is considerably higher than the corresponding percentage for young men. The services sector predominates. Occupations in the retail sector make up the largest group, followed by occupations in physician's and dentists' offices.

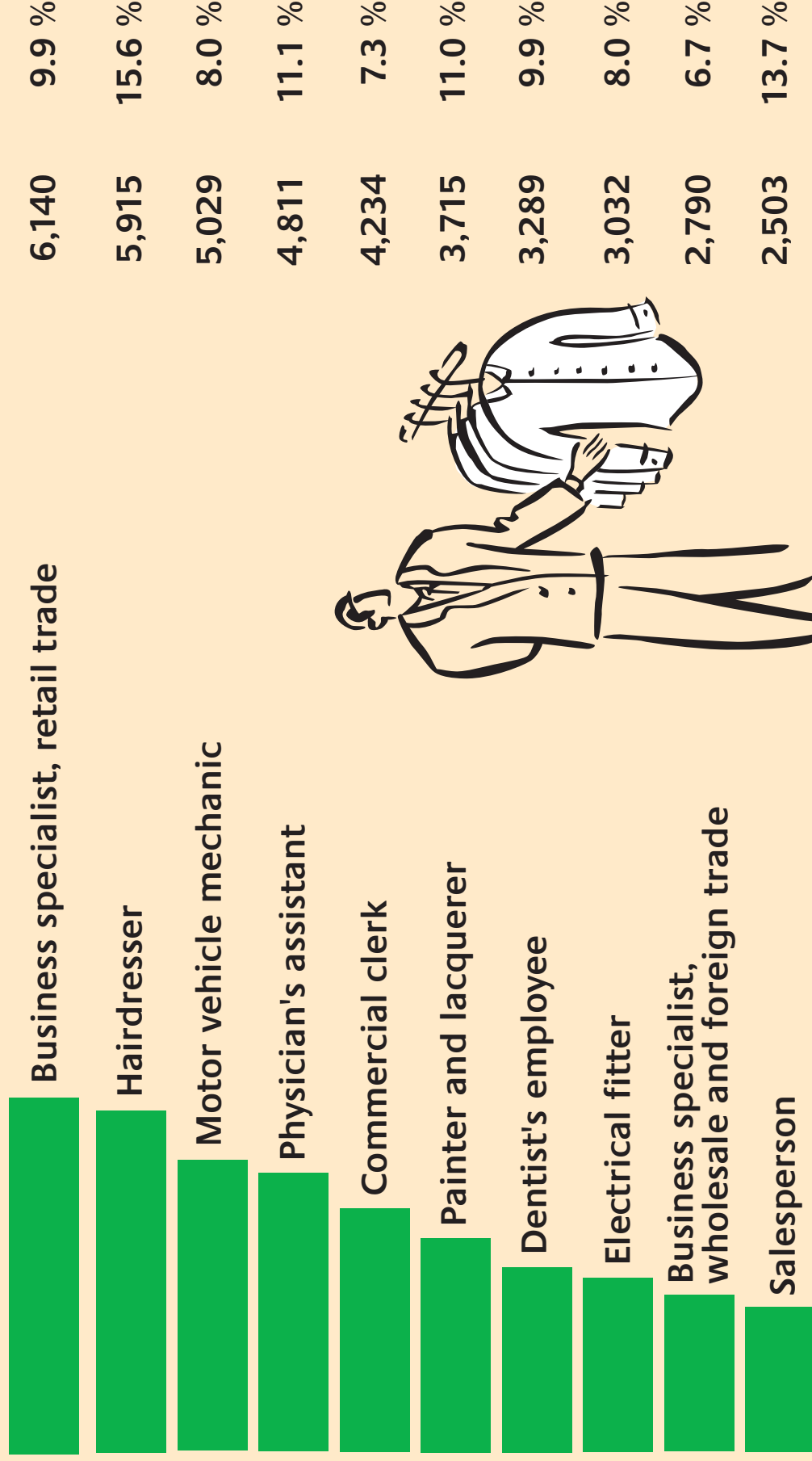
In some of the occupations that young women learn, female trainees greatly outnumber male trainees. This is the case, for example, in training for the liberal professions. On the other hand, only very small numbers of women learn certain occupations – for example, occupations in the industrial-technical sector. Such overall distributions can change markedly over time: 20 years ago, only 20 % of all typesetters were female; today, the corresponding figure is far higher than 50 % (this occupation has changed profoundly as a result of technical development, and it is now referred to as «media designer, digital and print media»).

Many initiatives have been undertaken with the aim of achieving a better balance between young men and women in occupations requiring formal training. Success in overcoming conventional ideas of occupations' suitability for young people, and in changing companies' standard trainee-recruiting patterns, has been very modest to date, however.

The ten most popular occupations requiring formal training – foreign trainees

12

New contracts overall: relevant percentages with respect to all new trainees in the various occupations¹



¹The figures were calculated for the old Länder, including Berlin, since there are very few foreign trainees in the new Länder.

The ten most popular occupations requiring formal training – foreign trainees

12

Some 7 % of all trainees are foreigners. A total of 41 % of all foreign trainees are women (the same women's percentage seen among German trainees). For years, the overall percentage of trainees who are foreign nationals has been declining. In part, this is due to changes in naturalisation policies: young people of foreign background are of course counted as Germans if they have acquired German citizenship.

The figure shows **numbers of foreign trainees, expressed as percentages of all trainees in various occupations**. The order in which the occupations are presented is based on numbers of new trainees in 2000 who were foreign nationals.

A breakdown of the total number of foreign trainees reveals that young people with Turkish citizenship make up the largest national group, accounting for 41 % of all foreign trainees. In addition to Turkey, the group of non-EU countries with large numbers of trainees in Germany includes Yugoslavia (8 %), Croatia (4 %) and Poland (2 %). Some 22 % of all foreign trainees are EU citizens; of these, nearly half are Italians.

Nearly 40 % of all young foreigners in each age group undergo training in the dual system. This percentage is considerably lower than the corresponding percentage for young Germans. In addition, participation in the dual system varies widely by nationality. The percentage of young Spaniards (both women and men) who participate in the system is similar to the corresponding percentage for Germans. Young Turkish men, at 57 % in this category, participate at a considerably higher rate than the average for young foreigners, while young Turkish women, at 37 %, have a considerably lower rate of participation than the average.

Nearly 10% of all pupils in full-time vocational schools are foreigners. While this figure is higher than the percentage of dual-system trainees who are foreigners, it does not suffice to compensate for young foreigners' low overall rate of participation in vocational qualification.

Programmes have been established to help increase young foreigners' rate of participation in training. The support provided to disadvantaged people under the code of social law (SGB III) plays a significant role in this context. The Federal Ministry of Education and Research (BMBF) has established the programme «Promoting competence – vocational qualification for target groups with special support requirements», which is aimed at developing and testing concepts for vocational qualification of such groups and at enhancing the relevant support structures. One of these target groups consists of young foreigners.

Distribution of foreign new trainees among the various occupations requiring formal training does not differ greatly from that for German trainees. Nonetheless, some occupations have comparatively large shares of foreign trainees.



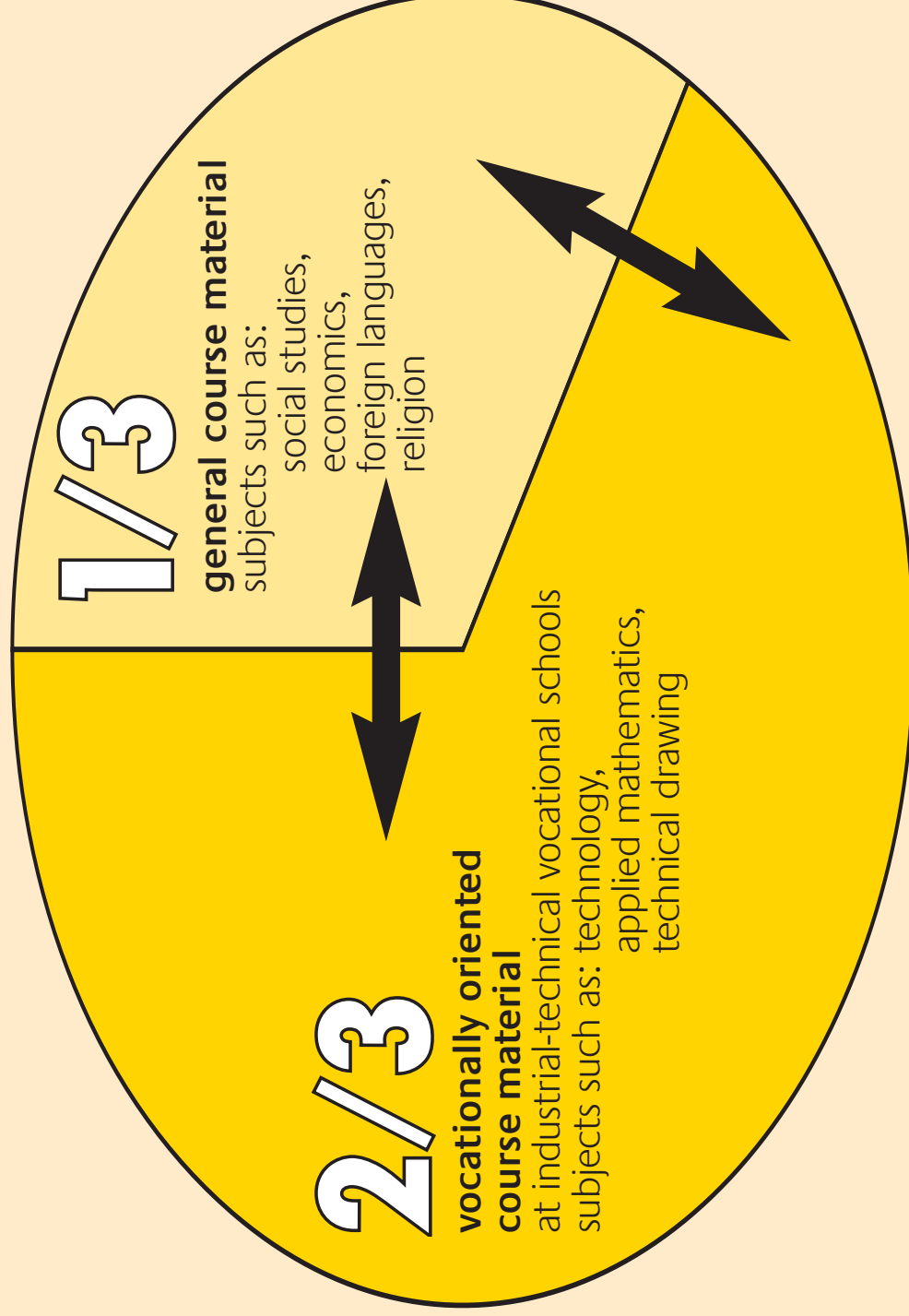
Trainees' salaries are based on agreements between the parties to **collective bargaining agreements**. All companies that offer training must pay a «suitable» training wage; the wages specified under collective bargaining agreements provide orientation for such suitability. The competent bodies review agreed training wages for suitability. In addition, training wages must grow with increasing duration of vocational training – and must be increased at least once per year.

