

Case study Germany

The future of vocational education and training in Europe Volume 2

Delivering IVET: institutional diversification and/or expansion?

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1. Introduction

On the whole, the main characteristics of the IVET system in Germany in terms of formal structures and regulations have remained remarkably stable between 1995 and 2020. While the content of IVET courses has changed in the sense that the specific learning objectives for the various occupations were updated regularly in order to keep up with technological innovations, the mission of vocational education and the key principles for designing occupational curricula did not change. Likewise, there has been no fundamental change in the institutional arrangements for the provision of VET. The latter observation is all the more striking in the light of the fact that the Vocational Training Act (*Berufsbildungsgesetz*), being the primary legal basis for the dual system, was substantially revised twice during the period covered by this study (in 2005 and again in 2020). At first sight, the German IVET system is characterised by continuity and incremental change.

At the same time, though, a transition can be observed with regard to the status of IVET in relation to other educational sectors, more specifically general and higher education. The changes that can be identified include a steady decline of enrolments, which may be taken to indicate a decline in the general reputation of IVET from the learners' point of view, but also an expansion of the opportunities for progression from IVET to higher education, which effectively redefines the function of IVET. Instead of being exclusively a qualification pathway in its own right, IVET is transformed into a multi-purpose learning opportunity that continues to equip young people with knowledge, skills and competences for a specific occupation but may also serve as a means of preparing them for academic studies.

There is also a transformation with regard to IVET at higher educational levels, more specifically at the level of tertiary education. While officially considered higher education rather than VET, the expansion of the model of 'dual study courses' since the 1990s arguably constitutes the most important example of a blurring of boundaries between academic and vocational education. In terms of programmes and curricula, the traditionally separate spheres are linked by the systematic combination of work-based learning in an enterprise and classes at a higher education institution such as a university of applied sciences. From an institutional perspective, a 'vocational drift' can be observed in the sense that employers actively take part in the design of the relevant curricula, which is an exception to the rule that institutions of higher education, being self-governing bodies, make their own decisions about the content of programmes and curricula. The importance of dual study courses is increasing, albeit at a slow pace, in comparison with 'traditional' forms of higher education as well as in relation to other vocational pathways, but it must also be observed that dual studies are still far from being mainstream.

In the following, the evolution of the German IVET system is delineated with a focus on two selected occupational areas, namely electrical engineering and healthcare. Owing to the increasing importance of information technology (IT), the electrical engineering sector faced specific challenges in the 1990s and early 2000s, e.g. the introduction of new occupational profiles at the margin of different technical domains, or the emergence of new stakeholders such as the association of the IT industry (BITKOM). These challenges make the sector a particularly interesting example. While the discussion of selected curricula will concentrate

predominantly on the upper secondary level, i.e. IVET programmes as per the legal definition, the above-mentioned developments at higher educational levels render it necessary to consider vocationally oriented curricula in tertiary education as well.

2. Blurring of boundaries between general education and IVET at upper secondary level

During the period from 1995 to 2020 the principles of curriculum design in IVET at the upper secondary level have remained stable. Approximately at the beginning of this period the concept of 'learning areas' (*Lernfelder*), i.e. areas of typical work tasks or activities as opposed to traditional school subjects, was introduced as the guiding principle for structuring the syllabi for the school-based part of dual VET programmes and has been applied ever since. Strictly speaking, this reorientation must be regarded as part of the original position of the VET system rather than a transition as it coincides with the beginning of the period of investigation. Still, the substitution of learning fields for school subjects is an important development and in fact indicates a 'vocational drift' as defined within our analytical framework. Given that the learning fields are based on work processes and emphasise the concept of work process knowledge, their introduction may be interpreted as a re-affirmation of the essentially vocational nature of IVET curricula. Continuity and stability can also be noted with regard to the company-based part of dual VET where the mission statement in the Vocational Training Act has been virtually the same over the entire period of investigation.

