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Progression from VET into higher education via hybrid qualifications in Germany: context – policy – problem issues

Introduction and problem focus

In Germany, the concept of “hybridity” or “hybrid” or “double qualifications” respectively (HQ in the following) means – at least in a narrower sense of the word – the acquisition of both a vocational qualification and one which leads into higher education (HE in the following), and is usually associated with the educational reform in the late 1960s and especially the 1970s. Inspired by the Social Democrats, one of the educational objectives emanating from the policy discourse was to integrate, both in organisational and curricular terms, VET and general education, which meant to assign parity of esteem to culturally and pedagogically different educational pathways. The term “Doppelqualifikationen” (double qualifications) was used particularly within the scope of this ambitious reform period and it marks certainly one of the most fundamental debates in the area of vocational education theory in Germany, since it was linked to political objectives such as “equality of opportunities”, “emancipation”, “democratization” and, above all, a more state-orientated and school-based type of vocational learning (Kell 1996, 103; Blankertz 1972; Zabeck 2009, 659 ff.). The term itself was initially introduced by the Bund-Länder Commission for Educational Planning and Research Promotion (BLK) in 1974 (Zimmermann 1982, 1). Subsequently, the expression “Doppelqualifikation” became an important component of the educational debate in Germany (Ganssert 1980, 184; Bojanowski 1996, 533 f.).

The background for this new concept was the rise of the “critical vocational theory movement” and, in its wake, fundamental criti-

cism of both the traditional school system and the system of initial VET (Deissinger 1998, 20ff.; Kutscha 2003b), i.e. the dual system of apprenticeship training and its underlying "Berufsorientierung" (vocational or occupational concept). One of the features that strike the eye when we look at the German architecture of the VET system and its links to other sub-systems, is the fact that in Germany apprenticeship training still is the major non-academic option for school-leavers to start their working lives with. This implies that school-based training is not one of the well-known features of the German VET system. In this context, hybrid qualifications have a rather inferior status since the dual system is more or less exclusively linked to delivering portable labour market relevant qualifications. Moreover, the strong focus on the apprenticeship model implies a huge dependence of the VET system on economic parameters and the labour market situation. As vocational full-time schools mostly offer formal school qualifications which only exist outside the dual system schools are in fact not prepared to develop a strong "qualification function". This is a particularly serious problem in a situation where the supply of training places fails to meet the demand and employers seem to lose interest in the apprenticeship system (as seen in the last 15 years). On the other hand, the system framework determined by a strong and tradition-based "apprenticeship culture" not typical for most countries in and outside Europe (Deissinger 2004; Harris & Deissinger 2003) provides a range of interesting opportunities for full-time VET to function as a "second chance pathway" for those school-leavers that have to choose the non-academic track in the school system and therefore have to take a detour to proceed to HE.

Against this background, VET policy for some years has been focussed on trying to strengthen the work-related features of school-based VET in order to open up pathways and opportunities for young people outside the dual system without giving up the qualification route into HE. As a matter of fact, this policy has not at all weakened the "second chance pathway" structure since it proved more or less unsuccessful against the preponderance of the dual system – which currently seems to recover from a slackening training market typical for the 1990s and the first decade of our century (Deissinger &

Hellwig 2004; Ulrich 2011). This is especially true for Baden-Württemberg where the implementation of "practice firms" in "vocational colleges" (Berufskollegs) was meant to lead to more portability of vocational qualifications.

However, the question raised in this paper is not whether full-time courses in the German VET system, hosting some 2.6 million students including apprentices in the dual system¹, could become alternatives with respect to the dual system and thus could help to compensate for the creeping loss of training opportunities. Our issue here is centrally positioned around the problem of "hybridity" – which at first glance (at least) conflicts with the practice-oriented "learning culture" of the dual system, as it is more akin to general, theory-based learning in schools. Hereby one of the associated issues consists in questioning whether HQ come up with a perceived and also a formal value in relation to already established courses and qualifications, such as a chamber certificate or an "Abitur".

It is above all the European Qualifications Framework (EQF) with which the idea of improving transparency and comparability of qualifications and certificates has entered national and international debates on education and training. Hereby, the European strategy undoubtedly also aims at enhancing permeability and parity of esteem between general and vocational education (Busemeyer 2009, 5). One tool is the implementation of HQ. However, these still play a subordinate role within the German education system and there is also an obvious absence of this topic in the educational policy debate. It will be shown that in comparison to Austria especially, which was one of the partners in our project, full-time VET certainly helps

¹ Out of these, some 1.5 million are apprentices attending part-time vocational schools, some 223,500 attend classes leading to a vocational qualification according to state law, some 26,600 go for a recognised training qualification full-time, based on the Vocational Training Act, and some 132,000 are trained in the health and social care sector which belongs to neither of the previous sub-systems (BIBB 2012, 97 and 215 ff.). All other students may be counted as part of the "transition system" (Münk, Rützel & Schmidt 2008), obtaining partial qualifications, undergoing vocational preparation or courses leading to a higher school qualification (including the Abitur), e.g. in a vocational high school (Berufliches Gymnasium).

to create opportunities towards HE, although it mainly fails in providing an effective “double option” which characterises HQ, such as in France, Austria, England (and other Anglo-saxon countries), and, quite astonishingly, in Switzerland, where company- and workplace-related pathways in the VET system have always played a major role in the political rhetoric of the country and are shaped by powerful interest groups (Gonon 2001; Schumann 2011).

The following discussion of the German hybrid architecture is mostly based on the two country reports that are the major result of our Leonardo research project on “Hybrid qualifications – Increasing the value of Vocational Education and Training in the context of Lifelong Learning” (2009–2011)².

Context: the critical relationship between the dual system and full-time VET

The relevance and positioning of HQ in Germany are determined by the nature of the German VET system, especially the function of full-time VET in relation to the apprenticeship system, which, beside Switzerland and Austria, may be seen as one of the strongest in Europe. In Germany, a substantial proportion of the workforce with intermediate level qualifications is trained through an apprenticeship. As the latter one functions as the major non-academic route for German school-leavers by giving them formal access to the labour market as skilled workers, craftsmen or clerks, it is clearly separated both from HE and the full-time courses within the VET system. Unlike in England or France (Ott & Deissinger 2010; Deissinger, Heine & Ott 2011), where they form a marginal sector within the vocational training systems, dual apprenticeships exist in nearly all branches of the German economy including the professions and parts of the civil service.