The average training wage paid in Germany in 2001, under collective bargaining agreements, was 581 €; in the old Länder, the relevant figure was 598€, and in the new Länder it was 508 €.

Collectively bargained **training wages vary widely by occupations**. High wages have been agreed in trades central to the construction industry (such as bricklayer, carpenter, and skilled workers in road construction): in the old Länder, 789 € per month; in the new Länder, 643 € per month. Relatively high training wages have also been agreed for trainees in the printing industry (787 €) and for those training to be business specialists in the insurance sector (783 €) – and these levels apply to both the old and the new Länder. Training wages are also high for scaffolders, at 766 € in the old Länder and 641 € in the new Länder.

Relatively low training wages are paid for hairdressers (old Länder 406 € , new Länder 257 €), florists (old Länder 413 €, new Länder 312 €) and bakers (old Länder 455 €, new Länder 350 €).

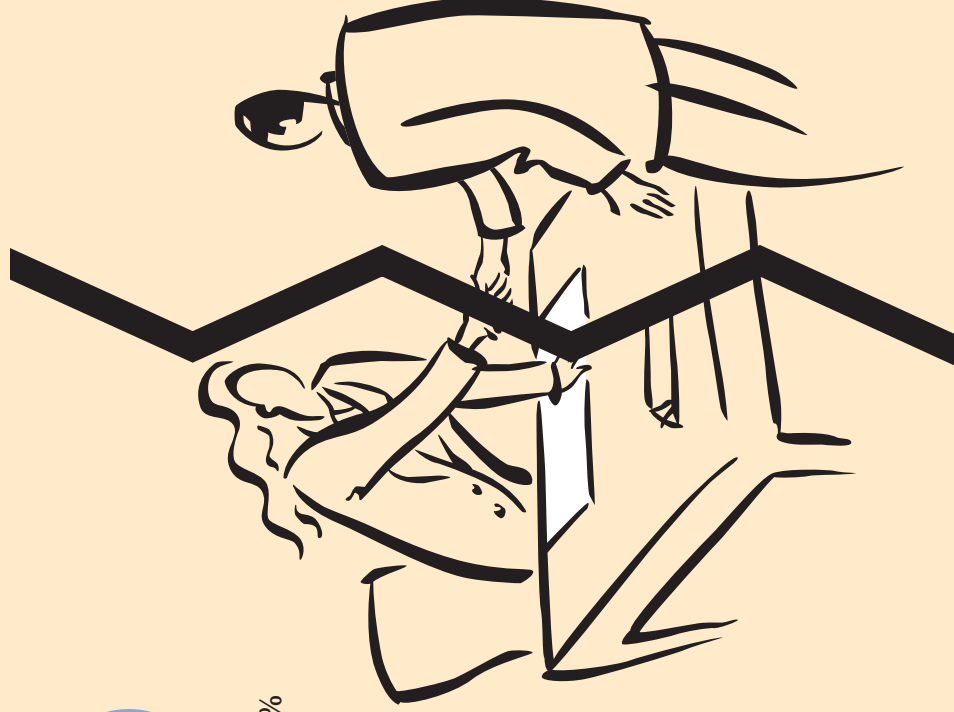
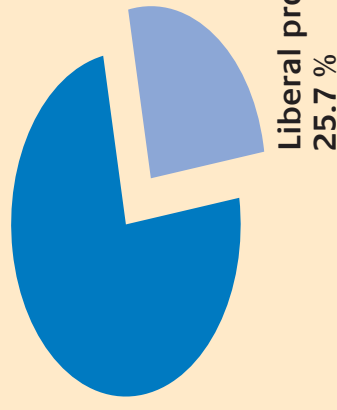
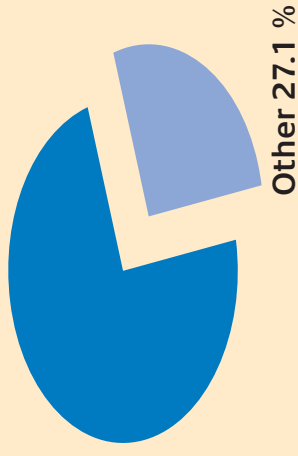
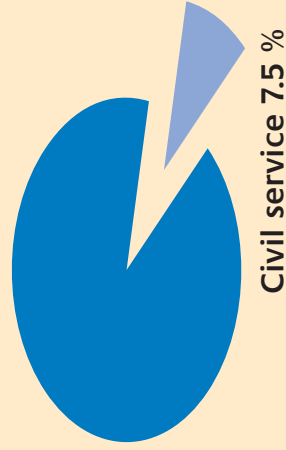
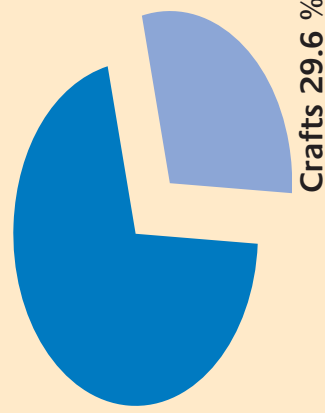
Trainees who receive especially low training wages can apply for vocational training support from the Federal Employment Services (Bundesanstalt für Arbeit). Via such assistance, trainees are guaranteed a certain minimum wage during their training.



In the dual system, **vocational schools and companies that offer training** fulfil a **joint training responsibility**. Vocational schools are autonomous training facilities that cooperate, on an equal footing, with other parties involved in vocational training. Vocational schools teach their pupils both vocational and general course material, giving special attention to the requirements for vocational training. And vocational schools also have the task of providing education that broadens vocational training or supports pupils' employability. Under provisions of relevant Länder laws, such schools may also offer vocational further training.

Under a **framework agreement on vocational schools** (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK) of 14/15 March 1991), about two-thirds of instruction should be vocationally oriented, and one-third should provide general education or be applicable to a broad range of occupations. At least 12 hours of instruction are provided per week. The general part of the instruction is taught in accordance with the curriculum and schedules of the relevant Land. The vocational part of the instruction is based on the framework curricula of the KMK, which are harmonised with the relevant training regulations via a procedure agreed on by the Federal Government and the Länder (joint results protocol of 30 May 1972). More recent framework curricula are divided by «learning areas». Learning areas are instruction units that are derived from the main tasks within a relevant occupation. With this concept, vocational-school training is oriented to company processes and, thus, complex tasks. General instruction includes such subjects as social studies, economics, German, foreign languages, religion and sports. It is closely combined with vocational subject matter, in a number of different ways.

Training contracts terminated early



Industry and commerce 20.1 %

Nearly **one out of every four training contracts** (total: 23.7 %) is terminated early – before the planned end of the training. The termination rate for young women is somewhat higher than that for young men.

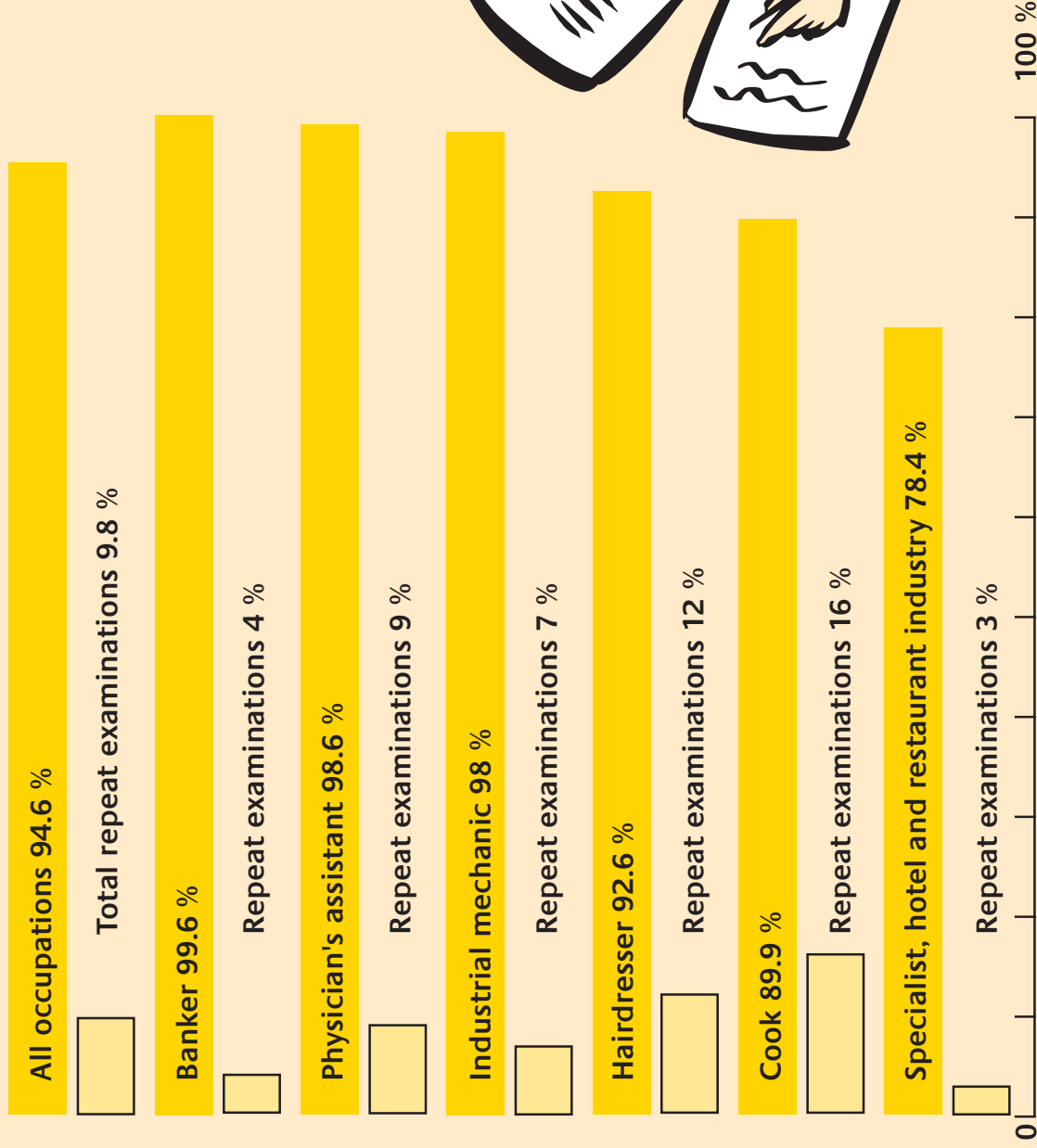
Termination rates are especially high in the crafts sector and especially low in civil service. Differences between training areas in this regard are also due to differences in company size: in smaller companies, tension between training personnel and trainees cannot easily be resolved by moving trainees within the company. In some cases, trainees find the occupation they are training for does not live up to their expectations. In other cases, trainees' performance during the trial period is not up to their companies' standards. In still other cases, trainees suffer health problems – such as allergies, for example.