Accordingly, the relationship between general or academic and vocational contents within IVET at upper secondary level has not changed fundamentally over the past 25 years. What can be observed, though, is a growing emphasis on key competences such as teamwork or working within flat hierarchies, but also language and communication skills. This may be regarded as a shift towards or growing awareness of 'transversal' competences as defined for the purposes of the study. Another development trend is that occupational profiles and curricula within one and the same occupational sector increasingly include contents they have in common with each other. This means that even though occupations remain formally separate, they become broader and more generic in the sense that they share some essential contents, effectively constituting a 'core occupation' of sorts (cf. Rauner, 2004). It is important to notice that the total number of recognised training occupations in the dual system has not changed significantly during the period of investigation. According to the BIBB data report that accompanies the federal government's annual VET report, the number of training occupations only moderately declined from 348 in 2010 to 324 in 2019 (BIBB, 2020a). Similar figures can be reported for the years prior to 2010.

We will illustrate this with the example of two selected occupational areas that also happen to represent two different subsystems of the German VET system. While the industrial training occupations in electrical engineering are part of the well-known dual system, the training occupations in nursing and healthcare constitute a distinct training regime with its own legal basis and institutional framework. Programmes and curricula in both occupational sectors were updated several times over the past 25 years, providing ample material for comparison. As regards the industrial training occupations in electrical engineering, four successive versions

of the relevant curriculum document, i.e. the training ordinance issued by the federal government on the basis of the Vocational Training Act, have been in place. The first of these was the one enacted in 1987, representing the starting point for this study. The training ordinance was then revised in 2003, 2007 and finally in 2018. The 2003 revision was a fundamental one and is considered a turning point in the history of the electrical engineering occupations. The two subsequent amendments focused on specific aspects and brought about only marginal changes.

The 1987 ordinance defined four occupational profiles, namely electrical systems fitter (*Elektromaschinenmonteur/in*), energy electronics technician (*Energieelektroniker/in*), industrial electronics technician (*Industrieelektroniker/in*) and electronics technician for communication systems (*Kommunikationselektroniker/in*). A key feature of the 1987 reform was the abolition of the two-cycle training model (*Stufenausbildung*), according to which apprentices in the electrical engineering sector acquired a fundamental IVET qualification after 24 months of training and a second, more specialised qualification after another 12 or 18 months. Realising that the semi-skilled 24-month qualifications were inadequate already by the technological standards of the 1970s (cf. Rauner, 2004), a training period of three and a half years was set as the norm for all occupations in electrical engineering by the 1987 ordinance. Apart from that, the ordinance updated the training contents in accordance with the technology of the time.

In 2003 the first revision of the training curricula for the electrical engineering sector entered into force. The revision aimed at the establishment of holistic and flexible occupations that would enable graduates to work in a variety of enterprises. In addition, the new curricula were designed to respond to technological and societal changes such as the increasing use of information technology, the development of lean organisation structures, and the emphasis on teamwork and business process orientation (Borch & Weißmann, 2003, p. 9). The 2003 training ordinance defined a total of six occupational profiles, namely electronics technician for building and infrastructure systems (*Elektroniker/in für Gebäude und Infrastruktursysteme*), electronics technician for industrial engineering (*Elektroniker/in für Betriebstechnik*), electronics technician for automation systems (*Elektroniker/in für Automatisierungstechnik*), electronics technician for devices and systems (*Elektroniker/in für Geräte und Systeme*), systems informatics technician (*Systeminformatiker/in*), and electronics technician for aviation systems (*Elektroniker/in für luftfahrttechnische Systeme*). In addition, the 1987 profile of electrical systems fitter, which had been updated in 1997 and renamed electronic systems fitter, remained in force.⁽¹⁾ The most fundamental change was the abolition of the traditional distinction of basic and specialist training within the timeframe of the training programmes. All of the six new curricula were structured according to an integrated learning model, according to which so called fundamental or core qualifications (i.e. units of learning outcomes) on the one hand and specialised qualifications on the other were to be imparted side by side. The balance between the two categories would gradually shift from core contents to specialised