2 For all details and other information cf. our website: <www.hq-lll.eu>.

Hereby, the function of the dual system unequivocally is to impart initial training to school-leavers in a given range of “recognised training occupations” (Ausbildungsberufe) by using two sites of learning: the training company and the part-time vocational school (Berufsschule), including compulsory school attendance for all young people under the age of 18. Compulsory instruction in the part-time vocational school is both laid down in the various federal state school acts and also indirectly regulated in the Vocational Training Act (Berufsbildungsgesetz), which defines the duties of employers and trainees on the basis of a formal training contract (Deissinger 1996).

The two learning sites correspond with two legal responsibilities due to the German federal political system which explains why institutional structures and ways of decision-taking in the German VET system appear rather complex and intransparent. More important for our topic, however, is the structural fact that the separation of regulation between the federal level and the federal state level also helps to understand why VET outside the dual system works quite differently.

Traditionally, in the German debate on VET, there has always been an understanding that company-based and school-based training represent different pedagogical logics based on diverging paradigms of learning. Whereas VET in schools has been associated with a more or less unambiguous pedagogical intention and therefore not with a purely functional understanding of competence, apprenticeship training in an enterprise is supposed to occur within an economic environment where normally a strong bias on non-educational purposes prevails. However, even for the curricula in the part-time vocational school a didactical understanding is crucial which puts the contents of the occupation besides additional general education on a regular and mandatory basis – quite different from the liberal attitude which characterises apprenticeships in England or Australia (Fuller & Unwin 2011; Ryan 2001; Bynner 2011; Winch & Hyland 2007; Deissinger 2009).

Although general education is an essential component of any VET curriculum in Germany, it serves different functions in part-time and full-time VET respectively. Apart from the “parking function” or “buffer function” of (full-time) vocational schools due to

training market restraints the relationship between the dual system and the various subtypes within the system of school-based VET under the auspices of the federal states has always been rather ambivalent. This means that vocational schools basically serve four functions which can complement each other depending on the specific course or the institution offering it:

- Vocational preparation (mostly one to two years) which helps young people to apply for an apprenticeship by improving their stakes on the training market.
- Further education (mostly two to three years) which means leading young people to achieve a higher school qualification level (including the university entrance qualification).
- Initial vocational training (mostly two to three years) which means leading young people to achieve a portable labour-market relevant occupational qualification outside the dual system.
- Further training in an occupational field (e.g. technician) which means upgrading an apprenticeship qualification.

With respect to the vocational training function school-based VET is considerably complex since full-time vocational schools offer courses leading to qualifications either within or without the scope of the Vocational Training Act (Deissinger & Ruf 2006; Deissinger 2007; Feller 2000). Besides, some vocational schools deliver entry-level training based on specialised federal regulations, such as in the area of health occupations. Especially the ordinary full-time vocational schools (Berufsfachschulen) accommodate a range of different students and aspirations. Among the major subtypes are schools leading to a full occupational qualification but also institutions which only partly focus on occupation-relevant competences, as they deliver either school qualifications (such as the intermediate secondary school leaving certificate) or concentrate on vocational preparation. One of the biggest problems certainly is the lack of acceptance in the labour market of most vocational qualifications obtained in school-based full-time courses against the background of a dominant dual system.

In 2005, a revised Vocational Training Act (Berufsbildungsgesetz) came into operation (BMBF 2005). One of its major intentions has

been to link full-time vocational education and training (VET in the following) and vocational preparation, which are under the auspices of the 16 federal states, more closely to the apprenticeship system – considered to be the “centrepiece of vocational education and training in the Federal Republic” (Raggatt 1988, 166). The passing of the Act can be seen as a modest political move to question the omnipresence of the traditional apprenticeship system which – in contrast e.g. to Austria – has always dominated non-academic pathways in the area of VET (Euler 2000; Deissinger 2012).

Against this background, problems in terms of the different “curriculums” of apprenticeships and full-time VET in Germany remain, even if we look at reform concepts, such as the introduction of “practice firms” in the vocational colleges (Berufskollegs) already mentioned beforehand, which did not materialise in a stronger labour market function of these schools (Deissinger 2007). Typically, this problem is closely associated with the fact that “hybridity” in Germany is nearly exclusively visible in the area of pathways either leading into the dual system or directly embedded in school courses that are supposed to give young people a “second educational chance” (zweiter Bildungsweg), including “vocational high schools” (Berufliche Gymnasien). Especially in the federal state of Baden-Württemberg, these courses are very important since they cover more than half of VET students, including further education, vocational preparation and “bridging years”. In the school year 2009/2010, 32% of students in VET (all in all 437,000) in this federal state attended a type of vocational school which, either regularly or as an option, offers some kind of HE entrance qualification, even if this does not necessarily mean hybridity³.

Against the background of a severe “training market crisis” (Deissinger & Hellwig 2004), haunting the German VET system from the beginning of the 1990s until recently, Germany’s governments, both at the federal and federal state level, had to cope with the rising number of participants in school-based vocational preparation courses as well as full-time students in VET. To improve the status of these

3 See “Statistik aktuell” (Ausgabe 2010) – <http://www.statistik-bw.de/Veroeffentl/Statistik_AKTUELL/803410010.pdf>.

courses it became necessary to strengthen the work-related features of VET carried out in vocational full-time schools in order to open up alternative opportunities for young people outside the dual system. This has been especially the case, as already mentioned earlier in this chapter, in Baden-Württemberg via the implementation of “practice firms” (Übungsfirmer) in vocational colleges. This institution is an example of a full-time school in the VET sector, and stands for the “vocational education pathway” (beruflicher Bildungsweg) for students who want to upgrade their school qualifications. It illustrates the problems of full-time VET in Germany quite ideally, both with respect to its hybrid character but also in its ancillary position besides the dual system. This issue points to one of the major research aspects in our project, i.e. whether HQ really work in a comprehensive sense. We will pick up this issue in part 4 of this paper, after looking at the specific situation in the federal state of Baden-Württemberg, which is a typical example for the difficulties associated with HQ in Germany.