Nearly one-fourth of all terminations take place during the trial period, i.e. during the first three months of training. Another one-fourth take place during the first year of training.

Some terminations are also due to changes of ownership or legal form in the company offering the training: in such cases, a new training agreement has to be signed, even though the training itself has not changed.

And yet **contract termination cannot be equated with discontinuation of training**. Many trainees terminate their contract because they decide to switch to another company or another occupation. About half of all those whose contracts are terminated continue training in the dual system, under different conditions and terms. Such changes can be compared with changes of universities or major subject areas in higher-education studies.

The percentages of contracts that are terminated decrease as training places become scarce, and they grow as more training places become available: in the latter situation, trainees can more easily correct their choices of company or occupation.



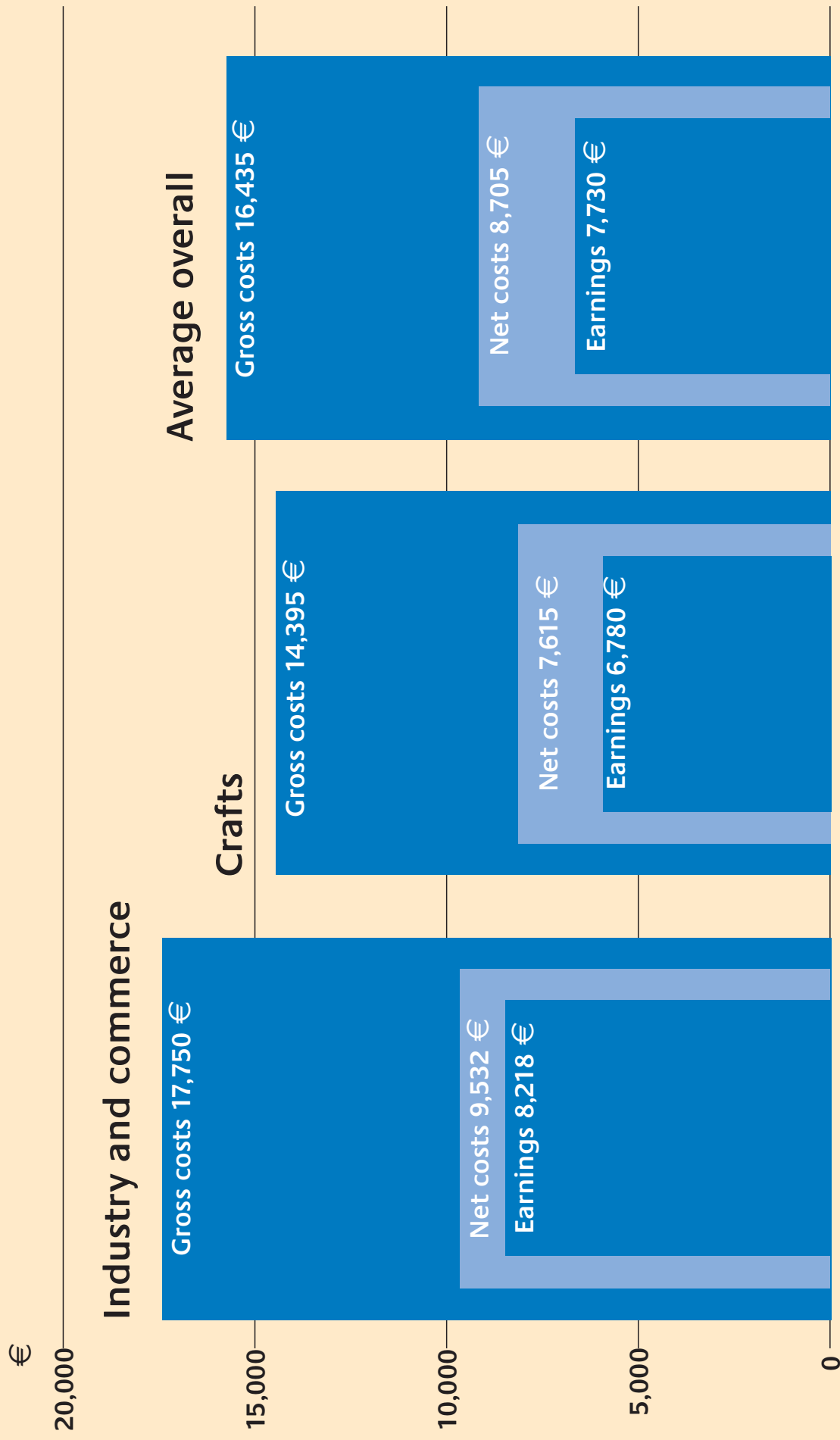
Some 95 % of all those who take **final examinations** pass these examinations, although some succeed only upon a second (or even third) attempt. A trainee who does not pass his or her examination can extend his or her training agreement until the next examination date – and for up to one year. Repeat examinations account for some 10% of all examinations, and the success rate for all examinations (including repeat examinations) is 85 %.

Success rates, and percentage levels of repeat examinations, vary from occupation to occupation. Examinations tend to be repeated more often in industrial occupations than in commercial occupations, and yet the pass rates at the end of training are somewhat lower in the former category than in the latter (93.1 % as opposed to 95.9 %).

In assessing pass rates, it must be remembered that over 10 % of all those who enter dual-system training leave the dual system before they take their final examination.

Examinations are administered by examining boards that consist of experts (for the relevant areas being tested) commissioned by employers' and employees' associations and include at least one vocational-school teacher. Teachers may not make up more than one-third of such boards.

Examinations normally consist of written and oral sections and practical demonstrations of proficiency. Their details are set forth by training regulations.



Determining the **costs of in-company vocational training** is a relatively complicated process, since certain calculated costs have to be taken into account along with expenditures caused directly by training itself (such as training wages and employers' contributions to social insurance, other sums and expenditures for external instruction). Only full-time training personnel can unambiguously be assigned to the cost side. The costs for part-time training staff, and many general costs, simply have to be estimated. The figures provided are results of studies of the Federal Institute for Vocational Training (BIBB).

In 2000 the companies' incurred annual **gross costs** for vocational training totalled some 16,500 €. The return that can be directly offset against these costs – each trainee works for his or her company – was considerably more than 7,700 €. The **net cost** to companies, for training one young person per year, thus averaged some 8,700 €.

That is the cost side. Vocational training is also an **investment**. Companies themselves understand this, as they indicate in their reasons for offering training. Investments must be assessed on the basis of their long-term, rather than short-term, returns.

Furthermore, workers trained in the company also have a better understanding of their company's operations and its production and services. Companies which do not invest in training have to bear additional costs when recruiting external specialists, who need time to settle in. Seen in this light, training certainly pays off for companies.



Expenditures for the dual system, by financial contributors in 2000/2001

21.8 Billion €

Total expenditures

14.7 Billion €

Companies' net costs 67.5 %

3.1 Billion € Part-time vocational schools
0.3 Billion € Training programmes,
support for regional vocational training centres