⁽¹⁾ The occupation of electronic systems fitter has long since been deemed obsolete by experts (see e.g. Zinke, Schenk & Wasiljew, 2014, p. 12), but the suggestion to repeal the training curriculum has not been put into effect.

contents over the training period of 42 months. The core contents were the same for all six curricula and comprised the following units (cf. Borch & Weißmann, 2003, p. 10):

- (1) Vocational education, labour legislation and collective bargaining
- (2) Structure and organisation of the training enterprise
- (3) Work safety and health protection
- (4) Environmental protection
- (5) Business related and technical communication
- (6) Planning, organising and checking work activities
- (7) Assembling and connecting electrical equipment
- (8) Measurement and analysis of electrical functions and systems
- (9) Rating the safety of electrical systems and equipment
- (10) Installation and configuration of IT systems
- (11) Advising clients and delivering services to clients

On top of this, Rauner (2004) observed that the 2003 occupations also shared a great deal of the more specialised contents. His estimate was that the training curricula were about two thirds identical, which led him to the conclusion that the occupational structure in the sector of electrical engineering as established by the 2003 ordinance effectively represented the concept of a modern core occupation (cf. Rauner, 2004, pp. 4-5). This overlap between training curricula within one occupational sector can be interpreted as a step towards a *de facto* concentration and reduction of the number of occupational profiles even if the number of formally distinct training programmes does not change. The IVET landscape is characterised by fewer and more comprehensive profiles as virtually identical contents are imparted under different occupational 'labels'. A possible objection against this interpretation, however, is that it is only the specialised qualifications (as opposed to the core qualifications) that count when it comes to the definition of occupations. According to this view, overlaps between curricula should not be overrated.

The tendency towards core occupations in the electrical engineering sector has since been confirmed with regard to the practice of training as determined by the training policy of enterprises. Data on newly concluded training contracts from 2004 to 2012 suggest that enterprises take the various training occupations to be interchangeable and select one of them in accordance with their individual preferences to meet all of their training needs, ignoring and effectively undermining the diversity of training programmes (cf. Zinke, Schenk & Wasiljew, 2014, pp. 6-9).

In 2007 a revised version of the ordinance on the industrial training occupations in electrical engineering was promulgated, which emphasised the didactic principle of business process orientation and updated details of the curricula for the six occupations established with the 2003 ordinance. In addition, the extended final examination (see section 5 below), which had been applied in the electrical engineering sector on an experimental basis since 2003, was made permanent. The fundamental structure of the occupational profiles and training programmes, however, was left unchanged. In the following years changes were enacted with regard to single occupations within the sector of electrical engineering. In 2008 a two-year training programme for industrial electricians was created, which is equivalent to the first two

years of the training programmes for electronics technicians for devices and systems and for electronics technicians for industrial engineering, and which accordingly includes the option of continuing the training programme in order to complete one of the aforementioned qualifications. In 2013 the systems informatics technician was rechristened electronics technician for information and systems technology (*Elektroniker/in für Informations- und Systemtechnik*) without changing the contents, and the occupational profile of electronics technician for aviation systems was revised so as to comply with European safety standards and renamed aircraft electronics technician (*Fluggeräteelektroniker/in*). At the same time the occupation was formally re-classified and removed from the category of electrical engineering occupations.

The last comprehensive revision of the remaining five industrial training occupations in electrical engineering entered into force on 1 August 2018. The rationale of the revision was to respond to the fact that the digitalisation of the economy, in particular the new level of automation associated with industry 4.0, was not always properly reflected in the work processes and training practice of enterprises. The main changes were as follows. First, an integrative unit on 'digitalisation of work, data protection and IT security' was added to each of the five curricula. Second, several other units within the curricula were updated. Third, elective modules on programming, IT safety and digital networks were newly introduced.