Since the mid-1970s, students in the federal state of Baden-Württemberg holding an intermediate secondary school leaving certificate have had the possibility to attend a vocational college (Berufskolleg) as an alternative to apprenticeship training in the dual system. This specific type of school provides a vocational qualification according to the Baden-Württemberg school law (“assistant qualification”). Under certain conditions, including a minimum duration of two years, the entrance qualification for a university of applied sciences (Fachhochschule) can be acquired – which has been the basic model of an HQ at this type of school until 2008. The Berufskolleg may be described as a secondary post-compulsory institution, and an alternative to the later years of the grammar school in general education (Deissinger & Ruf 2006). It is open to students, normally aged between 16 and 18, with a medium-level school leaving qualification. Students enter either from the two-year vocational full-time school (Berufsfachschule), which takes up graduates from the lower secondary schools normally aged 15 or 16, but also from the tenth year of the lower secondary schools (Werkrealschule) or from the two higher streams in the general education system (Gymnasium or Realschule).

The vocational college is offered in a number of occupational fields⁴. In 2011/2012, 44,279 students attended a vocational college at public schools⁵ in Baden-Württemberg, whereas the largest proportion can be assigned to the commercial vocational college⁶. The commercial type of the vocational college II (BK II), where the commercial assistant qualification is obtainable, is a good example for the polytechnic/university of applied sciences entrance qualification being combined with the assistant certificate. The BK II is based on the commercial vocational college I (BK I). Both the BK I and the BK II last one year each. Only students who have finished the BK I successfully (with adequate average grades) are allowed to attend the BK II. Until 2009 students who had attended the elective mathematics class at the BK I were able to acquire an HE (polytechnic) entrance qualification at the BK II. Furthermore, students of the BK II had to participate in the mathematics class and another elective class (biology, chemistry, physics or technology) if they strove for an HQ. In 2008, 8,293 or some 23% of the 35,978 graduates of the vocational college in Baden-Württemberg graduated with such an HQ⁷.

At the moment, the function of the vocational college seems even more strongly linked to entry into HE rather than to the purpose of delivering labour market qualifications. Within the scope of a research project, Deissinger & Ruf (2006) found out that the “academic aspirations” of students with an intermediate secondary school leaving certificate are best satisfied by the vocational college. Another very important motive of students for the attendance of a vocational

4 There are vocational colleges within different occupational fields: technical, commercial, domestic science, nursing and socio-pedagogical (MKJS BW 2007, 14f.).

5 In 2011/2012, 16,948 students attended private vocational colleges. Therefore, the total number of students is more than 60,000 (Statistical Office of Baden-Württemberg 2009, 1; Statistische Berichte Baden-Württemberg, 31 July, 2012).

6 The vocational college offers the variations BK I, BK II, BK Languages, BK Business Information Management, BK with practice firm, BK-FH (part-time access studies out of employment leading only to a polytechnic entrance qualification) and a dual BK (special part-time school for apprentices with a grammar school leaving qualification) (Deissinger 2007, 369f.).

7 The given figures were received from the Statistical Office of Baden-Württemberg (email correspondence with Mrs. Jutta Demel (Jutta.Demel@STALA.BWL.DE), 7 December, 2009).

college seems enhancing their own prospects of successfully entering apprenticeship training (ibid., 169). Most graduates of this vocational full-time school aspire to take up subsequent vocational training in a company, i.e. through the dual system. On the other hand, the vocational college does not stand for leading young people to the achievement of a portable labour-market relevant occupational qualification outside the dual system. This becomes clear when looking at the relevance of this function of the vocational college from the point of view of students (ibid., 168f.). The major reason certainly is that assistant qualifications are not acknowledged by companies, be it for subsequent training or for recognition of prior training.

The position and status of the Berufskolleg (vocational college) in relation to general education and the dual system is illustrated in fig. 1:

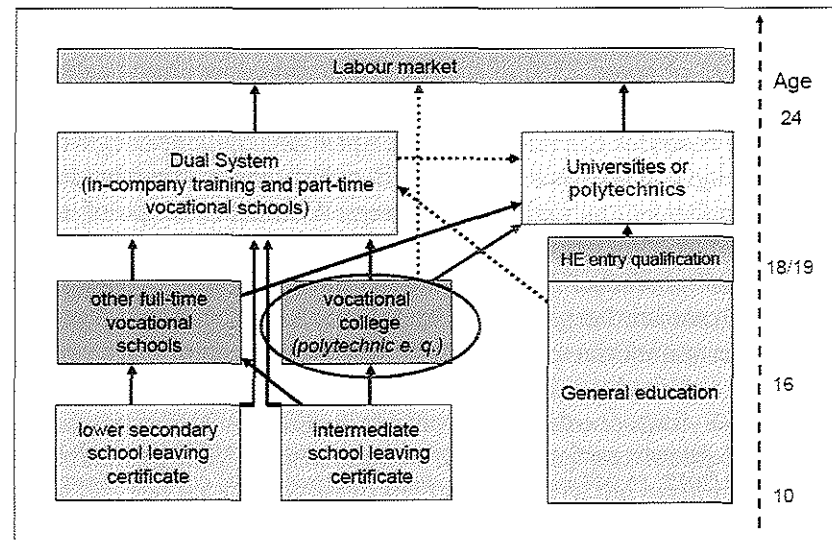


Figure 1: The Baden-Württemberg education system and the position of the Berufskolleg (vocational college).

Although the official function of the Berufskolleg is supposed to be a “hybrid” combination of training and educational progression, findings from research (e.g. Deissinger & Ruf 2006) looking at the motivation of students show that:

- the occupational qualification (in Baden-Württemberg this is the commercial assistant or *Wirtschaftsassistent*) is generally not valued as useful or attractive – a result which is supported by the fact that most students report their intention to take up an apprenticeship after leaving the *Berufskolleg*;
- the “parking function” of the *Berufskolleg* (which means that students attend mainly due to their lack of success in the training market) seems to remain restricted to the first year, while students in their second year have a clear understanding of their goals and motivations, including taking up an apprenticeship after the second year of the course;
- the *Berufskolleg* functions as a bridge between school education and the dual system and therefore cannot be regarded as a substitute or alternative in relation to the apprenticeship system when it comes to labour market entry.