Federal Government and Länder 15.5 %

3.7 Billion €

Federal Employment Services 17 %



Expenditures for the dual system, by financial contributors in 2000/2001

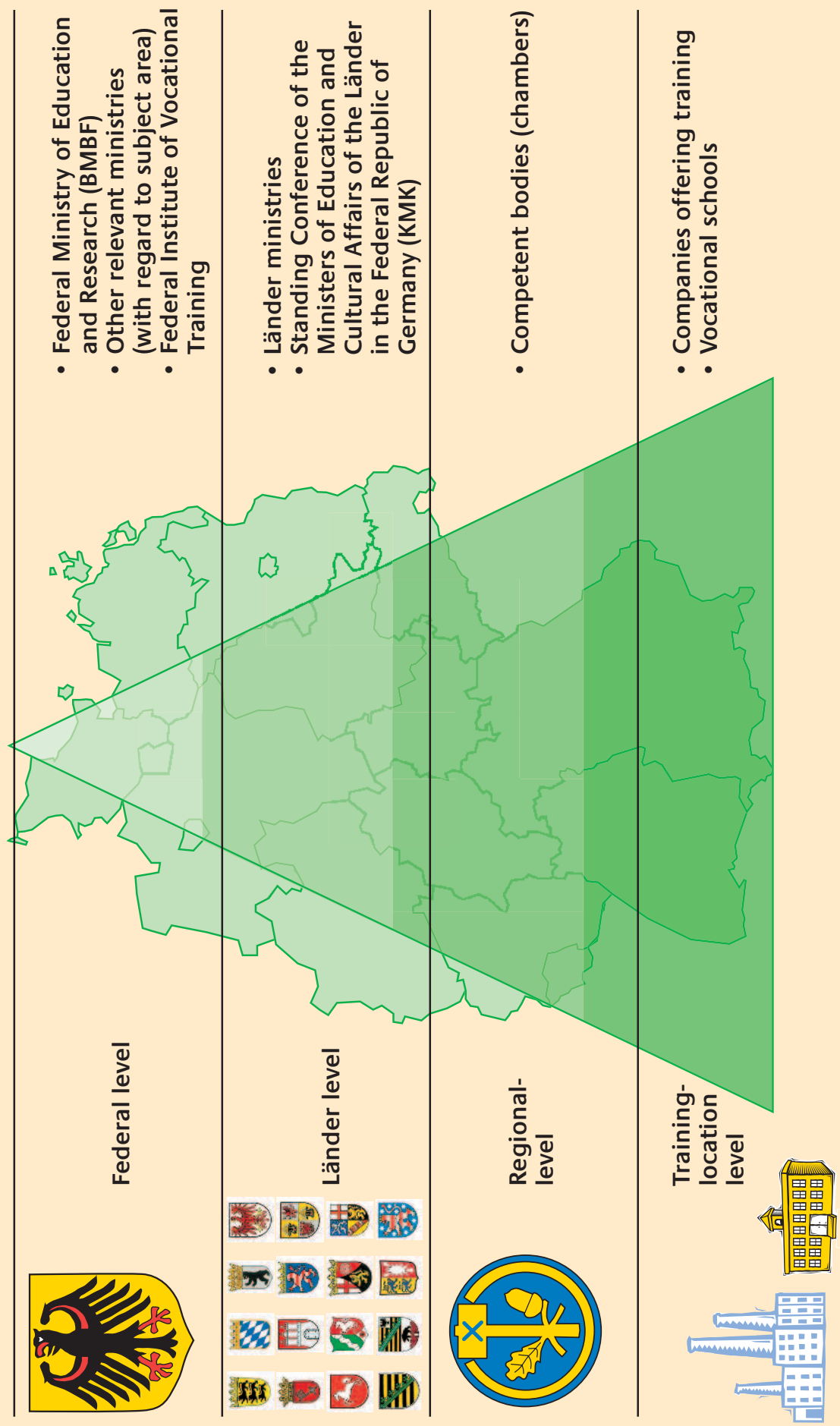
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Each year, the Federal Government, the Länder and municipalities, along with the Federal Employment Services, spend some 92 billion €, or about 4.1 % of the country's gross domestic product, on the education sector. Some 7.2 billion €, or 7.9 %, of this amount goes toward vocational training in the dual system.

As the figure shows, **total expenditures on dual-system vocational training** amounted to about 21,8 billion € in 2000. Business enterprises pay nearly two-thirds of expenditures on vocational training. Vocational schools and the Federal Employment Services each pay about one-sixth.

The Länder pay an additional some 3.3 billion € for vocational training in vocational full-time schools.

The Länder thus expend considerably more on vocational training than the Federal Government and Federal Employment Services. On the other hand, the Federal Government and the Federal Employment Services spend much more than the Länder on supporting vocational further training.



Policymakers, companies and unions in Germany all agree: Good vocational training is an investment in the future.

A vocational training system that is as complex and far-reaching as the German dual system must be able to integrate the expertise and interests of all concerned parties (employers, employees, the state), on all levels, within joint responsibility for planning, carrying out and improving the system. Solutions found through joint effort lead to voluntary commitment and integration within overall policy, and they help to avoid conflicts and friction. With such solutions, all concerned parties take joint responsibility for the results of vocational training, and the results are more easily accepted by the job market. Co-operation in the dual system is legally enshrined on all levels (Federal Government, Länder, region, training location) and it has proven to be a success.

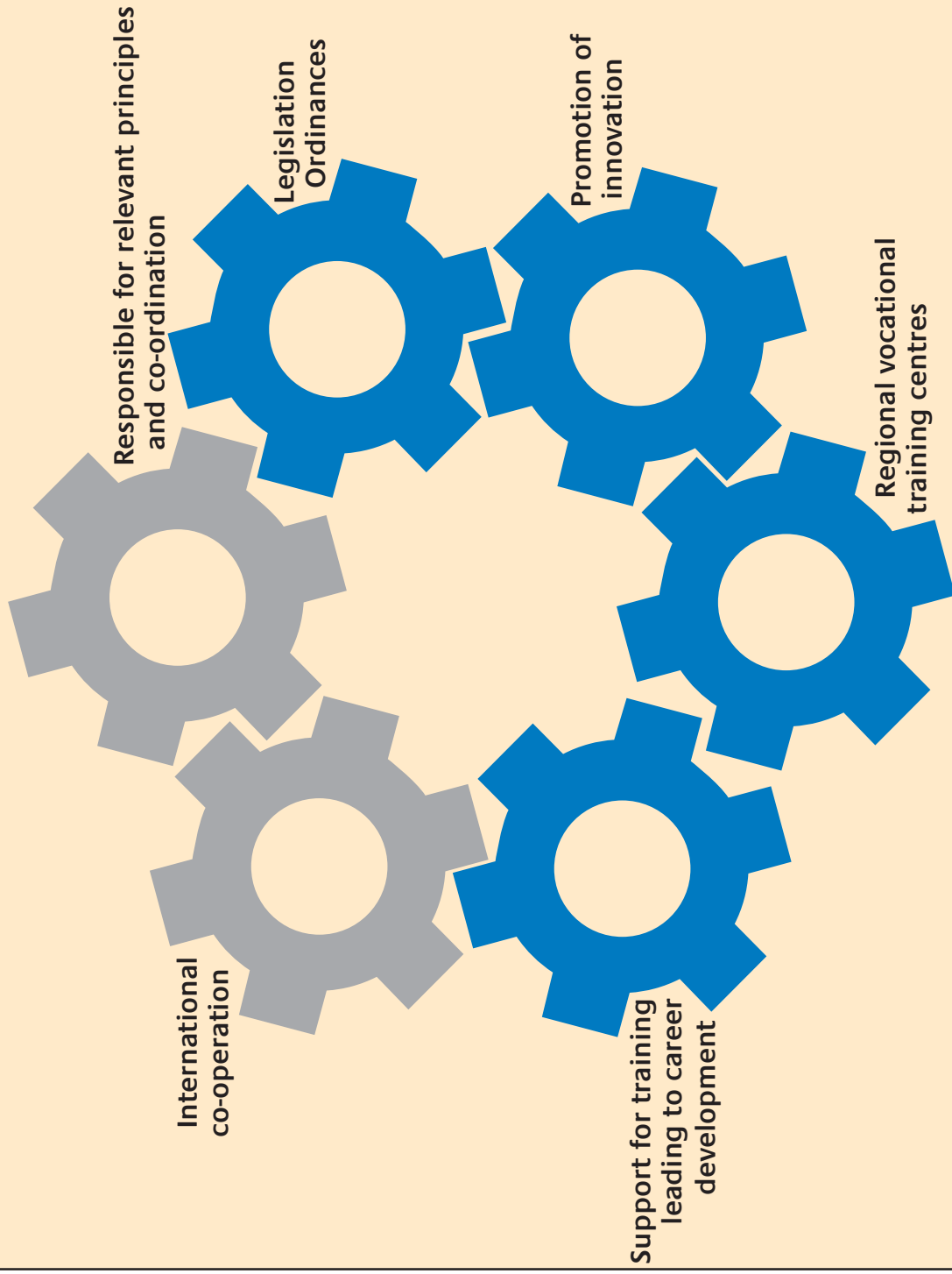
The guiding and co-ordinating ministry on the **federal level** is the Federal Ministry of Education and Research (BMBF). Other relevant federal ministries also issue ordinances and co-ordinate with the BMBF (their provisions are subject to the approval of the BMBF). In the Board of the Federal Institute for Vocational Training (BIBB), representatives of employers, the unions, the Länder and the Federal Government work together on an equal basis.

The Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK) is a national body of Länder ministers and senators responsible for education and training, higher education and research and cultural affairs. It was founded in 1948. Pursuant to the Basic Law, the Länder are largely responsible for education and cultural affairs. In the KMK, the Länder work to achieve the necessary measure of commonality in the areas of education, science and cultural affairs. The KMK is also an instrument for partnership and co-operation between the Länder and the Federal Government – also in the area of vocational training: the Federal Government is responsible for regulating training in companies, while the Länder are responsible for vocational training in schools.

The Länder governments, represented by their own ministries of cultural affairs, are responsible at the **Länder level** for general and vocational schools. The Länder committees for vocational training are made up of representatives of employers, employees and the relevant Länder governments. These Länder committees advise their Länder governments on vocational training issues. They are charged especially with promoting co-operation between school-based and in-company vocational training and with taking account of vocational training in overall development of schools.

On the **regional level**, the autonomous organisations within the economy, especially the chambers of industry and commerce and the crafts chambers, have important competencies. They are responsible for advising and monitoring companies offering training within their districts, as well as for reviewing the suitability of such companies and the aptitude of their training instructors. They are also charged with registering training agreements and with establishing examination boards for intermediate and final examinations in vocational training and further training. Furthermore, they issue individual regulations for their own regions, where they are empowered to do so under the Vocational Training Act and Handicrafts Regulation Act. As a rule, the Länder ministers of economics are responsible for supervising regional competent bodies for in-company vocational training.

Pursuant to the Works Council Constitution Act (Betriebsverfassungsgesetz), employees' elected representatives (works councils) in the [nearly 500,000] companies offering training (the **training-location level**) have rights of participation in planning and carrying out vocational training and in hiring instructors. Also worthy of mention are the instructors' working groups, which meet on a voluntary basis and are open to teachers at the dual system's some 1,700 vocational schools.



BMBF's Bonn location



BMBF's Berlin location

The Federal Ministry of Education and Research (BMBF) is the Federal Government's **guiding and co-ordinating ministry** for vocational training.

It is responsible for **legislation** within the area of vocational training, for **ordinances** on further training and for the Ordinance on aptitude of instructors. Training regulations are issued by the relevant ministries, in agreement with the BMBF.

The BMBF promotes **innovation in vocational training** – for example, via programmes for improving training opportunities for persons requiring special support, for developing new forms of teaching and learning, for broadening use of media in vocational training, for promoting regional co-operation in vocational training and for establishing new methods of vocational competence development during and after training. The ministry is also active in the area of early identification of new qualification requirements.

Regional vocational training centres compensate for smaller companies' lacks of training resources. To ensure that training is available nation-wide, the BMBF promotes investments in training resources. It also subsidises start-up of training facilities and development of such facilities into regional competence centres.

Support for training leading to career development (Aufstiegsfortbildungsförderung) is oriented to the principle that general and vocational training are of equal value: participants in vocational further training receive support comparable to that given to university students.