The training model that is in place in the electrical engineering sector since 2003 can also be regarded as an effective approach for the impartation of transversal skills. The reason is that all parts of the training curriculum, i.e., core qualifications and specialised contents alike, are always related to the work context. Planning skills, for instance, cannot be acquired in isolation from professional activities and their settings. Therefore, all units refer to areas of professional activity in which the transversal skills are situated.

In the sector of healthcare and nursing, a similar tendency towards broader profiles can be observed. Before describing the process, it is necessary to notice the particular character of VET for healthcare and nursing. In comparison with other European countries, Germany takes a unique approach by organising vocational education and training for this occupational group at the level of upper secondary rather than tertiary education. In addition, training in healthcare and nursing has always been a VET subsystem in its own right, existing beside the mainstream dual system and operating on the basis of distinct legal regulations.

During the period of investigation, the legal framework for training in the healthcare and nursing sector was substantially revised twice, namely in 2002/2003, entering into force one year later, and in 2017, entering into force on 1 January 2020 (see BIBB, 2020b). As of 1995, the sector comprised the training occupations of general nurse, which at this time was present in the form that had existed since 1957, paediatric nurse, which was trained on the basis of a curriculum dating back to 1985, and geriatric nurse, which was regulated at the time by the 1969 Geriatric Nursing Act. Until the enactment of the present Act on Healthcare and Nursing Occupations, which created the new 'generalist' training model on the basis of a single legal framework for the different occupations, the three programmes operated on the basis of separate regulations.

The occupational profile for geriatric nurses was revised in 2002, entering into force in 2003. One year later, the other two branches of nursing, i.e., general nursing and paediatric nursing, were revised. The occupational profile for general nursing was labelled 'healthcare and general nursing specialist' (*Gesundheits- und Krankenpfleger/in*) while the other was labelled 'healthcare and paediatric nursing specialist' (*Gesundheits- und Kinderkrankenpfleger/in*).

The traditional division of the healthcare and nursing sector into three separate branches was increasingly viewed as inadequate in the light of the increasing need for more complex and individualised nursing services for clients with diverse backgrounds. The need for a more comprehensive and 'holistic' professional competence in nursing was widely acknowledged, and a merger of the three specialisations into one 'generalist' profession was proposed as early as 2012. The reform was finally enacted with the Act on Healthcare and Nursing Occupations (*Gesetz über die Pflegeberufe*) of 17 July 2017 and the Training Ordinance for Healthcare and Nursing Occupations (*Ausbildungs- und Prüfungsverordnung für die Pflegeberufe*) of 2 October 2018, both of which entered into force on 1 January 2020. The main objective of the reform has been to enable graduates to provide a broad range of nursing services to clients of all ages. To this end, the new occupational profile of nursing professional (*Pflegefachfrau/Pflegefachmann*) was established, which covers the entire range of healthcare and nursing activities. The training programme comprises a minimum of 2,100 hours of theoretical instruction and a minimum of 2,500 hours of practical training. The training period is three years full-time or up to five years part-time. While the 'generalist' profile of *Pflegefachfrau* or *Pflegefachmann* is supposed to be the mainstream in healthcare and nursing in the sense that it is the only learning opportunity that learners can enter directly, there is also the possibility for learners to opt, during the final third of their training programme, for a specialisation in paediatric nursing or geriatric nursing instead. Still, these alternative IVET qualifications have to be regarded as mere derivatives of the qualification of nursing professional, sharing two thirds of their training contents with the latter. Accordingly, IVET in the healthcare and nursing sector also shows a tendency towards broader and more comprehensive occupational profiles ('core occupations') even though ultimately the number of formally separate qualifications has not changed much over time.