At the moment, with the training market obviously recovering and demographic change looming (Ulrich 2011), the discussion referring to alternative pathways and their accreditation with respect to occupational qualifications normally obtained through an apprenticeship is becoming less intense. Hence, vocational full-time schools now seem even further away from being forced to establish a more occupation-orientated approach – which would require that their relevance both for skilled employment and for a subsequent apprenticeship course needs to be improved and that students trust in the value of these courses with respect to the labour market. Although the revised German Vocational Training Act (BMBF 2005) has meanwhile provided formal regulations for a wider scope of accreditation modes in the hands of the federal states (Lorenz, Ebert & Krüger 2005), the question remains whether, from an educational and social perspective, practice firms can really promote the employability of young people by developing skills in realistic learning environments which are able to simulate problems and work activities normally typical for workplaces in companies. Our already quoted research (Deissinger & Ruf 2006; Deissinger 2007) reveals a lot of scepticism with respect to this important function of VET, even if courses become more workplace-oriented.

The federal state government of Baden-Württemberg has meanwhile adopted a “realistic” attitude when it comes to this issue: Since 2009, the assistant qualification has ceased to be the regular qualification at the end of the two-year course in the Berufskolleg. In contrast, the polytechnic/university of applied sciences entrance qualification can be achieved by all students without attending additional classes or taking additional subjects. Therefore, “hybridity” has been turned upside down: it is still an option, but the pathway to HE now is the main political motive behind full-time VET. This political step also reveals that cooperation agreements between industry and the state only work when companies can benefit from it. For this purpose, in a number of vocational colleges in Baden-Württemberg, curricula have been aligned with three established dual system occupations in the commercial sector (Noack 2011). In the face of a looming quantitative skills gap at the intermediate level in Germany, companies could become more interested in young people who have already pursued some steps in the vocational school system before applying for an apprenticeship.

So far we laid the focus on Baden-Württemberg. The following chapter gives a more general picture of the context in which the vocational colleges and similar schools have their firm position. This chapter also shows the ambivalence in the German education system when it comes to hybridity against the background of a comparatively strong and well-functioning apprenticeship system (Deissinger, Heine & Ott 2011).

An overview of hybrid structures in the German VET system

Based on project-oriented literature research we found that HQ distinctly vary between the sixteen German federal states. Because of the fact that the German education system is organised in a decentralized manner, it would be necessary to examine the various federal states separately. In fact, only the federal states of Baden-Württemberg, Nordrhein-Westfalen, Thüringen und Hamburg were taken into con-

sideration here, as they stand for different ways of dealing with the concept of hybridity (see country report I on <www.hq-ill.eu>).

Apart from HQ offered at vocational colleges (Berufskollegs or Höhere Berufsfachschulen), there are other further educational pathways within the German VET system where a polytechnic/university of applied sciences entrance qualification or even a general qualification for university entrance can be acquired. However, HQ based on the strong definition which we have used in our research project⁸ are rare and differ significantly between states. Most of the schemes are pilot projects and therefore do not play a decisive role within the respective education system. The various hybrid streams include different types of schools (e.g. vocational colleges, vocational part-time schools or vocational high schools) and also different examination procedures (e.g. additional examinations in schools or examinations set by the chambers) (Lauterbach & Neß 2001, 4). Virtually all German HQ options are established and located within the VET system. Here, educational pathways or pilot projects leading to HQ are based on full-time school-based VET rather than on the dual system or other forms of workplace learning. There are virtually no HQ which are offered in general education. Nevertheless, the existing hybrid educational provisions point to the issue of parity of esteem between general and vocational education, aiming at more permeability within the education system and enhancing the status of VET.

The acquisition of HQ in Germany first of all refers to educational pathways at the upper secondary level (Sekundarstufe II). According to a common definition (Fingerle 1983, 198), educational pathways are classified as “hybrid”, if they provide

- a school leaving certificate which gives access to a further educational pathway or to HE (at university or at polytechnic/university of applied sciences) and, at the same time,
- a vocational qualification recognised on the labour market (an approved vocational certificate) or at least a component of it, the

⁸ The strong definition of our Leonardo da Vinci project is: “Combination of accredited general (academic) and vocational learning and attainment that formally qualifies for entrance to HE and the labour market” (cf. <www.hq-ill.eu>).

crediting of which for a fully approved vocational certificate is judicially secured.

In a theoretical view, different kinds of HQ are depicted in the scholarly literature. Hence, it is possible to differentiate between *full* and *partial*, *integrative* and *additive* as well as *simultaneous* and *consecutive* types of educational pathways which lead to HQ.

As soon as it is possible for students to acquire both a school leaving certificate giving access to HE and a formal vocational qualification which entitles them for qualified uptake of skilled work, we talk about *full* HQ (Dehnbostel 1996, 170). Therefore, full HQ are identical to the type of HQ described in the *strong definition* of our Leonardo da Vinci project. *Partial* HQ refer to the acquisition of either an HE entrance qualification or a formal vocational certificate which allows direct entry to the labour market (Bojanowski 1996, 534).

In the case of *integrative* HQ, new curricula, the function of which is to integrate vocational and general learning, are needed. This is only possible if the general and vocational curricula converge or melt into each other (ibid., 534f.). However, the term “integrative” does not touch exclusively upon the curricular dimension of an educational setting. According to Dauenhauer & Kell, hybrid pathways also differ in terms of legal, organisational and social integration. The different levels of intensity are classified by descriptions such as “linking”, “connection” or “dovetailing”. It has to be noted, however, that for any kind of an HQ a minimum of curricular integration is indispensable (Dauenhauer & Kell 1990, 56f.). In contrast to this concept, *additive* HQ can be characterised as educational pathways where curricula or school subjects as teaching inputs for both a vocational and a general qualification are taught independently and separately (Pilz 1999, 27)⁹. Provided that the same or an overlapping curriculum content stemming from two single educational path-

9 In Germany, the expression “additive Doppelqualifikationen” (additive double qualifications) is often associated with HE students who, after passing their Abitur, have successfully completed an apprenticeship training before taking up their studies at university or polytechnic. Pilz calls such an educational sequence the “extreme form” of HQ (Pilz 1999, 31). This kind of view and use of the term has not been relevant for our project since two separate and consecutive educational pathways are analysed.

ways is delivered in the hybrid stream of education at the same time this means that we here encounter a “time-saving” sub-type of HQ (Kutscha 2003a, 9)¹⁰.