Within the framework of **support for the gifted in vocational training**, support is provided for further training of young people who have excelled in their (completed) vocational training.

European and international co-operation, especially within the EU framework, is another important area of the ministry's work.

Vocational training law

Vocational Training Act (BBlG)
Act on Regulation of Handicrafts (HwO)
Vocational Training Promotion Act (BerBiFG)

Laws



Ordinance on aptitude of instructors (AEVO)
Training regulations
Ordinances on crediting of learning at full-time vocational schools
Ordinances on crediting of learning during the
«year of basic vocational training»
Ordinances on further training

Ordinances



Agreements on vocational training
(model agreements)

Agreements



The figure shows the most important legal foundations of in-company (non-school) vocational training.

Laws

The Vocational Training Act (BBiG) contains national regulations for vocational training other than that provided by vocational schools, which function in accordance with the Länder laws on schools. The **Act on Regulation of Handicrafts** (Handicrafts Regulation Act) regulates vocational training in the crafts sector, with close orientation to the Vocational Training Act.

Young people may be trained only in recognised occupations requiring formal training (exceptions apply for the handicapped). Training regulations have been established for recognised occupations.

Regulations on further training may be issued by competent bodies or by the Federal Government, «as a basis for standardised vocational further training».

The **Vocational Training Promotion Act** (Berufsbildungsförderungsgesetz - BerBiFG) contains regulations for planning and statistics for vocational training (a vocational training report must be submitted each year) and for the work of the Federal Institute of Vocational Training (BIBB) and its organs.

Ordinances

- Training regulations provide the formal basis for orderly, standardised training in recognised occupations requiring formal training. In each case, they set forth at least the following: the name of the relevant occupation requiring formal training; the duration of training for the occupation; the skills and knowledge that relevant vocational training must impart; guidelines for organisation, by subject area and instruction duration, of teaching of skills and knowledge; and criteria for examinations. Training regulations are co-ordinated with the framework curricula for vocational schools, for which the Länder are responsible.
- Ordinances on crediting of learning at full-time vocational schools establish criteria for shortening of training periods following successful completion of full-time vocational school.
- Ordinances on crediting of learning during the «year of basic vocational training» (Berufsgrundbildungsjahr – BGJ) establish criteria for shortening of training periods following successful completion of a year of basic vocational training.
- The Ordinance on aptitude of instructors (Ausbilder-Eignungsverordnung – AEVO) contains regulations pertaining to proof of the vocational and pedagogical aptitude of instructors. Pursuant to the AEVO, every instructor (with the exception of those for liberal professions), in addition to possessing the specialised aptitude (i.e. with regard to the subject area in question) set forth by the Vocational Training Act, must also show that he or she has acquired relevant vocational and pedagogical skills.
- The BMBF issues ordinances on further training, pursuant to Art. 46 Vocational Training Act, by agreement with the relevant competent ministries. Such ordinances regulate the content and aims of such training, the relevant requirements, the procedures for relevant examinations and the prerequisites for admission.

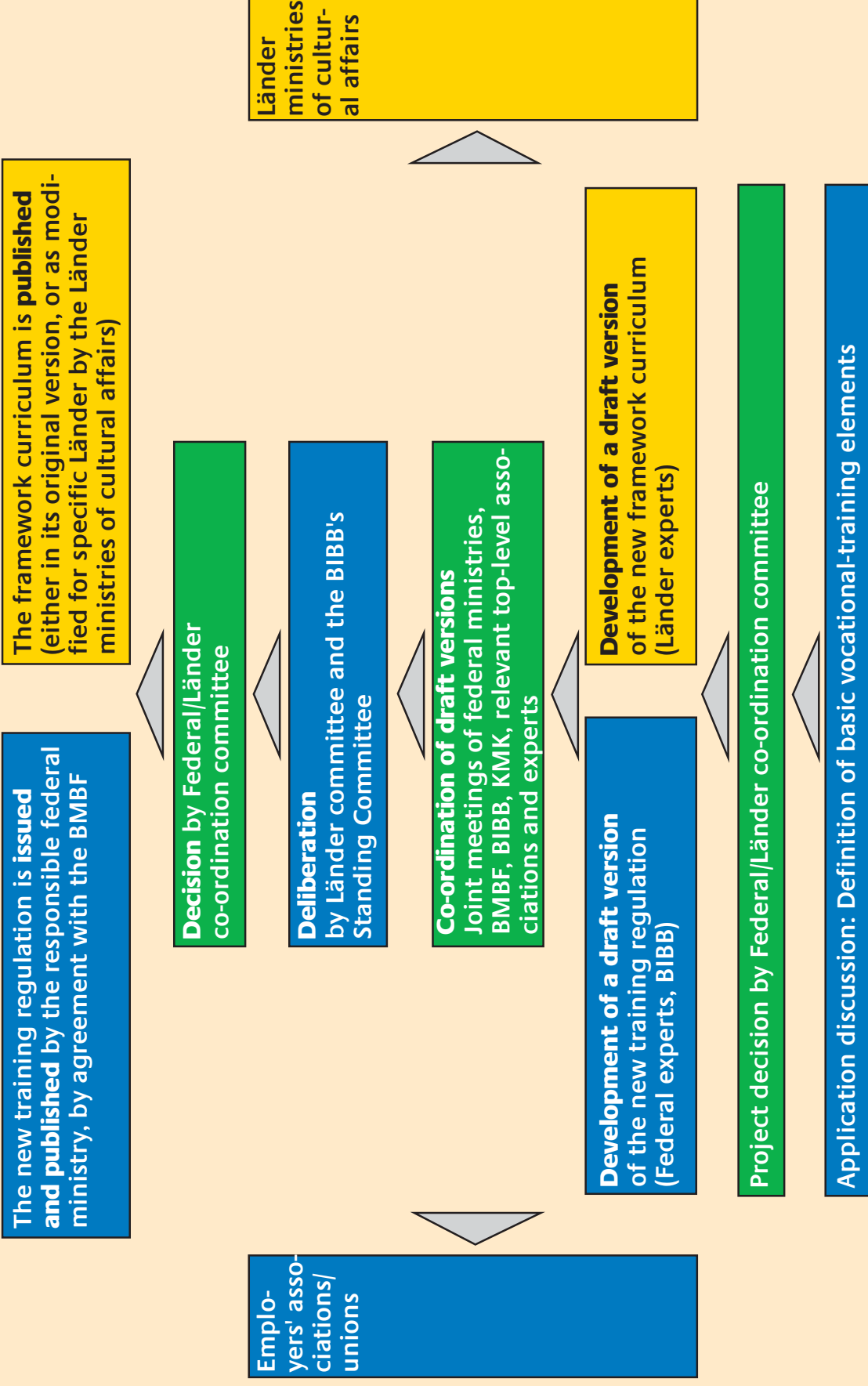
Agreements

Before a trainee's training can begin, the relevant company and the trainee must sign a written training agreement. The minimum required contents of such agreements are regulated by law. The company's and the trainee's basic rights are set forth by the Vocational Training Act. In addition, training agreements are subject to provisions of labour law.

The training agreement also sets forth the training wage, which will be in keeping with, or based on, collective bargaining agreements.

Training agreements must be submitted to the competent body and entered by that body in the «Directory of vocational training agreements» («Verzeichnis der Berufsausbildungsverhältnisse»), in cases in which the company's suitability for providing training has been demonstrated.

Co-ordination of training regulations and framework curricula



In the dual system, vocational training takes place both in companies and in vocational schools. As a result, it is necessary to **co-ordinate** the subject matter taught in these two **learning spheres**, along with the relevant scheduling.

For this reason, the training content provided by companies, in keeping with the **training regulations** for the relevant occupations, must be co-ordinated with the course content provided by vocational schools, pursuant to **framework curricula**. A special procedure has been developed for this, providing for close co-operation between the Federal Government and the Länder and giving the social partners (employers' and employees' representatives) an important role. This procedure is outlined in the figure. A one-year period is allowed for modernisation of an existing occupation, while two years are allowed for development of a new occupation.


In an **application discussion**, the relevant federal ministry normally the Federal Ministry of Economics and Employment (BMBA), defines the basic criteria for the vocational training in question (including the name of the occupation, the duration and structure of the training, a rough outline of the necessary qualifications), by agreement with the Federal Ministry of Education and Research (BMBF) and with the participation of social partners' top-level and specialised organisations and of the Federal Institute of Vocational Training (BIBB). A federal/Länder co-ordination committee then decides on the (re)ordering of the relevant occupation (project decision regarding the commencement of reordering).

The relevant drafts are then prepared in separate bodies: the draft of the training regulation is prepared by federal experts, while the draft of the framework curriculum is prepared by Länder experts (framework-curriculum committee).

The **social partners** (employers' and employees' representatives) are involved in preparing and co-ordinating the draft versions, and relevant decisions are made jointly by all concerned parties. The consent of employers' and employees' associations ensures that a relevant regulation is promptly prepared and implemented. In a next step, a joint meeting is held, under the BMBF's chairmanship, and involving representatives of relevant top-level associations, federal and Länder experts and the BIBB, in order to finalise co-ordination of the content and scheduling set forth by the drafts of the new training regulation and framework curriculum.

After being deliberated by the Länder committee and the BIBB's Standing Committee, the drafts of the new training regulation and framework curriculum are approved by formal decision of the Federal/Länder co-ordination committee.

When the above process has been completed, the **training regulation is issued and published** by the responsible federal ministry, by agreement with the Federal Ministry of Education and Research (BMBF), and the framework curriculum is published.



| Articles | Areas regulated | Details regulated |
|----------------|---|--|
| 1-2 | Definitions, scope of application | Vocational training, education, further training, retraining |
| 3-19 | Vocational training agreements | Establishment, content, commencement and end, trial period, termination, vacation |
| 20-24 | Training personnel, company providing training | Personal and vocational suitability, determination of suitability, suitability of training facility |
| 25-33 | Occupations requiring formal training, training regulations | Scope of application and exclusivity principle of training regulations, graduated training, directory of training agreements |
| 34-43 | Examinations | Examination boards, admissions, examination ordinances, intermediate and final examinations |
| 44-45 50-59 | Regulation and monitoring of vocational training | Competent authorities, training counsellors, Länder committees |
| 46-49 | Vocational further training, vocational retraining, vocational training for the handicapped | Examinations, ordinances |

The figure shows several of the main areas regulated by the **Vocational Training Act**.