The observations for the two selected occupational sectors are basically in line with the general development tendencies in the German VET system. The responses from the ReferNet experts confirm that there is no political intention to reduce the number of recognised training occupations, which has only slightly declined over the past decades as mentioned above. Two-year training programmes like the one for industrial electricians were established in other occupational sectors as well (see e.g., Uhly, Kroll & Krekel, 2011), serving as a 'stepping stone' for learners who might not be ready yet for a longer training period but might still develop the potential for a full-fledged VET qualification some time later. Given that each of these short-cycle programmes is equivalent to the first two years of a related three- or three-and-a-half-year programme, the introduction of two-year occupations can be interpreted as the establishment of an alternative learning pathway towards an existing qualification, and hence as a sign of pluralisation and diversification within IVET.

Finally, IVET has also been diversified in terms of learning pathways by the introduction of partial qualifications (*Teilqualifikationen*, see e.g. Wittig and Neumann, 2016; Fischer, Hecker & Wittig, 2020). Strictly speaking these learning opportunities belong to the category of training schemes for job seekers in the context of labour market policy and not to the VET system at all, but still it seems reasonable to include them here as their contents are directly related to regular IVET qualifications. Partial qualifications aim to allow adult learners to acquire a vocational qualification by participating in modular learning opportunities that are derived from recognised occupational profiles and can be validated one by one. By accumulating partial qualifications, learners can become eligible for taking part, as external candidates, in the final examination for the occupation in question and thus achieve an IVET qualification without having attended a regular training programme. The political consensus is that partial qualifications are acceptable as a remedial qualification scheme for learners aged over 25 years whereas for young people regular IVET should remain the standard. Whether or not such partial qualifications are credited within an IVET programme so as to reduce the training period is up to the employers.

3. Relationship of IVET at upper secondary levels with that at higher levels

The latest amendment of the Vocational Training Act improved the standing of continuing vocational training, more specifically upgrading training, by formalising the three levels already stipulated by the recommendation no 159 of the BIBB Board and introducing the titles 'Bachelor Professional' and 'Master Professional' (see section 4). This aligns vocational education and training with the framework for higher education and mirrors the structure of the German Qualifications Framework.

Another important development during the period of investigation is the improved access of vocationally qualified learners to higher education. Depending on the type of vocational qualification, learners may have direct access to tertiary education and may also have their vocational learning outcomes accredited within higher education, covering as much as 50% of an undergraduate degree programme. This may also redefine the role of VET, which now serves the additional purpose of preparing for academic studies, even though this does not affect the content of the curricula. For the time being, however, the practical relevance of the new provisions seems to be limited, the reason being that their implementation is hampered by time-consuming bureaucratic processes.

The most significant development with regard to IVET at higher levels is the expansion and diversification of dual study programmes⁽²⁾ from the 1990s onwards and their complete

⁽²⁾ The number of dual study courses increased from 512 in 2004, when the BIBB started monitoring these programmes, to 1,662 in 2019. The number of students rose from 40,982 to 108,202 over the same period. Dual study programmes are offered in a variety of formats. Lately, the concept of 'study-integrating apprenticeship' (*studienintegrierende Ausbildung*, see e.g. Euler & Severing, 2016) has been developed as a new format, which aims to integrate vocational academic and vocational learning completely and to present learners with the option to choose between three types of qualification, namely a vocational qualification, a Bachelor's degree or a combination of both (see Hofmann et al., 2020).

integration into the system of higher education, which was promoted by the Bologna process. It is an open question as to whether these programmes will be a replacement or rather a complement of traditional dual VET programmes at the upper secondary level. Dual study programmes may change the ratio of 'academic' and 'vocational' contents at the tertiary level, but from an institutional point of view they also lead to a higher degree of 'vocationalism' in higher education as employers are increasingly involved in curriculum design.