However, when analysing the existing German educational pathways leading to HQ it becomes obvious that the curricula and school subjects of the vocational and the general (academic) qualification are mostly isolated from each other – which corresponds with the fact that the German education system does not “think” in “levels”, but rather in sub-systems, each of which are determined by their specific history, their cultural imprints and their social relevance. Although the dual system certainly belongs to the successful learning arrangements in Germany, vocational and general (academic) learning remain more or less segregated entities (Baethge, Solga & Wieck 2007).

Another criterion which helps understand the different types and natures of HQ is the time dimension of these educational pathways. *Simultaneous* means that two, normally separated educational settings are designed in a way that the general (academic) and the vocational certificates can be acquired at the same time. These hybrid streams in the education system typically are shorter in duration than the two pathways taken one after the other (Dauenhauer & Kell 1990, 49f.). Students within *consecutive* hybrid pathways only have the possibility to acquire the two certificates one after the other (Dehnbostel 1996, 169).

Full HQ have a “hub function” as they should prepare for qualified entrance into working life (in a narrower sense of VET) as well as open access to HE. Bremer circumscribes the concept of HQ symbolically as a “Y model” (Bremer 2003, 88). The two certificates or qualifications are meant to be fully recognised by a range of institutions (in particular by the companies, universities or polytechnics/

10 Whether an HQ is classified as “additive” or “integrative” depends on the underlying understanding of these terms. In Austria, education at the Secondary Technical and Vocational College (BHS) is regarded as an integrative HQ (see e.g. Schneeberger 2002, 79). Here, also the curricula are “hybrid” in the sense that general as well as vocational educational contents are almost equally represented. However, school subjects are normally isolated from each other. In a narrower sense, therefore, curricular integration is more “additive” than “integrative” (Kuhrt 1996, 234).

universities of applied sciences). This aspect seems to be a decisive quality criterion of HQ. However, it has to be noted that the quality of hybrid educational pathways does not only depend on the objective “exchange value” or “currency” of the awarded educational qualifications, but also on their subjective “utility value” (Frommberger 2004, 108f.), let alone the links and borders of these courses in relation to traditional general and vocational tracks in the education system. Whether an HQ is successful, i.e. of high value, should therefore also be judged on the basis of the following criteria. The reference point in each case is the respective original educational pathway, which ends with the Abitur or a chamber certificate:

- Does the awarded HE entrance qualification lead graduates to a successful completion of a consecutive HE course (e.g. Bachelor)?
- Does the awarded vocational qualification lead the graduates to a successful professional career?

Following an analysis of hybrid pathways in Germany, it appears a useful arguing step to direct the focus on full HQ. According to the strong definition of our research project, four basic types of HQ exist in Germany. An HE entrance qualification hereby is obtainable either through the dual system or in a full-time school-based VET environment (see table 1):

Type 1: Vocational qualification according to the Vocational Training Act (BBiG) or the Crafts and Trades Regulation Act (HwO) ¹¹ + acquisition of the general qualification for university entrance (Abitur) during an apprenticeship
Type 2: Vocational qualification according to the BBiG or the HwO + acquisition of the polytechnic entrance qualification during an apprenticeship
Type 3: Vocational qualification according to federal state law + acquisition of the general qualification for university entrance (Abitur) in a school-based course
Type 4: Vocational qualification according to federal state law + acquisition of the polytechnic entrance qualification in a school-based course

Table 1: Types of German hybrid qualifications.

11 Vocational qualifications recognised under the Vocational Training Act (BBiG) or the Crafts and Trades Regulation Act (HwO) (according to federal law) are typically awarded within the dual system (Deissinger 1996).

The *first type* of HQ is the combination of a vocational qualification according to the Vocational Training Act (BBiG) or the Craft Regulation Act (HwO) with the Abitur (general HE entrance qualification). These vocational qualifications (Deissinger 1996) are typically awarded within the dual system and are normally fully acknowledged by companies since they consider them as part of their business, which means that employer involvement also stretches to the formal dimension of VET. The *second type* indicates the attainment of a vocational qualification according to federal training law together with a polytechnic entrance qualification (these institutions now call themselves “universities of applied sciences”). The polytechnic entrance qualification allows entrance to courses at polytechnics but not to universities, although the most frequently chosen subjects are offered in both institutions, such as engineering and business administration. The *third type* links a qualification according to federal state (!) law with the Abitur. Finally, HQ according to *type four* stand for pathways where a vocational qualification according to federal state law and a polytechnic entrance qualification can be obtained together. Most prominently, “assistant qualifications” (e.g. Wirtschaftsassistent in the commercial field) are awarded after graduating from a two- or three year course at an intermediate type of a vocational full-time school (normally a Höhere Berufsfachschule or Berufskolleg).

In statistical terms, all these pathways except type four are not significant features of the German VET system:

- *Type 1:* HQ according to type one are virtually non-existent. According to the database “AusbildungPlus”, there only exist three pilot projects (one in Thüringen, two in Berlin) offering the HQ “dual apprenticeship training + Abitur” (BIBB 2009). It has to be added with respect to this qualification type that about a fifth of apprentices actually enter the dual system either with a year 12 (polytechnic/university of applied sciences entrance) qualification or with a year 13 (Abitur) certificate (BMBF 2012, 6). A “normal model” for the most sought after school leavers (from the point of view of companies) therefore is not obtaining an HQ during an apprenticeship but entering with it.

- *Type 2*: The legal basis for these pathways has now been established in almost all federal states (Henke, Waldhausen & Werner 2004, 253). Currently, 12 out of 16 federal states offer these kinds of HQ within the dual system based on an agreement of the Conference of Education Ministers (KMK 2001). Some 8,000 trainees in 176 vocational part-time schools have embarked on such a hybrid pathway (BIBB 2009), although their proportion is marginal (approx. 0.5%) within the total apprenticeship population (some 1.5 million). Trainees normally attend additional general education lessons apart from their regular apprenticeship (Waldhausen & Werner 2005, 42) and can then proceed to a university of applied sciences.
- *Type 3*: One example for this kind of an HQ is the federal state of Thüringen. In the year 2008/2009 it was possible for 171 or 14.3% of all vocational high school graduates to attain the assistant qualification in selected occupational fields in addition to the Abitur¹². In the same way, vocational students in Nordrhein-Westfalen who want to acquire a vocational qualification (assistant qualification) in addition to the general entrance qualification for university entrance can manage this in only 3¼ years¹³. The concept behind this educational pathway, as well as the several months of practical work placement, guarantees that the vocational qualification and the school qualification are recognised in each of the German federal states (MSW 2008, 8f.).