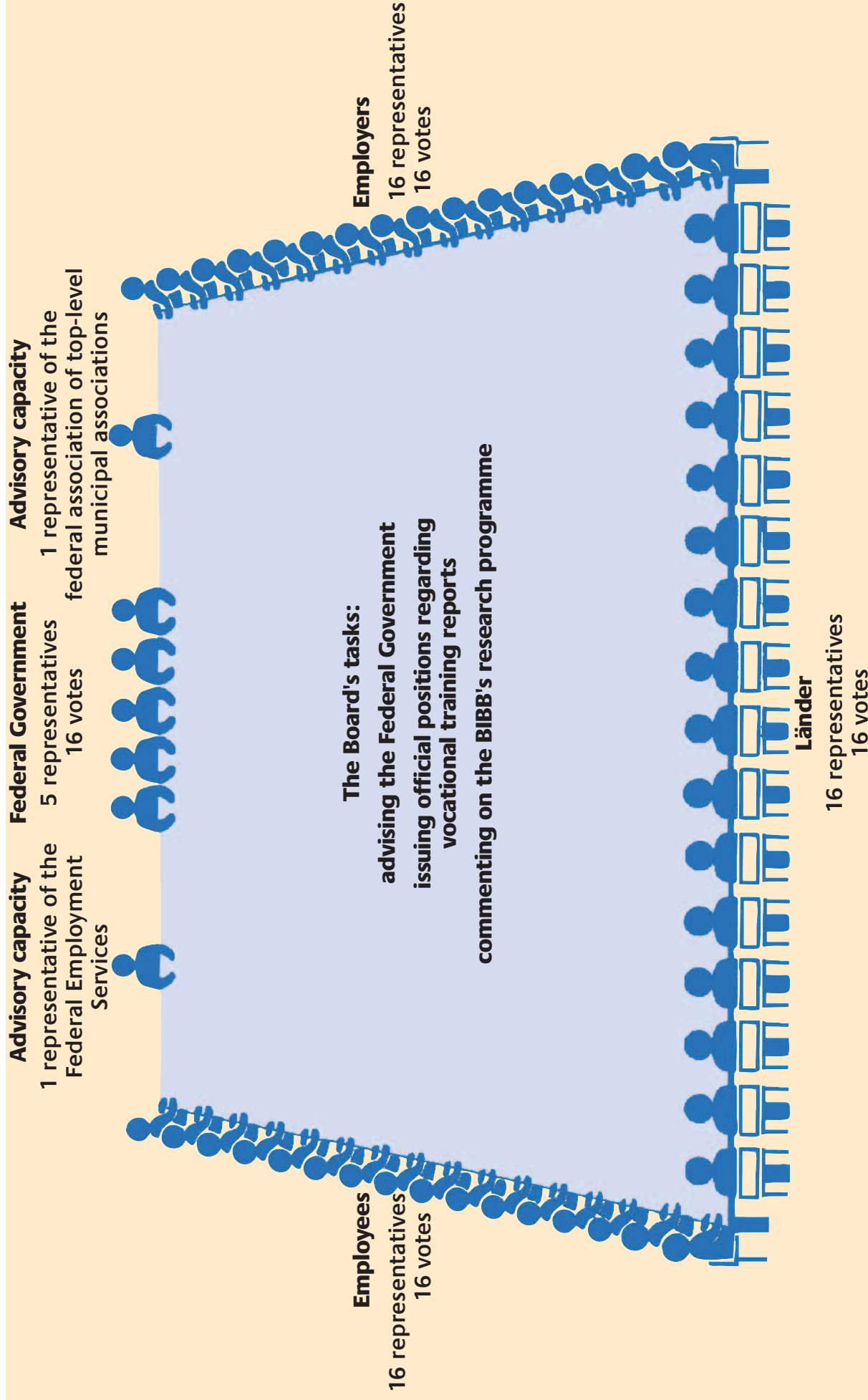
Before a trainee's training in a company can begin, the company and the trainee must conclude a written training agreement. The required contents of such agreements are set forth by law and include such aspects as the parties' basic rights and obligations, the wages to which the trainee is entitled during the training period, and the company's agreement that he or she attend vocational school. The training agreement is also subject to provisions of labour and social laws.

The training agreement must be submitted to the competent body and entered by that body in the «Directory of Training Agreements» («Verzeichnis der Ausbildungsverhältnisse»). This is contingent, however, on the company's proven suitability to provide training: the company must be of a suitable type and have suitable facilities, and its training staff must have the proper personal and vocational qualifications. The competent bodies monitor the training.

The Vocational Training Act contains framework regulations for examinations (the details as to subject matter etc. are set forth by the relevant training regulations and ordinances on further training).

The Act also contains provisions with regard to further training (further training and retraining).

In addition, the Act defines the participation rights for employers and employees, and for instructors at vocational schools, on various levels.



The **Federal Institute for Vocational Training (BIBB)** was established in 1970 on the basis of the Vocational Training Act (BBiG); its legal foundation today is the Vocational Training Promotion Act (BerBiFG), which sets forth the Institute's tasks. The research-, developmental and advisory work of the BIBB aims to identify future tasks in vocational training, promote innovation in national and international vocational training and develop new, practice-oriented proposals for vocational training and further training. A federal institution, the BIBB is financed from the BMBF's budget, and it is subject to the BMBF's legal supervision.

One of the BIBB's central organs is the **Board**, an important body with regard to Germany's vocational training. The Board, which meets regularly, comprises representatives of employers' associations, employees' associations, the Federal Government and the Länder.

In the Board framework, the concerned parties deliberate all basic issues pertaining to vocational training.

The Board's tasks include

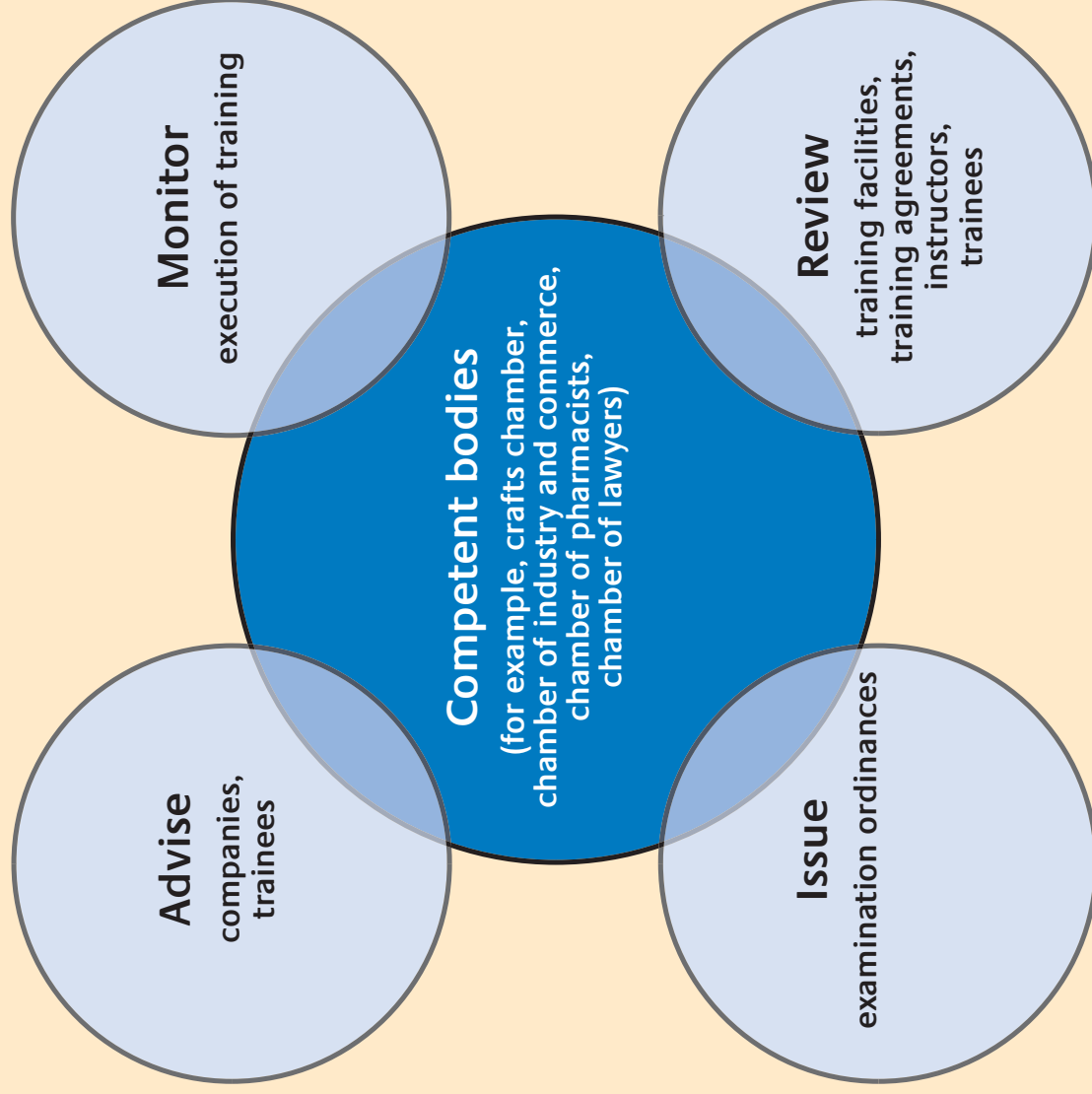
- advising the Federal Government in all basic questions pertaining to vocational training,
- issuing official positions regarding the BMBF's reports on vocational training,
- taking decisions regarding the BIBB's research programme.

The Board has established sub-committees to prepare its consultations.

The figure shows four «sides» with 16 votes on each side. This number results from the number of Länder that Germany has (16) and the fact that each Land has an official representative. The Federal Government's five representatives have a total of 16 votes that can be cast only en bloc.

In the Board, the Federal Government is represented by the Federal Ministry of Education and Research (BMBF), the Federal Ministry of Economics and Employment (BMWA) as well as the Federal Ministry of the Interior (BMI). Employers' representatives are appointed following nomination by federal-level associations of relevant chambers, employers' associations and company associations, while employees' representatives are appointed following nomination by federal unions.