It must be observed that notwithstanding the rise of dual study courses, these degree programmes still play a marginal role within the system of higher education. There is no large-scale 'vocationalisation' of HE. The future impact of dual study courses on the VET system will depend on effective quality assurance mechanisms in this segment of higher education. It is estimated that structural guidelines for the accreditation of study courses, which have been defined already for Bachelor's and Master's programmes in general (cf. KMK, 2010), will become necessary for dual study courses as well.

4. The changing relationship between IVET and CVET

As described above, IVET has been subject to largely incremental innovation rather than fundamental change during the past three decades, and the same can be said of CVET. Accordingly, the relationship between IVET and CVET has also remained relatively stable. CVET was and still is predominantly an instrument to either adapt the knowledge and skills of employees to changing job requirements, or to allow IVET graduates with relevant work experience to acquire a higher-level vocational qualification such as master craftsperson or certified business specialist. These two variants of CVET, which are referred to as 'adaptive CVET' (*Anpassungsfortbildung*) and 'upgrading CVET' (*Aufstiegsfortbildung*) respectively, continue to stand in a relatively formalised relationship with IVET in the sense that formal CVET courses typically specify, as part of their entry requirements, which IVET qualification is required to get access to the learning opportunity in question.

As regards changes in the field of CVET curricula or qualifications, the same observation can be made as in IVET, i.e. qualifications have been continuously updated and new qualifications were introduced in accordance with current labour market needs. However, a noteworthy development has occurred with regard to the framework for quality assurance in CVET, which ultimately gave rise to a move towards stronger standardisation and formalisation of CVET qualifications. During the period of investigation, the Vocational Training Act did not include any specifications on CVET qualifications other than relatively general provisions for the enactment of ordinances for CVET examinations by the competent bodies (i.e. the chambers of commerce and industry) or the Federal Ministry of Education and Research. The traditional system of formal CVET comprised three qualification levels that had evolved historically but not been defined officially. A first step towards a more systematic structure took place in 2000 when experts from the social partner organisations agreed on a memorandum of understanding on the system of recognised CVET qualifications.

In 2014, following the introduction of the German Qualifications Framework (DQR), the three-level structure of CVET qualifications was specified in greater detail by the

recommendation no 159 of the BIBB Board on the organisation and quality assurance of CVET according to the Vocational Training Act and the Craft Trades Regulation Act. The recommendation defined fundamental standards for the three qualification levels in terms of typical functions, learning objectives, entry requirements and minimum learning hours, and also recommended that the first CVET level should correspond to DQR level 5, the second level to DQR level 6 and the third level to DQR level 7. According to the recommendation, the first CVET level required a completed IVET qualification plus relevant work experience, and a minimum of 200 hours of formal instruction plus another 200 hours of self-study. For the second level, the requirements were a completed IVET qualification plus relevant work experience and a minimum of 600 + 600 hours of learning. Finally, the third level required a completed second-level CVET qualification (e.g. master craftsman) and a minimum of 800 + 800 hours of learning.

This structure was finally integrated into the general legal framework for VET in the course of the latest revision of the Vocational Training Act, which entered into force in 2020. The newly added sections 53a to 53d stipulate that the CVET curricula enacted by the federal government be organised according to the three levels described above. The standards and entry requirements are the same as in the preceding recommendation of the BIBB Board. In addition, specific occupational titles have been introduced for the three levels. CVET qualifications of the first level are denoted by the term 'certified specialist' (*Geprüfte/r Berufsspezialist/in*). Qualifications of the second level are labelled 'Bachelor Professional', and those of the third level are called 'Master Professional'. According to section 54 of the Vocational Training Act, the three-level structure and the associated occupational titles also apply to CVET curricula enacted by the competent bodies, provided that the qualifications in question have been deemed equivalent with those regulated by federal law. It must be pointed out that the new occupational titles do not replace the existing denominations of the qualifications at the levels in question but supplement them. The introduction of the new titles does not imply the creation of new types of qualifications, nor does it change the status of the existing CVET qualifications in any way.