The following table shows the significance of HQ types three and four in selected federal states against the total number of vocational students in Germany, which currently stands at some 2.6 million. It becomes clear that the relevance of HQ measured against this figure is ridiculously weak even when only considering the school-based VET options:

12 Figures received from the Statistical Office of Thuringia (email correspondence with Mr. Andreas Thiele (Andreas.Thiele@tmbwk.thuringen.de), 15 December 2009 and 3 February 2010).

13 Training as a state-accredited educator including the acquisition of the Abitur lasts four years (one year practical training is integrated) (MSW 2008a, 19).

	<i>HQ type 3 obtainable in a vocational high school</i>	<i>HQ type 4 obtainable in a vocational college</i>
<i>Baden-Württemberg</i>	non-existent	duration: 2–3 years graduates: 8,293 (2008)
<i>Nordrhein-Westfalen</i>	duration: 3¼–4 years graduates: 819 (2009)	duration: 3 years graduates: 4,665 (2009)
<i>Thüringen</i> ¹⁴	duration: 3½–4 years graduates: 171 (2009)	duration: 2½ years graduates: 325 (2009)

Table 2: German hybrid qualifications (types 3 and 4) indicating the corresponding number of graduates in selected federal states (sources: Statistisches Landesamt Baden-Württemberg 2009; IT.NRW 2010a; IT.NRW 2010b; Thüringer Kultusministerium 2009).

It may be argued that full-time HQ in the German context get their practical relevance dependent on the value companies and chambers place on full-time VET in general, and also on the political determination of governments to arrange what in Anglo-Saxon countries is called “recognition” or “accreditation” of prior learning (including formal and informal learning). It is obvious, that while the dual system still has no substantial links with HE, vocational full-time schools can indeed partly build these bridges, since – in contrast to Austria (Aff 2006) – they have to fulfil more or less ambivalent functions in relation to the labour market and as a “preparation” route into the dual system. The most relevant issue, however, remains whether they are really qualification-oriented or whether they have been designed to bridge the gap between VET and HE.

14 Graduates completing vocational education with an HQ in 2011 include: 165 students with type 3 HQ and 223 with type 4 HQ (email correspondence with Mr. Andreas Thiele, Thüringen Ministry of Education (Andreas.Thiele@tmbwk.thuringen.de) on 3 September, 2012).

Empirical findings from our project: the German case

One crucial step taken in our Leonardo project aimed at complementing literature-based research by collecting empirical material which should illustrate the status and relevance of HQ in the German context. Hereby, we embarked on a qualitative empirical study using interviews with relevant stakeholders. The empirical study comprised two parts. In the first one, a document-based analysis of the education policy landscape in the partner countries was undertaken, and in the second one, different stakeholders were interviewed, using an identical formal structure of interviews in all partner countries (expert interviews), the results of which are also documented in the contributions to this book dealing with Austria, Denmark and England. The interviewees were chosen from different backgrounds: five policy makers (federal state and federal level), six from employers' organisations and trade unions, three experts from the HE sector, three representatives of the VET school system, including the VET teacher association, and one enterprise-based trainer. The interviews concentrated on the following aspects:

- the perceptions/attitudes towards the idea and the model of HQ in general;
- the experiences the interviewees had made with the hybrid approach, including specific examples of their implementation and use.

In our project meetings it was agreed, that using completely identical interview guidelines for the field study would not necessarily make sense, although from an academic perspective this would be highly desirable, even if the groups of interviewees had to be structured in different ways. In fact, the four VET systems and therefore also the realisation of HQ differ significantly from country to country. Therefore, the partners agreed on slightly diverging interview structures while certain aspects of content were considered that they had to be identical.

The following questions represent those aspects which have entered – in a more or less identical shape – all four interview structures:

- How can the respective political and institutional context of the VET system be characterized? Where are links to the concept of HQ? What kind of educational policy motivations do currently exist? Is there demand from employers and/or students for HQ?
- Which specific types of HQ exist in the respective country? What is their range and relevance? Who are the target groups? Who are the beneficiaries?
- Are there examples of good practice? If yes, why are these helpful and relevant projects or measures? What kind of problems, barriers and/or reservations exist for the introduction of HQ or even for extending their scope?
- Should HQ be introduced or sustained on a broader scale? (why or why not?). What needs to be done to improve or to stabilize the situation? What do stakeholders think about the future of HQ?

It is not possible in this chapter to pick up all the issues and findings of the interviews in detail, neither to present a differentiated picture of statements (please refer to the second country report for this purpose: <www.hq-ill.eu>). However, the acceptance problem seems a major issue and it seems that it has implications for the fact that HQ are not on the political agenda in Germany at the moment. Although most interview partners declared themselves in favour of their introduction, they mentioned the traditional separation of school education and vocational education, which is still widely commonplace, as a potential reason for the lack of political interest in HQ.

Many interview partners also think that the “modest interest” in HQ pathways on the part of young people could be a major obstacle (this was especially an aspect put forward by teachers and headmasters). It is held that apprentices who prepare for HE while following a VET programme obviously face an additional workload, which can become too high a burden for apprentices. Another interesting argument points to the fact that apprentices normally are happy with their vocational perspective, especially when considering that continuing training often leads to a technician or a master craftsman qualification and people can open up a business without passing through an academic pathway. The strong position of the craft sector

in the dual system (with a quarter of all apprentices) certainly forms the background for this.

Other arguments brought forward in the interviews were:

- lack of information about HQ;
- complaint about reliability and transparency due to the major say of federal states in educational matters;
- fear of rising public expenditure for VET due to HQ;
- companies' fear to lose trained people after completion of their apprenticeships.

We have already mentioned that, in Germany, because of its training function, the dual system clearly outshines the system of full-time vocational schools in terms of intakes and graduate numbers. The basic arguments concerning the problems of vocational full-time pathways in Germany – mostly now considered as part of the so-called “measure” or “transition system” (Münk, Rützel & Schmidt 2008) – are also reflected in the interviews. From the perspective of HE, there still seem to exist obvious reservations on the side of HE institutions, especially universities with their traditional view of the general university entrance qualification as an indispensable prerequisite for academic learning.