Between the Board's meetings, the Board's tasks are carried out by the Standing Committee. This committee comprises representatives – two in each case – of employers, employees, the Länder and the Federal Government. The Standing Committee must be heard before vocational-training regulations are issued, and it may respond officially to drafts of training regulations prepared by the BIBB.



In each case, training in the dual system is based on a vocational training agreement between the organisation providing training (company) and the trainee (or his or her legal guardian, if the trainee is not of age). The **competent body (chamber)** reviews the training agreement for conformance with the provisions of the Vocational Training Act. If the agreement is in conformance, the chamber adds the training agreement to the directory of training agreements and the relevant training can begin.

In addition to registering training agreements, competent bodies have other **important, legally defined tasks**, as shown in the figure:

- Issuing regulations pertaining to training (for example, issuing examination ordinances);
- Advising instructors and trainees – for example, in connection with setting-up of training places, with disputes between companies and trainees and with trainees' changes of occupation;
- Reviewing the suitability of instructors and training facilities; registering, modifying and deleting training agreements; crediting trainees' acquired knowledge against trainees' training periods; administering trainees' intermediate and final examinations;
- Monitoring execution of training, via training advisors that the competent bodies appoint. Organisations providing training (companies) are required to provide the necessary information for such «monitoring», to present relevant documents and to permit inspection of training facilities.

Competent bodies are listed in the «Directory of competent bodies» («Verzeichnis der zuständigen Stellen»), which is issued annually by the BIBB. Pursuant to the Vocational Training Act and the Handicrafts Regulation Act, the group of competent bodies includes 58 crafts chambers and 82 chambers of industry and commerce. There are also competent bodies for other areas (liberal professions, civil service, agriculture, etc.), including areas outside the scope of application of the Vocational Training Act.

The competent bodies establish vocational training committees, each of which comprises six employers' representatives and six employees' representatives and (in an advisory capacity) six vocational-school instructors. Vocational training committees must be informed and heard about all important matters related to vocational training. They adopt legal provisions which are then issued by the relevant competent bodies.

Legal framework of the EU:

EC Treaty
Promotion of co-operation in education
Mobility
Recognition of qualifications

Education programmes and support:

LEONARDO DA VINCI
SOCRATES
European Social Fund (ESF)

Transparency: Europass
Occupation profiles

**Co-operation in education
and training**



The purposes of the «European Area of Education and Training» include giving all European citizens unhindered, trans-boundary mobility in training and further training and in entering occupations and making it possible for acquired qualifications to be recognised and credited as completely as possible. The European Union and its Member States co-operate within the framework of these aims; the European Union supports the Member States' policies and develops its own initiatives for achieving the aims.

The European Union upholds the principle of **free movement of persons**: any EU citizen may, in principle, live and work in any Member State. In most occupations, people may work within the EU as soon as they have acquired the necessary qualifications – and permission to work may not then be denied for reasons of training or qualification. Access to certain «regulated occupations» is defined by EU directives and formalised procedures within the Member States.

Only modest progress has been made in the area of **recognition of education qualifications** within the EU; such recognition is to be facilitated and improved.

Transparency makes a significant contribution in this area. The «Europass» documents partial qualifications («training periods») earned in the Member States. A person who has earned a nationally regulated qualification in Germany, for example, can receive a multi-lingual «**occupation profile**» that describes the person's acquired skills, typical (for the occupation) area of work and the duration of the person's training. The «**European CV**» (curriculum vitae) serves as a model for describing training and further training as well as occupational experience and skills not detailed in formal certificates.

In a multi-lingual areas such as Europe, **mobility** is truly possible only in combination with foreign-language skills. The aim of the BMBF's action concept «Promoting language learning» is to give all people (improved) skills in their own native languages and in two modern foreign languages.

The **European «LEONARDO DA VINCI» programme** is aimed at trainees, employees, students and instructors. Its purposes are to promote European co-operation in vocational training and to promote equal opportunity – for example, between men and women and between young people and older people. The programme supports innovative projects carried out through international co-operation.

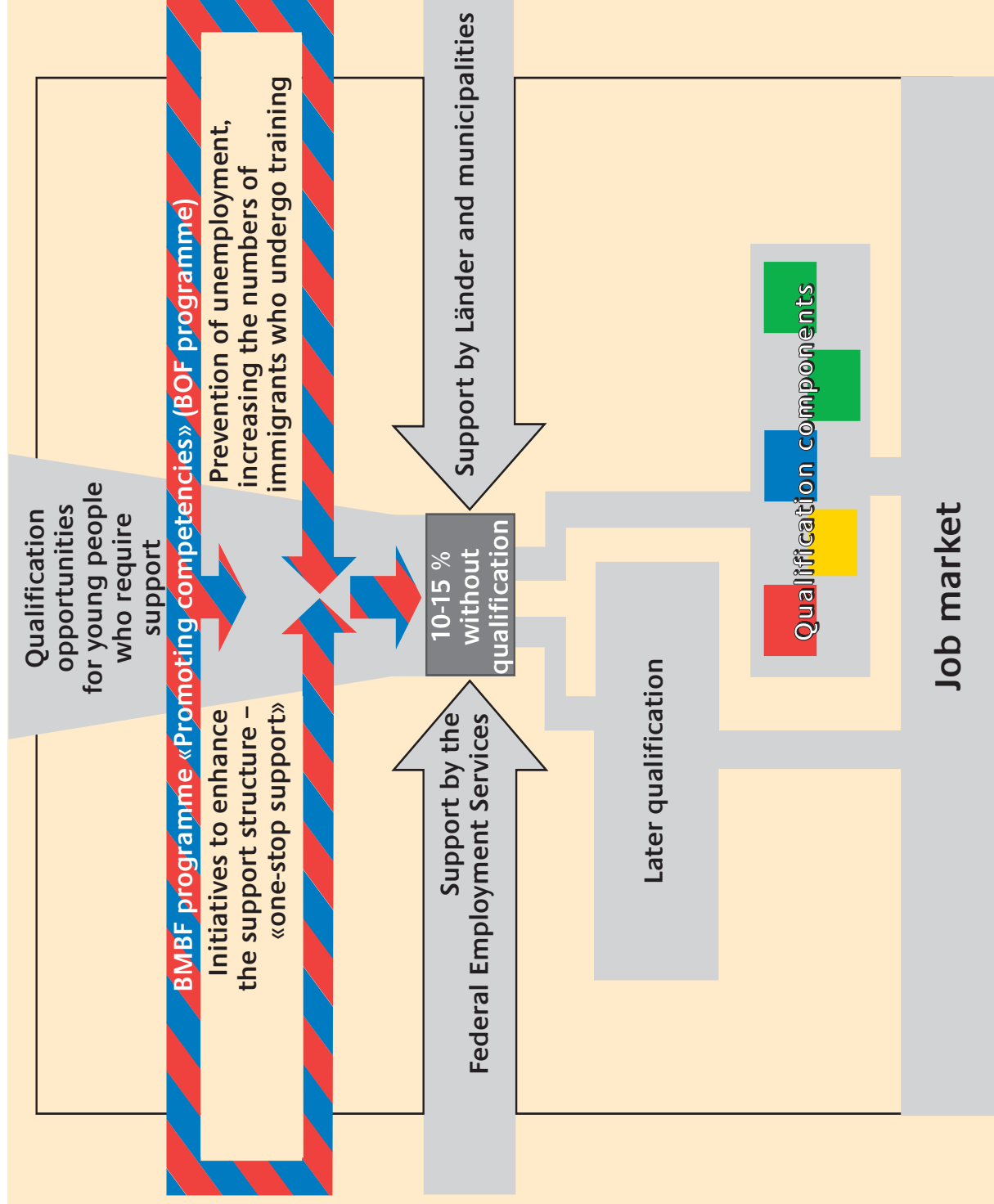
«**SOCRATES**» is aimed primarily at co-operation in the area of general education. The «**LINGUA**» (foreign-language acquisition) and «**MINERVA**» actions (new technologies in education) have impacts on vocational training.

Germany is participating in all of these programmes, via numerous projects.

The «**European Social Fund**» (ESF) promotes regional and structural development projects, of the Member States, aimed at developing human resources and integrating people within the job market, within the framework of active job-market policy. Many vocational training programmes in Germany are partially financed from the ESF.

Germany's **programmes and regulations** are largely open, internationally speaking. In the area of vocational training, for example, **obligations to attend vocational school can be temporarily waived** to enable trainees to participate in exchanges. **Training periods abroad** can be made part of training agreements. Federal support for international **exchanges in vocational training** is to be further increased. In the area of **support for the gifted in vocational training**, support is being provided for further training both within Germany and abroad. And **support for training leading to career development** can also be provided for other EU countries, in cases where requirements for the relevant examination in Germany are taken into account.

Vocational support for the disadvantaged



Between 10 % and 15% of young people in Germany fail to achieve a vocational qualification. The number of immigrants in this group is disproportionately high.

The **Federal Employment Services** provides various types of assistance aimed at helping the people in this group complete training. The spectrum covered by this assistance ranges from courses in preparation for occupations, tutoring in support of training and training outside of companies. A total of **1.5 billion €** is provided for such efforts annually. The Länder (in vocational schools and special programmes) and municipalities (in vocational assistance for youth) provide additional assistance.

The BMBF's structural improvement programme, «Promoting competencies – vocational qualification for target groups with special support requirements» is aimed at applying the principle of «training for all» to the greatest possible extent.