5. Changing institutional arrangements

The institutional arrangements of the dual system have virtually remained the same during the period of investigation. However, the cooperation between the various actors in the dual system has always been a matter of continuous discussion, especially with regard to the role of VET schools and VET teachers, and some details concerning the formal involvement of the latter in the governance of dual VET have been amended. The 2005 revision of the Vocational Training Act formally adopted the principle of 'cooperation between learning venues' (*Lernortkooperation*), i.e. the cooperation between enterprises and VET schools in the implementation of training programmes, as a general rule but did not provide any specific guidelines for its application (cf. Rauner and Wittig, 2009, p. 168). In addition, the teachers in the VET boards at the chambers, which are responsible for supervising training at the local level, were given a vote on matters that directly affect the organisation of the VET schools. This was a move away from the traditional understanding that the teachers' role on the VET

boards was a consultative rather than a decisive one, but the practical effects of this change were limited.

Small-scale initiatives towards greater autonomy of VET schools can also be observed. From the early 2000s on, the possibilities for expanding the decision-making powers of VET schools with regard to financial and human resources have been a recurrent topic for policy makers and experts, leading, for instance, to policy recommendations by the then Federal and State Commission for Educational Planning. In the ReferNet questionnaire, recent pilot projects for a greater autonomy of VET schools are reported from Baden-Württemberg and Rhineland-Palatinate.

A novelty that concerns the overall organisation of initial VET as well as the structure of IVET curricula was the introduction of the 'extended final examination' (*Gestreckte Abschlussprüfung*), which was first piloted in 2002 and has since been incorporated in several training programmes in the dual system (see e.g. Schenk & Götte, 2008; Gutschow, Lorig, Stöhr et al., 2020). The final examination consists of two successive parts, the first of which takes place approximately after the first half of the training period and the second at the end of the programme. Both parts count for the candidate's final mark. In return, the traditional intermediate examination, which was a separate test and did not contribute to the results of the final examination, has been abolished.

6. Conclusion: Harmonisation, diversification, pluralisation, academic/vocational drift

The main trends in the German VET system that can be observed during the period of investigation are

- (1) an ongoing process of continuous adaptation and incremental change of VET curricula;
- (2) a tendency towards broad and comprehensive occupational profiles without a corresponding reduction of the number of occupations, the result being occupations that overlap each other and share substantial parts;
- (3) a closer connection of vocational and tertiary education through improved access of vocationally qualified learners to higher education and an expansion of vocationally oriented dual study programmes at the tertiary level;
- (4) a greater systematisation of the structure of CVET qualifications and the formal alignment of the CVET levels with levels 5 to 7 of the German Qualifications Framework.

The findings summarised under point 1 above suggest that VET in Germany retains its character in the sense that its fundamental features and principles remain unchanged. This begs the question whether the stability that can be observed with regard to the 'interior' of VET applies to the 'exterior' as well, i.e. the status of VET within the education system as a whole and the relations between VET and other educational sectors. The decline in numbers of enrolments and the tendency of young people to pursue studies in higher education may be regarded as a symptom of stagnation and marginalisation of VET. On the other hand, VET

continues to be well regarded for its quality and its benefits in terms of a successful transition of learners into employment. It may be assumed that an increased supply of 'hybrid' learning opportunities such as dual study courses can contribute to overcoming this tension.

There is no clear evidence of an academic or vocational drift. Instead, there has been an emergence of various overlaps and interfaces between vocational education and higher education as mentioned in point 3 above. Evidence of diversification, by contrast, can be identified. For one, the establishment of two-year VET programmes with the option of adding another one and a half years of training constitutes a momentum of diversification of learning pathways, as does the introduction of partial qualifications. Likewise, the increasing variation of dual study courses, in particular the introduction of the new format of study-integrating apprenticeship with its built-in variety of degree options, is a sign of greater pluralisation. The results seem to suggest the conclusion that the diversity of VET in Germany is increasing.

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