Another argument jumping up from the interviews, however, seems interesting: As the number of applicants for the dual system is likely to decrease due to demographic changes in the next years and decades, companies are likely to be more challenged in terms of attractive learning opportunities for adolescents. It is for this reason that companies are no longer sceptical about HQ as such, a point that was made by one of the policy makers and one of the representatives of social partners. Therefore, there are good reasons for looking at HQ as integral part of human resources development in companies in the future. All in all, stakeholders view HQ in a surprisingly positive way, both socially and pedagogically, although reality and the political system as such seem not prepared for a basic change in the education system at the moment.

Conclusion: HQ and Germany's “European” position

Regardless of their low status in the current policy debate in Germany, scholars as well as political and social stakeholders have not ceded to recommend a nationwide implementation of educational pathways incorporating HQ. In particular Baethge advocates the introduction of a so-called “Berufsabitur” (higher vocational diploma)¹⁵ in the context of initial vocational training within the dual system. For its realisation he recommends modified apprenticeship curricula which should include a higher share of general education and specialist theoretical subjects. According to Baethge, the dual system itself would not be questioned by the implementation of such hybrid educational provisions even though the time share of the school-based part of training would have to be increased (Baethge 2007, 30). In a similar way, Greinert and Catenhusen favour the introduction of a “Berufsabitur” against the background of an evaluation of the German VET system on the international level (Greinert 2004, 315). Catenhusen points to the Austrian concept of the “Berufsreifeprüfung” (certificate providing university access for skilled workers) (Catenhusen 2007, 4). Similarly, Rothe prefers an intensified consideration of HE entrance options in the VET system. For him it is indispensable to establish and promote permeability between conventional dual apprenticeship training and HE (Rothe 2008, 153).

With regard to the political parties in Germany, statements concerning the idea of HQ have traditionally been submitted by the Social Democratic Party (SPD), which was extremely favourable of the concept of hybridity suggested by the German Educational Council in the 1970s and realised in the Kollegschule pilot project in the state of Nordrhein-Westfalen (Deutscher Bildungsrat 1974), but has also recently picked up this topic (SPD 2007; Möhrmann 2007, 1f.; Heiligenstadt 2009, 18ff.). Representatives of the union for education and science (GEW) advocate a major expansion of HQ, too.

15 Such a “Berufsabitur” (higher vocational diploma) would be classified as an HQ according to type 1 (completed apprenticeship training in occupations recognised under the BBiG or the HwO + acquisition of the general qualification for university entrance (Abitur)).

According to this union, both completion of full-time school-based VET and apprenticeship training should, as a matter of principle, provide an HE entrance qualification (GEW 2009).

The German Chamber of Industry and Commerce (DIHK) and the German University Rectors Conference (HRK) have so far not taken up a clear stance over educational pathways leading to HQ. Nevertheless, they express their view in a common statement that the general permeability between vocational and tertiary education is an important subject of education policy. This includes special admission procedures, developed by the universities, which are to test the “study ability” of applicants (DIHK/HRK 2008, 2–4).

Although it may be stated that the concept of HQ plays only a minor role in the German educational system, there are currently three pathways leading into HE in Germany: Besides the traditional formal track (Abitur in general or vocational education), people with formal continuing training and/or professional experience can now embark on undergraduate courses (Ulbricht 2012). One reason for this is the decision taken by the Conference of Education Ministers in March 2009 (KMK 2009), by which general access to HE has been extended to people with a formal continuing training qualification (technician, master craftsman) and which also entitles vocationally qualified applicants without a formal university entrance qualification to study subjects related to their specific vocational field (e.g. engineering). The reform objective “permeability between vocational education and training and higher education” has also been picked up by the Baden-Württemberg government with respect to vocationally trained applicants with a master craftsman or master worker qualification (Meister) who are now granted free access to HE (allgemeine Hochschulzugangsberechtigung) following a counselling interview. Equivalent qualifications are the state-examined technician (staatlich geprüfter Techniker) and its commercial variant (staatlich geprüfter Betriebswirt). This clientele has free choice of study programmes without a special examination. Also, vocationally qualified people now receive at least limited access to HE in their vocational field (fachgebundene Hochschulzugangsberechtigung) with the passing of a specific assessment procedure (Eignungsfeststellungsverfahren) if they have undergone at least a two-year vocational training programme and are

able to prove that they have gained at least three years of professional experience (Ulbricht 2012; Frommberger 2012, 181 ff.; Pätzold 2011).

From a scholarly perspective the decision of the KMK can only be an intermediate step for increasing permeability between VET and HE. In fact, the new legislative regulation has been created for people with a long-time professional experience and not for apprentices in vocational training (dual system). 80% of trainees in the dual system do not have a HE entrance qualification when they start their apprenticeships, and the share of graduates with an HQ leading into a university of applied sciences still is disappointingly low at 0.3% (2009/2010) – which leads us to the conclusion that there is basically demand for the double qualification option. However, in a recent survey of the German Chamber Association 80% of graduates from formal continuing training courses report that they are eager to continue with their vocational training, but only 13% say that they want to study (Ulbricht 2012, 40f.). From a legal point of view vocationally qualified people have the chance to walk along “open-end-development-paths” (“Open-end-Entwicklungswege”) (Feller 2006, 17). However, it remains questionable whether vocationally qualified people actually will use the possibility for an application for a certain course of studies in the long run. The pilot initiative “ANKOM” was started in 2005 with two intentions: widening entrance to HE and enabling people to get accreditation of prior learning from vocational education and work. The experiences so far are modest and confirm the above-mentioned lack of interest for HE and also reveal that accreditation alone, though possible in terms of competences, is unlikely to lead to an increase in HE participation (Freitag 2011; Pätzold 2011, 489f.; Frommberger 2012, 184f.).

One result of our project in general terms is that in Germany HQ as a formalised way into HE are much less relevant as in other European countries, including also Austria and Switzerland (Deissinger 2012). Three factors are responsible for this:

1. The fact that the apprenticeship system is the major route into employment for non-academically-inclined school leavers keeps it off the academic track and maintains its (well-working) function to skill formation.