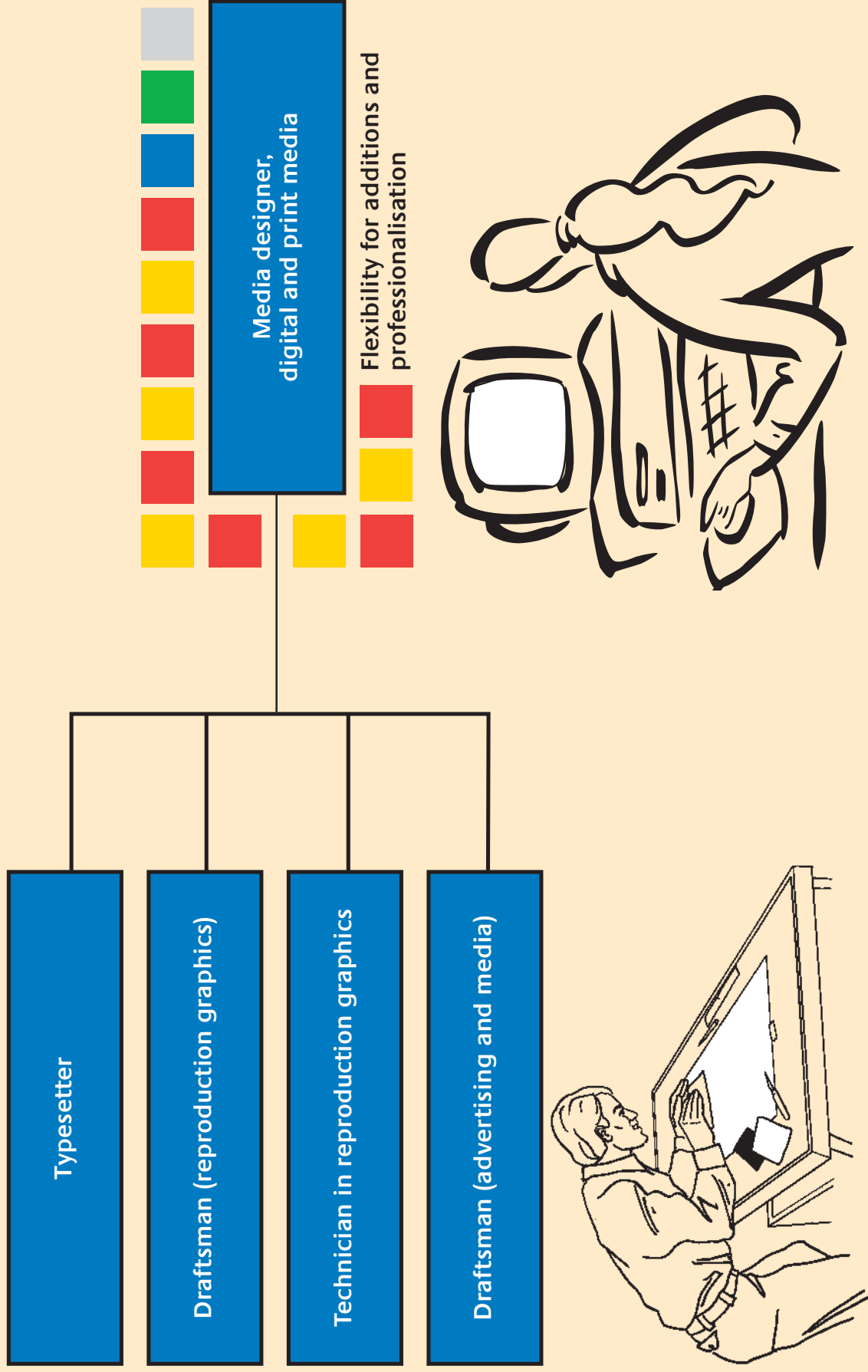
Since support has to begin early, the programme supports initiatives for intensifying **social work in schools** and for promoting **co-operation between schools and companies**.

Other efforts are making use of «**qualification components**» in order to encourage persons who are not used to learning to enter training gradually. Such persons are to be offered a **broader spectrum** of occupations than that previously available, and they are to be taught **basic IT and media skills**.

People who learn later are to be given new opportunities: innovative models for «later qualification» are being developed. On-the-job learning is to be documented and applied to admission to final examinations in vocational training.

Because Germany's federal system has a multitude of different state levels, all relevant activities have to be well co-ordinated and carried out through co-operation. Different support structures are to be combined into «one-stop support». While this problem is largely administrative in nature, its solution will benefit those who require support.

The aim is to reduce, permanently, the percentage of young people who fail to obtain a vocational qualification – and thus the aim is to enhance the next generation's opportunities in the job market.



Vocational training must adapt to changing requirements. Companies and vocational schools often introduce innovations and modernisations in training, within applicable regulations. From time to time, it also becomes necessary to update the regulations themselves.

Changes in production technologies create needs to adapt curricula of existing occupations requiring formal training. They can also generate needs for profound changes or even for completely new occupations.

For example, the occupations of typesetter, draftsman (reproduction graphics), technician in reproduction graphics, draftsman (advertising and media) and photo-engraving artist were combined to form the new occupation «media designer», digital and print media.

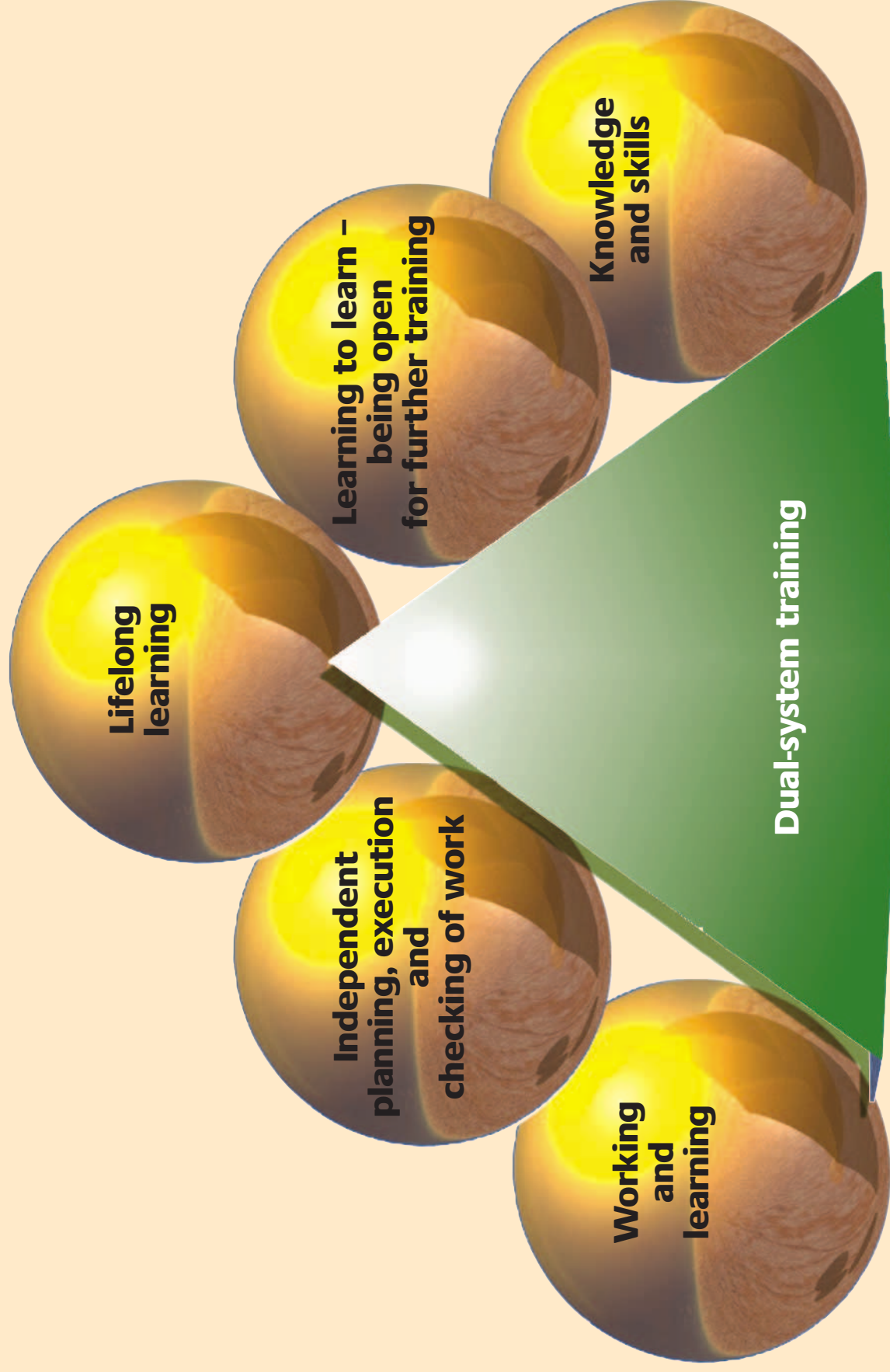
The occupations «mechatronics specialist» and «microtechnology specialist» are examples of completely new types of vocational training.

New, **more complex work processes** can make it necessary to expand training curricula – for example, to include such areas as quality management and customer service. Sometimes, occupations have to be fundamentally redefined – this is the case, for example, for metal-working occupations.

Professionalisation via vocational training was previously unfeasible in some areas of activity / sectors. This has changed in some relevant areas – for example, new occupations have been introduced in events management and for commercial specialists in the health-care sector. Other examples are provided by the IT sector, which has new occupations requiring formal training as well a new further training system.

Two important aims of vocational training include fostering **flexibility** and a willingness to continue learning. In addition to shared compulsory sections of training, which predominate, increasing numbers of specialised elective units are being offered. Where such electives are available, trainees are required to choose a certain number of electives. In each case, trainees are free to choose additional electives or to take electives upon the completion of their training. This system thus **leads directly into further training**.

The examinations regulated by the training regulations should reflect realities of the workplace and modern vocational course content. Conventional types of examinations are not always up to this task. Increasingly, such examinations are being complemented by work in company projects and other forms of «**hands-on**» examinations.



Dual-system vocational training in Germany – and (to a lesser extent) in some neighbouring countries – is based on a long tradition of training of young people, a tradition that in some areas dates from the Middle Ages. In spite of its long history, the dual system is far from obsolete – it is highly useful even in the age of globalisation. In Africa, North and South America and Asia, German companies train new employees in accordance with the dual-system's guidelines.

On the other hand, this form of vocational training can hardly be transposed to other countries, in its entirety as a «system», because countries differ too greatly in their economic structures and economic framework data.

And yet international interest in its basic structure has growing: in its **combination of working and learning**, in its links between structured knowledge and practical know-how and in its ways of encouraging self-sufficient work and further learning/training.

«Alternance» – regular alternation between school attendance and participation in company training, in secondary sector II – is finding increasing support within the EU.

In Germany, more and more «dualised courses of studies» are being introduced: studies and in-company training are being combined, and knowledge is being linked with its applications.

In vocational further training, «learning in the work process», and learning in support of job effectiveness, are becoming increasingly important. Increasingly, working and learning are seen as an inseparable unit. And work does not always have to be «gainful employment»; it can also encompass learning within a social environment (for example, in volunteer capacities).

The dual system thus also provides model concepts for «lifelong learning». It pays to consider these models closely.

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