2. The school-based (full-time) VET system is seen as offering a number of opportunities for young people coming from the lower and middle tracks of the school system to proceed as high as to university or (in even more cases) to the (formerly so-called) polytechnics or universities of applied sciences. Besides, there exists an attractive “dual system” on the academic level, namely the so-called “vocational academies” or (as they now are called) “universities of cooperative education” or “dual universities” (Deissinger 2000).
3. Since the university system is only partly served by the VET system (in fact only through school-based VET), and pathways from work to HE have been described recently to compensate for the deficit of missing links between the vocational and the academic sphere, there does not seem to exist a burning desire among politicians to establish more “direct” progression routes.

Undoubtedly, on the one hand, there has always been great admiration abroad for the dual system of initial training (with more or less ill-working attempts to copy it or at least some of its principles in other countries). It is also remarkable in this context that England (or the UK in general) discusses VET mostly by comparing its system of workplace learning with the German counterpart, by using economic arguments besides the pedagogical conviction that VET through an apprenticeship should become more “expansive” (Ryan 2001; Raggatt 1988; Fuller & Unwin 2011). On the other hand, countries such as the UK have a more “European” approach in terms of the EU’s general goals, such as “lifelong learning”, “progression” and “permeability”. One may call this the reverse of a rather weak vocational culture in Anglo-Saxon countries (Harris & Deissinger 2003)¹⁶.

16 The European framework concept has its roots in what happened in England (and the UK in general) in the area of VET policy in the 1980s and, at the same time, draws from a specific understanding of “competence” typical for the Anglo-American or Anglo-Saxon approach, which consists in the (behaviouristic) conviction that learning should be focused on “someone’s ability to perform, rather than demonstrating the possession of knowledge” (Westerhuis 2011, 77). The “outcomes-based” approach to qualifications obviously lies behind “English innovations”, such as NVQs (National Vocational Qualifications) and modularisation (Brockmann, Clarke & Winch 2010, 91). Hereby, work-based

Although the English apprenticeship system “arose out of the need to stimulate the supply of intermediate-level skills in the economy in the, 1990s” (Hogarth, Gambin & Hasluck 2012, 52), its present structure also contains elements which point to “progression routes” and permeability between VET and HE. The idea of an NQF came up in the 1990s, being a follow-up development to NVQs in the late 1980s (Young 2003). Its purpose has been to act as an umbrella for school-based, vocational and academic qualifications, as well as providing pathways for progression in the education system (at least in theory) through to postgraduate and doctoral studies. Whereas Germany still operates with a one-standard notion of apprenticeship (due to training duration of mostly three years), in England apprenticeships are not confined to initial training, but can be delivered on three levels, including a kind of “pre-stage” or “sub-academic” variant leading into the HE sector. In this context, HQ also have their place, which is thoroughly described in the contribution by Fuller and Davey to this volume¹⁷.

It becomes clear that the problem with HQ is also associated with the European understanding of “lifelong learning” and the “competence approach” (Hake 1999; Frommberger 2012). Outcome orientation hereby is one of the key phrases placing emphasis on new forms of assessment and competences that are detached from institutions, courses, curricula and formal examinations (Westerhuis 2011).

learning “should be confined to the immediate requirements of acquiring the skills associated with a particular job or task” – with the implication that learning beyond this scope is not just “regarded as superfluous, but a positive hindrance to effective working” (ibid., 92).

17 Cf. <www.apprenticeships.org.uk>. The programme distinguishes between “Intermediate Level Apprenticeships”, “Advanced Level Apprenticeships” and “Higher Apprenticeships” on levels two, three and four respectively. Apprentices work towards qualifications that are located in the “Qualifications and Credit Framework” (QCF), e.g. a “Professional Diploma”, with this framework also referring to the “Framework for Higher Education Qualifications” (FHEQ). These frameworks may be called spin-off products of the NQF. However, not all apprenticeships lead, through a “Higher Apprenticeship”, into the degree section of the NQF, which offers “Foundation Degrees” as a pre-stage to undergraduate studies.

These input features have traditionally been strong in most VET systems, both school-based and company-based ones, including apprenticeships. "Recognition of Prior Learning" or "Accreditation of Prior Learning" (RPL/APL), mainly through work experience, is now seen as an essential tool to ensure the relevance and transferability of skills and knowledge as well as to lead people back into learning. These ideas have been picked up by the constructors of the EQF, although it has to be said that the focus of the EQF is not simply on a functionalist approach towards competence: Firstly, because "competence" is seen as a multi-dimensional term; secondly, because with the EQF competences are seen as learning outcomes in an universal understanding in the context of "lifelong learning" (Hake 1999).

Our suggestion for the German case is that a strong apprenticeship system makes it more difficult to adopt an European approach envisaging a more "open" VET system, with links to other educational sub-systems including HE. On the other hand, full-time VET can serve as a door-opener to HE, and it seems remarkable that some 40% of HE students in universities of applied sciences, in the German case, have a vocational education background, including HQ (Autorengruppe Bildungsberichterstattung 2008, 176). It is interesting that Austria, as one of the traditional "apprenticeship countries" in Europe (see the Austrian contribution in this book), but also France, as a typical "school model" (Ott & Deissinger 2010), have implemented "European tools" in their respective VET systems (Deissinger, Heine & Ott 2011). Although the issue remains open whether this is really due to the European VET agenda, other countries appear to be more "prepared" than Germany. German VET policy might be well advised to look to its neighbouring countries not just for "European" reasons, but also because the "construction sites" in both the education and VET systems certainly would justify a more flexible and positive approach towards the European philosophy. Hybridity can be seen as one tool to make VET systems more flexible, open borders between institutions and responsibilities and help young people to define their individual pathways into and beyond a vocational career. At the same time, it could also help to cope with the increasing challenges of demographic change and

serve official government policy by "bringing" more young people into HE. It becomes clear that our topic therefore has not just a pedagogical relevance, but also a social and economic one in the context of the current modernisation debate.

However, cultural imprints of VET systems should not be underrated when it comes to structural innovations which recur to external factors, such as European VET policy. The case of HQ, not only in the German case, is a good example for these tendencies of VET systems to stick to established principles. With respect to Germany, many reasons and legitimising patterns seem to be rational, some – such as the reluctance to open up borders between educational sub-systems – appear too conservative in the face of a changing political and economic environment in which VET systems operate. Without ignoring the advantages and merits of the dual system, VET policy in Germany should not abstain from looking at other European countries as well.

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